

Nursing student caring behaviours: a systematic review

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ABSTRACT

Caring is central to nursing and requires scientific professional skills and knowledge. Numerous definitions highlight the fact that there is a range of perspectives regarding the caring behaviors. The purpose of this study was to provide a summary of caring behaviors among nursing students in order to depict a more comprehensive view, which could be used as foundational data for the argument that cultivating caring behaviors should be an early focus of the nursing curriculum. Article selection was guided by the preferred reporting items for systematic reviews and meta-analyses (PRISMA) Statements. Literature searches were conducted in June 21, 2022 in PubMed, cumulative index to nursing and allied health (CINAHL), and (OVID). The following search blocks were generated: nursing students, caring behavior, and education. About 318 were found using primary search descriptors and 19 studies were included in the review. All research was published between 2016 and 2020. The majority of studies were conducted using a cross-sectional design, two studies used prospective, and one study used a retrospective design. The caring behavior of nursing students varies depending on the country and instrument used, ranging from a moderate score to a high score, and varies from one study year to the next. The most dominant caring behavior domains reported are the domains of instrumental caring/physical caring and expressive caring/emotional caring. This study adds to the existing literature on nursing care and explains the universality of the concept of care from multiple theoretical perspectives. Caring interventions should be used to help students develop clinically-relevant caring behaviors.

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1. INTRODUCTION

Caring is central to nursing and requires scientific professional skills and knowledge. Caring science is the "mother discipline" of clinical caring science, which focuses on patients as well as the healthcare context [1]. Caring is a growing art in nursing, and caring science assures nursing practice, care delivery, research, and administrative procedures [2]. Fostering caring qualities thru the nurse education is a top priority.

Despite the fact that the term "caring" can be used to describe a wide range of human interactions, one common definition retains that it is "an act performed with the intention of showing concern for another person in such a way that they feel physically and emotionally safe and secure" [3]. Based on Leininger's theory, [4] found that caring is a universal human instinct, though its expression and emphasis vary across cultures. These numerous definitions highlight the fact that there is a range of perspectives regarding the caring behaviors. Swanson's Theory of Caring is less theoretically abstract than Watson's Grand Theory of Human Caring, and instead focuses on concrete facts and illustrative examples to explain what it means for nurses to

engage in caring work. According to this view, caring is "a nurturing manner of relating to a valued individual towards whom one feels a genuine feeling of commitment and duty" [5]. Watson claimed that there are distinctions in the caliber of caring behavior when theoretical insights are put into reality [6]. There is still debate, both inside and outside of nursing, about the significance of empathetic actions. Some people think of nursing as purely a clinical occupation that doesn't require any sort of academic background [7]. However, there are few studies have conducted to summarize the nursing student caring behavior with most of previous studies focus on each domain of caring behaviors. Therefore, the purpose of this study was to provide a summary of caring behaviors among nursing students in order to depict a more comprehensive view, which could be used as foundational data for the argument that cultivating caring behaviors should be an early focus of the nursing curriculum.

2. METHOD

Article selection was guided by the preferred reporting items for systematic reviews and meta-analyses (PRISMA) Statements [8], and 318 were found using primary search descriptors Figure 1. Searching strategies all authors contributed develop descriptive key search terms and identify relevant databases. Literature searches were conducted in 21 June 2022 in PubMed, CINAHL, and OVID. To find as many relevant studies as possible, we used also Google Scholar to search for relevant results. The following search blocks were generated: nursing students and caring behavior. For each keyword and database, medical subject headings (MeSH) and text words were created Table 1. The searches were narrowed, broadened, and combined using subject headings and Boolean operators. The searches were restricted to English only.

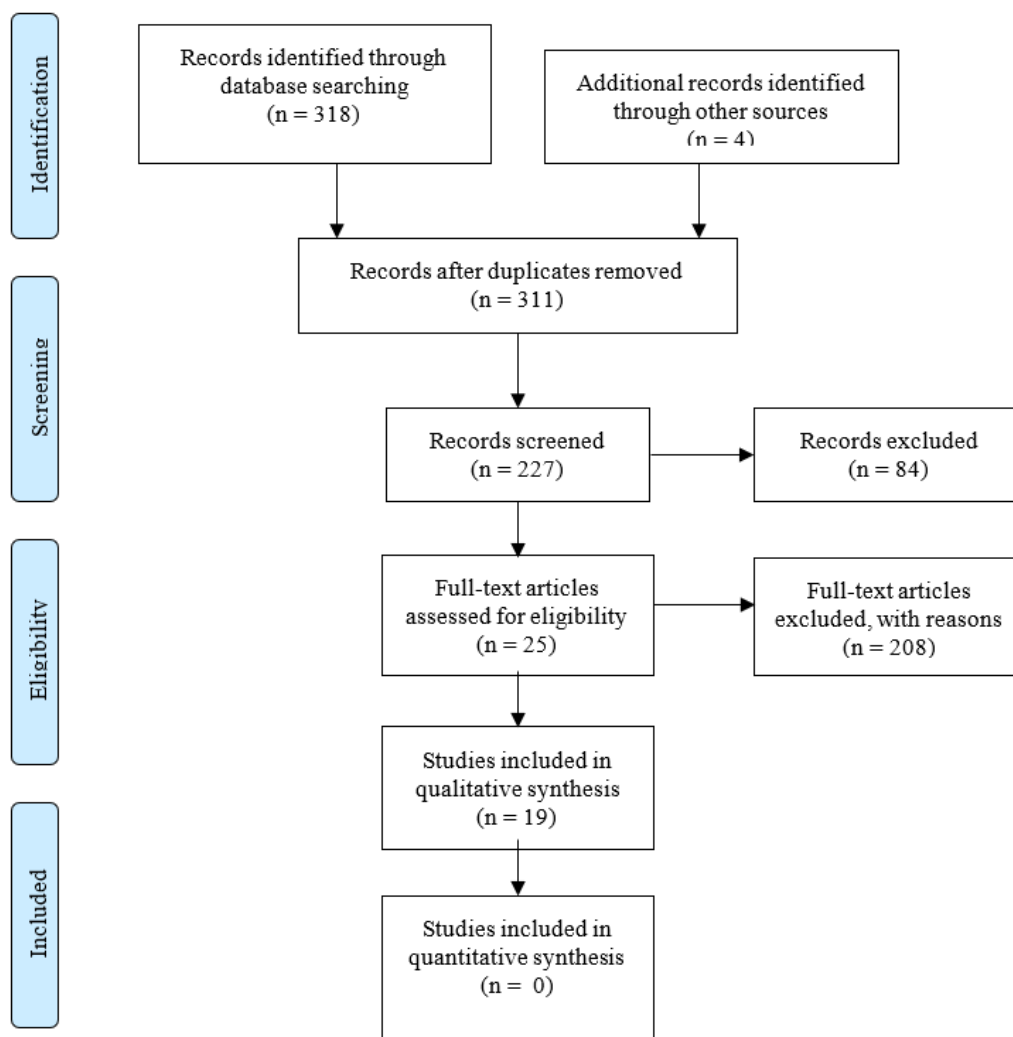


Figure 1. PRISMA flow diagram

Table 1. Searching results

Database	Keywords	Results
PubMed	Nursing students, Caring behavior	138
CINAHL	Nursing students, Caring behavior	125
OVID	Nursing students, Caring behavior	55

2.1. Data extraction

The first author and the second author read the 19 included studies (BP and AY). Articles were summarized based on criteria including study setting, year, author, purpose, sample size, context, methods, and results Table 2 (see in Appendix) [10]-[28]. Studies were interpreted and synthesized after they were read in detail. The content was subjected to a thematic analysis for the purposes of identifying and comprehending central ideas and the evidence upon which they were based. Data, including conclusions and important contextual indicators, that addressed the goal of this review were logged and organized by important problems and themes. BP and AY independently and collaboratively reviewed key issues and themes.

2.2. Quality appraisal

The evaluation and analysis of review material lacks a universally accepted benchmark. Extraction of methodological information from primary studies has been suggested as a way to improve the overall quality assessment of studies in systematic reviews and meta-analyses [9]. The details of the method that we thought were important to consider when evaluating the overall quality of the research that we chose are presented in Table 1. Cronbach's alpha, sample size, and response are the evaluative criteria. The sampling methods and sample representativeness were assessed. The representativeness of the studies was rated as "low," "medium," "low," and "high."

3. RESULTS AND DISCUSSION

3.1. Characteristics of included studies

The methodological characteristics of all of the articles analyzed are shown in Table 2. All research was published between January 2016 and October 2022. The majority of studies were conducted using a cross-sectional design, two studies used prospective, and one study used aretrospective design.

3.2. Instrument

Caring behaviors were measured using the caring assessment report evaluation-Q (CARE-Q), nursing professional value scale and care-Q (NPVS-R), caring behaviors inventory (CBI), Caring dimensions inventory (CDI), comfort behavior scale (CBS), and caring nurse-patient interactions (NPI). CARE-Q consists of the following six subscales: accessible, explains and facilitate, comforts, anticipate, trusting relationship and monitors and follows through. While, NPVS-R has a domain of caring, activism, trust, professionalism, and justice. CBI measured assurance, knowledge and skill, respectful, and connectedness. Furthermore, CBI measured 'psychosocial', 'technical' 'professional' 'inappropriate' and unnecessary activities. Then, CBS was used to measure the level of patient comfort as reflect nursing caring behaviors. Lastly, NPI consist of 10 carative factors, which underlay the nursing practices defined by Watson including humanism, hope, sensitivity, helping relationship, expression of feelings, problem solving, teaching, environment, needs, and spirituality. We then classified the caring domain into instrumental/physical caring behaviors including and expressive caring/emotional caring.

3.3. Caring behaviors

The caring behavior of nursing students varies depending on the country and instrument used, ranging from a moderate score to a high score. Nursing students in China [14], America [23] Greece, Nigeria, India, the Philippines [29], and Italy showed a high average score [27]. While, studies and countries that reported the score of caring behavior with moderate to high average scores were Turkey [11], [16], [25], [30], Indonesia [12], and Slovenia, Russia, China and Croatia [20], China [19], [23].

3.4. Change of caring behaviors in different level

Studies conducted in Russia, China, Italy [13], and Turkey [25], [30], students' caring behavior decreases at the end of the school year [19]. Unlikely, studies in Slovenia and Croatia, and Spain reported an increasing trend of caring behaviors in the last year of study [20], [27]. Studies conducted in Turkey, China, and Ireland [26], [30] show that caring behavior varies from one study year to the next. These studies provide evidence that caring behavior shifts over time [23].

3.5. Domain of caring behaviors

The most dominant caring behavior domains reported are the domains of instrumental caring/physical caring and expressive caring/emotional caring as reported in studies in America [23], Taiwan [15], and Spain [21], Croatia and Slovenia [20], Italy [31]. In a different study, China [15] and Turkey [16] reported the highest and lowest expressive caring/emotional caring domains, respectively. Additionally, studies reported that the domain of instrumental caring/physical caring is more developed than expressive caring/emotional caring, such as in Indonesia [12], Turkey [11], [16], Italy [13], China and Russia [20], and Israel [26].

3.6. Discussion

This review highlights that the caring behavior of nursing students varies depending on the country and instrument used, ranging from a moderate score to a high score. Caring studies among students are typically limited to single cultural groups, such as Iranian students [32], Filipino students [33], Slovenian students [34], Swedish students [35], Swedish students [36], Pakistani students [36], Turkish students [37]. The cultural differences in how student nurses evaluate their own caring skills are limited. Cross-cultural research is necessary to provide common international perspectives and theoretical insights into the universality concept of caring.

Nursing students have important personal caring characteristics, such as beliefs and values toward caring behavior, which are influenced by sociocultural factors, [38] and these characteristics can be refined and enhanced through nursing education. This review also highlighted that caring behavior varies from one study year to the next. Growing evidence suggests that nursing education influences students' caring behavior [39], [40]. Student nurses benefit from a more positive outlook, greater self-assurance, and higher levels of motivation when they are immersed in an environment that fosters care [41]–[43]. A study conducted by [39] across multiple countries found that students' caring behaviors were positively influenced by their perceptions of their instructors' caring behaviors, particularly the instructors' expressive caring behaviors. A non-caring environment, on the other hand, can have detrimental effects on students' mental health and lead to unfavorable outcomes. These have an impact on their learning processes and may eventually cause them to drop out of the nursing program entirely [42], [44]. The philosophy of the nursing program places a strong emphasis on caring behavior, which implies that students can learn to be compassionate by being in a compassionate environment. Sokola [45] argues that students' understanding of caring behavior evolves as a result of their interactions with teachers over the course of an academic program. Similarly, Chiang [16] found that after 12 months of undergraduate nursing school, students' caring behavior significantly improved.

The most dominant caring domains are instrumental/physical caring and expressive/emotional caring. Quantitative studies have demonstrated that students perceive instrumental care as a stronger indicator of caring behavior than expressive care [32], [33]. For example, in two different studies by [32], [46], Iranian students thought that the most important parts of nursing practice were practical and cognitive caring behaviors. In one study, Filipino students valued the role that nursing actions based on theory played in addressing patients' needs [33], [34] found that Slovenian university students valued caring actions like showing respect and assistance to patients, showing gratitude to them, educating them, and ensuring they had the necessary skills and knowledge to provide quality care. In some studies, students perceived genuine caring as physical labor [47], while others associated caring with working with both healthy and seriously ill people [48].

3.7. Limitations

There are few studies conducted in Asia or eastern countries, which may have distinct notions of caring behaviors, which may have an effect on the findings. However, the findings in this study came from a variety of countries spanning four continents. The findings come from a variety of countries. In conclusion, because there were not many longitudinal studies that were associated with the research design, it is necessary to conduct additional studies of this kind in order to acquire a more profound comprehension of the definition.

4. CONCLUSION

This review emphasizes that nursing students' caring behavior varies depending on the country and instrument used, ranging from moderate to high scores, and that caring behavior varies from one year of study to the next. The two most common types of caring are instrumental/physical caring and expressive/emotional caring. This study adds to the existing literature on nursing care and explains the universality of the concept of care from multiple theoretical perspectives. Caring interventions should be implemented to assist students in developing or improving caring behaviors that can be applied in the clinical setting.

Table 2. Characteristics of included studies (n=19)

Authors, year	Design	Instrument	Results
[10]	Cross-sectional	Nursing Professional Value Scale and Care-Q	<ul style="list-style-type: none"> - A moderate to high level of caring behavior among students. - Fourth-year students have a lower level of caring than first- and third-year students.
[11]	Cross-sectional	Caring Nurse-Patient Interactions	<ul style="list-style-type: none"> - Caring behavior is between moderate and high. - The highest subscale on teaching and requirements and the lowest subscale on sensitivity.
[12]	Cross-sectional	Caring behaviors inventory-42	<ul style="list-style-type: none"> - Third-year students have the lowest emotional intelligence scores. - The mean score indicates that students' caring is at a moderate level. - The highest domain of knowledge and skill, and the lowest domain of attentiveness. - Students who participate in clinical practice for eight weeks have a higher connectedness dimension than those who participate for four weeks.
[13]	Longitudinal design	Comfort Behavior Scale	A significant increase in the dimension of "doing with competence" and a significant decrease in the dimension of "responding to individual needs," as well as declining relationship skills.
[14]	Cross-sectional	Caring Assessment Report evaluation-Q	<ul style="list-style-type: none"> - Student caring behavior in the positive category. - The highest caring knowledge score but the lowest caring attitude score.
[15]	Cross-sectional	Caring Assessment Report evaluation-Q	Student caring behavior for each subscale is in the moderate-high category, with the highest subscale being sense of security and the lowest being comfort.
[16]	Cross-sectional	Caring Assessment Report evaluation-Q	<ul style="list-style-type: none"> - The caring behavior of students is in the fairly high caring category, with the highest average value in the trusting relationship and the lowest in anticipation. - In addition, students in the final year of study experienced a decrease in caring behavior.
[17]	Cross-sectional	Comfort Behavior Scale	Low caring sub-category, namely communication and interaction with patients.
[18]	Cross-sectional	Comfort Behavior Scale	<ul style="list-style-type: none"> - Student caring behavior is moderate. - There are differences in student caring behavior among the five educational programs.
[19]	Cross-sectional	Caring Assessment Report Evaluation Q-sort scal	<ul style="list-style-type: none"> - Caring behavior of female and male students tends to be high. - The domain of student caring behavior is in the Sense of security domain.
[20]	Cross-sectional	Caring dimensions inventory -25	<ul style="list-style-type: none"> - Moderate to high levels of student caring. - Caring behavior increased in Slovenia and Croatia in the final year of the study, while it decreased in China and Russia.
[21]	Cross-sectional	Caring dimensions inventory -25	Students in the first year of study increased more in the dimension of professional-technical factors, while in the 3rd and 4th years of study they increased more in the dimensions of psychosocial factors.
[22]	Cross-sectional	Caring behaviors inventory	The results showed that there had been an increase in all subscales except "respectful deference to others" in the final year of the study.
[23]	Cross-sectional	Caring Ability Inventory (CAI)	<ul style="list-style-type: none"> - The results of the research show that the caring category in China is moderate and America is already high, and the average value of total CAI and three subscales of American students is higher than that of China. - Other research results in 3rd year Chinese students have lower courage subscale and total CAI scores than 1st and 2nd year.
[24]	Cross-sectional	Caring behaviors inventory	<ul style="list-style-type: none"> - Nursing students from four countries (Greece, Philippines, India and Nigeria) have positive caring behavior. - The caring dimension has the highest average score on the "assurance of human presence" dimension, while the lowest is on the "positive connectedness" dimension.
[25]	Cross-sectional	NPI-Long Scale & CCTDI	<ul style="list-style-type: none"> - The caring behavior of students is moderate and fourth year students have decreased caring behavior.
[26]	Longitudinal design	Caring Ability Inventory (CAI)-35	<ul style="list-style-type: none"> - The results of this study stated that there were eight question items that experienced significant differences in students in the third year of study. - Students in the third year of study developed more in the technical category than in the expressive caring category.
[26]	Longitudinal design	Caring Ability Inventory (CAI)-35	<ul style="list-style-type: none"> - The results of this study stated that there were eight question items that experienced significant differences in students in the third year of study. - Students in the third year of study developed more in the technical category than in the expressive caring category.
[27]	Cohort study	Caring behaviors inventory	<ul style="list-style-type: none"> - Caring behavior during clinical practice is high, and continues to increase in the final year of study. - Third year students have expressive and instrumental caring dimensions that are evenly developed. - After clinical practice, students experienced the highest increase in the instrumental caring dimension, but it was accompanied by an increase in expressive caring from year to year.
[28]	Retrospective study	20-item Caring Factor Survey-Care Provider Version	<ul style="list-style-type: none"> - The results of this research using didactic and immersion methods showed an increase in caring behavior.




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