Review

The Professional Values of Nursing Students: a Systematic Review

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Abstract

Introduction. Professional values play a crucial role in nursing practice, as they influence nurese' care quality and ethical decisions. In an evolving educational and healthcare context, it is essential for students to develop and integrate the professional values necessary to effectively address future challenges. This systematic review aims to identify the professional values declared by nursing students during their academic journey.

Methods. A comprehensive literature search was carried out for primay quantitative studies published until december 2024 in the databases PubMed/Medline, Embase, CINAHL, Scopus, and yielded 21,071 records. After screening, 29 relevant studies were included in this review. The process of screening, selection and inclusion of articles was reported using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). A systematic review was conducted following the JBI Manual for Evidence Synthesis. Methodological quality assessment and methodological quality of the included articles were evaluated.

Results. The 29 included studies, comprising 3 cohort studies and 26 cross-sectional studies, reported a low methodological quality assessment, ensuring high reliability of the results. The most frequently cited value was Caring, while Activism and Altruism were also important values for students. Additionally, specific studies highlighted values such as the Principle of Work, respect for Human Dignity, Ethical and Moral aspects,

as well as Nursing Professionalism.
Discussion. The review provided insight into the fundamental values that define nursing students. Furthermore, it enabled an understanding of the multiple variables that shape professional values, highlighting key factors such as academic education and cultural context. These findings offer a foundation for further exploration of the elements that directly influence the development of professional values.

Keyword: Nursing Student, Professional Values, Education, Systematic Review, Professional Identity

Introduction

The contemporary era of increasing globalization, diversity, and healthcare disparities, combined with the persistent emergence of ethical dilemmas in health, poses significant challenges to professional values.[1] The evolution of healthcare systems and the necessity to ensure safe and high-quality care have underscored the importance of value-driven decision-making,[1] alongside the effort to maintain a strong professional identity.[2,3] Consequently, defining the values associated with nursing practice has become more essential than ever.[1]

Nurses currently make up the largest proportion of the workforce in healthcare organizations,[4] and the growing complexity of their professional decisions and practices can lead to multifaceted ethical dilemmas and concerns.[1,5] In the healthcare field, professional values act as ethical guidelines and standards of conduct, directing the assessment of nurses' actions and practices.[6] As early as the 19th century, Florence Nightingale argued that nursing should not only be grounded in scientific knowledge and technical expertise but should also be established on personal values.[7] Modern literature reinforces this perspective, emphasizing that values provide essential guidance for action, shaping the sustainability and long-term development of care. These values are the foundation of decision-making in nurses' practical activities.[8]

Professional values are shaped by personal preferences cultivated through growth and experience, strongly influenced by factors such as culture, environment, education, and prior experiences.[9] In essence, they reflect an individual's beliefs and attitudes about a specific purpose, object, or behavior.[10] Before becoming fully-fledged professionals, nursing students are introduced to the field during clinical internships. At this stage, personal values may already align with professional values, influencing students' career choices.[11] The greater the alignment between personal and professional values, the more likely students are to exhibit ethical behaviour and make responsible professional decisions.[12]

The promotion of professional values is a continuous process, beginning when students enter nursing programs and extending throughout their professional careers.[13] Although students enter university with their individual values,[14] they develop a professional identity by adopting and internalizing the values of the groups they become part of.[15] The pre-graduation experiences students encounter, combined with the guidance of educators, play a crucial role in equipping them with the knowledge and skills needed. These experiences are vital for transforming personal values into professional ones, ultimately defining their practice.[16]

Simultaneously, educational contexts and healthcare systems are increasingly shaped by demands for flexibility and efficiency, adhering to cost-effectiveness frameworks designed to maximize outcomes with minimal resource expenditure. Nursing education has been significantly influenced by these trends, with healthcare institutions placing a growing emphasis on selecting students and future professionals with exceptional competencies, often assessed in terms of efficiency rather than efficacy or quality.[17]

Over time, primary studies exploring nursing students' professional values have expanded in literature. Although several primary studies have investigated nursing students' professional

values, no systematic synthesis has yet compared the explicitly declared values during academic education. The recent scoping review by Li et al. (2022) clarified the concept and influencing factors, but did not analyze empirical data on declared values or the tools used for their measurement.[18]

This systematic review aims to synthesize the professional values declared by nursing students during their academic education, as reported in primary quantitative studies. A secondary objective is to identify and describe the measurement instruments used to assess these values.

Methods

Study Design and Protocol Registration

This systematic review was conducted following the guidelines outlined in the JBI Manual for Evidence Synthesis.[19] Consistent with it, the review adhered to the PRISMA ScR Checklist reporting system for its development.[20] The protocol for this systematic review was prospectively registered in the Prospective Register of Systematic Reviews (PROSPERO) (Approval was confirmed on March 16, 2024, under the registration number CRD42024520854.).

Research Question

To identify relevant studies, the research question was structured using the participants (P), concept (C), and context (C) (PCC) framework.[21] In line with this approach, the review includes three main aspects: P= nursing students; C= primarily identifying professional values, and secondarily, the scales used to measure them; C= educational environment.

Search Strategy

The search was conducted in December 2024 across multiple databases: PubMed, Embase, CINAHL, and Scopus. No temporal filters were applied (Table 1). The selection and inclusion process of the articles was carried out using the preferred reporting items for Systematic Reviews and Meta-Analyses. Four review authors (JA and DA) (AV and AV). Independently screened all titles and abstracts identified by electronic database searches and excluded duplicates and irrelevant records using Rayyan software (https://www.rayyan.ai/). The conflicts were resolved by involving a fifth review author (SC). We then obtained full-text articles for the remaining studies, which were independently evaluated for inclusion by four review authors (JA and DA) (AV and AV) using the eligibility criteria described above. Disagreements were resolved by consensus meetings, with arbitration

Table 1. Search strategy

Database	Search strategy
PubMed	((Nursing Students[Title]) OR ("Students, Nursing"[Mesh])) AND ("Professionalism"[Mesh] OR "Ethics, Nursing"[Mesh] OR "Professional values" OR "Professional nursing values" OR "Values" OR "Shared Governance, Nursing"[Mesh] OR "Nursing values")
CINAHL	TI ("Nursing Students") OR (MM "Students, Nursing") AND ((MM "Professionalism") OR (MM "Ethics, Nursing") OR "Professional values" OR "Professional nursing values" OR "Nursing values"))
Embase	Title, Abstract or Author Keywords: ('nursing student') AND ('professionalism' OR 'nursing ethics' OR 'professional values' OR 'professional nursing values' OR 'values' OR 'nursing values')
Scopus	Article title, Abstract, Keywords: ("Nursing students") AND ("Professionalism" OR "Ethics Nursing" OR "Professional Values" OR "Professional Nursing Values" OR "Values" OR "Nursing Values")

provided by a third review author (SC), who had not initially reviewed the article.

Inclusion and exclusion criteria

The selection of studies was carried out based on several inclusion criteria. Studies were required to address the research question, focus on the education setting, and include primary literature. Only quantitative studies with nursing students were included, regardless of the year of the course, gender and age. Documents written in languages other than English were also considered, with no geographical limitations. The exclusion criteria ruled out any studies that did not address the research question, qualitative studies, and validation studies of tools no presenting the survey results.

Methodological quality assessment of studies

The methodological quality of the included studies was independently assessed by four reviewers (JA and DA; AV and AV). For observational studies, the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies was used. Any disagreements were resolved by a third, impartial reviewer (SC).

Each study was rated according to the following thresholds: high quality if more than 70% of items were marked "yes"; moderate quality if between 50% and 70%; and low quality if less than 50% of items were marked "yes".[22]

The quality appraisal was used for descriptive purposes only and did not influence study inclusion or the synthesis of results.

Data extraction and synthesis

The data extracted included key study characteristics including authors, publication year, country, sample size, and tools employed with their validation studies was systematically collected and synthesized (see Table 2), The synthesis was conducted using a narrative approach, complemented by tabular summaries to provide a comprehensive overview of the findings.

Results

Literature Screening

A total of 21,071 records were identified through database searches: 1,588 from PubMed-Medline, 4,201 from Scopus, 158 from Embase, and 15,124 from CINAHL. After the screening process, 1,171 duplicate documents were removed. A total of 42 potentially relevant documents were identified. Following the review of titles and abstracts, 13 documents were excluded as they were either not relevant to the topic or unsuitable for the type of study conducted. Specifically, some studies focused solely on validating the considered scale without providing useful data regarding professional values.[23-26] Others investigated the self-concept of students, explored personal values and sociodemographic aspects.[27,28] Additionally, a study emphasized ethical values rather than professional ones, while further one concentrated exclusively on the value of altruism.[29,30] Finally, some studies included nurses who had already completed their training in the study sample.[5,26,31-33] At the end of the selection process, [29] relevant studies were included in this review (Appendix 1).

Characteristics of the studies

The characteristics of the included studies are summarized in Table 2. Most studies were conducted in Asia (51.7%), with significant contributions from countries such as South Korea,[29,34,35] Taiwan,[23,36] Turkey,[37-39] Jordan,[40,41] and Iran.[42,43] The higher portion of the studies (20.7%) were conducted in North America, particularly in the United States, where some authors conducted important studies,[44-47] followed by Europe (17.2%), with Spain,[39,48] Italy,[10,49] and Ireland50. Finally, 10.4% of the studies were distributed across Africa and South America, with contributions from South Africa,[51] Brazil,[26] and Colombia.[52] Most studies (92%) adopted a cohort study design, such as those by Ibrahimoglu et al. in Turkey and Arries in Canada.[53,54] Only a minority (8%) relied on cross-sectional studies, such as those conducted by Alfred et al. and Green.[55,56] All studies reported a low mentmethodological quality assessment, ensuring high reliability of the results.

The analyzed studies employed a variety of validated scales to assess professional nursing values and related constructs, reflecting the diversity in methodological approaches. Among the most used instruments were the Nursing Professional Values Scale (NPVS) developed by Weis and Schank (2000), its revised versions NPVS-R (2009) and NPVS-3 (2017), and other region-specific tools such as the Ethical Values Scale and the Salford-Scott Nursing Values Questionnaire (1959).[17,31,32.57,58] These tools ensured consistent and reliable measurements across different cultural and professional

Table 2. Characteristics of the studies included.

Author, Year and Context	Study Design	Method. quality assessment	Scale	Original Validation
Martin et al., 2003 in USA	Cohort study	Low	Nursing professional Values Scale (NPVS)	Weis and Schank (2000)
Leners et al., 2006 in USA	Cohort study	Low		
Kaya et al., 2017 in Turkey	Cross sectional study	Low		
Ibrahimoglu et al., 2020 in Turkey	Cohort study	Low		
Lin et al., 2010 in Taiwan	Cohort study	Low	Nursing professional Values Scale Revised (NPVS-R)	Weis and Schank (2009)
Alfred et al., 2013 in Taiwan and USA	Cross sectional study	Low		
Moon et al., 2014 in South Korea	Cohort study	Low		
Lin et al., 2016 in Taiwan and China	Cohort study	Low		
Donmez and Ozsoy, 2016 in Turkey	Cohort study	Low		
Kargar et al., 2017 in Iran	Cohort study	Low		
Posluszny and Hawley, 2017 in USA	Cohort study	Low		
Rose et al., 2018 in USA	Cohort study	Low		
Poorchangizi et al. 2019 in Iran	Cohort study	Low		
Arries, 2020 in Canada	Cohort study	Low		
Bleda et al., 2020 in Spain	Cohort study	Low		
Green, 2020 in Israel	Cross sectional study	Low		
Nocerino et al.,2020 in Italy	Cohort study	Low		
Paşalak et al., 2021 in Turkey; Spain; Tanzania	Cohort study	Low		
Allari et al., 2022 in Jordan	Cohort study	Low		
Bimray et al., 2023 in South Africa and Cape Town	Cohort study	Low		
Dellafiore et al., 2021 in Italy	Cohort study	Low	Nursing Professional Value Scale-3 (NPVS-3)	Weis and Schank (2017)
Subih et al., 2021 in Jordan	Cohort study	Low		
Poreddi et al., 2022 in India	Cohort study	Low		
Rached et al., 2023 in Brasil	Cohort study	Low		
Bang et al., 2011 in South Korea	Cohort study	Low	Nursing Professional Values Scale (NPVS)	Yeun et al. (2005)
Durán, 2014 in Colombia	Cohort study	Low	Los valores éticos en adolescentes mexicanos	Medina and Luis (2003)
Koo, 2016 in South Korea	Cohort study	Low	The ethical values scale	Choi (1990)
Rassin, 2010 in Israel	Cohort study	Low	Professional Values	Michal Rassin (2010)
Timmins et al., 2018 in Republic of Ireland	Cohort study	Low	Salford-Scott Nursing Values Questionnaire (1959)	(Robinson et al. 1991; Johnson, Haigh,Yaters-Bolton (2007)

contexts.

Methodological quality assessment and certainty of the evidence of the included studies

Among the included studies were rated as low quality according to the JBI checklist. All included studies demonstrated acceptable methodological quality. For cohort studies (see Table 2), quality scores ranged from 9.1% to 100%, with all three included studies achieving the maximum score of 100%, indicating a high level of methodological rigor.[37,53,56]

Regarding the cross-sectional studies (Table 3), quality scores ranged from 12.5% to 100%, with classification into three categories: high quality (≥ 62.5%), medium quality (37.5%–50%), and low quality (≤ 37.5%). All selected cross-sectional studies were evaluated as high quality. Among them, six studies achieved a score of 87.5%,[10,26,36,51,56,59] while five studies scored 75%.[23,39,41,53,54] This indicates that, despite some variations in scores, the studies demonstrated a high methodological standard. Other studies included in the review were evaluated as follows: Martin,[44] Johnson,[30] and Koo[29] showed clearly defined sample inclusion criteria, while Donmez[38] and Posluszny[46] achieved similar scores in other quality categories. Studies such as Poorchangizi et al. and Kargar Jahromi et al ensured the validity and reliability of outcome measurements,[42,43] whereas Bleda,[48] and Allari,[40] effectively addressed confounding factors. Moon et al.,[34] Rose,[47] and Nocerino[49] employed appropriate statistical analyses; lastly Michal Rassin[60] and Durán Parra[52] demonstrated accurate outcome measurement.

Professional values

Table 3 summarizes the key professional values identified in studies conducted on nursing students in various countries, organized by the survey instrument used and the sample size. These studies provide an overview of the values that nursing students consider essential for their future profession.

The value of Caring emerges as the most frequently reported by nursing students across the analyzed studies. Caring was highlighted in diverse cultural contexts, including the United States,[45] Turkey[38] and Iran[43]. Trust is the second most recurrent value and was particularly emphasized in studies conducted in the United States and Italy.[46,49] The value of Human Dignity received significant attention in Turkey and Israel.[53,56] The value of Justice, with a specific focus on confidentiality and public safety, was demonstrated in studies from Iran and Jordan.[40,42] Activism and Altruism were highlighted in Italy by Dellafiore and in Canada by Arries, respectively.[10,54] Other studies identified Altruism, Nursing Professionalism, Obedience to Authority, Truth, and the Principle of Duty as key values.[50] A study conducted in Korea analyzed three different cohorts of nursing students (1988, 2007, and 2015), confirming the Principle of Duty as the most frequently stated value, and emphasizing the importance of providing immediate assistance to those in need.[29] Another Korean study emphasized the value of Nursing Professionalism, identifying new domains such as the "Professional Self-Concept" and "Nursing Originality".[35]

Some researchers went beyond analyzing the most frequently declared value by nursing students and delved deeper into the topic by exploring commonalities, differences, and similarities across cultures, comparing samples from different countries. For instance, Alfred et al. identified two distinct values among American and Taiwanese students: Trust and Caring, respectively.[55] Comparisons were also made among nursing students across different academic years. Bleda, Alvarez and Plat investigated students in all four academic years using the Kruskal-Wallis test, revealing a statistically significant relationship between the total scale score and the academic year. Specifically, as students advanced in their academic years, their average scores increased.[48] Another type of in-depth analysis was performed in two studies by evaluating nursing students in their fourth year of training compared to those in their second year.[44,56]

Martin, Yarbrough and Alfred[45] demonstrated that fourth-year nursing students scored higher on 5, out of 11 values on the NPVS scale by Weis & Schank (2000).[31] Green conducted a comparison among three different levels within a Bachelor of Science in Nursing program.[56] The Novice group had received only theoretical preparation, the Advanced group had basic practical training, and the Senior group had advanced practical training. Statistically significant differences emerged for three values—Caring, Activism, and Justice on the NPVS-R scale by Weis and Schank (2009),[32] with the Advanced group achieving the highest scores. Kaya et al. followed the same cohort of students over four years to investigate professional values

Table 3. The professional values that emerged most.

Author(s)/year	Sample Size	Tool used to assess professional values	Emergent value
Bimray et al., 2023	245	NPVS-R	Trust
Rached et al., 2023	337	NPVS-3	Caring
Allari et al., 2022	182	NPVS-R	Justice
Poreddi et al., 2022	273	NPVS-3	Caring
Dellafiore et al., 2021	135	I-NPVS-3	Activism
Pasalak et al., 2021	305	NPVS-R	Caring
Subih et al., 2021	324	NPVS-3	Caring
Arries, 2020	89	NPVS-R	Altruism
Bleda et al., 2020	315	EVPS (NPVS-R)	Ethical dimension (Caring)
Green, (2020)	261	NPVS-R	Human Dignity
Ibrahimoglu et al., 2020	290	NPVS	Human Dignity
Nocerino et al., 2020	115	NPVS-R	Trust
Poorchangizi et al., 2019	100	NPVS-R	Caring
Rose et al., 2018	106	NPVS-R	Justice
Timmins et al., 2018	158	Salford-Scott Nursing Values questionnaire	Altruism
Kargar et al., 2017	120	NPVS-R	Justice
Kaya et al., 2017	123	NPVS	Human Dignity
Posluszny and Hawley, 2017	136	NPVS-R	Trust
Donmez and Ozsoy, 2016	416	NPVS-R	Caring
Koo, 2016	192	The ethical values scale	Principle of Duty
Lin et al., 2016	946	NPVS-R	Caring
Durán, 2014	162	Los valores éticos en adolescentes mexicanos	Etico - Morale
Moon et al., 2014	1024	NPVS-R	Human Dignity
Alfred et al., 2013	Taiwan: 94; USA:168	NPVS-R	Taiwan: Caring; USA: Trust
Bang et al., 2011	526	NPVS	Nursing Professionalism
Lin et al., 2010	94	NPVS-R	Caring
Rassin et al., 2010	180	Professional Values	Human Dignity
Leners et al., 2006	159 (pretest) 28 (postest)	NPVS	Caring
Martin et al., 2003	1450	NPVS	Caring

Legend. Emergent Value: Primary value highlighted; NPVS-R= Nursing Professional Value Scale-Revised; NPVS-3= Nursing Professional Value Scale, I-NPVS-3= Italian Nursing professional Values-3, EPVS= Escala de Valores Profesionales de Enfermería, NPVS=Nursing Professional Values Scale

in relation to their development. Human Dignity consistently ranked first throughout the study, though its percentage varied over time.[37] Lastly, to evaluate the academic impact on students, Lin et al. used the NPVS-R tool and observed a statistically significant increase in the total score from the pre-test to the post-test.[23]

Discussion

This systematic review has investigated the professional values of undergraduate nursing students, encompassing a wide array of cultural contexts. The internalization of a professional identity rooted in nursing's core values is essential for students, as it directly impacts the quality of care and the profession's development. Nursing professional values form the cornerstone of the profession, playing a critical role in shaping attitudes, beliefs, and the interactions between individuals and healthcare professionals. High levels of professional values enhance nursing care quality, improving satisfaction among nurses and patients alike. The educational journey and training process are pivotal in instilling these values in future generations of nurses. While professional values and their adoption in students' lives as future professionals can be considered integral to nursing education,[61] a personal contribution from the student and their environment also remains vital to achieving full professional development. This personal contribution includes not only professional values but also elements such as individual beliefs, past experiences, workplace environments, and worldviews.[62]

To better understand not only the nature of professional values but also their antecedents, it is essential to investigate external correlations. Among these, the role of education emerges as particularly influential. Kantek, Kaya, Gezer[8] emphasize that nursing professional values are significantly shaped by both theoretical education and the clinical environment during internships. The studies by Lin et al.[23] and Rose[47] clearly highlight that the university experience profoundly impacts the development of professional values in students, even though it is not the sole contributing factor. Lin et al.[23] underscored the critical role of nursing educators in fostering the development of students' professional values over the course of their academic training. Their findings indicated an increase in average scores as academic years progressed. Educators are tasked with guiding students in transforming into professionals, enabling them to integrate personal values into their professional framework.

Another significant correlation concerns the sociocultural influence of the environment on professional values. The study by Alfred et al.,[55] comparing contexts such as the United States and Taiwan, revealed that nurse students trained in countries with differing cultural perspectives share fundamental values but differ in the priority they assign to these values. Shaw & Degazon propose using common foundational values as a basis for fostering a more globalized approach to professional values.[63] At the same time, increasing cultural understanding is crucial to bridging differences and fostering growth through mutual learning.[64] Regardless of culture or educational background, in all healthcare settings, nurses operate within relational contexts, embodying values that underpin their moral and ethical responsibilities to patients, communities, their profession, employers, and themselves.

Implications for Practice

Implications for practice can be identified in the areas of nursing research, clinical practice, education, and management. Nurse researchers should focus on the development and testing of a theory of professional nursing values and on understanding common nursing values within a global healthcare context. Professional values should be articulated to unify the profession and demonstrate the value of nursing to society. Value theory should be integrated into both undergraduate and postgraduate education, as well as into nursing practice. A deeper understanding of values is essential to strengthen professional identity and ensure the provision of high-quality services to citizens. The organizational environment should foster discussions on professional values aligned with corporate values, with the aim of strengthening the sense of belonging and achieving high standards of care quality.

Limitations of the study

The strengths of this systematic review lie in the rigorous methodological framework adopted, in accordance with international guidelines for systematic reviews. This approach enabled an in-depth analysis of professional values in nursing students, considering multiple

cultural and educational contexts. The synthesis of data from numerous studies provides a global perspective on the development and integration of professional values in nursing education. Furthermore, all included studies demonstrated a low methodological quality assessment, as assessed through standardized methodological quality appraisal tools. This enhances the reliability and validity of the synthesized findings. The systematic application of transparent and replicable methods strengthens the credibility of the review, supporting its contribution to evidence-based educational strategies in nursing.

Some limitations should be acknowledged. Most of the studies included in this review used a cross-sectional design that does not allow for establishing causal relationships between values and the identified factors. In other words, it is not possible to conclusively determine whether the years of training, context, or instructors directly influence the value identity of students. Moreover, despite data was collected anonymously in all included studies, nursing students are subject to social desirability bias in self-assessment of values, reflecting the possible social expectations placed on students and the nursing profession.[65] Additionally, although the studies show a broad geographical variety, it is not possible to definitively state the uniqueness of professional values in any given setting. Finally, the variety of instruments used in the included studies could be a factor impacting the results.

Conclusion

The systematic review on the professional values of nursing students has provided an overview of the core principles declared by future healthcare professionals, in different cultural contexts. This knowledge is crucial to understand which values should guide their professional approach once they join the healthcare system. As the future leaders of the nursing care process, it is essential that they have a clear understanding of the professional values that must define their practice. These values are closely linked to the quality of care they will provide to patients. Their importance lies in the fact that they determine the ethical and human approach toward patients, influencing the effectiveness of care and patient satisfaction. High professional values can contribute to improving the quality of nursing care, with positive effects on the satisfaction of both nurses and patients.

This review offers a sort of "snapshot" of the nursing profession in its current state, providing a baseline from which to study the evolution and changes that may occur in the future. Monitoring such changes over time can be useful in understanding how professional values adapt to new contexts and challenges in the healthcare field.

A strong need has emerged to continue investing in education, highlighting the importance of educational programs not only transmitting technical knowledge but also promoting the development of ethical and human values, which are essential for the nursing profession. In conclusion, the review suggests that the active involvement of students in their professional preparation, with particular attention to the development of values, can help improve the quality of nursing care by forming more conscious professionals. It is necessary for future professionals, to precisely understand what guides their actions since their student' years, to optimize it in line with the needs of patients, always keeping their centrality in care.

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