



Influence of nursing students' perceptions of clinical instructor caring on their professional values

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ABSTRACT

Background: Caring is an integral part of the nursing profession. The standards that guide nurses when caring for patients are the professional values which are learned throughout the career. In this process of learning, clinical instructors might play an important role since they have been identified as powerful role models for their students.

Purpose: This study aimed to examine the relationship between nursing students' perceptions of clinical instructor caring and students' professional values.

Methods: A cross-sectional study was carried out between January and July 2024. A total of 407 nursing students from the University of Santiago de Compostela (Spain), ≥ 18 years old of both sexes were invited to complete the Spanish version of the scales: Nursing Students' Perception of Instructor Caring scale (S-NSPIC) and Nursing Professional Values (S-EVPS).

Results: A statistically significant correlation was found between nursing students' perceptions of clinical instructor caring and students' professional values ($r = 0.279$, $p \leq 0.01$), with the subscale "Confidence through caring" explaining 7 % of the total S-EVPS score.

Conclusion: Clinical instructors contribute to shape students' professional values, being instructors' expressive caring behavior a key factor that contribute to students' learning of professionalism.

Introduction

Caring is central to the nursing profession (Inocian et al., 2022) and has long been considered an essential indicator of quality nursing education (Alsadat Hosseini & Momennasab, 2020), so caring competence should be an aspiration for nursing students (Kitson et al., 2019). Nurses' care provision should be based on a reciprocal bond with the patient, valuing their independence and honor, integrating a completely empathetic viewpoint, and acknowledging their physical, emotional, mental, and social requirements (Ghanbari-Afra et al., 2022). This

approach benefits not only the patient but also nurses, both professionally and personally, as well as healthcare organizations (Ghanbari-Afra et al., 2022).

The standards that guide nurses when caring for patients are the professional values based on the ethical principles shaping the basis of the profession (Gassas & Salem, 2022). As soon as a nursing student enters the university, their process of learning professional values begins, which later continues throughout the years of their career (Antonioni et al., 2022). Professional values in healthcare can be shaped by the clinical environment (Evrenol Öçal & Terzioğlu, 2022), with

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differences arising from cultural, economic, social, or religious influences (Poorchangizi et al., 2019a); disregarding these values can put patient safety and care quality at risk (Douglass et al., 2024; Schmidt & McArthur, 2018). It can also have negative consequences for the nursing student, such as low satisfaction and lack of professional commitment, which could lead to dropping out of their studies (Douglass et al., 2024; Schmidt & McArthur, 2018), further aggravating the current nursing shortage (Galbany-Estragués & Millán-Martínez, 2024). Due to its importance both for patients and nurses, and considering that these values do not develop naturally, integrating professional values in the nursing educational curriculum is vital to securing the future of nursing (Antoniou et al., 2022).

Learning about humanized care is not easily accomplished due to its subjective, complex, and ambiguous nature (Ghanbari-Afra et al., 2022). Nevertheless, scientific evidence points out that clinical instructors are in a privileged position to contribute to humanized care achievement due to their role as behavioral model for their students (Poorchangizi et al., 2019a). Thus, clinical instructors' care behavior has been observed to influence their students' care behavior positively (Labrague et al., 2015); this relationship is such that it has been demonstrated that students' perception of their teachers' care behavior serves as a guide to understanding their care behavior besides fostering self-efficacy and clinical skills (Allari et al., 2020; Wu et al., 2024).

Different studies have analyzed how students perceive clinical instructors' caring behaviors (Allari et al., 2020; Arrigoni et al., 2017; Durgun Ozan et al., 2020; Labrague et al., 2015, 2016; Meyer et al., 2016; Romero-Martín et al., 2022; Taylan et al., 2021; Zamanzadeh et al., 2015); however, no study was found in the literature examining how this perception is reflected in nursing students' professional values. Thus, this research aimed to examine the relationship between nursing students' perceptions of clinical instructor caring and students' professional values. Specifically, this study answered the following questions: i) are there existing correlations between students' perceptions of clinical instructor caring and their professional values?; ii) could the students' perceptions of clinical instructor caring be a predictive factor of their professional values?; iii) are the students' perceptions of clinical instructor caring and their professional values different according to sociodemographic characteristics?

Literature review

Nursing professional values are standards derived from the codes of ethics (International Council of Nurses, 2021). They provide a moral framework and act as guide of ethical behaviors in providing care (Poorchangizi et al., 2019b), a core component of the nursing profession (Inocian et al., 2022). Professional values, both the other-oriented values and self-oriented ones (Elliott, 2017), are fundamental to manage the multiple conflicts that arise from interactions of the nurses with patients, family and/or colleagues (Hoskins et al., 2018). When nursing professional values are well-established, nurses make better decisions about complicated ethical issues, prevent moral distress, have well-formed professional identity and provide high-quality nursing care (Kantek et al., 2017). Due to the evolution of the nursing profession, partially conditioned by technological advances, ethical dilemmas in care settings are becoming more frequent. Hence, nowadays, the promotion of professional values must be a central theme in the nursing curriculum.

Nursing professional values are not innate beliefs. In addition to being influenced by social and personal values related to culture, family or religion, among others (Carlsson, 2020; Parandeh et al., 2014), they can be taught both through the theoretical and practical formation, which takes place in the university and clinical environment, respectively (Bussard & Lawrence, 2019). However, it should be noted that students consider clinical instructors as more relevant professional role models than those in the academic setting to impact on their education (Jack et al., 2017). Taking into account that clinical instructors, whose

level of caring behavior during teaching students is medium-high (Arrigoni et al., 2017; Durgun Ozan et al., 2020; Labrague et al., 2015, 2016; Meyer et al., 2016; Romero-Martín et al., 2022; Taylan et al., 2021; Zamanzadeh et al., 2015), can influence students' development, future aspirations, and behavior as well as understanding of different ways of working with others (Felstead & Springett, 2016), they might also play a key role in developing professional values in students.

Different studies which have analyzed how nursing education can influence the development of professional values have shown contradictory results. While some research has revealed the positive effect of the nursing education on development of professional values (Kantek et al., 2017; Kavradim et al., 2019; Kaya et al., 2017; Leners et al., 2006; Özcan et al., 2012; Parandeh et al., 2014); other has failed to show a significant effect (Bang et al., 2011; Donmez & Özsoy, 2016; Fisher, 2014; Poorchangizi et al., 2019a) or has found the reverse effect (statistically higher score for second and third-year students compared with fourth-year students) (Türkmen et al., 2023). Among possible factors that could explain these inconsistent results are those closely related to the institution where the education is carried out (e.g. workloads, available resources and facilities, instructors' emotions). Thus, it has been observed that heavy workloads, scarce income or poor facilities and instructors' negative emotions (physical or mental exhaustion) impact negatively on the development of professional values (Shafakhah et al., 2018).

According to previously mentioned, evidence supports that relationship between clinical instructors and students enable students grow as caring professional nurses. However, a thorough review of the literature revealed that nursing students' perceptions of clinical instructor caring as a variable associated with students' professional values has not been analyzed. Thus, the present study was conducted. The results derived from it question the pertinence of a curriculum or years of work experience as the only criteria to become a clinical instructor.

Methods

Study design

The researchers carried out a descriptive cross-sectional study.

Study setting and participants

The study was conducted at the University of Santiago de Compostela (USC) in Galicia (North Spain), where the nursing degree is taught over a period of four years, with the first and second years conceived as the first cycle, and the third and fourth year as the second cycle. The baccalaureate program in nursing consists of 240 ECTS credits which are distributed across five modules: Common Basic Training (60 ECTS credits), Nursing Sciences (81 ECTS credits), Optional Subjects (9 ECTS credits), Supervised Work Placements (84 ECTS credits) and End of degree project (6 ECTS credits).

We included registered nursing students of both sexes, aged ≥ 18 years, who attended 2nd, 3rd and 4th-year courses during the 2023–2024 academic year and were willing to participate voluntarily. On the contrary, students who had yet to take at least one of the clinical practice or supervised practice subjects of the module Supervised Work Placements when completing the questionnaires were excluded from the study. The module Supervised Work Placements is studied in the second, third and fourth year and consists of 6 compulsory subjects, which refer to the students' practical training through clinical stays in hospitals and health centers. These subjects integrate basic and specific knowledge of the profession and the development of skills to carry out nursing care.

The study population consisted of a total of 407 nursing students (145 of the second year, 108 of the third year and 154 of the fourth year). Keeping the expected frequency of all variables at 50 %, the desirable sample size using a 95 % confidence interval came out to be 247.

Instruments

A self-reporting questionnaire was utilized to collect data. The questionnaire consists of three parts: (a) demographic information; (b) Spanish version of the Nursing Students' Perception of Instructor Caring scale (S-NSPIC) (Romero-Martín et al., 2019) and (c) Spanish version of the Nursing Professional Values (S-EVPS) scale (Basurto Hoyuelos et al., 2010). To evaluate the clarity and comprehensibility of the items as well as the filling time of the questionnaire, a pilot study was conducted with 10 participants who did not form part of the main study. The results of the pilot test indicated good comprehension of all questions.

Sociodemographic information included three closed-ended questions about sociodemographic characteristics (gender, age and year of education).

The S-NSPIC was used to study the students' perceptions of clinical instructors' caring behaviors. Students were asked to give an overall assessment of all the clinical instructors they had so far. S-NSPIC is a scale adapted from the original Nursing Students' Perceptions of Instructor Caring Scale (NSPIC) (Wade & Kasper, 2006) and validated for the Spanish context (Romero-Martín et al., 2019). This instrument consists of 29 items, with 5 subscales: a) Instills confidence through caring (items 1, 2, 6, 7, 9–13, 19–21, 29); b) Supportive learning climate (items 8, 15–18); c) Appreciation of life's meanings (items 26–28); d) Control versus flexibility (items 22–25) and; e) Professional nurse autonomy (items 3–5, 14). The S-NSPIC uses a 6-point Likert scale, ranging from "strongly disagree" to "strongly agree". Eight of the items are reverse scored (items 6, 7, 11, 22–25, 29). The total S-NSPIC score ranges from 29 to 174, with higher scores representing higher instructors' caring. S-NSPIC has demonstrated to have good internal consistency (subscale Instills confidence through caring, Cronbach's alpha coefficient (α) = 0.896; subscale Supportive learning climate, α = 0.903; subscale Appreciation of life's meanings, α = 0.888; subscale Control versus flexibility, α = 0.741; subscale Professional nurse autonomy, α = 0.852), high content validity (all CVI-I values were >0.78 except for item 16) and good concurrent validity (Spearman correlation coefficient varied between 0.536 and 0.725) (Romero-Martín et al., 2019).

The S-EVPS was used to analyse the students' perceptions of the professional values. It is a scale adapted from the original Nurses Professional Values Scale - Revised (NPVS-R) (Weis & Schank, 2009) and validated for the Spanish context (Basurto Hoyuelos et al., 2010). This instrument consists of 26 items, with 3 subscales: a) Ethics (items 13, 16, 18, 20–25); b) Professional expertise (items 3–5, 8, 10, 11, 19, 26) and; c) Professional mastery (items 1, 2, 6, 7, 9, 12, 14, 15, 17). The S-EVPS uses a 5-point Likert scale, ranging from "Not important" to "Very important". The total S-EVPS score ranges from 26 to 130, with higher scores representing greater perceptions of the professional values. The adaptation of the S-EVPS was made up of 4 phases: translation to Spanish, assessment through discussion groups and expert panels, reverse translation and review by an interdisciplinary working group, and pilot test with a group of nursing students. Confirmatory factorial analysis was used to assess reliability and feasibility of the Spanish version. S-EVPS demonstrated to have good internal consistency (subscale Ethics, α = 0.77; Subscale Professional expertise, α = 0.71; Subscale Professional mastery, α = 0.70) (Basurto Hoyuelos, 2010).

Data collection

Data were collected from 24 January 2024 through 31 July 2024. The questionnaire was distributed in electronic format (Microsoft Forms) via instant messaging groups and in person, which was filled in in the break between classes when only students were in the classroom. Once it was filled in, it was put in a cardboard ballot box that was on a desk placed at the back of the classroom. Informational posters were also displayed in nursing faculty to publicise the study. The questionnaire was anonymous and self-administered, and no incentive was offered for

completing it.

Ethical considerations

The study protocol was approved by the Bioethics Committee of the University of Santiago de Compostela. All participants were informed of the study's aims and objectives, the people in charge of research and that completing the questionnaire would be deemed consent to participate in the research. Likewise, they were also assured that the research was anonymous and that their participation was voluntary, being able to refuse to participate without any consequences. Data confidentiality was guaranteed in accordance with the Helsinki Declaration and Spain's Data Protection Act (Organic Act 3/2018).

Statistical analysis

The results were expressed as frequency and percentage distribution in the case of categorical variables, and as mean and standard deviation in the case of quantitative variables. *t*-tests and analyses of variance (ANOVA) with Bonferroni post-hoc correction were used to contrast students' sociodemographics in S-NSPIC and S-EVPS scores. To determine the direction and level of the relationship between the two scales, Pearson's relationship analysis was performed. Furthermore, multiple linear regression was used to model the predictive relationship between perceived instructor caring and students' professional values. All statistical analyses were performed using the IBM SPSS Statistics (version 27) software program, with 0.05 set as the significance level.

Results

A total of 407 nursing degree students at the University of Santiago de Compostela (145 of the second year, 108 of the third year and 154 of the fourth year) were invited to participate in the study, with a response rate of 60.9 %: 69.7 %, 56.5 % and 55.8 % of second, third and fourth year, respectively. The sociodemographic characteristics of the study sample are shown in Table 1. Most of participants were women (84.3 %) and second-year students (40.7 %), with a mean age 21.3 years (± 4.2).

Table 2 shows the mean values for the S-NSPIC and S-EVPS scales and their subscales as well as the mean values for the 29 items in the S-NSPIC scale and the 26 items in the S-EVPS scale. The average mean value and standard deviation for the S-NSPIC scale were moderate to high, with a value of 4.45 (± 0.89) out of 6. Mean values of items ranged from 3.22 to 5.35. The highest and lowest scored items were: "Helps me understand the spiritual dimensions of life" and "Respects me as an unique individual", respectively. On the other hand, the average mean value and standard deviation for the S-EVPS scale were high, with a value of 4.33 (± 0.62) out of 5. Mean values of items ranged from 3.61 to

Table 1
Sociodemographic characteristics of the sample ($n = 248$).

	Total N = 248 n (%)	Second year N = 101 n (%)	Third year N = 61 n (%)	Fourth year N = 86 n (%)
Age (mean, standard deviation)	21.3 (4.2)	20.3 (1.4)	21.57 (4.6)	22.4 (5.6)
Gender				
Female	209 (84.3)	81 (80.2)	51 (83.6)	77 (89.5)
Male	37 (14.9)	19 (18.8)	9 (14.8)	9 (10.5)
Other	1 (0.4)	1 (1)	0	0
Prefer not to answer	1 (0.4)	0	1 (1.6)	0
Year of course				
Second year	101 (40.7)	–	–	–
Third year	61 (24.6)	–	–	–
Fourth year	86 (34.7)	–	–	–

Table 2

Mean values of Nursing Students' Perceptions of Instructor Caring (S-NSPIC) and Students' Professional Values (S-EVPS) subscales and items. S-NSPIC uses a 6-point Likert scale (1, strongly disagree; 6, strongly agree). S-EVPS uses a 5-point Likert scale (1, Not important; 5, Very important). ^aIndicates reverse-scored. Abbreviations: I. Item; M. Mean; SD. Standard deviation.

S-NSPIC subscales and items	M (SD)	S-EVPS subscales and items	M (SD)
INSTILLS CONFIDENCE THROUGH CARING	4.78 (0.793)	ETHICS	4.48 (0.661)
I1. Shows genuine interest in patients and their care	4.94 (1.145)	I13. Assume responsibility for meeting health needs of the culturally diverse population	4.21 (0.959)
I2. Displays kindness to me and others.	4.90 (1.040)	I16. Protect moral and legal rights of patients	4.62 (0.727)
I6. Makes me feel like a failure ^a	4.75 (1.625)	I18. Act as a patient advocate	4.51 (0.737)
I7. Does not believe in me ^a	5.11 (1.266)	I20. Provide care without prejudice to patients of varying lifestyles	4.55 (0.746)
I9. Respects me as an unique individual	5.35 (0.987)	I21. Safeguard patient's right to privacy	4.58 (0.775)
I10. Is attentive to me when we communicate	4.80 (1.151)	I22. Confront practitioners with questionable or inappropriate practice	4.13 (1.124)
I11. Inappropriately discloses personal information about me to others ^a	5.28 (1.329)	I23. Protect rights of participants in research	4.49 (0.839)
I12. Acknowledges his or her own limitations or mistakes	3.93 (1.523)	I24. Practice guided by principles of fidelity and respect for person	4.60 (0.696)
I13. Makes himself or herself available to me.	4.81 (1.278)	I25. Maintain confidentiality of patient	4.60 (0.813)
I19. Encourages independent problem solving	4.67 (1.205)	PROFESSIONAL EXPERTISE	4.12 (0.795)
I20. Inspires me to continue my knowledge and skill development.	4.76 (1.226)	I3. Protect health and safety of the public	4.57 (0.651)
I21. Does not Make me nervous in the clinical laboratory	4.75 (1.261)	I4. Participate in public policy decisions affecting distribution of resources	4.02 (0.926)
I29. Is inflexible when faced with unexpected situations (happenings) ^a	4.10 (1.569)	I5. Participate in peer review	3.61 (1.104)
SUPPORTIVE LEARNING CLIMATE	4.24 (1.304)	I8. Initiate actions to improve	4.15 (0.957)
I8. Cares about me as a person	4.32 (1.585)	I10. Advance the profession through active involvement in health-related activities	4.26 (0.968)
I15. Serves as a trusted resource for personal problem solving.	3.76 (1.614)	I11. Recognize role of professional nursing associations in shaping health care policy	4.25 (0.944)
I16. Offers support during stressful times	4.74 (1.319)	I19. Participate in nursing research and/or implement research findings appropriate to practice	4.09 (1.030)
I17. Accepts my negative feelings, while helping me to see the positive	4.12 (1.418)	I26. Participate in activities of professional nursing associations	3.98 (1.014)
I18. Allows me to express my true feelings.	4.27 (1.471)	PROFESSIONAL MASTERY	4.38 (0.679)
APPRECIATION OF LIFE'S MEANINGS	3.59 (1.436)	I1. Engage in on-going self-evaluation	4.11 (1.000)
I26. Helps me find personal meaning in my experiences	3.55 (1.552)	I2. Request consultation/ collaboration when unable to meet patient needs	4.46 (0.814)
I27. Encourages me to see others' perspectives about life	4.01 (1.552)	I6. Establish standards as a guide for practice	4.29 (0.781)
I28. Helps me understand the spiritual dimensions of life	3.22 (1.574)	I7. Promote and maintain standards where planned learning activities for students take place	4.36 (0.798)

Table 2 (continued)

S-NSPIC subscales and items	M (SD)	S-EVPS subscales and items	M (SD)
CONTROL VERSUS FLEXIBILITY	4.29 (1.195)	I9. Seek additional education to update knowledge and skills	4.31 (0.910)
I22. Does not trust my judgment in the clinical laboratory ^a	4.51 (1.468)	I12. Promote equitable access to nursing and health care	4.44 (0.822)
I23. Seems caught up in his or her own priorities, rather than responding to my needs ^a	3.96 (1.546)	I14. Accept responsibility and accountability for own practice	4.54 (0.719)
I24. Makes demands on my time that interfere with my basic personal needs ^a	4.65 (1.449)	I15. Maintain competency in area of practice	4.52 (0.708)
I25. Focuses on completion of patient care tasks, rather than the patient's needs ^a	4.03 (1.581)	I17. Refuse to participate in care if in ethical opposition to own professional values	4.35 (0.936)
PROFESSIONAL NURSE AUTONOMY	4.49 (1.297)	S-EVPS total	4.33 (0.615)
I3. Instills in me a sense of hopefulness for the future	4.12 (1.650)		
I4. Makes me feel that I can be successful	4.45 (1.461)		
I5. Helps me envision myself as a professional nurse	4.80 (1.358)		
I14. Clearly communicates his or her expectations	4.42 (1.424)		
S-NSPIC total	4.45 (0.890)		

4.62. The highest and lowest scored items were "Participate in peer review" and "Protect moral and legal rights of patients", respectively.

To have an overall view of instructors' caring behaviors and students' professional values, the mean score of the S-NSPIC and S-EVPS scales and their subscales were computed (Table 3). For the total S-NSPIC scale, the mean score was 129.08 ± 25.821, and the highest and lowest scored subscales were: Confidence through caring (62.15 ± 10.312) and Appreciation of life's meanings (10.78 ± 4.308), respectively. For the total S-EVPS scale, the mean score was 112.61 ± 16.001, and the highest and lowest scored subscales were: Ethics (40.29 ± 5.949) and Professional expertise (32.93 ± 6.356), respectively.

Bivariate analysis was generated to investigate the relation between the total mean value of the scales or individual subscales mean values and nursing students' characteristics (Supplementary material). Regarding gender-related differences, no statistically significant

Table 3

Mean scores of Nursing Students' Perceptions of Instructor Caring (S-NSPIC) and Students' Professional Values (S-EVPS) subscales. The total S-NSPIC score ranges from 29 to 174, with higher scores representing higher instructors' caring. The total S-EVPS score ranges from 26 to 130, with higher scores representing greater perceptions of the professional values. * Percentages are calculated relative to maximum score. Abbreviations: M. Mean; SD. Standard deviation.

Scale and Subscales	M	SD	Score ranges	%*
NURSING STUDENTS' PERCEPTIONS OF INSTRUCTOR CARING (S-NSPIC)				
Instills confidence through caring	62.15	10.312	13–78	75.62
Supportive learning climate	21.21	6.521	5–30	64.84
Appreciation of life's meanings	10.78	4.308	3–18	51.87
Control versus flexibility	17.15	4.779	4–24	65.75
Professional nurse autonomy	17.95	5.186	4–24	69.75
S-NSPIC total	129.08	25.821	29–174	69.02
STUDENTS' PROFESSIONAL VALUES (S-EVPS)				
Ethics	40.29	5.949	9–45	86.92
Professional expertise	32.93	6.356	8–40	77.91
Professional mastery	39.39	6.113	9–45	84.42
S-EVPS total	112.61	16.001	26–130	83.28

difference was found between men and women. However, as per year of course differences in S-NSPIC mean values, we found that Control versus flexibility and Professional nurse autonomy had significantly higher scores in second-year students compared to fourth ($p = 0.004$) and third-year ($p = 0.045$). On the contrary, no statistically significant differences in S-EVPS mean values were found depending on the course the students were registered for.

Table 4 shows the correlation between the S-NSPIC scores and the scores obtained from the total S-EVPS and all its subscales. The S-NSPIC correlated significantly with the S-EVPS ($r = 0.279$, $p \leq 0.01$). Furthermore, there was a low-moderate but significant correlation between all subscales in the S-NSPIC and the subscales in the S-EVPS when considered individually.

The predictive ability of the subscales in the S-NSPIC was analyzed by regressing S-EVPS on the five S-NSPIC subscales. Among subscales that predicted the S-EVPS, a R^2 of 0.071 was obtained, showing that 7 % of the variance in the S-EVPS was explained by one subscale (confidence through caring) in the S-NSPIC ($p < 0.001$). Other subscales did not contribute to explaining students' professional values.

Discussion

The present study found that nursing students had overall positive perceptions of the caring behavior of clinical instructors (mean value on subscales ranging from 3.22 to 5.35) who exhibited concerned for the patient's well-being, inspiring confidence and competence in them. Furthermore, it was observed that the perceived instructor caring was weak but significantly correlated ($r = 0.279$, $p < 0.001$) with students' professional values (subscale "confidence through caring" explained 7 % of the total EVPS score). To the best of our knowledge, this study is the first to highlight the relationship between nursing students' perceptions of clinical instructors' expressive caring behaviors and professional values.

Overall, the mean value of the NSPIC scale was 4.42 (out of a possible 6), and the mean score of the NSPIC was 129.08 (out of a possible 174), which indicates that the students perceived a relatively high level of care

Table 4
Correlation between the scores of the scales S-NSPIC (Nursing Students' Perceptions of Instructor Caring) and S-EVPS (Nursing Professional Values). S-NSPIC and S-EVPS consist of 5 and 3 subscales, respectively. Statistical significance ($p < 0.05$) was determined by Pearson's correlation analysis.

		S-EVPS total	Ethics	Professional expertise	Professional mastery
S-NSPIC total	r	0.279	0.230	0.226	0.271
	value				
	p-value	0.000	0.000	0.000	0.000
Instills confidence through caring	r	0.256	0.227	0.175	0.268
	value				
	p-value	0.000	0.000	0.006	0.000
Supportive learning climate	r	0.231	0.163	0.214	0.223
	value				
	p-value	0.000	0.010	0.001	0.000
Appreciation of life's meanings	r	0.227	0.166	0.230	0.193
	value				
	p-value	0.000	0.009	0.000	0.002
Control versus flexibility	r	0.166	0.141	0.125	0.167
	value				
	p-value	0.009	0.027	0.049	0.009
Professional nurse autonomy	r	0.267	0.241	0.212	0.244
	value				
	p-value	0.000	0.000	0.001	0.000

from their clinical instructors. This finding was similar to that obtained in other studies carried out with nursing students (Meyer et al., 2016; Romero-Martín et al., 2022; Taylan et al., 2021; Zamanzadeh et al., 2015) and even better than what was observed by Arrigoni et al. (2017), Labrague et al. (2015, 2016), Durgun Ozan et al. (2020) and Allari et al. (2020). However, it is still concerning that our result was not better considering that caring, with its two dimensions (expressive and instrumental), is the fundamental core of nursing (Inocian et al., 2022) and which has been demonstrated to contribute to strengthening the health and well-being of patients (Tanaka et al., 2024). Accordingly, and considering that human caring can be learned and taught through nursing education (Antonioni et al., 2022), nursing training should focus on caring so that students can develop their professional role as caregivers (Durgun Ozan et al., 2020; Su et al., 2021).

While performing their caregiving functions, nurses frequently must make decisions about complicated ethical issues, which are guided by their professional values (Gassas & Salem, 2022). According to our results, nursing students in the present study had high professional values, generally higher than those previously published (Aydn et al., 2022; Dellafiore et al., 2022; Du et al., 2022; Evrenol Oçal & Terzioğlu, 2022; Hui et al., 2019; İlaslan et al., 2021; Kavradım et al., 2019; McHan et al., 2022; Peng et al., 2022; Poorchangizi et al., 2019a, 2019b; Tuna & Sahin, 2021). This finding is remarkable, considering that positive nursing professional values have beneficial implications for the individual (Başoğul et al., 2021; Hui et al., 2019) and the whole nursing staff (Başoğul et al., 2021), the patients (Başoğul et al., 2021), and the organization where the activity is carried out (Kaya & Boz, 2019). Additionally, we must remember that this ultimately results in improved patient care (Boozaripour et al., 2018) and increased patient satisfaction (Kaya & Boz, 2019; Schmidt & McArthur, 2018).

In the USC nursing degree, clinical practice is taught in hospitals or health centers under clinical instructors' supervision. Students learn in a real-world context during clinical practice and transfer theory into practice (Collier, 2018). This clinical training, considered vital in nursing education (Collier, 2018), constitutes a significant part of the nursing degree curriculum. Specifically, in the USC nursing degree, this training represents 35 % of their education (84 out of 240 ECTS). Clinical instructors are essential agents in programming clinical experiences (Labrague et al., 2016); however, when positive caring instructor-student relationships are developed, they also facilitate the professionalism and the acquisition of a caring attitude, practical communication skills, and clinical skills of the students while increasing the self-confidence, self-efficacy, and motivation and substantially decreasing anticipated anxiety and fear associated with the clinical setting (Allari et al., 2020; Henderson et al., 2019; Hu et al., 2022; Inocian et al., 2022; Luciani et al., 2024; Meyer et al., 2016; Suliman & Warshawski, 2022; Zamanzadeh et al., 2015). In addition to the above benefits, it has been demonstrated that caring-based clinical education helps to increase graduation rates by influencing factors affecting nursing students' retention (Guzzardo et al., 2021; McEnroe-Petitte, 2011). Successful completion of nursing programs is a matter of great importance, because the dropout rate in the USC nursing degree (dropout rate of 34.75 in the 2022–2023 academic year) (<https://www.usc.gal/gl/estudios/graos/ciencias-saude/grao-enfermaria>) is quite high, which aggravates the current nursing shortage in Spain (Galbany-Estragués & Millán-Martínez, 2024).

The acquisition of professional values begins when a student enters university, and subsequently, these values are modified through education and clinical experiences (Antonioni et al., 2022). However, in our study, no significant differences in S-EVPS mean values were found depending on the course the students were registered for. Although it could be thought that the nursing program from the second year onwards provides substantially similar opportunities for students to gain professional values, we must not forget either that professional values are influenced by personal values related to family, culture, or religion (Poorchangizi et al., 2019a; Türkmen et al., 2023). Furthermore,

recently, [Tuna and Sahin \(2021\)](#) have highlighted the love for the profession as a factor that could increase the perception of professional values. In the case of the USC nursing degree, this could justify the lack of differences between second and fourth-year students since the students less interested in the degree, primarily those who enrolled in nursing after not achieving the necessary grade to enter medicine ([Canzan et al., 2022](#)), do not pass to the second year, as they usually drop out in the first year (dropping out rate during the first year: 23.31) (<https://www.usc.gal/gl/estudios/graos/ciencias-saude/grao-enfermeria>).

In the present study, “Instills confidence through caring” was the only subscale that contributed to explaining students’ professional values. Likewise, among the caring behaviors, students in this study identified their instructors’ concern for patient care inspiring confidence and competence (as measured by instills confidence through caring subscale) as the most frequently observed caring behavior of their instructors. This finding is similar to that of previous studies, ([Allari et al., 2020](#); [Fifer, 2019](#); [Labrague et al., 2016](#); [Luciani et al., 2024](#); [Taylan et al., 2021](#)), where students ranked the “instills confidence through caring” subscale as the highest, probably because nursing students value behaviors that support and help them grow as caring professionals the most. According to these findings, and considering that professional values are strongly associated with student persistence in the nursing degree ([Guo et al., 2018](#); [Wu et al., 2020](#)), the selection of clinical instructors with highly expressive caring behaviors (e.g., kindness, hopefulness, genuine interest, trust, inspiration, respect, and active listening) could help reduce the dropout rate among 2nd to 4th-year nursing students at USC, which according to the latest available data was 8 % (8 out of 102 students dropped out of the USC nursing degree in the second to fourth years, unpublished data). This knowledge would, in turn, help combat the nurse shortage in hospitals and health centers, and consequently, besides the issues arising from it (burnout, overload, job dissatisfaction, ...) ([Haddad et al., 2023](#); [Tamata & Mohammadnezhad, 2023](#)).

This study has some limitations. Firstly, the results of this study only included data from nursing students of one university in Spain who do their clinical practices in university hospitals, health centers, or psychiatric hospitals, so they may not sufficiently represent the general nursing students (e.g., those who do their clinical practices in private or concerted hospitals). Secondly, in our study there is no homogeneous distribution of males and females (females 84.3 %), which could have contributed to the lack of differences between them in terms of professional values, unlike what has been previously reported ([Aydin et al., 2022](#)). Although nursing remains a female-dominated profession ([Huang et al., 2024](#)), and these data indeed reflect the distribution by gender in the USC nursing degree, more studies among male nursing students are necessary to perform subgroup analyses that highlight potential gender differences. Thirdly, as students filled out questionnaires, there may be some information or self-report bias. Fourthly, since students have more than one instructor per clinical practice or supervised practice subject (men and women), it is not possible to know if instructors’ caring behaviors are consistent among male and female clinical instructors. Lastly, Spanish versions of the scales have a different factorial structure than the original versions, with dimensions having different names and items loading on various factors, which complicates cross-country comparability. For example, the dimension “Respectful sharing” is not considered in the S-NSPIC since its items are included in the dimension “Instills confidence through caring” or the item “seems caught up in her/his priorities rather than responding to my needs” is part of the dimension “Control versus flexibility” in the S-NSPIC instead of being included in the dimension “Supportive learning climate.”

Conclusion

Our findings show the role of clinical instructors in shaping students’ professional values, with instructors’ expressive caring behavior playing

a key role in the relationship between perceived caring behaviors and students’ professionalism. These findings highlight the importance of instructors as role models in facilitating the development of students’ professional values. The clinical instructors should be selected not only taking into account their curriculum and years of work experience, as is currently done, but also by their caring abilities and behaviors, which, according to the results of the present study, have ample room for improvement (4.45 out of 6). These results might indirectly influence nursing student retention at our university, a recently worsened problem that raises many concerns and needs to be addressed.

CRedit authorship contribution statement

Eva María Domínguez-Martís: Writing – review & editing, Writing – original draft, Visualization, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Laura López-González:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Conceptualization. **María Jesús Núñez-Iglesias:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Conceptualization. **Manuel Freire-Garabal-Núñez:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Conceptualization. **Ana Fernández-Feito:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Diego Gabriel Mosteiro-Miguéns:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Silvia Novío:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.profnurs.2025.06.001>.

Data availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- Allari, R. S., Atout, M., & Hasan, A. A. (2020). The value of caring behavior and its impact on students’ self-efficacy: Perceptions of undergraduate nursing students. *Nursing Forum*, 55(2), 259–266. <https://doi.org/10.1111/nuf.12424>
- Alsadat Hosseini, F., & Momennasab, M. (2020). Nursing student experiences of caring for burned patient: From fearfulness to normalization. *Investigación y Educación en Enfermería*, 38(1), Article e09. <https://doi.org/10.17533/udea.iee.v38n1e09>
- Antoniou, C., Clifton, R., & Wilson, V. (2022). Professional values in student nurse education: An integrative literature review. *Nursing Ethics*, 29(6), 1323–1340. <https://doi.org/10.1177/09697330221085772>

- Arrigoni, C., Puci, M., Grugnetti, A. M., Collivasono, L., Fenizia, E., Borrelli, P., ... De Marinis, M. G. (2017). Italian version of nursing students' perception of instructor caring (I-NSPIC): Assessment of reliability and validity. *BMC Medical Education*, 17(1), 218. <https://doi.org/10.1186/s12909-017-1032-y>
- Aydın, G.Ö., Turan, N., İrmak, A. Y., Çelikalkp, Ü., Aygün, A., & Çakır, Z. (2022). Nursing students' individual values, inclination to ethical and professional values. *Perspectives in Psychiatric Care*, 58(2), 850–860. <https://doi.org/10.1111/ppc.12863>
- Bang, K. S., Kang, J. H., Jun, M. H., Kim, H. S., Son, H. M., Yu, S. J., ... Kim, J. S. (2011). Professional values in Korean undergraduate nursing students. *Nurse Education Today*, 31(1), 72–75. <https://doi.org/10.1016/j.nedt.2010.03.019>
- Başoğlu, C., Baysan Arabacı, L., Mutlu Satıl, E., & Büyükbayram Aslan, A. (2021). Professional values and professional quality of life among mental health nurses: A cross-sectional study. *Nursing & Health Sciences*, 23(2), 362–371. <https://doi.org/10.1111/nhs.12811>
- Basurto Hoyuelos, S. (2010). Los valores en la profesión enfermera: validación de un cuestionario escala [Doctoral dissertation, Universidad del País Vasco - Euskal Herriko Unibertsitatea]. TESEO Repository. <https://www.educacion.gob.es/teseo/imprimirFicheroTesis.do?idFichero=Pzfz1zn82Mk%3D>
- Basurto Hoyuelos, S., Fraile, C. L., Weis, D., Urien, E. d. L., Eldsen, C. A., & Schank, M. J. (2010). Nursing professional values: Validation of a scale in a Spanish context. *Nurse Education Today*, 30(2), 107–112. <https://doi.org/10.1016/j.nedt.2009.05.010>
- Boozaripour, M., Abbaszadeh, A., Shahriari, M., & Borhani, F. (2018). Ethical values in nurse education perceived by students and educators. *Nursing Ethics*, 25(2), 253–263. <https://doi.org/10.1177/0969733017707009>
- Bussard, M. E., & Lawrence, N. (2019). Role modeling to teach communication and professionalism in prelicensure nursing students. *Teaching and Learning in Nursing*, 14(3), 219–223. <https://doi.org/10.1016/j.teln.2019.04.005>
- Canzan, F., Saiani, L., Mezzalana, E., Allegrini, E., Calhoro, A., & Ambrosi, E. (2022). Why do nursing students leave bachelor program? Findings from a qualitative descriptive study. *BMC Nursing*, 21(1), 71. <https://doi.org/10.1186/s12912-022-00851-z>
- Carlsson, M. (2020). Self-reported competence in female and male nursing students in the light of theories of hegemonic masculinity and femininity. *Journal of Advanced Nursing*, 76(1), 191–198. <https://doi.org/10.1111/jan.14220>
- Collier, A. D. (2018). Characteristics of an effective nursing clinical instructor: The state of the science. *Journal of Clinical Nursing*, 27(1–2), 363–374. <https://doi.org/10.1111/jocn.13931>
- Dellafiore, F., Rosa, D., Udugampolage, N. S., Villa, G., & Albanesi, B. (2022). Professional values and nursing self-efficacy in the Italian context. Correlational descriptive study. *Scandinavian Journal of Caring Sciences*, 36(1), 142–149. <https://doi.org/10.1111/scs.12971>
- Donmez, R. O., & Ozsoy, S. (2016). Factors influencing development of professional values among nursing students. *Pakistan Journal of Medical Sciences*, 32(4), 988–993. <https://doi.org/10.12669/pjms.324.10616>
- Douglass, B., Stager, S. L., Shaw, K., Hite, A., Solecki, S., Stanik-Hutt, J., & Tufts, G. (2024). Professional identity in nursing: Why it is important in graduate education. *Journal of Professional Nursing: Official Journal of the American Association of Colleges of Nursing*, 52, 50–55. <https://doi.org/10.1016/j.profnurs.2024.03.004>
- Du, J., Huang, S., Lu, Q., Ma, L., Lai, K., & Li, K. (2022). Influence of empathy and professional values on ethical decision-making of emergency nurses: A cross sectional study. *International Emergency Nursing*, 63, Article 101186. <https://doi.org/10.1016/j.ienj.2022.101186>
- Durgun Ozan, Y., Duman, M., Çiçek, Ö., & Boz, İ. (2020). The Turkish version of the nursing students' perceptions of instructor caring scale: An assessment of psychometric properties. *Perspectives in Psychiatric Care*, 56(1), 194–200. <https://doi.org/10.1111/ppc.12411>
- Elliott, A. M. (2017). Identifying professional values in nursing: An integrative review. *Teaching and Learning in Nursing*, 12(3), 201–206. <https://doi.org/10.1016/j.teln.2017.02.002>
- Evrenol Öçal, S., & Terzioğlu, F. (2022). Determining the relationship between magnet properties of hospitals and the professional values of the nurses: A cross-sectional study. *Journal of Nursing Management*, 30(4), 1027–1041. <https://doi.org/10.1111/jonm.13589>
- Felstead, I. S., & Springett, K. (2016). An exploration of role model influence on adult nursing students' professional development: A phenomenological research study. *Nurse Education Today*, 37, 66–70. <https://doi.org/10.1016/j.nedt.2015.11.014>
- Fifer, P. (2019). Associate degree nursing students' perceptions of instructor caring. *Teaching and Learning in Nursing*, 14(2), 103–110. <https://doi.org/10.1016/j.teln.2018.12.006>
- Fisher, M. (2014). A comparison of professional value development among pre-licensure nursing students in associate degree, diploma, and bachelor of science in nursing programs. *Nursing Education Perspectives*, 35(1), 37–42. <https://doi.org/10.5480/11-729.1>
- Galbany-Estragués, P., & Millán-Martínez, P. (2024). Escasez de enfermeras en España: del Caso global a la situación particular. Informe SESPAS 2024 [shortage of nurses in Spain: From the global case to particular situation. SESPAS report 2024]. *Gaceta Sanitaria*, 38(Suppl. 1), Article 102376. <https://doi.org/10.1016/j.gaceta.2024.102376>
- Gassas, R., & Salem, O. (2022). Factors affecting nurses' professional values: A comprehensive integrative review. *Nurse Education Today*, 118, Article 105515. <https://doi.org/10.1016/j.nedt.2022.105515>
- Ghanbari-Afra, L., Adib-Hajbaghery, M., & Dianati, M. (2022). Human caring: A concept analysis. *Journal of Caring Sciences*, 11(4), 246–254. <https://doi.org/10.34172/jcs.2022.21>
- Guo, Y. J., Yang, L., Ji, H. X., & Zhao, Q. (2018). Caring characters and professional identity among graduate nursing students in China-A cross sectional study. *Nurse Education Today*, 65, 150–155. <https://doi.org/10.1016/j.nedt.2018.02.039>
- Guzzardo, M. T., Khosla, N., Adams, A. L., Bussmann, J. D., Engelman, A., Ingraham, N., ... Taylor, S. (2021). "The ones that care make all the difference": Perspectives on student-faculty relationships. *Innovative Higher Education*, 46(1), 41–58. <https://doi.org/10.1007/s10755-020-09522-w>
- Haddad, L. M., Annamaraju, P., & Toney-Butler, T. J. (2023). Nursing shortage. <https://www.ncbi.nlm.nih.gov/books/NBK493175/>
- Henderson, D., Sewell, K. A., & Wei, H. (2019). The impacts of faculty caring on nursing students' intent to graduate: A systematic literature review. *International Journal of Nursing Sciences*, 7(1), 105–111. <https://doi.org/10.1016/j.ijnss.2019.12.009>
- Hoskins, K., Grady, C., & Ulrich, C. M. (2018). Ethics education in nursing: Instruction for future generations of nurses. *The Online Journal of Issues in Nursing*, 23(1). <https://doi.org/10.3912/OJIN.Vol23No01Man03>
- Hu, S., Chen, J., Jiang, R., Hu, H., Hu, Z., Gao, X., & Chen, W. (2022). Caring ability of nursing students pre- and post-internship: A longitudinal study. *BMC Nursing*, 21(1), 133. <https://doi.org/10.1186/s12912-022-00921-2>
- Huang, J., Sun, H., & Tian, B. (2024). Male students' perceptions of the nursing profession: A qualitative study. *Risk Management and Healthcare Policy*, 17, 1027–1035. <https://doi.org/10.2147/RMHP.S455160>
- Hui, Z., Dai, X., & Wang, X. (2019). Mediating effects of empathy on the association between nursing professional values and professional quality of life in Chinese female nurses: A cross-sectional survey. *Nursing Open*, 7(1), 411–418. <https://doi.org/10.1002/nop.2.404>
- İlaslan, E., Geçkil, E., Kol, E., & Erkul, M. (2021). Examination of the professional values of the nurses and the associated factors. *Perspectives in Psychiatric Care*, 57(1), 56–65. <https://doi.org/10.1111/ppc.12524>
- Inocian, E. P., Hill, M. B., Felcilda-Reynaldo, R. F. D., Kelly, S. H., Paragas, E. D., & Turk, M. T. (2022). Factors in the clinical learning environment that influence caring behaviors of undergraduate nursing students: An integrative review. *Nurse Education in Practice*, 63, Article 103391. <https://doi.org/10.1016/j.nepr.2022.103391>
- International Council of Nurses. (2021). The ICN code of ethics for nurses. https://www.icn.ch/sites/default/files/2023-06/ICN_Code-of-Ethics_EN_Web.pdf
- Jack, K., Hamshire, C., & Chambers, A. (2017). The influence of role models in undergraduate nurse education. *Journal of Clinical Nursing*, 26(23–24), 4707–4715. <https://doi.org/10.1111/jocn.13822>
- Kantek, F., Kaya, A., & Gezer, N. (2017). The effects of nursing education on professional values: A longitudinal study. *Nurse Education Today*, 58, 43–46. <https://doi.org/10.1016/j.nedt.2017.08.004>
- Kavradım, S. T., Akgün, M., Özer, Z., & Boz, İ. (2019). Perception of compassion and professional values in nursing students: A cross-sectional multivariate analysis from Turkey. *Nurse Education in Practice*, 41, Article 102652. <https://doi.org/10.1016/j.nepr.2019.102652>
- Kaya, A., & Boz, İ. (2019). The development of the professional values model in nursing. *Nursing Ethics*, 26(3), 914–923. <https://doi.org/10.1177/0969733017730685>
- Kaya, H., İşik, B., Şenyuva, E., & Kaya, N. (2017). Personal and professional values held by baccalaureate nursing students. *Nursing Ethics*, 24(6), 716–731. <https://doi.org/10.1177/0969733015624488>
- Kitson, A., Carr, D., Conroy, T., Feo, R., Grønkrjær, M., Huisman-de Waal, G., ... Wengström, Y. (2019). Speaking up for fundamental care: The ILC aalborg statement. *BMJ Open*, 9(12), Article e033077. <https://doi.org/10.1136/bmjopen-2019-033077>
- Labrague, L. J., McEnroe-Petitte, D. M., Papathanasiou, I. V., Edet, O. B., & Arulappan, J. (2015). Impact of instructors' caring on students' perceptions of their own caring behaviors. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 47(4), 338–346. <https://doi.org/10.1111/jnu.12139>
- Labrague, L. J., McEnroe-Petitte, D. M., Papathanasiou, I. V., Edet, O. B., Arulappan, J., Tsaras, K., & Fronda, D. C. (2016). Nursing students' perceptions of their instructors' caring behaviors: A four-country study. *Nurse Education Today*, 41, 44–49. <https://doi.org/10.1016/j.nedt.2016.03.013>
- Leners, D. W., Roehrs, C., & Piccone, A. V. (2006). Tracking the development of professional values in undergraduate nursing students. *The Journal of Nursing Education*, 45(12), 504–511. <https://doi.org/10.3928/01484834-20061201-06>
- Luciani, M., Ardenghi, S., Rampoldi, G., Russo, S., Bani, M., Strepparava, M. G., ... Ausili, D. (2024). Caring for nursing students is caring for patients: A multicentre cross-sectional study on the relationship between nursing students' caring and the perception of instructors' caring. *Nurse Education Today*, 137, Article 106154. <https://doi.org/10.1016/j.nedt.2024.106154>
- McEnroe-Petitte, D. (2011). Impact of faculty caring on student retention and success. *Teaching and Learning in Nursing*, 6(2), 80–83. <https://doi.org/10.1016/j.teln.2010.12.005>
- McHan, K., Johnston-Taylor, E., Piscopo, B., Abate, E., & Dehom, S. (2022). Nursing values and moral identity in baccalaureate nursing students. *Journal of Professional Nursing: Official Journal of the American Association of Colleges of Nursing*, 39, 171–176. <https://doi.org/10.1016/j.profnurs.2022.01.009>
- Meyer, G.-M., Nel, E., & Downing, C. (2016). Basic student nurse perceptions about clinical instructor caring. *Health SA Gesondheid (Online)*, 21(1), 444–452. <https://doi.org/10.1016/j.hsag.2016.09.004>
- Özcan, M., Akpınar, A., & Ergin, A. B. (2012). Personal and professional values grading among midwifery students. *Nursing Ethics*, 19(3), 399–407. <https://doi.org/10.1177/0969733011433921>
- Parandeh, A., Khaghanizade, M., Mohammadi, E., & Mokhtari Nouri, J. (2014). Factors influencing development of professional values among nursing students and instructors: A systematic review. *Global Journal of Health Science*, 7(2), 284–293. <https://doi.org/10.5539/gjhs.v7n2p284>
- Peng, C., Chen, Y., Zeng, T., Wu, M., Yuan, M., & Zhang, K. (2022). Relationship between perceived organizational support and professional values of nurses: Mediating effect

- of emotional labor. *BMC Nursing*, 21(1), 142. <https://doi.org/10.1186/s12912-022-00927-w>
- Poorchangizi, B., Borhani, F., Abbaszadeh, A., Mirzaee, M., & Farokhzadian, J. (2019a). The importance of professional values from nursing students' perspective. *BMC Nursing*, 18, 26. <https://doi.org/10.1186/s12912-019-0351-1>
- Poorchangizi, B., Borhani, F., Abbaszadeh, A., Mirzaee, M., & Farokhzadian, J. (2019b). Professional values of nurses and nursing students: A comparative study. *BMC Medical Education*, 19(1), 438. <https://doi.org/10.1186/s12909-019-1878-2>
- Romero-Martín, M., Gómez-Salgado, J., de la Fuente-Ginés, M., Macías-Seda, J., García-Díaz, A., & Ponce-Blandón, J. A. (2019). Assessment of reliability and validity of the Spanish version of the nursing students' perception of instructor caring (S-NSPIC). *PLoS One*, 14(2), Article e0212803. <https://doi.org/10.1371/journal.pone.0212803>
- Romero-Martín, M., Safont-Montes, J. C., Robles-Romero, J. M., Jiménez-Picón, N., da Costa, E. I. M. T., & Gómez-Salgado, J. (2022). Caring behaviours demonstrated to nursing students in the interpersonal relation with the faculty: A cross sectional study. *Nurse Education Today*, 119, Article 105612. <https://doi.org/10.1016/j.nedt.2022.105612>
- Schmidt, B. J., & McArthur, E. C. (2018). Professional nursing values: A concept analysis. *Nursing Forum*, 53(1), 69–75. <https://doi.org/10.1111/nuf.12211>
- Shafakhah, M., Molazem, Z., Khademi, M., & Sharif, F. (2018). Facilitators and inhibitors in developing professional values in nursing students. *Nursing Ethics*, 25(2), 153–164. <https://doi.org/10.1177/0969733016664981>
- Su, J. J., Paguio, J. T., Masika, G. M., Wang, M., & Redding, S. R. (2021). Learning compassionate care: Experiences of nursing students. *Nurse Education in Practice*, 53, Article 103092. <https://doi.org/10.1016/j.nepr.2021.103092>
- Suliman, M., & Warshawski, S. (2022). Nursing students' satisfaction with clinical placements: The contribution of role modeling, epistemic authority, and resilience—a cross-sectional study. *Nurse Education Today*, 115, Article 105404. <https://doi.org/10.1016/j.nedt.2022.105404>
- Tamata, A. T., & Mohammadnezhad, M. (2023). A systematic review study on the factors affecting shortage of nursing workforce in the hospitals. *Nursing Open*, 10(3), 1247–1257. <https://doi.org/10.1002/nop2.1434>
- Tanaka, M., Kawakami, A., Sakagami, K., Terai, T., & Ito, H. (2024). Influence of multidisciplinary team care with abundant nurse staffing on patient-reported outcomes among patients with inflammatory bowel disease in clinical remission. *Health and Quality of Life Outcomes*, 22(1), 44. <https://doi.org/10.1186/s12955-024-02247-w>
- Taylan, S., Özkan, İ., & Çelik, G. K. (2021). Relationship between nursing students' perceptions of clinical instructor caring and their professional behaviors. *Perspectives in Psychiatric Care*, 57(2), 827–835. <https://doi.org/10.1111/ppc.12621>
- Tuna, R., & Sahin, S. (2021). The effect of professional values of nurses on their attitudes towards caregiving roles. *International Journal of Nursing Practice*, 27(1), Article e12879. <https://doi.org/10.1111/ijn.12879>
- Türkmen, E., Vaizoglu, D., Yesilyurt, T., & Uysal, N. (2023). Effect of moral sensitivity on professional values of undergraduate nursing students: Mediating effect of empathic tendency. *Journal of Professional Nursing: Official Journal of the American Association of Colleges of Nursing*, 49, 44–51. <https://doi.org/10.1016/j.profnurs.2023.08.013>
- Wade, G. H., & Kasper, N. (2006). Nursing students' perceptions of instructor caring: An instrument based on Watson's theory of transpersonal caring. *The Journal of Nursing Education*, 45(5), 162–168. <https://doi.org/10.3928/01484834-20060501-05>
- Weis, D., & Schank, M. J. (2009). Development and psychometric evaluation of the nurses professional values scale—revised. *Journal of Nursing Measurement*, 17(3), 221–231. <https://doi.org/10.1891/1061-3749.17.3.221>
- Wu, C., Palmer, M. H., & Sha, K. (2020). Professional identity and its influencing factors of first-year post-associate degree baccalaureate nursing students: A cross-sectional study. *Nurse Education Today*, 84, Article 104227. <https://doi.org/10.1016/j.nedt.2019.104227>
- Wu, J., Yang, Q., Yan, L., & Cheng, F. (2024). The clinical instructors' caring behavior as perceived by nursing students of selected. *British Journal of Nursing Studies*, 4(1), 1. <https://doi.org/10.32996/bjns.2024.4.1.1>
- Zamanzadeh, V., Shohani, M., & Palmeh, T. (2015). Nursing students' perception of instructors' caring behaviors in tabriz university of medical sciences. *Journal of Caring Sciences*, 4(1), 55–62. <https://doi.org/10.5681/jcs.2015.006>