

# The Impact of Preceptorships on Baccalaureate Nursing Students' Perceptions of Caring

Amanda Barron, EdD, RN   
*Samford University, Birmingham, Alabama*

**Abstract:** The purpose of this quantitative study was to examine how time spent in a preceptorship experience changed senior-level nursing students' perception of caring. In addition, different types of clinical units and preceptors were explored as a means to change caring perceptions of students. Caring perceptions were measured using the Caring Dimensions Inventory. A significant relationship was found between the years of experience of the nurse preceptors and students' perception of care. The results of the study demonstrated that nursing preceptorships can play an integral role in providing care ethics education within the nursing curriculum.

**Keywords:** care ethics in nursing education; preceptorships in nursing; nurse preceptor characteristics; caring in nursing

Currently, nursing education is being forced to find alternatives to clinical education hours due to an increase in nursing student enrollment and a shortage of both clinical sites and qualified faculty; however, clinical experience remains one of the most important foundations to nursing education (McNelis et al., 2014; Nehring, 2008, Rich & Nugent, 2010; Schoening et al., 2006). It has become increasingly difficult to find the correct balance between theoretical classroom-based knowledge and experience-based clinical knowledge. Robinson and Dearmon (2013) noted that it is becoming even more difficult to continue to support increased student enrollment and a traditional clinical model. As the number of clinical hours in nursing education continues to be reduced, the amount of time students spend with actual patients is also decreasing (Waldner & Olson, 2007). Ethical dilemmas, socioeconomic

factors, and advances in technology within the complex health delivery system call for a profession that is equipped with ethical problem solving and moral reasoning skills, yet there is little evidence on the best method to convey caring ethics to nursing students (Blum et al., 2010; McLeod-Sordjan, 2014).

Caring, as the foundational principle in nursing, can be taught and theorized within the boundaries of the educational institution, but students struggle to transform the knowledge of caring behaviors and attitudes into practice without witnessing the modeling of behaviors and hands-on practice with patients (McLeod-Sordjan, 2014). Although a long-held assumption is that nurses are naturally caring, studies are showing that patients are noticing an absence of caring and compassionate attitudes displayed by graduate nurses (Porr & Egan, 2013; Vanlaere et al., 2010; Wood, 2014).

Wood (2014) suggested contemporary nursing is experiencing new challenges due to increasing duties and responsibilities that leave minimal time to deliver compassionate care to individuals.

The expansion of caring domains is believed to come from students interacting with patients, faculty, and peers to create new experiences and knowledge (Kapborg & Bertero, 2003). Sokola (2013) believed that professional caring involves both technical and attitudinal aspects that may be learned by nursing students through practice. Through contextual experiences and becoming more self-aware, nursing students can incorporate more professional and technical aspects of caring into practice (Sokola, 2013). This, in turn, may aid students to meet today's ever-expanding healthcare needs.

In the 1980s, the preceptorship model emerged as a prevalent alternative to the traditional, supervised clinical model and is currently endorsed by groups such as the American Association of Colleges of Nursing and the Canadian Nurses Association (Duteau, 2012; Udalis, 2006). The term preceptorship refers to a mentoring relationship between a student and a professional nurse in which the professional nurse relates information and knowledge to the student to prepare them for their future career. Preceptorships are designed to build a student's confidence and knowledge base prior to graduating nursing school and entering the workforce (Udalis, 2006).

Preceptorships, which have been used for decades as an alternative to the traditional clinical model, offer a positive way to introduce real-life scenarios to students before graduation. Several studies (Natale & Klevay, 2013; Sandvik et al., 2014; Wieland et al., 2007) have been conducted on the benefits of preceptorships in nursing education; however, there is little published on the most appropriate number of hours for preceptorship. There are no mandatory clinical hours or preceptorship hours regulated by nursing supervisory agencies; instead, individual boards of nursing regulate the hours. In addition, there are limited studies on the qualities of professional preceptors in nursing. Characteristics of the preceptor such as educational background, and number of years and types of experiences in the nursing profession and descriptions of the type of units in which the students are precepting could lend itself to rich descriptions of how these characteristics correlate with student caring perceptions.

## Caring Ethics and Professional Judgment

Caring as an ideal can be subjective when it comes to an ethical perspective. Hawke-Eder (2017) argued that caring leads to relativism, or an absence of absolutes that complicates all moral decision-making. Care ethics were described by Woods (2011) as "an ethic where moral situations are defined not in terms of rights and responsibilities, but in terms of relationships of care often within challenging contextual circumstances" (p. 271). Woods (2011) stated that caring is the philosophical, practical, and ethical foundation of nursing. Through a care ethics lens, theories of nursing care have been developed over the past several decades that help discern the profession from medicine. However, there is cited difficulty in applying ethics of care into actual nursing practice (Moyano, 2015). Nursing theories and models can be complex due to the theoretical nature; however, the theoretical foundation is what establishes the principle of professional work.

Care ethics require not only the understanding of care that a person brings to the nursing profession, but also a component includes professional morals and ethics. Khouri (2011) also agreed that caring is a multifactorial process that involves professional knowledge, competence, skills, and actions on the part of the nurse. Pedersen and Sivonen (2012) believed that during nursing school, student's capacity for caring is professionalized. This supports the notion that the ethical formation process advances the students' moral integrity and personal care ethics.

Moyano (2015) also argued that care ethics can easily be taught as a concept, but there was marked difficulty when putting it into practice. Woods (2011) also noted that in the clinical setting, care ethics are difficult to implement due to constraining circumstances. Even with the challenges, Moyano (2015) and Woods (2011) agreed the ethics of care should provide a strong foundation for providing certain concepts such as empathy, prudence, compassion, and affection to patients. Moyano (2015) believed that nursing as a profession lacks a bioethical lens, but by the instillation care ethics into nursing, the profession could be given more meaning.

## Caring Dimensions

The professionalism shift in nursing had led some theorists to question if traditional caring qualities

are being exchanged for scientific and technological caring. Many patients may perceive this type of professional caring as just *doing the tasks* and describe it as “noncaring” (Hawke-Eder, 2017). Other theorists have noted the importance of establishing professional and meaningful relationships with patients (Austgard, 2008; Duffy, 2003; Martinsen, 2000; Noddings, 2003; Sokola, 2013). Specialized knowledge and human interaction is a key component of nursing that sets the profession apart from other health-related fields. Austgard (2008) suggested the meaning and definition of care must come from a superordinate level that can incorporate all aspects of care and discern care from noncare. In nursing, listening to and valuing the beliefs of the patient is the core concept behind the ethics of care. However, patients still need the specialized skills and knowledge that only nurses can provide. This demonstrates the need for not only compassionate care, but also for knowledgeable and technical care.

Watson et al. (1999a) found that there has been some success in exploring the underlying dimensions of caring. Caring can be considered to have at least two dimensions described as the physical and emotional labors of caring. These can also be described as the instrumental and expressive elements of caring. Watson and Lea (1997) created the Caring Dimensions Inventory (CDI) in response to a lack of quantitative tools that explored how nurses perceived caring. The tool consists of 25 operationalized statements of nursing actions that were designed to gain an understanding of the dimensions of caring, more specifically, what constitutes caring. Exploring caring through the CDI, Akansel et al. (2012) demonstrated that nurses conceptualize caring in nursing as having both psychosocial and professional/technical. The professional/technical dimension includes the physical acts that demonstrate caring, such as taking vital signs and administering medications. The psychosocial dimension includes listening to and being with a patient. The dimensions can be broken down further to technical and nontechnical components.

Omari et al. (2013) also distinguished between two components of caring behaviors. While studies have shown that one dimension is not more important than the other, it is important for nurses to understand each of these dimensions and to recognize the caring needs of patients to ensure the delivery of patient-centered care. The first, instrumental behaviors, encompasses technical and physical behaviors. With the technical dimension,

nurses demonstrate caring by applying critical thinking skills and using knowledge and understanding to seek the best practice. The second, expressive behaviors, includes the emotional and psychosocial elements of caring. It is during nursing school courses that students are taught technical and physical behaviors. It is during the clinical component of nursing school that students are able to engage with actual patients and begin to develop expressive behaviors that demonstrate caring.

### Preceptor Selection

There are several challenges that can affect how the student learns within the preceptorship experience. One challenge is the lack of consistency in the experience level of preceptors (Luhanga et al., 2010). Preceptors are expected to bring experience and advanced knowledge of clinical skills to the preceptorship relationship with the student; however, this is not always the case (Wright, 2002). Due to constraints within the hospital, such as increased workload, time constraints and the high turnover rates of nursing staff, preceptors do not always have the experience desired by nurse educators (Duteau, 2012; Udilis, 2006). This leaves preceptors who are selected based on availability and willingness to serve (Altmann, 2006).

Sweet and Broadbent (2017) noted there is little information on the characteristics of preceptors that affect student learning. In the study, Sweet and Broadbent (2017) examined qualities of nurse preceptors that students felt as most beneficial to his or her learning and overall education. The researchers found that students perceived availability and approachability as the most influential characteristics of preceptors to the students' learning. In addition, Sweet and Broadbent (2017) noted the importance placed on the relational aspect between the facilitator, or preceptor, the student and the organization in which the preceptorship is taking place is on enhancing student learning.

Tang et al. (2005) used four categories to describe the characteristics of preceptors that students perceived as being most effective at clinical instruction. The characteristics included teaching ability, professional competence, interpersonal relationship, and personality characteristics. In this study, students rated interpersonal relations as being the most beneficial characteristic in being an effective teacher and instructor.

Benner (2004), known for her novice to expert theory in relation to nursing practice, can also

relate professional nursing and the notion of caring. Benner believed clinical judgment, or the ways in which nurses understand problems and the concerns of patients can only come with practice and expertise in the field of nursing. Benner (1982) asserted nurses with more experience are more likely to exhibit understanding of the whole person and therefore are able to better care for the individual. She believed that care ethics must be learned through practical experiences because they are dependent on ethic conduct in explicit situations (Austgard, 2008).

### **Purpose and Framework**

The purpose of this study was threefold: (a) to determine if there was a relationship between the years of experience of registered nurse preceptors and senior-level baccalaureate nursing students' perceptions of caring after a 225-hour preceptorship experience; (b) to determine how senior-level baccalaureate nursing students' perception of caring compared among varying clinical units after a 225-hour preceptorship experience; and (c) to determine if there was a difference in senior-level baccalaureate nursing students' perception of caring prior to a 225-hour preceptorship experience compared to senior-level baccalaureate nursing students' perception of caring after a 225-hour preceptorship experience. Rather than broadly looking at how caring attributes change during an undergraduate nursing program, research was conducted to examine how interactions within a specific clinical experience altered nursing students' perception of caring. Overall, the purpose of the study sought to explore what, if any, qualities of a preceptorship experience changed the ways in which baccalaureate nursing students perceived caring.

The theory of symbolic interactionism, influenced by George Herbert Mead, was used to guide this study. Symbolic interactionism explores the meanings placed on the interaction with others and the behaviors that ultimately reflect the interpretations (Jeon, 2004). Symbolic interactionism provided a lens to view how caring ethics can be taught within the nursing curriculum, specifically within relationships with registered nurses in varying clinical environments. Symbolic interactionism also allowed the researcher to gain information regarding how caring dimensions, as perceived by the student, changed in relation to time spent in a preceptorship experience. Knowledge that caring holds different meanings to individuals is an important concept when teaching caring ethics.

### **Method**

Participants were recruited through convenience sampling of senior-level nursing students from one Baccalaureate degree nursing program in the southeastern United States. Access and permission were obtained through connections with faculty and administrators. In addition, the researcher received institutional review board approval at the university in which the study was conducted. The researcher had no academic contact with or authority over the students participating in the study. Inclusion criteria for participation in this study included being between 19 and 60 years of age and current enrollment in the final semester of nursing school. In addition, students were excluded if they had previously received a failing grade in the preceptorship course.

Data were collected through a self-administered online survey using Qualtrics, a web-based survey application. The data collection occurred on two separate occasions, one prior to the preceptorship experience, and one post-preceptorship experience, using the Caring Dimensions Inventory (CDI-25). The CDI-25 was chosen as an instrument for this study in order to gain an understanding of how nursing students perceive caring, not necessarily how the students care. A short questionnaire regarding the descriptive characteristics of the preceptor and precepting environment was also included in the data collection process. Items such as the type of unit the student was placed on and the years of experience as a Registered Nurse of the nursing preceptor were asked in the questionnaire. These questions allowed the researcher to determine characteristics of the preceptor and preceptorship that influenced a change in caring dimensions as perceived by the nursing students.

### **Preceptorship Program Descriptions**

The preceptorship program in this study provided students with the opportunity to work one-on-one with a registered nurse in the hospital setting, while also being supervised by a clinical faculty member. The program required a 225-hour preceptorship that started after completing and passing a final semester critical care course. Once the 6-week course was completed, the students were able to begin their preceptorship, while only being enrolled in one other course that met weekly.

The nursing program allowed students to choose his or her top three preferences of hospitals and units, but ultimately, the course leader of the preceptorship course determined the precepting

location for each individual student. The students were given the option to choose a variety of geographical locations and units in the specific hospitals in which contracts have been formed with the institution. The majority of hospitals were located within the southeast United States. The units included acute care medical units, including women and children's services, and surgical services. The model of nursing care varied from unit to unit, which means the students were exposed to varying models of nursing care.

The students were assigned one preceptor to complete the total required 225 hours. The students were allowed to use one other registered nurse as a backup preceptor during one shift. This allows the students the flexibility to change one shift if needed. In addition, the students were also given the option to exchange a total of 24 hours of clinical preceptorship for Alabama Board of Nursing approved nursing continuing-education hours or professional nursing organization meeting attendance as approved by course faculty. As a course requirement, the students were asked to complete clinical logs with specific questions pertaining to patient care each week, while also tracking the completed hours. The nursing students were also responsible for having the nurse preceptor complete an evaluation at approximately 100 hours and at the completion of 225-hours of preceptorship.

### Instrumentation

The CDI-25 was developed by Watson and Lea (1997) to gather information concerning nurses' perception of caring. The tool consists of 25 operationalized statements of nursing actions that were designed to gain an understanding of the dimensions of caring, more specifically, what constitutes caring. The responses to the prompt question of *Do you consider the following aspects of your nursing practice to be caring* are given on a 5-point Likert scale ranging from 5 (*strongly agree*) to 1 (*strongly disagree*). Scoring for the tool can range from 25 to 125. Mokken scaling was used in developing and validating the psychometric tool and is a way to determine unidimensional scaling. The Mokken scaling procedure scales items to create a positively scored list of items and organizes the items into a hierarchy (McCance et al., 2009).

With Mokken scaling, the higher the score on the CDI-25 demonstrates nurses' belief that professional and technical aspects of nursing are

perceived as more caring, while lower scores indicate psychosocial aspects are perceived as more caring (McCance et al., 2009). Using Cronbach's alpha coefficient, reliability of the 25 questions demonstrated a high degree of internal consistency at .91 (Watson & Lea, 1997). In addition, validity tests of the tool have demonstrated the ability to discriminate between male and female nurses and between older and younger nurses (Watson & Lea 1997). Exploratory factor analysis revealed a general underlying single dimension to caring and at least two other dimensions, which are the psychosocial and the professional/technical dimensions. The professional/technical dimension includes the physical acts that demonstrate caring, such as taking vital signs and administering medications. The psychosocial dimension includes listening to and being with a patient. In addition, there was also evidence for further dimensions of altruism, putting the needs of a patient before your own, and involvement, sharing personal issues with patients (Watson et al., 1999a). The instrument does not measure caring, instead, it measures the dimensions in which nurses perceive caring (Akansel et al., 2012). Watson and Lea (1997) described the CDI as a research instrument and not as a score that indicates the extent to which a nurse cares.

The present study examined the CDI-25 from a multidimensional scale. Instead of using Mokken scaling (McCance et al., 2009) as a way to score the CDI-25, the researcher used the underlying scores of the CDI-25 as a surrogate for caring and that score was used as a dependent value on the interval level. Raw scores on the CDI-25 were calculated for each participant. The pre-preceptorship scores were then compared to the post-preceptorship scores. The higher the score on the CDI indicates the participants' belief that professional and technical aspects of nursing are perceived as more caring, while lower scores indicate psychosocial aspects are perceived as more caring.

The CDI-25 was chosen as an instrument for this study in order to gain an understanding of how nursing students perceive caring after the senior-level preceptorship experience. The tool gave the researcher the opportunity to gain information regarding which caring dimensions are strengthened or weakened after participating in the preceptorship experience. In addition, the tool also gave the researcher an opportunity to examine how different characteristics of the preceptorship experience individually change the ways in which a nursing student perceives caring.

## Data Analysis

Once the data collection was complete, Qualtrics was used to download the data into SPSS software, which was then stored on a password-protected personal computer. The data were analyzed using descriptive statistics, in addition to Spearman's correlation coefficient and *t* test. The data from Qualtrics were stored on a password-protected computer and will be deleted within 5 years of study completion.

Demographic data collected on the participants included age, gender, grade point average (GPA), and work history in a healthcare-related field. The

recruited sample size was 85 participants; however, only 31 completed the entire survey and met the inclusion criteria. As seen in Figure 1, the age of participants ranged from 20 to 50 years and both males and females participated in the study. One participant was in the 19 to 21 age group (3.2%), 28 participants were in the 22 to 24 age group (90.3%), one participant was in the 31 to 40 age group (3.2%), and one participant was in the 41 to 50 age group (3.2%). There were 26 females (83.9%) and 5 males (16.1%).

The approximate GPA was broken down into categories, as seen in Figure 2. Three participants

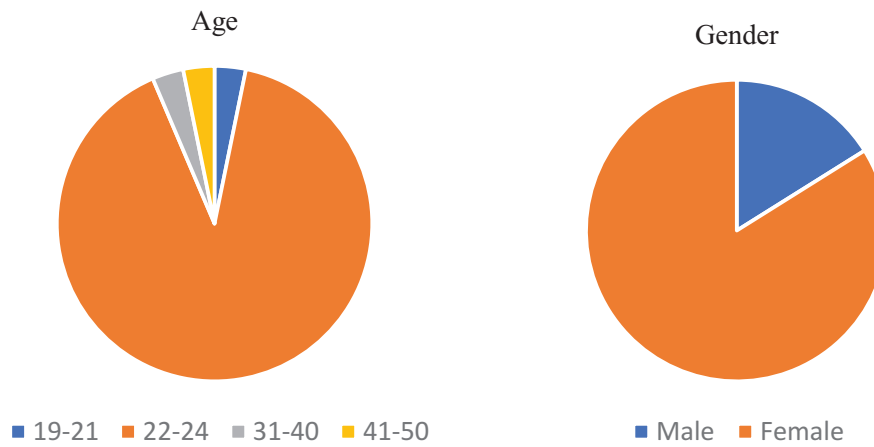


Figure 1. Age and gender distributions.

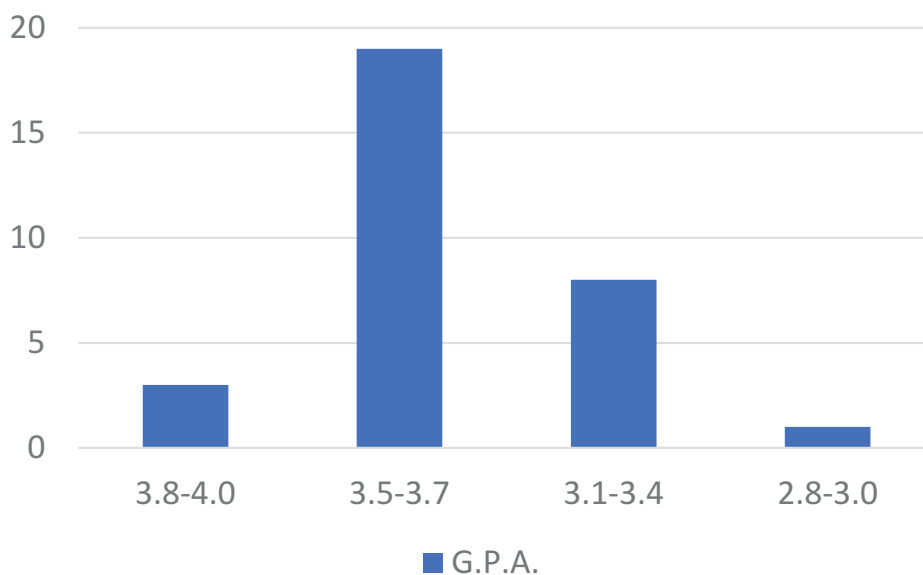
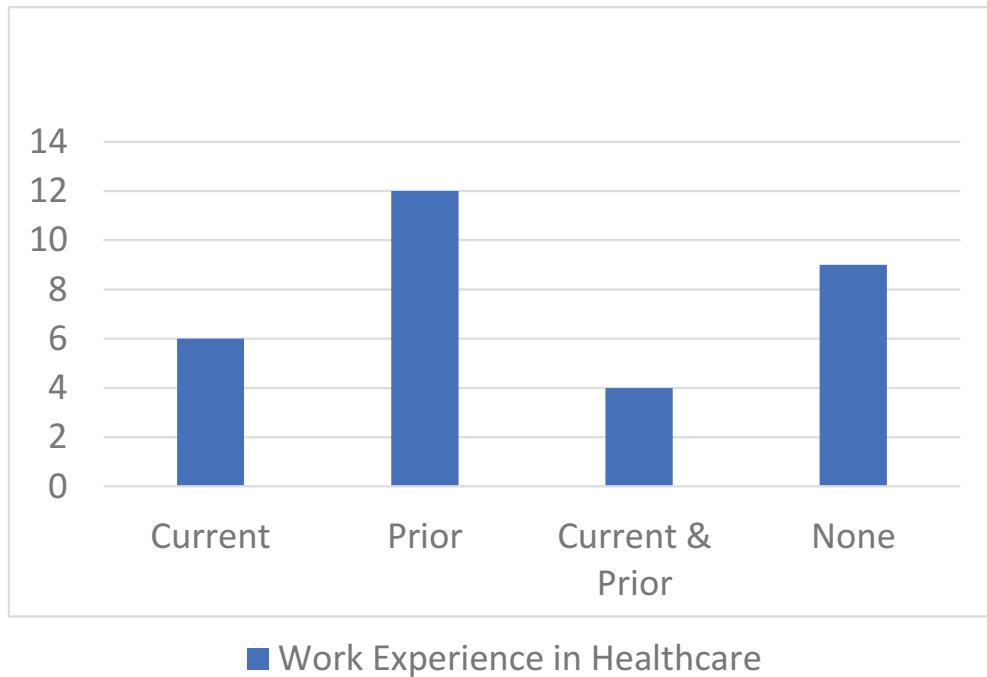


Figure 2. GPA distributions.



**Figure 3.** Work experience distributions.

had a GPA of 3.8 to 4.0 (9.7%), 19 participants had a GPA of 3.5 to 3.7 (61.3%), 8 participants had a GP. of 3.1 to 3.4 (25.8%), and one participant had a GPA of 2.8 to 3.0 (3.2%).

The participants were asked if they had prior or current work experience in a health-related field. A total of 6 participants (19.4%) had current work experience, 12 participants (38.7%) had previous work experience, 4 participants (12.9%) had both prior and current experience, and a total of 9 participants (29%) had neither current nor past work experience in the healthcare field, as shown in Figure 3.

## Results

### Research Question 1

What is the relationship between the years of experience of registered nurse preceptors and senior-level baccalaureate nursing students' perceptions of caring after a 225-hour preceptorship experience?

Descriptive statistics were used to determine the number and percentages of the different categories of years as a registered nurse (RN). Table 1 outlines the frequencies, where the left column describes the year categories. Spearman's correlation coefficient was computed to determine the relationship between the years of experience of registered nurse preceptors on baccalaureate nursing students' perception of caring after a 225-hour preceptorship experience. The test was conducted

using an alpha of .05. The Spearman's correlation between years of experience as a RN and the nursing student's perception of caring was  $-.404$ , which is interpreted as a negative, moderate effect size and is statistically significant from 0 ( $r_s = -.404, n = 31, p = .024$ ). Table 2 demonstrates the correlational results.

### Research Question 2

How do senior-level baccalaureate nursing students' perception of caring compare among varying clinical units after a 225-hour preceptorship experience?

To analyze this question, the units were broken into multiple categories. Participants were asked to choose the location of his or her preceptorship from the list of the following units: Adult medical-surgical (Adult M/S), adult intensive care unit (Adult ICU), operating room, emergency department (ED), labor and delivery (L&D), post-partum women's unit (Post-partum), neonatal intensive care unit (NICU), pediatric intensive care unit, pediatric medical-surgical units (Ped M/S), adult psychiatric unit, pediatric psychiatric unit, or other. The nominal variables, which are considered categorical, or qualitative in nature, were analyzed using descriptive statistics. Post-preceptorship scores were grouped into the unit categories selected by the participants and the data were analyzed using descriptive statistics. As

shown in Table 3, 7 of the 12 possible unit selections were chosen by the participants, and the post-preceptorship CDI-25 scores ranged from 88 to 125 across all of the units.

### Research Question 3

What is the difference in senior-level baccalaureate nursing students' perception of caring prior to a 225-hour preceptorship experience compared to senior-level baccalaureate nursing students' perception of caring after a 225-hour preceptorship experience?

Based on 30 participants ( $n = 30$ ), descriptive statistics showed the mean pre-score for the CDI-25 was 102.63 and a standard deviation of 11.36. The mean post-score for the CDI-25 was 106.20 and a standard deviation of 10.13. A paired sample  $t$ -test was performed at an alpha level of 0.5 to determine the relationship between the number of hours of preceptorship and senior-level baccalaureate nursing students' perception of caring after a 225-hour preceptorship experience. Table 4 shows the mean of the paired samples  $t$ -test was -3.567 and the standard deviation was 12.02. There

was not a significant difference in scores of the caring dimensions inventory after the preceptorship experience ( $t = -1.625$ ,  $df = 29$ ,  $p = .115$ ). Additionally, the effect size was computed using the following formula:

$$\text{Cohend } d = \frac{d}{Sd}$$

The effect size  $d$  was calculated at 0.33, which is generally interpreted as a small effect (Cohen, 1988).

### Summary of Results

There was a significant relationship between participant's perception of caring and the years of experience of the registered nurse preceptor with which the student was paired. When investigating clinical units' role in the perception of baccalaureate nursing students, those students in a NICU scored lower on the CDI-25, while those in the ED scored highest on the CDI-25. There was not a significant difference in caring perceptions of senior-level baccalaureate nursing students after the 225-hour preceptorship experience.

TABLE 1. Years of Practice

Years	Frequency	Percent
0-1	4	12.9
2-3	10	32.3
4-5	3	9.7
6-8	6	19.4
9-12	1	3.2
13-16	3	9.7
17-21	2	6.5
22-29	1	3.2
40-49	1	3.2
Total	31	100.0

TABLE 2. Spearman's Rho

		Correlations		
			Years of Experience	CDI-25 Post-score
Spearman's rho	Years of experience	Correlation Coefficient	1.000	-.404 <sup>a</sup>
		Sig. (two-tailed)	-	.024
		$n$	31	31
	CDI-25 Post Score	Correlation Coefficient	-.404 <sup>a</sup>	1.000
		Sig. (two-tailed)	.024	-
		$n$	31	31

<sup>a</sup>Correlation is significant at the .05 level (two-tailed).



**TABLE 3.** Precepting Units

	Adult M/S	Adult ICU	ED	L&D	NICU	Ped M/S	Other
Number	1	11	5	5	5	3	1
Percentage	3.3%	35.5%	16.1%	16.1%	16.1%	9.6%	3.3%
Mean	116.00	104.18	110.80	107.40	102.80	104.00	100.00
Median	116.00	104.00	111.00	112.00	104.00	105.00	100.00
Mode	116.00	88.00	111.00	94.00	114.00	90.00	100.00
Range	.00	36.00	22.00	23.00	25.00	27.00	.00
Minimum	116.00	88.00	103.00	94.00	89.00	90.00	100.00
Maximum	116.00	124.00	125.00	117.00	114.00	117.00	100.00
Sum	116.00	1146.00	554.00	537.00	514.00	312.00	100.00
SD		10.87	8.79	9.89	11.61	13.53	
Variance		118.16	77.20	97.80	134.70	183.00	

**TABLE 4.** *t*-Test Results

	Paired Samples Statistics		
	<i>M</i>	<i>N</i>	<i>SD</i>
Pre-score	102.63	30	11.36
Post-score	106.20	30	10.13

	Paired Samples Test					<i>t</i>	<i>df</i>	<i>p</i> (two-tailed)
	Paired Differences							
	<i>M</i>	<i>SD</i>	<i>SEM</i>	95% CI of Difference				
			Lower	Upper				
Pair 1	-3.56667	12.02206	2.19492	-8.05578	.92244	-1.625	29	.115

### Discussion

The demographic data and the research questions that directed the study aid the discussion and future recommendations for caring ethics education within the nursing curriculum. The demographic findings were homogenous for age, gender, and GPA. The sample was primarily made up of females in their early 20s, with an average GPA of 3.6. For this reason, the results of the study cannot be generalized to the population of nursing students as a whole.

The participants were asked if they had prior or current work experience in a health-related field. A majority of participants had prior, current, or both work experience in healthcare-related fields. Any type of work in the healthcare industry could affect the way in which the participants perceive caring. It is difficult to determine if the preceptorship hours or the work experience, or even a combination of both, are what causes the change (or no change) in the nursing students' perception of caring.

Through data analysis with Spearman's correlation coefficient, it was determined that there was a moderate strength of inverse correlation between the years of experience of the nurse preceptors and the students' perception of caring. The higher the score on the CDI indicated the participants' belief that professional and technical aspects of nursing are perceived as more caring, while lower scores indicate psychosocial aspects are perceived as more caring.

The correlation in this study showed an inverse relationship between years of experience of the preceptor and the nursing students' perception of caring. As the years of experience of the registered nurse preceptor increased (more experience), the students scored lower on the CDI-25. This suggested that as the years of experience of the preceptor increases, the nursing students perceived the affective domain as more caring. In contrast, students with preceptors that had less experience perceived caring as a more professional and technical component.

Although there were no cited references in the literature regarding how the years of experience of a nurse changes how nursing students perceive caring, there is literature that can be strengthened by this research. Referring back to the literature, the professionalism shift in nursing had led some theorists to question if traditional caring qualities are being exchanged for scientific and technological caring. Many patients may perceive this type of professional caring as just *doing the tasks* and describe it as *noncaring* (Hawke-Eder, 2017). Other theorists have noted the importance of establishing professional and meaningful relationships with patients (Austgard, 2008; Duffy, 2003; Martinsen, 2000; Noddings, 2003; Sokola, 2013). Specialized knowledge and human interaction are a key component of nursing that sets the profession apart from other health-related fields.

In nursing, listening to and valuing the beliefs of the patient is the core concept behind the ethics of caring. However, patients still need the specialized skills and knowledge that only nurses can provide (Austgard, 2008). This demonstrates the need for not only compassionate care, but also for knowledgeable and technical care. Nurses with more experience appear to have a stronger affective domain of caring and those with less experience tend to believe technical skills demonstrate more caring.

Benner (1982) believed clinical judgment comes from practice and expertise in nursing. Benner believed nurses with more experience are more likely to exhibit understanding of the whole person and therefore are able to better care for the individual. She believed that an ethic of care must be learned through practical experiences because they are dependent on ethic conduct in explicit situations (Austgard, 2008). The results of this research question did not confirm that the certain nursing students with preceptors with more experience are able to better care for individuals; instead, it demonstrates how caring can be perceived differently by these individuals.

In addition, over 32% of the participants reported his or her preceptor only had 2 to 3 years of experience as a registered nurse. Only one student (3.2%) reported that his or her nurse had more than 40 years of experience. Almost 75% of participants reported that the nurse preceptor that they were working with had 8 or less years of experience. Duteau (2012) and Udliis (2006) noted that due to constraints within the hospital, such as increased workload, time constraints and the high turnover rates of nursing staff, preceptors do not

always have the experience desired by nurse educators. Oftentimes, preceptors are selected based on availability and willingness to serve (Altmann, 2006). Although this study has a relatively small sample size, it demonstrates the validity in the literature, with approximately 75% of the nurse preceptor workforce with 8 or less years of experience.

The descriptive statistics for the second research question paint a picture of varying perceptions of caring within different environments. The students caring for infants in the NICU scored much lower on the CDI-25, demonstrating the affective domain was perceived as more caring, while the students working in the ED scored higher on the CDI-25, demonstrating the technical domain was perceived as more caring. The findings suggest that certain clinical environments may change the ways in which a nursing student perceives caring. The NICU is a low-stimulant environment, where nurses' primary role is to care for the physical and psychosocial needs of infants. The ED is known for being a fast-paced environment, where nurses must be proficient at focused assessments and skill attainment. While both units focus is on caring for ill patients, there are differences in the ways in which the nurses demonstrate caring.

Natale and Klevay's (2013) believed that it is essential for educators to create environments that allow students to learn from others and to be present in the care. It is essential for educators to find creative ways in which to teach students not only technical skills, but also strengthen the affective domains. Meaningful experiences created in purposeful environments are key to developing relationships and connecting with others in nursing. Looking through the lens of symbolic interactionism, the social identity can be derived from the social narrative, that is, how the qualities of the precepting environment can change the ways in which a nursing student views caring. When students are placed in certain environments, the meaning of caring they hold may be altered. The results of this question demonstrated that the clinical environment may change how the nursing student perceives caring. With the understanding that certain environments can strengthen the affective or technical domain of caring, nursing education can use this information to inform decisions on clinical placements throughout the curriculum.

In review of the third research question, the data analysis showed that there was not a significant difference in scores of the caring dimensions inventory from prior to the preceptorship

experience and post preceptorship experience. Much of the research conducted on caring attributes and behaviors on nursing students suggested that caring abilities decreased during nursing school (Ma et al., 2013; Murphy et al., 2009). It is difficult to relate caring behaviors and abilities to the dimensions of caring; however, it is interesting to compare and contrast the results with the studies in the literature. Omari et al. (2013) demonstrated that perceived cognitive aspects of caring, particularly teaching behaviors, were the most important while caring for individuals. The nurses also believed the psychological aspect of caring to be very important, such as listening to the needs of the patients and treating patients with respect. In addition, Watson et al. (1999b) found a decrease in caring scores after studying caring dimensions of nursing students after one year in a nursing program.

There were studies in literature demonstrating an increase in caring scores. Khademian and Vizehfar's (2007) study demonstrated nursing students perceived practical behaviors as demonstrating more caring on the part of the nurse than emotional behaviors. In addition, Simmons and Cavanaugh (2000) found that caring abilities actually increased post-graduation and entry into nursing practice. Even though the students were still enrolled in the nursing program, the preceptorship experience in the present study closely mimics the work of nurses in practice.

From the lens of symbolic interactionism, there needs to be further explanation of what is happening within the interactions. Though the research question ultimately showed no significant change in the caring perceptions of students after time spent in the preceptorship, the interactions happening within the preceptorship could possibly cancel out each other. Each individual experienced a variety of different interactions during their experience that ultimately shaped their personal identity and how they perceived caring within the setting, with the particular patient population.

### Limitations

The study had limitations surrounding both the data collection and the sample population and size. During data collection, participants were asked to choose a range of years for multiple categories. This made it difficult to analyze the data in the way the researcher intended it to be analyzed. For example, when asked for years of experience

of the nurse preceptor, a single number would have lent itself to richer description than a broad category of multiple years.

In addition, when participants were asked to choose a unit description of where the preceptorship experience was completed, the unit descriptions did not catch all responses as one participant chose "other" as his or her unit description. The units could have also been grouped together to gain a better picture of the types of units and how the students on those units perceived caring. Units with similar characteristics, such as a high acuity, which would typically focus on performing skills could have been grouped together. For example, ICUs and the ED could have been grouped together, while all women's and children's services could have been grouped. This may have allowed the researcher to run additional statistical analysis to determine the relationship of the unit groupings on the students' perception of caring.

The researcher also did not collect characteristic information from the preceptors. It would have been helpful to know what general characteristics the preceptors had, such as age and gender. There was a lot more to learn from the preceptor side in this study. Another limitation was the sample selection was one of convenience. The sample was homogeneous in both age, gender, and GPA, which made the results less generalizable.

A final, major limitation was the number of students that agreed to participate in the study. Due to time constraints, the researcher presented the study prior to a high-stakes nursing exam. The timing made it difficult to recruit participants. The time it took to complete the stages of the data collection was also a limitation. Originally, 35 students completed the first round of data collection; however, only 32 participants complete both the first and final round of data collection. One of those participants missed one question on the CDI-25 survey tool, so the results from his or her survey was thrown out, since the total of the CDI-25 could not be calculated for that participant. The limitations in the population size ultimately affected the ways in which the researcher could analyze the data. It was the intent to perform regression analysis for some of the data, but there was not enough in the sample size to do so in a valid manner. The information gained through this small population size could be used for further replication studies with larger sample sizes.

## Recommendations for Future Research

Further research is needed in the area of preceptorships' use in nursing education, with an emphasis on the length of time for preceptorships, and what other factors, both environmental and socially, can influence the ways in which students learn behaviors. Additional research on caring ethics within nursing education is needed to develop new and innovative strategies that will continue to address the caring crisis that is evolving in the nursing profession. Another recommendation would be to replicate this study in a larger and more diverse population, utilizing shorter and longer time frames for preceptorship experiences. In addition, a longitudinal study across the entire nursing program and into practice would lend itself to rich data that could be used to inform clinical education in the future.

This study could also be expanded upon by using a qualitative research design. The theoretical framework of symbolic interactionism could be used as a lens to view the experiences of the nursing students' perception of caring as it relates to the preceptorship program. Such qualitative data could lend to rich descriptions of how the students perceive his or her caring attributes, while also learning more about which factors create the greatest difference in caring.

This study was intended to lay the foundational groundwork in studying what interactions within the nursing clinical curriculum can change the ways in which students perceive caring. It examined interactions on a macro dynamic level and discovered that practical experience can change how someone perceives caring. This study should be expanded upon to gain an understanding of how these interactions are changing the students' perception of caring on a more micro dynamic level.

## Recommendations for Nursing Education

The findings of this study demonstrate the importance of clinical education, particularly preceptorship experiences, on caring ethics education in nursing. Nursing education can utilize preceptorships for increasing the skills set of nurses and changing the ways in which students perceive caring. Further evaluation of the relationship between preceptorships and the characteristics that influence students the most during preceptorship experience will continue to improve upon the overall clinical experiences of nursing students.

Exploring characteristics of nurse preceptors will lend itself to ensuring the best learning environments for students.

Many studies in the literature suggest caring abilities decrease while in nursing school, but without an understanding of multiple caring dimensions, it is difficult to state that someone is more or less caring. Instead, nurse faculty should educate students on how care can be delivered from varying perspectives. The caring crisis in nursing comes from a disconnection between how nurses and patients actually perceive care. Professional caring must encompass both technical and emotional behaviors.

Nursing education can move forward in correcting this imbalance of understanding by preparing students in both the affective and technical domains of caring and how to holistically care for individuals. With the understanding that certain environments and characteristics of instructors can strengthen the affective or technical domain of caring, nursing education can use this information to inform decisions on clinical placements throughout the curriculum. This study also demonstrates the importance of utilizing one-on-one precepting environments to aid in care ethics education. Further evaluation into clinical education's role in care ethics training is needed to determine which factors help to create the best learning outcomes.

## Conclusion

As the profession of nursing continues to evolve, it is imperative for nurse educators to continually assess how students are being taught to deliver competent and compassionate care to patients. Unfortunately, patients do not always perceive care in the same manner as those caring for them, but by expanding care ethics education, this gap may be narrowed. Preceptorships have been proven to be a valuable addition to the clinical education in nursing programs. The present study also demonstrates that preceptorships can be used to add value to the education of care ethics a student receives while in nursing school.

Although there was not a significant difference in the pre- and post-scores of the CDI-25, the study found that nursing students did value technical aspects of caring more than psychosocial aspects after the preceptorship experience. This data also demonstrates that certain variables creates a change with student perceptions of caring. This study opens the doors for more research to ensure that nursing education is preparing graduates

who can competently and compassionately care for individuals.

## References

- Akansel, N., Watson, R., Aydin, N., & Ozdemir, A. (2012). Mokken scaling of the caring dimensions inventory (CDI-25). *Journal of Clinical Nursing, 22*, 1818–1826. <https://doi.org/10.1111/j.1365-2702.2012.04068.x>
- Altmann, T. K. (2006). Preceptor selection, orientation, and evaluation in baccalaureate nursing education. *International Journal of Nursing Education Scholarship, 3*(1), 1–16. <https://doi.org/10.2202/1548-923X.1014>
- Austgard, K. (2008). What characterizes nursing care? A hermeneutical philosophical inquiry. *Scandinavian Journal of Caring Sciences, 22*, 314–319. <https://doi.org/10.1111/j.1471-6712.2007.00526.x>
- Benner, P. (1982). From novice to expert. *American Journal of Nursing, 82*(3), 402–407. <https://doi.org/10.1097/0000446-198282030-00004>
- Benner, P. (2004). Using the Dreyfus model of skill acquisition to describe and interpret skill acquisition and clinical judgment in nursing practice and education. *Bulletin of Science, Technology & Society, 24*(3), 188–199. <https://doi.org/10.1177/0270467604265061>
- Blum, C. A., Hickman, C., Parcels, D. A., & Locsin, R. (2010). Teaching caring nursing to RN-BSN students using simulation technology. *International Journal for Human Caring, 14*(2), 41–50. <https://doi.org/10.20467/1091-5710.14.2.40>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum
- Duffy, J. R. (2003). The quality-caring model: Blending dual paradigms. *Advances in Nursing Science, 26*(1), 77–88. <https://doi.org/10.1097/00012272-200301000-00010>
- Duteau, J. (2012). Making a difference: The value of preceptorship programs in nursing education. *Journal of Continuing Education in Nursing, 43*(1), 37–43. <https://doi.org/10.3928/00220124-20110615-01>
- Hawke-Eder, S. (2017). Can caring be taught? *Kai Tiaki Nursing New Zealand, 23*(2), 23–25.
- Jeon, Y. (2004). The application of grounded theory and symbolic interactionism. *Scandinavian Journal of Caring Science, 18*, 249–256.
- Kapborg, I., & Bertero, C. (2003). The phenomenon of caring from the naive student nurses' perspective: A qualitative content analysis. *International Nursing Review, 50*, 183–192. <https://doi.org/10.1046/j.1466-7657.2003.00196.x>
- Khademian, Z., & Vizeshtar, F. (2007). Nursing students' perceptions of the importance of caring behaviors. *Journal of Advanced Nursing, 61*(4), 456–462. <https://doi.org/10.1111/j.1365-2648.2007.04509.x>
- Khoury, R. (2011). Impact of an educational program on nursing students' caring and self-perception in intensive clinical training in Jordan. *Advances in Medical Education and Practice, 2*, 173–185. <https://doi.org/10.2147/AMEP.S21201>
- Luhanga, F. L., Billay, D., Grundy, Q., Myrick, F., & Yonge, O. (2010). The one-on-one relationship: Is it really key to an effective preceptorship experience? A review of the literature. *International Journal of Nursing Education Scholarship, 7*(1), 1–15. <https://doi.org/10.2202/1548-923X.2012>
- Ma, F., Li, J., Bai, Y., & Song, J. (2013). Confronting the caring crisis in clinical practice. *Medical Education, 47*, 1037–1047. <https://doi.org/10.1111/medu.12250>
- Martinsen, K. (2000). *The eye and the call*. Fagbokforlaget.
- McCance, T., Slater, P., & McCormack, B. (2009). Using the caring dimensions inventory as an indicator of person-centered nursing. *Journal of Clinical Nursing, 18*(3), 409–417. <https://doi.org/10.1111/j.1365-2702.2008.02466.x>
- McLeod-Sordjan, R. (2014). Evaluating moral reasoning in nursing education. *Nursing Ethics, 21*(4), 473–483. <https://doi.org/10.1177/0969733013505309>
- McNelis, A. M., Ironside, P. M., Ebright, P. R., Dreifuerst, K. T., Zvonar, S. E., & Connor, S. C. (2014). Learning nursing practice: A multisite, multimethod investigation of clinical education. *Journal of Nursing Regulation, 4*(4), 30–35. [https://doi.org/10.1016/S2155-8256\(15\)30115-0](https://doi.org/10.1016/S2155-8256(15)30115-0)
- Moyano, L. G. (2015). The ethics of caring and its application in the nursing profession. *Acta Bioethica, 21*(2), 311–316. <https://doi.org/10.4067/S1726-569X2015000200017>
- Murphy, F., Jones, S., Edwards, M., James, J., & Mayer, A. (2009). The impact of nurse education on the caring behaviors of nursing students. *Nurse Educator Today, 29*, 254–264. <https://doi.org/10.1016/j.nedt.2008.08.016>
- Natale, M. L., & Klevay, A. M. (2013). The humanbecoming connection: Nursing students find meaning in the teaching-learning process. *Nursing Science Quarterly, 26*(2), 125–129. <https://doi.org/10.1177/0894318413477148>
- Nehring, W. M. (2008). U.S. boards of nursing and the use of high-fidelity patient simulators in nursing education. *Journal of Professional Nursing, 24*(2), 109–117. <https://doi.org/10.1016/j.profnurs.2007.06.027>
- Noddings, N. (2003). *Caring: A feminine approach to ethics and moral education* (2nd ed.). University of California Press.
- Omari, F. H., AbuAlRub, R., & Ayasreh, I. (2013). Perceptions of patients and nurses towards nurse caring behaviors in coronary care units in Jordan. *Journal of Clinical Nursing, 22*, 3183–3191. <https://doi.org/10.1111/jocn.12458>
- Pedersen, B., & Sivonen, K. (2012). The impact of clinical encounters on student nurses' ethical caring. *Nursing Ethics, 19*(6), 838–848. <https://doi.org/10.1177/0969733012447017>
- Porr, C., & Egan, R. (2013). How does the nurse educator measure caring? *International Journal of Nursing Education Scholarship, 10*(1), 1–9. <https://doi.org/10.1515/ijnes-2012-0011>
- Rich, K. L., & Nugent, K. E. (2010). A United States perspective on the challenges of nursing education. *Nurse Education Today, 30*, 228–232. <https://doi.org/10.1016/j.nedt.2009.10.015>
- Robinson, B. K., & Dearmon, V. (2013). Evidence-based nursing education: Effective use of instructional design and simulated learning environments to enhance knowledge transfer in undergraduate nursing students. *Journal of*

- Professional Nursing*, 29(4), 203–209. <https://doi.org/10.1016/j.profnurs.2012.04.022>
- Sandvik, A., Eriksson, K., & Hill, Y. (2014). Becoming a caring nurse—A Nordic study on students' learning and development in clinical education. *Nursing Education in Practice*, 14, 286–292. <https://doi.org/10.1016/j.nepr.2013.11.001>
- Schoening, A. M., Sittner, B. J., & Todd, M. J. (2006). Simulated clinical experience: Nursing students' perceptions and the educators' role. *Nurse Educator*, 31(6), 253–258. <https://doi.org/10.1097/00006223-200611000-00008>
- Simmons, P. R., & Cavanaugh, S. H. (2000). Relationship among student and graduate caring ability and professional school climate. *Journal of Professional Nursing*, 16(2), 76–83. [https://doi.org/10.1016/S8755-7223\(00\)80019-8](https://doi.org/10.1016/S8755-7223(00)80019-8)
- Sokola, K. M. (2013). The relationship between caring ability and competency with caring behaviors of nursing students. *International Journal for Human Caring*, 17(1), 45–55. <https://doi.org/10.20467/1091-5710.17.1.45>
- Sweet, L., & Broadbent, J. (2017). Nursing students' perception of the qualities of a clinical facilitator that enhance learning. *Nurse Education in Practice*, 22, 30–36. <https://doi.org/10.1016/j.nepr.2016.11.007>
- Tang, F., Chou, S., & Chaing, H. (2005). Student perceptions of effective and ineffective clinical instructors. *Journal of Nursing Education*, 44(4), 187–192. <https://doi.org/10.3928/01484834-20050401-09>
- Udlis, K. A. (2006). Preceptorship in undergraduate nursing education: An integrated review. *Journal of Nursing Education*, 47(4), 187–192.
- Vanlaere, L., Coucke, T., & Gastmans, C. (2010). Experiential learning of empathy in a care-ethics lab. *Nursing Ethics*, 17(3), 325–336. <https://doi.org/10.1177/0969733010361440>
- Waldner, M. H., & Olson, J. K. (2007). Taking the patient to the classroom: Applying theoretical frameworks to simulation in nursing education. *International Journal of Nursing Education Scholarship*, 4(1), 1–14. <https://doi.org/10.2202/1548-923X.1317>
- Watson, R., Deary, I. J., & Lea, A. (1999a). A longitudinal study into the perceptions of caring among student nurses using multivariate analysis of the caring dimensions inventory. *Journal of Advanced Nursing*, 30(5), 1080–1089. <https://doi.org/10.1046/j.1365-2648.1999.01199.x>
- Watson, R., Deary, I. J., & Lea, A. (1999b). A longitudinal study into the perceptions of caring and nursing among student nurses. *Journal of Advanced Nursing*, 29(5), 1228–1237. <https://doi.org/10.1046/j.1365-2648.1999.01008.x>
- Watson, R., & Lea, A. (1997). The caring dimensions inventory (CDI): Content validity, reliability and scaling. *Journal of Advanced Nursing*, 25, 87–94. <https://doi.org/10.1046/j.1365-2648.1997.025087.x>
- Wieland, D. M., Altmiller, G. M., Dorr, M. T., & Wolf, Z. R. (2007). Clinical transition of baccalaureate nursing students during preceptored, pregraduation practicums. *Nursing Education Perspectives*, 28(6), 315–321.
- Wood, C. (2014). Choosing the 'right' people for nursing: Can we recruit to care? *British Journal of Nursing*, 23(10), 528–530. <https://doi.org/10.12968/bjon.2014.23.10.528>
- Woods, M. (2011). An ethic of care in nursing: Past, present and future considerations. *Ethics and Social Welfare*, 5(3), 266–276. <https://doi.org/10.1080/17496535.2011.563427>
- Wright, A. (2002). Precepting in 2002. *Journal of Continuing Education in Nursing*, 33(3), 138–141. <https://doi.org/10.3928/0022-0124-20020501-09>

**Disclosure.** The authors have no relevant financial interest or affiliations with any commercial interests related to the subjects discussed within this article.

**Acknowledgments.** This article is a summary of the dissertation work I completed as part of my doctoral studies at the University of Alabama. I want to thank my dissertation committee chair, Dr. Vivian Wright, for her guidance and feedback through the dissertation process.

**Funding.** The author(s) received no specific grant or financial support for the research, authorship, and/or publication of this article.

Correspondence regarding this article should be directed to Amanda Barron, EdD, RN, Moffett & Sanders School of Nursing, Samford University, 800 Lakeshore Drive, Birmingham, AL 35229. Email: [abarron@samford.edu](mailto:abarron@samford.edu)