

## Hemşirelerin Mesleki Yetkinlikleri ile Bakım Davranışları Arasındaki İlişkinin İncelenmesi

### Examining the Relationship Between Nurses' Professional Competence and Caring Behaviors

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#### ÖZET

**Amaç:** Bu çalışma, hemşirelerin mesleki yetkinlik düzeyleri ile bakım davranışları arasındaki ilişkiyi incelemeyi amaçlamıştır. **Gereç ve Yöntemler:** Tanımlayıcı ve ilişki arayıcı tasarımda yürütülen araştırmada, veriler Türkiye’de bir kamu hastanesinde çalışan 260 hemşireden toplanmıştır. Veri toplama araçları olarak Holistik Hemşirelik Yetkinliği Ölçeği ve Bakım Davranışları Ölçeği-24 (BDÖ-24) kullanılmıştır. Veriler tanımlayıcı istatistikler, Pearson korelasyon analizi ve Cronbach alfa güvenirlik testleri ile analiz edilmiştir. **Bulgular:** Hemşirelerin mesleki yetkinlikleri ile bakım davranışları arasında güçlü ve pozitif bir ilişki bulunmuştur ( $r = 0.711$ ;  $p < .001$ ). Ayrıca her iki ölçeğin alt boyutları arasında da anlamlı ilişkiler saptanmıştır. Özellikle etik duyarlılık, liderlik ve karar verme becerilerinin; saygı, güvence ve bağlılık gibi bakım boyutlarıyla yakından ilişkili olduğu belirlenmiştir. **Sonuç:** Bulgular, hemşirelik bakım kalitesinin yalnızca teknik becerilere değil; etik duyarlılık, liderlik ve iş birliği gibi çok boyutlu yetkinliklere de bağlı olduğunu göstermektedir. Bu doğrultuda, lisans ve hizmet içi eğitim programlarının bütüncül mesleki gelişimi destekleyecek şekilde yeniden yapılandırılması ve kurumsal destek sistemlerinin güçlendirilmesi önerilmektedir.

**Anahtar Kelimeler:** Mesleki yetkinlik, bakım davranışları, hemşirelik, holistik değerlendirme, korelasyon

#### ABSTRACT

**Objective:** This study aimed to investigate the relationship between nurses’ professional competence and their caring behaviors. **Material and Methods:** A descriptive and correlational design was employed. Data were collected from 260 nurses working in a public hospital in Turkey using the Holistic Nursing Competence Scale and the Caring Behaviors Inventory-24 (CBI-24). Data were analyzed with descriptive statistics, Pearson correlation analysis, and Cronbach’s alpha reliability tests. **Results:** A strong positive correlation was found between professional competence and caring behaviors ( $r = 0.711$ ;  $p < .001$ ). Significant intercorrelations were also observed among the subdimensions of both scales. Ethical sensitivity, leadership, and decision-making were particularly associated with caring dimensions such as respect, assurance, and commitment. **Conclusion:** The findings indicate that nursing care quality depends not only on technical skills but also on multidimensional competencies, including ethical awareness, leadership, and collaboration. It is recommended that undergraduate curricula and in-service training programs be redesigned to foster holistic professional development, while organizational support systems should be strengthened to sustain high-quality and human-centered care.

**Keywords:** Professional competence, care behaviors, nursing, holistic evaluation, correlation

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Peer review under responsibility of Munzur Health Science Journal

**Received:** 31.07.2025 **Revised:** 11.09.2025 **Accepted:** 11.09.2025 **Available Online:** 25.09.2025

**Cite this article as:** Daşbilek F., Özcan A., Akkuş G. Examining the Relationship Between Nurses' Professional Competence and Caring Behaviors. Munzur Health Sci. J. 2025;1(3):148-161

## INTRODUCTION

Nursing is defined as a profession situated at the core of modern healthcare systems, extending beyond the treatment of diseases to encompass the preservation of individuals' physical, psychological, and social integrity (1,2). In this sense, nursing represents a holistic approach to care that integrates scientific knowledge with humanistic values (3). Today, nurses are recognized as key actors who directly influence the effectiveness, safety, and sustainability of healthcare services through the quality of care they provide (3,4).

Professional competence in nursing encompasses not only technical skills but also multidimensional capabilities such as clinical decision-making, leadership, ethical sensitivity, and empathetic communication (5-7). A competent nurse is characterized as a professional who can accurately analyze complex patient needs and respond with a holistic approach (7,8). The literature emphasizes that professional competence plays a critical role not only in individual performance but also in team collaboration, patient safety, and the sustainability of healthcare systems (9). Accordingly, the professional competence level of nurses is regarded not merely as a functional requirement of clinical processes but also as an ethical responsibility (10-12).

Caring behaviors, on the other hand, constitute the essence of nursing and reflect the embodiment of humanistic values such as empathy, compassion, respect, and understanding (12,13). High-quality care extends beyond the successful implementation of clinical interventions; it also involves fostering an interactional process in which patients feel understood, valued, and secure. In this context, caring behaviors can be considered the visible and experiential manifestation of professional competence (5,13).

Nevertheless, comprehensive models that simultaneously examine professional competence and caring behaviors remain limited in the literature (11,12). Existing studies predominantly focus on knowledge levels or technical skills, often neglecting the ethical, communicative, and emotional dimensions of competence (13,14). Evaluating these dimensions in relation to caring behaviors constitutes a significant research need in nursing. Investigating the association between nurses' professional competence and caring behaviors in a holistic manner is therefore expected to contribute both to the theoretical body of knowledge and to clinical practice (15).

This study aims to evaluate the relationship between nurses' professional competence and caring behaviors from a holistic perspective. The findings are anticipated to inform the restructuring of theoretical and practical aspects of nursing education, guide the development of evidence-based in-service training programs, and support policy initiatives aimed at

improving the quality of care. Furthermore, by strengthening patient-centered care, the study is expected to provide a strategic foundation for enhancing patient satisfaction and ensuring the sustainability of ethical sensitivity and humanistic values within professional nursing practice.

### *Research Questions*

1. Is there a significant relationship between nurses' professional competence levels and their caring behaviors?
2. Does the length of nurses' professional experience significantly influence their caring behavior levels?
3. Do educational background, clinical practice area, and participation in in-service training significantly differentiate nurses' caring behaviors?
4. Are there significant associations between the subdimensions of the Holistic Nursing Competence Scale (HNCS) and the subdimensions of the Caring Behaviors Inventory (CBI-24)?
5. What are the overall levels of nurses' professional competence and caring behaviors, as well as their subdimension scores?

## **MATERIALS AND METHODS**

### **Type of the Study**

This study employed a descriptive and correlational research design to examine the relationship between nurses' professional competence levels and their care behaviors.

### **Population and Sample**

The study population consisted of 850 nurses working at a university hospital located in the eastern region of Turkey. Since the entire population was known, the sample size was calculated based on a 95% confidence level, 5% margin of error, and the assumption of maximum variance ( $p = 0.5$ ), resulting in a minimum sample requirement of 260 nurses. The study was completed with 260 participants. Sampling was conducted on a voluntary basis. Nurses who agreed to participate, signed the informed consent form, and completed the data collection instruments in full were included in the study. Those who declined participation or provided incomplete data were excluded from the sample.

## Data Collection Tools

Data were collected using the Descriptive Information Form, the Caring Behaviors Inventory-24 (CBI-24), and the Holistic Nursing Competence Scale (HNCS).

**Descriptive Information Form:** Developed by the researchers after reviewing the literature, this form includes 11 questions related to socio-demographic characteristics such as age, gender, marital status, and educational background (16-18).

**Caring Behaviors Inventory-24 (CBI-24):** The CBI-24, developed by Wu et al. (2006) as a shortened version of the 42-item Caring Behaviors Inventory by Wolf et al. (1994), is designed to evaluate the nursing care process through both nurse and patient perspectives (19-20). The Turkish adaptation and psychometric validation of the scale were conducted by Kurşun and Kanan (2012) (21). Comprising 24 items across four subscales, the scale uses a 6-point Likert format (1 = never to 6 = always) and is commonly employed to compare nurses' self-assessments with their perceptions of patients' views. The total score is calculated by averaging the responses to all items, resulting in a score between 1 and 6, while subscale scores are determined by averaging the items within each subgroup. The subscales include Assurance (items 16–18, 20–24), Knowledge and Skill (items 9–12, 15), Respectfulness (items 1, 3, 5, 6, 13, 19), and Connectedness (items 2, 4, 7, 8, 14). The scale has demonstrated high internal consistency, with a Cronbach's alpha of 0.96 overall and subscale values ranging from 0.82 to 0.92.

**Holistic Nursing Competence Scale (HNCS):** This study utilized the Holistic Nursing Competence Scale (HNCS) to assess nurses' professional competence in a comprehensive manner. Developed by Takase and Teraoka (2011) and adapted into Turkish by Saldıroğlu and Türk (2021), the HNCS evaluates cognitive, affective, psychomotor, communicative, and ethical competencies essential for nursing practice (22,23). The 37-item scale comprises five subscales: Professional Knowledge and Clinical Decision-Making, Ethical and Professional Values, Communication Skills, Psychomotor and Technical Skills, and Professional Development and Self-Evaluation. Items are rated on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree), allowing for both subscale and total score evaluation. The scale has demonstrated strong construct validity and high internal consistency, with a Cronbach's alpha above 0.90, confirming its reliability for use in both clinical and research contexts.

**Data Collection:**

The data for this study were collected through face-to-face questionnaires between July and August 2022. The data collection process was carried out by establishing direct communication with nurses working at the hospital where the research was conducted. The survey forms were delivered to the participants in person by the researchers and were completed at appropriate times. Participants were informed about the purpose of the study, and the principles of confidentiality and voluntariness were emphasized. Afterwards, an "Informed Voluntary Consent Form" was presented. Nurses who signed the consent form were given the questionnaire, and data from those who completed the form fully were included in the analysis. Throughout the research process, data confidentiality was preserved, and all procedures adhered to ethical principles.

**Data Analysis:** The data obtained from the study were analyzed using SPSS version 27.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including frequency (n), percentage (%), mean, standard deviation, median, interquartile range (IQR), minimum, and maximum values, were calculated. The normality of the data distribution was assessed using the Kolmogorov–Smirnov test. For variables that did not follow a normal distribution, non-parametric tests, namely the Mann–Whitney U test, Kruskal–Wallis test, and Spearman’s rank correlation analysis, were employed.

The reliability of the measurement tools was evaluated using Cronbach’s alpha coefficient. The Cronbach’s alpha value was found to be 0.94 for the Holistic Nursing Competence Scale (HNCS) and 0.92 for the Caring Behaviors Inventory-24 (CBI-24), indicating high internal consistency for both scales. Interpretation of Spearman’s correlation coefficients was based on the following criteria:  $r < 0.20$  = very weak,  $0.20–0.39$  = weak,  $0.40–0.59$  = moderate,  $0.60–0.79$  = strong, and  $0.80–1.00$  = very strong correlation. A significance level of  $p < 0.05$  was adopted for all statistical analyses.

**Ethical Considerations:** Ethical approval for the study was obtained from the Non-Interventional Research Ethics Committee of Munzur University (Decision No: 2022/09-04). Additionally, official permission was granted by the institution where the study was conducted (Document No: 219955, dated 01.09.2022). The research was conducted in accordance with the principles of the Declaration of Helsinki, adhering to standards of voluntariness, confidentiality, and ethical conduct. Participants were informed about the aim and scope of the study and were asked to sign an "Informed Voluntary Consent Form" before participation.

## RESULTS

As shown in Table 1, the majority of participants were 25–34 years old (56.2%), female (68.5%), married (75.4%), and held a bachelor's degree in nursing (78.8%). More than half of the nurses had 6–15 years of professional experience (54.6%). Although most participants reported that they were willing to practice nursing (68.1%), a considerable proportion indicated that they would choose another profession if possible (61.2%).

**Table 1.** Demographic Characteristics of Participants and Their Opinions on Nursing Care

Variable	Category	n	%
Age	20–24	7	2.7
	25–34	146	56.2
	35–44	81	31.2
	45–54	25	9.6
	55–64	1	0.4
Gender	Female	178	68.5
	Male	82	31.5
Marital Status	Married	196	75.4
	Single	64	24.6
Educational Level	Bachelor's Degree	205	78.8
	Master's Degree	21	8.1
	Associate Degree	25	9.6
	Vocational High School	9	3.5
Years of Service	0–5 years	58	22.3
	6–10 years	76	29.2
	11–15 years	66	25.4
	16 years and above	60	23.1
Willingly Chose the Profession	Yes	177	68.1
	No	83	31.9
Would Choose Another Profession if Possible	Yes	159	61.2
	No	101	38.8
Work Schedule	Day Shift	15	5.8
	Night Shift	106	40.8
	Both Day and Night Shifts	139	53.5
Unit of Work	Emergency Department	15	5.8
	Surgical Unit	106	40.8
	Internal Medicine Unit	78	30.0
	Intensive Care Unit	30	11.5
	Outpatient Clinics	31	11.9
Is the Nursing Care Provided Sufficient?	Yes	98	37.7
	No	45	17.3
	Undecided	115	44.2
	Don't Know	2	0.8
Rating Given to Nursing Care	0–3	10	3.8
	4–5	43	16.5
	6–7	104	40.0
	8–10	103	39.6

Regarding working conditions, more than half of the nurses worked in both day and night shifts (53.5%), and the largest proportion was employed in surgical units (40.8%). Only 37.7% of participants perceived the nursing care provided as adequate, while 44.2% were undecided.

When asked to rate the quality of nursing care, most participants gave a score between 6–7 (40.0%) or 8–10 (39.6%), indicating moderate to high perceived care quality.

The overall mean score of nurses on the Caring Behaviors Inventory (CBI-24) was  $5.10 \pm 0.54$ , which is close to the upper limit of the scale, indicating a generally high level of caring behaviors. Among its subdimensions, the highest mean score was observed in “Knowledge and Skill” ( $5.42 \pm 0.47$ ), while the lowest was found in “Connectedness” ( $4.80 \pm 0.69$ ). All subdimensions demonstrated excellent internal consistency, with Cronbach’s alpha coefficients exceeding 0.96.

For the Holistic Nursing Competence Scale (HNCS), the overall mean score was  $5.38 \pm 0.97$ . Examination of subdimensions revealed that the highest score was in “Decision-Making” ( $5.66 \pm 0.90$ ), whereas the lowest score was in “Collaboration” ( $5.03 \pm 1.41$ ). Reliability analysis showed that all subdimensions had Cronbach’s alpha values above 0.95, confirming strong internal consistency.

**Table 2.** Mean Scores and Reliability Coefficients of Nurses' CBI-24, HNCS, and Their Subdimensions

Scale / Subdimension	Mean $\pm$ SD	Min–Max	Cronbach's $\alpha$
<b>Caring Behaviors Inventory (Total)</b>	$5.10 \pm 0.541$	3.13 – 6.00	0.960
<b>Connectedness</b>	$4.80 \pm 0.693$	2.20 – 6.00	0.961
<b>Respectfulness</b>	$5.05 \pm 0.611$	2.83 – 6.00	0.961
<b>Knowledge and Skill</b>	$5.42 \pm 0.477$	4.00 – 6.00	0.962
<b>Assurance</b>	$5.12 \pm 0.585$	3.00 – 6.00	0.960
<b>Holistic Nursing Competence (Total)</b>	$5.38 \pm 0.979$	2.41 – 6.97	0.953
<b>Collaboration</b>	$5.03 \pm 1.41$	2.20 – 7.00	0.962
<b>Leadership</b>	$5.37 \pm 1.08$	1.83 – 7.00	0.955
<b>Decision-Making</b>	$5.66 \pm 0.903$	3.00 – 7.00	0.955
<b>Learning</b>	$5.14 \pm 1.17$	2.00 – 7.00	0.956
<b>Ethics</b>	$5.51 \pm 1.00$	2.50 – 7.00	0.955
<b>Knowledge</b>	$5.44 \pm 0.850$	2.43 – 6.86	0.957

These findings indicate that nurses demonstrated particular strengths in knowledge, ethical sensitivity, and decision-making skills, while comparatively lower scores were observed in connectedness and collaboration, suggesting areas for potential improvement (Table 2).

**Table 3.** The Relationship Between Nurses' Professional Competence and Caring Behaviors

Variables	n	Mean $\pm$ SD	Correlation Coefficient (r)	p-value
<b>Professional Competence (HNCS)</b>	260	$5.38 \pm 0.97$		
<b>Caring Behaviors (CBI-24)</b>	260	$5.10 \pm 0.54$	0.711	< .001

r = Correlation coefficient,  $p < 0.05$ ,  $p < .001$ : Very highly significant

As shown in Table 3, a strong, positive, and statistically significant correlation was found between nurses' professional competence (HNCS) and their caring behaviors (CBI-24) ( $r =$

0.711,  $p < .001$ ). This indicates that higher levels of professional competence are closely associated with more pronounced caring behaviors among nurses.

**Table 4.** Correlations Among Subdimensions of the Holistic Nursing Competence Scale

Variables	1	2	3	4	5	6	7
<b>1. Collaboration</b>	—						
<b>2. Leadership</b>	0.878***	—					
<b>3. Decision-Making</b>	0.860***	0.909***	—				
<b>4. Learning</b>	0.882***	0.882***	0.884***	—			
<b>5. Knowledge</b>	0.747***	0.811***	0.792***	0.788***	—		
<b>6. Holistic Total</b>	0.926***	0.952***	0.948***	0.952***	0.886***	—	
<b>7. Ethics</b>	0.787***	0.843***	0.854***	0.874***	0.846***	0.927***	—

\* $p < .001$ ;  $n = 260$

As presented in Table 4, all subdimensions of the Holistic Nursing Competence Scale (HNCS) were strongly and positively correlated with each other ( $p < .001$ ). The highest correlations were observed between:

- Decision-Making and Leadership ( $r = 0.909$ )
- Holistic Total and Leadership ( $r = 0.952$ )
- Holistic Total and Learning ( $r = 0.952$ )

These findings suggest that leadership, decision-making, and continuous learning are highly interrelated core elements of holistic nursing competence. Moreover, the strong correlation between the Ethics subdimension and the Holistic Total score ( $r = 0.927$ ) emphasizes the central role of ethical values in the overall professional competence of nurses.

**Table 5.** Correlations Among Subdimensions of the Caring Behaviors Inventory (CBI-24)

Variables	1	2	3	4	5
<b>1. Knowledge and Skill</b>	—				
<b>2. Assurance</b>	0.762***	—			
<b>3. Respectfulness</b>	0.748***	0.846***	—		
<b>4. Connectedness</b>	0.599***	0.787***	0.836***	—	
<b>5. CBI-24 Total Score</b>	0.828***	0.949***	0.947***	0.896***	—

\* $p < .001$ ;  $n = 260$

As shown in Table 5, all subdimensions of the Caring Behaviors Inventory (CBI-24) were significantly and positively correlated ( $p < .001$ ). The strongest associations were observed between:

- Assurance and Respectfulness ( $r = 0.846$ )
- Respectfulness and Connectedness ( $r = 0.836$ )



- CBI-24 Total and Assurance ( $r = 0.949$ )
- CBI-24 Total and Respectfulness ( $r = 0.947$ )

These findings indicate that assurance, respectfulness, and connectedness are highly interrelated dimensions, and they contribute most strongly to the overall caring behavior score. Notably, Knowledge and Skill also showed a strong correlation with the total score ( $r = 0.828$ ), highlighting its essential role in the perception of caring behaviors.

## DISCUSSION

This study revealed a significant and positive relationship between nurses' professional competence and caring behaviors. The results demonstrate that nursing should not be regarded solely as a technical qualification but as a multidimensional framework encompassing ethical sensitivity, communication skills, leadership, decision-making, and empathy (22,24). The strong Pearson correlation coefficient ( $r = 0.711$ ;  $p < .001$ ) provides robust evidence for the concept of "competence–care interaction," confirming that the impact of professional competence on caring behaviors is both theoretical and statistically measurable. This aligns with the Holistic Nursing Competence Model developed by Takase and Teraoka (2011), which highlights the integration of cognitive, technical, ethical, and social dimensions in defining nursing competence (22).

The Holistic Nursing Competence Scale (HNCS) used in this study reliably assessed these multidimensional qualities, with high internal consistency across subdimensions. Strong correlations—such as between leadership and decision-making ( $r = 0.909$ ) and between learning and ethics ( $r = 0.874$ )—indicate that nursing competence is an integrated and synergistic structure rather than a collection of isolated skills (22,24). Previous studies similarly emphasize that professional growth extends beyond knowledge acquisition, encompassing moral reasoning, self-evaluation, and openness to learning (26). Turkish validation studies of HNCS (Saldıroğlu & Türk, 2021) and related research (Korkmaz & Taşdelen, 2022; Yıldız et al., 2020) reinforce the strong interrelation of competence, ethical sensitivity, and caring behaviors (24,27,28).

The findings from the Caring Behaviors Inventory (CBI-24) also demonstrated that caring is not a set of technical actions but a comprehensive professional attitude. High correlations between respectfulness and assurance ( $r = 0.846$ ) illustrate the inseparability of these humanistic dimensions of care. These results are consistent with Watson's (2008) Theory of Human Caring, which emphasizes meaningful interpersonal connections, empathetic

communication, and ethically grounded practice as central to nursing (25). Studies from Turkey likewise confirm that caring behaviors increase with empathy and ethical sensitivity, independent of technical skills (28).

In this study, the overall level of caring behavior was relatively high ( $\bar{X} = 5.10 \pm 0.54$ ), with higher scores in knowledge and skill but lower levels in connectedness. This pattern, also reported in national studies (28,30), reflects the influence of environmental and organizational factors—such as workload, staffing shortages, and time pressure—on nurses' ability to sustain emotionally demanding care relationships (29,30).

A key contribution of this research is that the competence–care relationship remained significant regardless of variables such as seniority, clinical experience, or in-service training. This suggests that professional competence development is shaped not only by years of practice but also by institutional support systems, educational quality, and personal motivation. Previous literature emphasizes the critical role of leadership, organizational culture, and structured training in sustaining professional competence (26,24).

The findings underscore the need to restructure nursing education and professional development with an emphasis on holistic growth. Undergraduate curricula and in-service training programs should prioritize competencies such as openness to learning, ethical decision-making, communication, and collaboration. These dimensions foster both individual satisfaction and institutional outcomes, including care quality, patient safety, and interdisciplinary cooperation (27,29). Moreover, ethical sensitivity must be reinforced not only at the individual level but also through institutional policies. Psychosocial support programs and clinical supervision models are essential to prevent burnout in emotionally demanding environments, thereby ensuring the sustainability of holistic, value-based nursing care (31).

## CONCLUSION

This study demonstrated a strong and positive relationship between nurses' professional competence and caring behaviors, highlighting that nursing requires a multidimensional competency framework that extends beyond technical skills to encompass ethical sensitivity, leadership, collaboration, decision-making, and communication.

The findings underscore the importance of restructuring undergraduate nursing curricula to incorporate not only clinical skills but also ethical decision-making, teamwork, communication, and self-awareness. In-service training programs should be designed to support professional

identity development, particularly among early-career nurses. At the clinical level, strengthening organizational support systems and enhancing the guidance and feedback role of nurse leaders are essential for promoting caring behaviors.

At the institutional level, it is recommended to develop ethically grounded performance evaluation systems that monitor both professional competence and caring behaviors, while also implementing psychosocial support programs to prevent burnout in emotionally demanding care processes. Future studies should employ qualitative approaches to complement quantitative findings, explore nurses' subjective experiences of caring and competence, and conduct comparative or intervention-based research across different clinical settings to evaluate the effectiveness of educational and organizational strategies.

#### **Author's contribution to the work:**

Ferhat Daşbilek: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing

Abdullah Özcan: Conceptualization, Project administration, Writing – original draft, Writing – review & editing

Gülsüm Akkuş: Conceptualization, Data curation, Resources, Investigation, Methodology, Supervision

**Financial resources:** No financial resources.

**Conflict of interest:** There is no conflict of interest among the authors.

**Acknowledgement:** We thank the patients who participated in the study.

**Ethical statement:** Ethical approval for the study was obtained from the Non-Interventional Research Ethics Committee of Munzur University (Decision No: 2022/09-04).

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