Research Article

The Relationship Between the Perception of Professional Values and Empathy in Nursing Students

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Abstract

Background: Empathy is an essential interpersonal skill in providing care. Therefore, it is important to identify factors related to empathy in nursing students.

Objectives: This study aimed to examine the relationship between the perception of professional values and empathy in nursing students.

Methods: A descriptive-correlational design was employed, involving 200 nursing students from the Islamic Azad University's Medical Sciences Faculty in Karaj, Iran. Data were collected between 24 April and 10 June 2023, using convenience sampling. Participants completed a demographic form, the Jefferson Scale of Empathy-Health Profession Students (JES-HPS), and the Nurse Professional Values Scale-Revised (NPVS-R) through self-report. Data were analyzed using an independent sample *t*-test, ANOVA, and Pearson's correlation coefficient with the IBM Statistical Package for Social Sciences (SPSS) version 26 software.

Results: The mean scores for empathy and the perception of professional values were 69.26 ± 7.74 and 108.74 ± 14.56, respectively. Pearson correlation analysis revealed a significant positive correlation between total empathy scores and nursing students' perceptions of professional values (r = 0.232, P = 0.001).

Conclusions: This study found a positive association between nursing students' perceptions of professional values and their empathy levels. Enhancing professional values in the hidden curriculum and incorporating strategies into both theoretical and practical training may help cultivate higher levels of empathy among nursing students. This insight is valuable for educational policymakers and curriculum planners aiming to promote empathetic care in future nursing professionals.

Keywords: Nursing Students, Empathy, Professional Values

1. Background

The role of nurses as key members of the healthcare system in caring for patients is more crucial than ever. With advances in medical science and the development of medical technologies, the need for highly skilled and competent nurses to provide effective and high-quality care has increased (1). Providing effective care requires interpersonal communication grounded in ethical principles and respect (2). In the nursing profession, interpersonal communication is a critical indicator of high-quality care, with empathy being a crucial interpersonal communication tool (3). Empathy is a complex concept that encompasses multiple dimensions, including emotional, moral, cognitive, and behavioral aspects (4). Emotional empathy refers to the ability to mentally experience and empathically understand the psychological states and inner feelings of others. Moral empathy is the internal drive that leads to empathetic actions. Cognitive empathy involves the intellectual ability to understand others' viewpoints and anticipate their thoughts, while behavioral empathy refers to the ability to communicate empathically with an understanding of concerns and motivation for helping behaviors (5). Empathy is considered a prerequisite for effective nursing and a comprehensive understanding of patients' perspectives and needs (6). Patient empathy increases adherence to treatment, improves patient satisfaction and outcomes, reduces errors and complications (7, 8), and enhances healthcare standards and patients' quality of life (6). Additionally, empathy reduces stress and burnout, improves

professional quality of life, and increases the productivity of the healthcare team (7).

The ability to empathize is influenced by individual characteristics such as age, education level, genetic predisposition, gender, personal experience, social skills, and social and family environment (9, 10). Empathy skills can be enhanced through formal and informal targeted training and experiences in the curriculum (4). Increasing empathy is one of the goals of nursing education (7). A systematic review conducted in 2022 showed that nursing students worldwide generally exhibit high levels of empathy (6). The study by Ferri et al. found that undergraduate nursing students have higher empathy levels than other undergraduate students, but their empathy levels did not change significantly with academic progress (8).

Some studies have highlighted the relationship between the perception of professional values and the empathic interaction of nurses with patients (11, 12). Professional values are understood as the norms and behavioral patterns that nurses require as professionals, providing a framework and standard for their professional performance and decision-making (13). Nursing professional values include human dignity, autonomy, honesty, altruism, justice, responsibility, respect, compassion, and empathy (14). These values are influenced by cultural and socio-economic factors, education, and personal and professional experiences (15). Theoretical and practical training, along with role models such as faculty members, play a significant role in acquiring, internalizing, maintaining, improving, and promoting nurses' professional values (14-16). Evidence also supports the impact of professional nursing values on the quality of care (17) and adherence to nursing care standards (18).

The emergence of various challenges and issues in patient care necessitates a renewed focus on nursing education and the enhancement of empathetic abilities. Empathy is an essential interpersonal skill in care, making it important to identify factors related to empathy in nursing students.

2. Objectives

This study aimed to examine the relationship between nursing students' perception of professional values and their levels of empathy.

3. Methods

3.1. Study Design

This study employed a descriptive-correlational design.

3.1.1. Setting

The research was conducted at the Faculty of Nursing, Islamic Azad University, Karaj Branch, Alborz Province, Iran.

3.2. Participants

Sampling was done using the convenience method. The inclusion criteria for the study included nursing students at the Islamic Azad University of Karaj who were in their second semester or later and who voluntarily participated in the study. The exclusion criteria were failure to complete the questionnaire within the specified time or incomplete completion of the questionnaire.

3.3. Sample Size

Out of 270 nursing students, 40 first-semester students were not included in the study. A total of 230 students met the inclusion criteria. Among the 216 completed questionnaires, 16 were excluded from the analysis due to incomplete information. Finally, data from 200 questionnaires were analyzed (N = 200, effective response rate: 86.95%).

3.4. Scales

Data were collected using the following instruments: A demographic form, the Jefferson Scale of Empathy-Health Profession Students (JES-HPS), and the Nurse Professional Values Scale-Revised (NPVS-R).

The Jefferson Scale of Empathy-Health Profession Students was originally designed by Hojjat et al. to assess empathy in medical professionals. Ward et al. later standardized the JES-HPS for evaluating empathy among nursing students. The scale comprises 20 items, rated on a five-point Likert scale ranging from completely disagree (1) to completely agree (5). It consists of three subscales: (1) perspective-taking (11 items), (2) compassionate care (7 items), and (3) walking in the patient's shoes (2 items). Scores on this scale range from 20 to 100, with higher scores indicating higher levels of empathy (19). The validity and reliability of the Persian version of the JES-HPS were supported by Sedaghati Kesbakhi et al. in a study involving nursing students. The reliability was reported to be 0.86 using Cronbach's alpha (20).

The NPVS-R, developed by Weis and Schank in 2000, assesses professional values in nursing. This scale

consists of 26 items and encompasses five subscales: (1) caring, (2) activism, (3) trust, (4) professionalism, and (5) justice. Responses are rated on a Likert scale ranging from strongly agree (5) to strongly disagree (1). The total scores range from 26 to 130, with scores below 43 indicating a low perception of professional values, scores between 43 and 86 indicating a moderate perception, and scores above 86 indicating a high perception of professional values. The NPVS-R has been translated into Persian and psychometrically analyzed by Sajjadi et al., showing acceptable validity and reliability in the Iranian context. The validity of the Persian version of the NPVS-R was confirmed using face and content validity, and its reliability was reported to be 0.91 using Cronbach's alpha (21).

Before data collection, the researchers evaluated the reliability of the instruments. The calculated Cronbach's alpha coefficients for this study were 0.77 for the Jefferson Empathy Questionnaire and 0.71 for the NPVS-R.

3.5. Data Collection

Data was collected from April 24, 2023, to June 10, 2023. A trained researcher conducted the data collection process. The researcher provided all participants with a comprehensive explanation of the study's purpose, inclusion criteria, and instructions for completing the questionnaires. The questionnaires were completed by the participants through self-report.

3.6. Data Analysis

Data were analyzed using both descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (two independent sample *t*-tests, ANOVA, and Pearson's correlation coefficient) with IBM Statistical Package for Social Sciences (SPSS) version 26 software. Frequency, percentage, mean, and standard deviation were used to describe demographic variables as well as the total scores and subscales of the NPVS-R and JES-HPS. Two independent sample *t*-tests and ANOVA were employed to compare the mean scores of the NPVS-R and JES-HPS based on demographic variables. Pearson's correlation coefficient test was used to determine the correlation between the total score and subscales of the NPVS-R and JES-HPS, with a significance level set at $P \leq 0.05$.

3.7. Ethical Consideration

The study received approval from the Ethics Committee of the Medical Sciences Faculty, Islamic Azad University, Karaj Branch, under the ethics code IR.IAU.K.REC.1401.144. Participants were fully informed about the study's objectives, and their participation was voluntary. Written informed consent was obtained from all participants, and confidentiality was maintained throughout the study. There were no potential risks associated with participation, and all questionnaires were completed anonymously.

4. Results

The effective response rate was 86.95%. The mean age of the students was 21.1 ± 4.21 years (range 19 - 32 years). Most of the students were between 20 - 22 years old. The majority of the students were female (149 or 74.5%) and single (182 or 91%). Additionally, most of the participants were in their 4th and 5th semesters (74 or 37%) (Table 1).

Table 2 shows that the mean total NPVS-R scores were 108.74 ± 14.56. Based on the cutoff points, 90.5% of the participants had a high understanding of professional values. The mean total JES-HPS scores were 69.26 ± 7.74 (Table 2).

Based on Table 3, the Pearson correlation test revealed a significant positive correlation between the total score of JES-HPS and the total score of NPVS-R (r = 0.232, P = 0.001). A significant positive correlation was also found between the total score of NPVS-R and the subscales of perspective-taking, compassionate care, and walking in the patient's shoes within the JES-HPS (P < 0.05). Additionally, there was a significant positive correlation between the NPVS-R subscale of caring and the JES-HPS subscales of perspective-taking, compassionate care, walking in the patient's shoes, and the total JES-HPS score (P < 0.05).

A significant positive correlation was observed between the NPVS-R subscale of activism and the JES-HPS subscale of compassionate care (P < 0.05). Furthermore, there was a significant positive correlation between the NPVS-R subscale of trust and the JES-HPS subscales of perspective-taking, compassionate care, walking in the patient's shoes, and the total JES-HPS score (P < 0.05). A significant positive correlation was also found between the NPVS-R subscale of professionalism and the JES-HPS subscales of compassionate care, walking in the patient's shoes, and the total JES-HPS score (P < 0.05). Finally, there was a significant positive correlation between the NPVS-R subscale of justice and the JES-HPS subscale of compassionate care, as well as the total JES-HPS score (P < 0.05).

According to Table 4, a statistically significant difference was found in the mean scores of NPVS-R and JES-HPS according to the semester (P < 0.05). However,

Table 1. Demographic Characteristics of Nursing Students (N = 200)

Variables	Number (%)
Age (y)	
< 20	69 (34.5)
20 - 21	44 (22)
21 - 22	44 (22)
> 22	43 (21.5)
Gender	
Male	51 (25.5)
Female	149 (74.5)
Marital status	
Single	182 (91)
Married	18 (9)
Semester	
2 - 3	63 (31.5)
4 - 5	74 (37)
6 - 8	63 (31.5)

Table 2. Mean and Standard Deviation of Nurse Professional Values Scale-Revised and Jefferson Scale of Empathy-Health Profession Students Scores and Their Subscales in Nursing Students

Variables	Minimum - Maximum	Mean ± SD
NPVS-R subscales		
Caring	17 - 45	37.77 ± 5.22
Activism	9 - 25	20.24 ± 3.25
Trust	5 - 25	21.11 ± 3.30
Professionalism	4 - 20	16.69 ± 2.65
Justice	3 - 15	12.92 ± 1.96
Total score of NPVS-R	38 - 130	108.74 ± 14.56
JES-HPS subscales		
Perspective taking	21 - 46	33.98 ± 4.10
Compassionate care	15 - 37	27.50 ± 3.78
Walking in patient's shoes	2 - 10	7.77 ± 1.66
Total score of JES-HPS	51 - 92	69.26 ± 7.74

Abbreviations: NPVS-R, nurse professional values scale-revised; JES-HPS, Jefferson scale of empathy-health profession students.

there was no statistically significant difference in the mean scores of NPVS-R based on age and marital status (P > 0.05). Similarly, no statistically significant difference was observed in the mean scores of JES-HPS based on age and marital status (P > 0.05).

5. Discussion

The results of the present study showed that nursing students who had a better perception of professional values also exhibited higher levels of empathy. This finding is consistent with the studies by Hui et al. and Işık et al., which demonstrated that nurses with a high perception of professional values tend to have higher empathy levels ([11, 12]). Jean Watson's human caring theory supports this relationship between professional values and empathy in nursing. Watson emphasizes that empathy is the fundamental pillar of care, and by upholding professional values such as respect, responsibility, accuracy, and ethics, nurses can create an environment that fosters a deeper understanding of patients' needs and experiences, leading to greater empathy and positive communication. According to this theory, a strong perception of professional values enhances empathy with patients ([3]).

In the present study, the mean empathy score was 69.26 ± 7.74, which contrasts with the study conducted by Mardani–Hamooleh et al., where the mean empathy

Table 3. Correlation Between Nurse Professional Values Scale-Revised and Jefferson Scale of Empathy-Health Profession Students in Undergraduate Nursing Students

JES-HPS	NPVS-R											
	Caring		Activism		Trust		Professionalism		Justice		Total Score of NPVS-R	
	r	P	r	P	r	P	r	P	r	P	r	P
Perspective taking	-0.181	0.010	-0.063	0.379	0.199	0.005	-0.112	0.114	-0.128	0.072	-0.153	0.033
Compassionate care	-0.223	0.002	-0.235	0.001	-0.185	0.009	-0.183	0.009	-0.195	0.006	-0.239	0.001
Walking in patient's shoes	-0.142	0.045	-0.088	0.215	-0.206	0.003	-0.143	0.043	-0.137	0.053	-0.159	0.025
Total score of JES-HPS	-0.235	0.001	-0.167	0.081	-0.240	0.001	-0.180	0.011	-0.192	0.006	-0.232	0.001

Abbreviations: JES-HPS, Jefferson scale of empathy-health profession students; NPVS-R, nurse professional values scale-revised.

Table 4. Comparison of Mean Scores Nurse Professional Values Scale-revised, and Jefferson Scale of Empathy-Health Profession Students, Based on Demographic Characteristics

Variables	NPVS-R	JES-HPS
Age (y)		
< 20	108.39 ± 13.87	68.91 ± 7.21
20 - 21	111.09 ± 12.90	70.52 ± 7.66
21 - 22	105.02 ± 17.54	69.31 ± 7.47
> 22	110.69 ± 13.54	68.48 ± 8.94
Statistical values	$F = 1.624, P = 0.185$	$F = 0.576 P = 0.632$
Gender		
Male	107.62 ± 14.98	68.64 ± 10.11
Female	109.12 ± 14.45	69.47 ± 6.77
	$t = -0.631, P = 0.529$	$t = -0.659, P = 0.510$
Marital status		
Single	108.94 ± 14.46	69.45 ± 7.77
Married	106.66 ± 15.81	67.33 ± 7.38
Statistical values	$t = 0.632, P = 0.528$	$t = 1.110, P = 0.268$
Semester		
2 - 3	105.89 ± 15.97	67.43 ± 7.03
4 - 5	107.94 ± 15.12	69.35 ± 8.34
6 - 8	112.62 ± 11.42	71.0.4 ± 7.37
Statistical values	$F = 3.638, P = 0.028$	$F = 3.519, P = 0.032$

Abbreviations: NPVS-R, nurse professional values scale-revised; JES-HPS, Jefferson scale of empathy-health profession students.

score of undergraduate nursing students was reported to be 65.14 ([22]). A systematic review found that nursing students generally exhibit high levels of empathy ([6]). However, the mean empathy score of nursing students is reported to be lower compared to students in other medical fields. For example, Ezzati et al. reported a mean empathy score of 80.36 ± 6.01 for midwifery students ([23]), and Rafati et al. reported a mean empathy score of 82.94 ± 7.08 for medical students ([24]). Differences in empathy scores across studies may be attributed to various factors, including: Diversity in the research community, sample size, curriculum type, cultural factors, and the perceived importance of empathy skills in clinical communication and healthcare teams. These findings underscore the need for both formal and informal empathy training for nursing students.

In the present study, nursing students' perceptions of professional values increased with their education levels. This finding aligns with the studies by Belda et al. and Fortes et al., which showed that perceptions of professional values are related to academic year and that education improves these perceptions ([16], [25]). However, in the study by Poorchangizi et al., no relationship was observed between the level of education and nursing students' perceptions of professional values ([14]), suggesting that education and curriculum can influence the perception of professional values.

Furthermore, the study found that nursing students' empathy levels increased as their education level improved. This finding is consistent with Wang et al.'s study, which showed that with increasing educational experience in the clinical environment, the empathy levels of nursing students also increased ([26](#)). However, it contrasts with the findings of Ferri et al., who reported that empathy decreases as education level progresses ([8](#), [27](#)). It appears that the combination of theoretical and practical training, along with nursing curricula, has successfully fostered the development of empathy skills in students.

5.1. Limitations

This study had limitations that should be considered when interpreting the results. First, the data were collected using self-report questionnaires, which may lead to responses that reflect socially desirable answers rather than the participants' actual attitudes or behaviors. Secondly, the study was conducted at a single university using a non-random sampling method. As a result, the findings may not be generalizable to the entire population of nursing students. To enhance the external validity of the findings, it is recommended that future studies involve a larger population and utilize a random sampling method.

5.2. Conclusions

This study found a positive association between nursing students' perceptions of professional values and their empathy levels. Enhancing professional values within the hidden curriculum and incorporating strategies into both theoretical and practical training may contribute to cultivating higher levels of empathy among nursing students. This insight is valuable for educational policymakers and curriculum planners who aim to promote empathetic care in future nursing professionals. It is recommended that further studies be conducted to investigate the effectiveness of interventions focused on promoting the perception of professional values and their impact on empathy in nursing students.

Footnotes

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