

Evaluation of Attitudes, Knowledge Levels, and Perceived Quality of Nutritional Care Among Nurses Working in Internal Medicine and Intensive Care Clinics: A Descriptive Cross-Sectional Study

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ABSTRACT

Objective: Malnutrition is an important complication that is common in critically ill patients and affects the efficiency of clinical treatment. The level of knowledge and attitudes of nurses, who have an important role in clinical treatment, about nutritional care, has an important place in patient care. Various factors affect the knowledge of and attitudes to nutritional care. The aim of this study was to evaluate the nutritional attitudes, levels of knowledge, and perceptions toward care in nurses working in internal medicine and intensive care clinics.

Materials and Methods: The study was completed with 265 internal medicine and intensive care clinic nurses who volunteered to participate in the study and were not on leave during the data collection process without sample selection.

Results: It was stated by 53.6% of the nurses that they had not received nutritional education, 59.62% reported a moderate level of nutritional care knowledge, and 56.6% were willing to receive nutritional education. The mean scores of the nurses were found to be 22.95 ± 3.1 for attitudes toward the importance of nutritional assessment, 26.77 ± 3.53 for level of knowledge of nutritional care, and 33.63 ± 5.12 for perceived quality of nutritional care.

Conclusion: The nurses in this study had positive attitudes toward the importance of nutritional assessment and a moderate level of knowledge of nutritional care and perceived quality of nutritional care.

Keywords: Attitude, Nursing, Nutritional assessment, Nutritional care, Perception

Cite this article as: Iscan Ayyildiz N, Demir Cam S. Evaluation of Attitudes, Knowledge Levels, and Perceived Quality of Nutritional Care Among Nurses Working in Internal Medicine and Intensive Care Clinics: A Descriptive Cross-Sectional Study. Eur Arch Med Res 2026;42(2):124–132.

INTRODUCTION

Nutrition is a fundamental requirement of human life and represents a modifiable risk factor both for maintaining health and for preventing disease.^[1] Patients may be at risk of poor nutrition before or after hospitalization, which can lead to

malnutrition.^[2,3] The incidence of malnutrition is reported as 22% among hospitalized patients and at least 50% in intensive care patients.^[2] Despite its critical role in disease management and recovery, nutrition is sometimes neglected in clinical practice.^[4-6]

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Submitted: 01.07.2025 **Revised:** 14.08.2025 **Accepted:** 15.08.2025 **Available Online:** 03.06.2026

European Archives of Medical Research – Available online at www.eurarchmedres.org

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Preventing malnutrition-related complications requires early identification of at-risk patients, continuous monitoring, and timely nutritional support.^[5,7] This is particularly important in intensive care settings, where malnutrition negatively affects patient safety and quality of care. Current guidelines recommend that patients admitted to intensive care and clinical wards should be screened for malnutrition risk and provided with appropriate nutritional interventions within 24 h of admission.^[8,9]

Nutritional care is delivered by an interdisciplinary team involving physicians, nurses, pharmacists, and dietitians. Among these, nurses play a pivotal role: They are responsible for screening nutritional status, initiating and maintaining nutritional support, recognizing complications, and delivering evidence-based nursing interventions.^[7,10,11] Clinical nurses are expected to identify high-risk groups, monitor patient changes during nutritional therapy, and take prompt action when complications occur.^[12] This requires sufficient awareness, knowledge, and skills regarding nutritional care, particularly among those working in intensive care and internal medicine clinics.^[13]

Previous studies have evaluated nurses' knowledge, attitudes, and perceived quality of nutritional care in various settings,^[1,14] yet there is limited evidence focusing specifically on internal medicine and intensive care nurses in Turkey or globally. Understanding nurses' perceptions and practices in these critical areas is essential for designing effective training programs and improving patient outcomes. This study aims to address this gap by assessing the attitudes, knowledge levels, and perceived quality of nutritional care among nurses working in internal and intensive care clinics. We hypothesize that nurses working in internal medicine and intensive care units demonstrate a generally positive attitude toward nutritional assessment, possess moderate to high levels of knowledge, and perceive the quality of nutritional care in their units as adequate, although certain areas may require improvement through continuous training and institutional support.

MATERIALS AND METHODS

Study Design

This descriptive and cross-sectional study was conducted with nurses working in the internal medicine and intensive care clinics of two district hospitals in northern Turkey between September 05, 2024, and January 05, 2025.

Setting and Sample

The study universe consisted of a total of 271 nurses working in the internal medicine and intensive care clinics of two district hospitals. No selection method was applied and 268

internal and intensive care clinic nurses who volunteered to participate and were not on leave/sick leave during the data collection process were reached; 3 nurses were not included in the study due to incomplete information in the data collection forms and the study was completed with a total sample of 265 nurses.

Inclusion Criteria

1. Age > 18 years
2. Ability to communicate verbally
3. Actively working in internal medicine clinics and intensive care units for at least 6 months
4. No physical or mental health problems that would prevent comprehension and the ability to respond to the questions
5. Voluntary participation in the study.

After the purpose of the study was explained, written and verbal consent was obtained from all individuals participating in the study. The research data were collected using the survey method and face-to-face interview technique.

Data Collection Instruments

Data were collected using a Nurse Personal Information Form and an Assessment Questionnaire evaluating the importance of nutritional evaluation, nurses' knowledge level, and perceived quality of nutritional care.

Nurse Information Form

This form, which was prepared in line with the literature,^[5] includes 10 questions about age, gender, educational status, marital status, years of service in the profession, the clinic where the nurses work, years of service in the clinic where they work, the status of receiving education on nutritional support, the level of knowledge they perceive about nutritional care, and their willingness to receive education on nutritional care.

Evaluation Questionnaire of The Significance of Nutritional Evaluation, Nurses' Knowledge, and Their Perceived Quality of Nutritional Care

This questionnaire was developed by Miriam Theilla et al.^[13] and validity and reliability studies of the Turkish version were conducted by Gürlek Kısacık et al.^[5] It consists of three sections; the first section has seven items to assess the attitudes of nurses toward the clinical importance of nutritional evaluation and their perceptions of nutritional assessment as a basic component of nursing care. The total score of this section ranges from 7 to 28 points, with a higher score indicating a more positive outlook toward the importance of assessing the nutritional status of patients and acceptance of nutritional assessment among nursing functions.

The second section of the questionnaire consists of 10 items evaluating the knowledge level of nurses regarding nutritional care. These items are reverse scored to give a total in the range of 10–40 points, with a higher score demonstrating a higher level of knowledge of nutritional care. The third section consists of nine items evaluating how nurses perceive the quality of nutritional care provided to patients in the clinics where they work. The total score of this section ranges from 9 to 45 points with a higher score indicating that nurses evaluate the quality of nutritional care provided to patients in the units where they work more positively. The items in the questionnaire are scored on a 4-point Likert scale as “strongly disagree” (1), “disagree” (2), “agree” (3), “strongly agree” (4). In the Turkish validity and reliability study, Gürlek Kısacık et al.^[5] found Cronbach's alpha coefficient to be $\alpha=0.82$ for the attitude factor, $\alpha=0.63$ for the level of knowledge factor, and $\alpha=0.85$ for the perceived quality of care factor. In the present study, the Cronbach's alpha coefficient was determined to be 0.83 for attitude regarding the importance of nutritional assessment, 0.71 for level of knowledge regarding nutritional care, and 0.87 for perceived quality of nutritional care.

Statistical Analysis

Descriptive statistics were stated as mean \pm standard deviation values for continuous variables and as number (n) and percentage (%) for categorical variables. The conformity of numerical variables to the normal distribution was evaluated with Skewness and Kurtosis. Data that showed normal distribution were examined with the Independent t-test, one-way ANOVA, and correlation analysis. As the distribution of variances was homogeneous, “Least Significant Difference” was used as further analysis. A value of $p<0.05$ was considered statistically significant.

Ethical and Institutional Approval

All participants were fully informed about the study and all provided informed consent for participation. The research received ethical approval from the Trabzon University Social and Human Sciences Scientific Research and Publication Ethics Committee (E-81614018-050.04-2400014629/18.03.2024), and institutional permission was granted by the two district hospitals (E-55568733-604.01-245799120/June 07, 2024). Every phase of the study was conducted in compliance with the Helsinki Declaration.

RESULTS

Participant Characteristics

Evaluation was made of a total of 265 nurses comprising 72.5% females and 27.5% males with a mean age of 40.02 ± 7.97 years, 85.7% were married, and 71.7% were undergraduates. The duration of working as a nurse was ≥ 20 years in 40.8% of the participants, 33.6% were working in the internal medicine clinic, and

47.9% had been working in the clinic for 5–10 years. It was stated by 53.6% of the participants that they had not received any nutritional education, 59.62% stated that their level of nutritional care knowledge was at an intermediate level, and 56.6% stated that they wanted to receive nutritional education (Table 1).

The Attitude of Nurses Regarding the Importance of Nutritional Evaluation, the Level of Knowledge about Nutritional Care, and the Factors Affecting the Perception of Nutritional Care Quality

No significant difference was found between the gender and marital status of the participants and the mean scores of attitudes regarding the importance attributed to nutritional evaluation, their level of knowledge of nutritional care, and their perception of care quality ($p>0.05$) (Table 1).

A statistically significant difference was determined in the mean scores of attitudes with respect to the perceived importance of nutritional evaluation and level of knowledge of nutritional care according to the educational status of the participants and it was found that participants with an undergraduate degree had higher mean scores ($p<0.05$). No notable variation was observed in perceived quality of nutritional care across different educational statuses ($p>0.05$) (Table 1).

A statistically significant difference was found between the years of service and the mean scores of attitudes regarding the significance of nutritional evaluation, the extent of knowledge of nutritional care, and the perceived standard of nutritional care. Nurses who had worked for 20 years and more were found to have higher scores ($p<0.05$) (Table 1).

A statistically significant difference was found between the mean scores of perceived quality of nutritional care according to the clinic in which the nurses were working. Nurses who worked in the palliative care unit, intensive care unit, and chest diseases clinic were seen to have higher scores than the nurses who worked in cardiology and neurology clinics ($p<0.05$). No significant difference was observed between the mean scores of attitudes regarding the significance of nutritional evaluation and the extent of knowledge about nutritional care according to the clinics where they worked ($p>0.05$) (Table 1).

A significant difference was observed in the mean scores of attitudes regarding the perceived importance of nutritional evaluation, knowledge level in nutritional care, and perceived quality of that care according to the duration of working in the clinic. Nurses who had worked for 20 years or more were found to have higher average scores related to the perceived importance of nutritional assessment. It was also seen that those who had worked for 1–5 years and 5–10 years had higher level of knowledge of nutritional care mean scores than the nurses who had worked for 20 years and more and that the nurses

Table 1. Distribution of the mean scores of attitudes toward nutritional evaluation, un-derstanding of nutritional care, and perceived care quality according to the sociodemo-graphic characteristics of the participants

	n	Percentage	Attitudes toward the Importance of Nutritional Evaluation X±SD	Level of Knowledge of Nutritional Care X±SD	Perceived Quality of Nutritional Care X±SD
Gender					
Female	192	72.5	22.84±3.22	26.55±3.53	33.98±5.25
Male	73	27.5	23.24±2.81	27.34±3.47	32.69±4.66
Test and Significance			t: -0.940 p:0.348	t:-1.621 p:0.106	t:1.841 p:0.067
Marital status					
Married	227	85.7	22.91±3.17	26.79±3.35	33.62±4.74
Single	38	14.3	23.18±2.76	26.65±4.49	33.71±7.05
Test and significance			t:-0.490 p:0.625	t:0.218 p:0.828	t: -0.075 p:0.940
Educational status					
High school	7	2.6	20.57±2.43a	26.14±2.67a	32.28±2.98
Associate degree	68	25.7	21.92±2.97b	25.88±2.35b	33.89±4.77
Undergraduate degree	190	71.7	23.41±3.07c	27.11±3.85c	33.58±5.31
Test and Significance			F:8.214 p:0.000 c>a=b	F:3.218 p:0.042 c>b	F:0.337 p:0.714
Years of service					
0–1 Years	2	0.8	20.50±0.70a	28.50±2.12a	29.00±5.65a
1–5 Years	31	11.7	23.58±2.83b	26.54±4.21b	33.64±6.92b
5–10 Years	33	12.5	24.21±2.91c	28.24±3.83c	33.87±5.02c
10–15 Years	50	18.7	23.78±2.91d	28.12±3.48d	31.66±4.48d
15–20 Years	41	15.5	22.63±3.14e	26.78±2.97e	33.12±4.84e
20 years and more	108	40.8	22.17±3.14f	25.73±3.13f	33.12±4.84f
Test and significance			F:3.919 p:0.002 c>e>f	F:4.934 p:0.000 c=d>b c=d>f	F:3.047 p:0.011 f>d
Clinics where nurses worked					
Internal medi-cine	89	33.6	22.95±3.42	26.35±3.85	33.35±5.09a
Palliative care	45	17.0	23.66±3.12	27.64±2.29	34.53±6.46b
Intensive care	60	22.6	23.30±2.81	27.23±3.84	34.70±4.57c
Cardiology	43	16.2	22.18±3.08	26.51±3.78	31.90±4.31d
Neurology	21	7.9	21.90±2.68	26.76±2.73	31.76±3.76e
Chest diseases	7	2.7	23.28±1.38	24.14±1.86	38.42±2.14f
Test and significance			F:1.655 p:0.146	F:1.847 p:0.104	F:3.803 p:0.002 b=c=f>d=e

Table 1. Distribution of the mean scores of attitudes toward nutritional evaluation, un-derstanding of nutritional care, and perceived care quality according to the sociodemo-graphic characteristics of the participants (Cont.)

	n	Percentage	Attitudes toward the Importance of Nutritional Evaluation X±SD	Level of Knowledge of Nutritional Care X±SD	Perceived Quality of Nutritional Care X±SD
Years of service in the clinic					
0–1 Years	3	1.1	20.66±0.57a	27.66±2.08a	30.00±4.35a
1–5 Years	58	21.9	23.86±2.83b	26.93±3.87b	34.06±6.70b
5–10 Years	127	47.9	23.10±3.09c	27.51±3.44c	32.77±4.78c
10–15 Years	66	23.9	21.65±3.07d	25.54±2.86d	32.60±1.14d
15–20 Years	5	1.9	23.30±1.78e	28.20±3.56e	36.50±2.81e
20 years and more	6	2.3	26.33±1.96f	21.50±0.83f	36.50±2.81f
Test and significance			F:5.331 p:0.000 f>c>d	F:6.146 p:0.000 b>d>e, c>d>f	F:2.345 p:0.042 d>c
The status of receiving nutritional education					
Yes	142	53.6	24.35±2.65	27.66±3.96	34.35±5.22
No	123	46.4	21.33±2.81	25.73±2.60	32.79±4.89
Test and significance			t:9.003 p:0.000	t:4.732 p:0.000	t:2.500 p:0.000
Level of knowledge of nutritional care					
Insufficient	10	3.8	21.10±2.60a	26.50±2.87	30.10±5.06a
Moderate	158	59.6	22.48±3.11b	26.47±3.57	33.13±5.43b
Sufficient	97	36.6	23.90±2.92c	27.28±3.50	34.80±5.12c
Test and significance			F:8.549 p:0.000 c>a=b	F:1.634 p:0.197	F:5.852 p:0.003 c>a=b
Willingness to receive nutritional education					
Yes	150	56.6	23.14±2.94	27.40±3.83	32.76±5.95
No	115	43.4	22.71±3.23	25.94±2.90	34.77±3.49
Test and significance			t:1.106 P:0.270	t:3.397 P:0.001	t:-3.443 P:0.001
	X±SD	Min-Max			
Age (years)	40.02±7.97	23–54			

who had worked for 10–15 years had higher perceived quality of nutritional care mean scores than the nurses who had worked for 5–10 years (Table 1).

A statistically significant difference was determined in the mean scores of attitudes regarding the significance of nutritional evaluation and knowledge of nutritional care and perceived quality of nutritional care according to the participants' status of having received nutritional education. Those who had received nutritional education had higher mean scores (p<0.05) (Table 1).

A statistically significant difference was determined in the mean scores related to attitudes toward the significance of nutritional evaluation and perceptions of nutritional care quality according to the perceived level of knowledge of nutritional care. Those who reported their level of knowledge as intermediate had higher mean scores (p<0.05). No significant difference was found between participants' perceived level of knowledge of nutritional care mean scores and their level of knowledge of nutritional care (p>0.05) (Table 1).

A statistically significant difference was determined in the mean scores of attitudes toward the importance of nutritional evaluation, level of knowledge of nutritional care, and perceived quality of nutritional care according to willingness to receive nutritional education. The participants who wanted to receive nutritional education had higher attitude and knowledge mean scores, while those who did not want to receive education had higher perceived quality of nutritional care mean scores ($p < 0.05$) (Table 1).

Total Scores of the Nurses’ Nutritional Evaluation, Knowledge, Attitude, and Perception of Care Quality

The mean scores of the participants were found to be 22.95 ± 3.11 for attitudes about the necessity of nutritional evaluation, 26.77 ± 3.53 for level of knowledge of nutritional care, and 33.63 ± 5.12 for perceived quality of nutritional care (Table 2).

Table 2. The mean scores of the study participants related to their attitudes toward the importance of nutritional evaluation, their knowledge of nutritional care, and their perception of its quality

	X±SD	Min-Max
Perceptions of the significance of nutritional evaluation	22.95±3.11	17-28
Level of knowledge of nutritional care	26.77±3.53	15-37
Perceived Quality of Nutritional Care	33.63±5.12	21-45

Relationships between the Age of the Nurses and Attitudes about the Significance of Nutritional Evaluation, Level of Knowledge of Nutritional Care, and Nutritional Care Quality Perception

A negative moderate correlation was determined between the age of the nurses and their scores from attitudes regarding the significance of nutritional evaluation and knowledge level related to nutritional care. A low-level correlation was detected between age and the scores from perceived quality of nutritional care. A positive moderate correlation was found between the mean scores of attitudes toward the importance of nutritional evaluation, level of knowledge of nutritional care, and perceived quality of nutritional care. A negative moderate correlation was observed between the level of knowledge of nutritional care and perceived quality of nutritional care (Table 3).

DISCUSSION

The results of this study demonstrated that nurses had a high level of positive attitude toward the importance of nutritional evaluation. In a similar study in the literature, it was reported that nurses’ attitudes toward the importance of nutritional evaluation were strong and their perceptions of nutritional knowledge and quality of care were slightly above the average.^[1] Similar studies in the literature have also shown that nurses have high positive attitudes toward nutrition.^[15,16]

The nurses in the present study were seen to have an average level of knowledge of nutritional care. In a similar study, it was reported that nurses had a moderate level of knowledge

Table 3. Relationships between the age of the nurses and their attitude toward the importance of nutritional evaluation, level of knowledge about nutritional care, and perceived quality of nutritional care scores

Variables	Age	Attitudes to ward the Importance of Nutritional Evaluation	Level of Knowledge of Nutritional Care	Perceived Quality of Nutritional Care
Age				
r	1			
p				
Attitudes toward the importance of nutritional evaluation				
r	-0.217	1		
p	0.000			
Level of knowledge of nutritional care				
r	-0.260	0.375	1	
p	0.000	0.000		
Perceived quality of nutritional care				
r	0.147	0.323	-0.233	1
p	0.017	0.000	0.000	

of nutritional care.^[17] In another study, in which the knowledge levels of nurses regarding enteral and parenteral nutrition practices were evaluated, it was stated that the knowledge of nurses was at a moderate level.^[12] Considering the similarity of the current study results to findings in the literature, there can be seen to be a need to increase educational interventions to improve the knowledge level of nurses on nutritional care.

The quality of nutritional care perceived by the nurses in this study was found to be average. In the literature, it has been reported that the care provided to patients in the clinics where they work tends to be evaluated by nurses rather negatively.^[1] However, another study found that nurses stated higher evaluation scores for the quality of care in the clinics where they worked.^[17] In the light of these results, studies should focus on increasing the perception levels of nurses toward care in order to increase the quality of care.

The current study results showed that nurses with an undergraduate degree had a more positive attitude toward the importance of nutritional evaluation and higher scores for the level of knowledge of nutritional care. In similar studies, it has been found that as the education level of nurses increases, so their knowledge levels and attitudes about nutritional care also increase.^[13,18,19] It is thought that the increase in the level of education has a positive effect on the attitudes and knowledge levels of nurses regarding nutritional awareness.

In the present study, it was determined that nurses with 20 years or more of professional experience had higher scores in respect of attitudes toward nutritional assessment, nutritional care knowledge, and perceived quality of care. In a previous study, it was reported that nurses who worked in the unit for 1 year or more had higher knowledge, attitudes, and perceptions of nutritional care.^[14] It is thought that the experience gained over a longer working period increases the knowledge, attitudes, and perceptions of nurses and will lead to positive results in the quality of care.

The current study found that nurses working in the palliative care unit, intensive care unit, and chest diseases clinic were seen to have a higher perceived quality of nutritional care. Inadequate nutritional support has been said to be one of the important factors affecting the quality of care in intensive care patients.^[8] Previous studies have shown that improving the nutritional care provided by nurses significantly reduces the risk of catheter infection, pressure ulcers, and sepsis in patients.^[20] The high level of perception seen in the current study results in units where patients are treated for a long time suggests that this is a factor in improving the quality of care.

In the present study, it was found that the majority of the nurses (53.6%) had previously received nutritional education.

From this result, it was determined that the nurses' attitudes regarding the significance of nutritional evaluation, knowledge about nutritional care, and the perceived quality of that care were positively affected by having received nutritional education. Previous studies have reported that the majority of nurses (56.4%, 65.9%, 62%, respectively) had previously received nutritional education, similar to the present study,^[1,16,21] and this was thought to have contributed to positive effects on the level of knowledge, attitude, and perception of nutritional care.

The majority of nurses (59.6%) in the current study had a moderate level of nutritional care knowledge, and these nurses had higher attitudes toward the importance of nutritional evaluation and perceived quality of nutritional care. It has been stated that the level of nutritional knowledge of nurses will significantly affect their attitudes and practices regarding the implementation of nutritional care for patients.^[2] The fact that the nutritional attitude and quality of care were high in the group representing the majority of nurses in the present study suggests that the quality of nursing care will increase with evidence-based practices in accordance with the literature.

The current study results showed that the majority of nurses (53.6%) had received nutritional education and had more positive attitudes regarding the significance of nutritional assessment and knowledge related to nutritional care and perceived quality of nutritional care. In a previous study, it was stated that the majority of nurses (77.7%) had received nutritional education but this had no effect on attitudes regarding the significance of nutritional evaluation and knowledge related to nutritional care and perceived quality of nutritional care.^[14]

A willingness to receive nutritional education was stated by the majority of nurses (56.6%) in this study, and these nurses demonstrated a high level of knowledge regarding nutritional care and reported a high perception of its quality. In another previous study, significance was found between nurses working in units other than intensive care units and the perceived quality of nutritional care.^[1] Nurses play an important role in meeting nutritional needs, and this important role depends on their competencies related to nutrition and their level of knowledge about nutritional support.^[16] Studies have shown that professional and effective educational practices increase the awareness and competence of nurses toward nutrition, have a favorable effect on their attitudes, and contribute positively to patient care outcomes.^[22-24] In the present study, considering the high willingness of the nurses to receive education, it is thought that the education provided will increase the knowledge and perceived quality of nutritional care, resulting in the provision of high-quality care.

CONCLUSION

The results of the present study showed that although nurses have positive attitudes toward the importance of nutritional evaluation, their level of knowledge and perception of quality of nutritional care is moderate. It was also seen that nurses' years of service, working time in the clinic, nutritional education status, nutritional care knowledge level, and willingness to receive nutritional education affect their attitudes regarding the importance attributed to nutritional assessment, their knowledge level in nutritional care, and their perception of its quality. The level of education of the nurses was found to affect their attitudes about the importance of nutritional assessment and their level of knowledge about nutritional care, and the clinics in which the nurses worked affected their perceived quality of nutritional care. In line with these results, it can be recommended that the knowledge of nurses should be questioned and updated at regular intervals, and deficiencies in this regard should be identified and supported with training programs.

Limitations

The main limitation of the study was that it was restricted to nurses working in internal medicine and intensive care units in two district hospitals in a province located in the northern region of Turkey, thereby limiting the generalizability of the findings.

DECLARATIONS

Ethics Committee Approval: The study was approved by Trabzon University Social and Human Sciences Scientific Research and Publication Ethics Committee (No: E-81614018-050.04-2400014629 Date: 18/03/2024).

Informed Consent: Informed consent was obtained from the internal clinic nurses before starting the study.

Conflict of Interest: The authors declare that there is no conflict of interest.

Funding: The authors received no financial support for the research and/or authorship of this article.

Use of AI for Writing Assistance: Not declared.

Authorship Contributions: Concept – NIA, SDC; Design – NIA, SDC; Supervision – NIA, SDC; Fundings – NIA, SDC; Materials – NIA, SDC; Data collection &/or processing – NIA, SDC; Analysis and/or interpretation – NIA, SDC; Literature search – NIA, SDC; Writing – NIA, SDC; Critical review – NIA, SDC.

Acknowledgements: The authors would like to thank all the nurses who participated in the study.

Peer-review: Externally peer-reviewed.

REFERENCES

1. Çoşğun T, Kısacık ÖG. Determination the attitude toward the nutritional assessment, the level of knowledge of nutritional care and the perceived quality of care among nurses. *Celal Bayar Univ J Inst Health Sci* 2021;8:204–17.
2. Kim H, Choue R. Nurses' positive attitudes to nutritional management but limited knowledge of nutritional assessment in Korea. *Int Nurs Rev* 2009;56:333–9.
3. Shin BC, Chun IA, Ryu SY, Oh JE, Choi PK, Kang HG. Association between indication for therapy by nutrition support team and nutritional status. *Medicine (Baltimore)* 2018;97:e13932.
4. Barker LA, Gout BS, Crowe TC. Hospital malnutrition: prevalence, identification and impact on patients and the health-care system. *Int J Environ Res Public Health* 2011;8:514–27.
5. Gürlek Kısacık Ö, Çoşğun T, Taştekin A. The psychometric properties of the turkish version of the assessment questionnaire of the importance of nutritional assessment, the level of knowledge and perceived quality of nutritional care for nurses. *EGE HFD* 2019;35:123–35.
6. Philipson TJ, Snider JT, Lakdawalla DN, Stryckman B, Goldman DP. Impact of oral nutritional supplementation on hospital outcomes. *Am J Manag Care* 2013;19:121–8.
7. Sivrikaya SK, Eryılmaz A. Nutritional supplement in the team nursing. *Samsun J Health Sci* 2018;3:33–7. [Article in Turkish]
8. Avelino-Silva TJ, Jaluul O. Malnutrition in hospitalized older patients: management strategies to improve patient care and clinical outcomes. *Int J Gerontol* 2017;11:56–61.
9. Ayık DB, Enç N. Enteral nutrition in intensive care patients. *J İntens Care Nurs* 2019;23:114–22. [Article in Turkish]
10. Al Kalaldehy M, Shahein M. Nurses' knowledge and responsibility toward nutritional assessment for patients in intensive care units. *J Health Sci* 2014;4:90–6.
11. Yılmaz D, Sarkut P, Düzgün F, Kuzu C, Kılıçturgay, S. The views of nurses on nutritional assessment and nutritional support of hospitalized patients. *J Educ Res Nurs* 2017;14:139–43. [Article in Turkish]
12. Koçhan E, Akın S. Assessment of nurses' knowledge levels regarding enteral and parenteral nutrition practices. *JAREN* 2018;4:1–14.
13. Miriam Theilla RN, Cohen J, Singer P, Liebman C, Kagan I. The assessment, knowledge and perceived quality of nutrition care amongst nurses. *J Nutri Med Diet Care* 2016;2:012.
14. Alış B, Okuroğlu GK. Nurses' knowledge, attitudes and perceptions on nutrition in patient care: a descriptive research. *Türkiye Klinikleri J Nurs Sci* 2025;17:117–25. [Article in Turkish]

15. Bachrach-Lindström M, Jensen S, Lundin R, Christensson L. Attitudes of nursing staff working with older people towards nutritional nursing care. *J Clin Nurs* 2007;16:2007–14.
16. Karasu M, Özşaker E. An examination of the knowledge, attitudes and practice of nurses regarding the nutrition of surgery patients. *Adiyaman Univ J Health Sci* 2019;5:1191–205. [Article in Turkish]
17. Yalcin N, Cihan A, Gundogdu H, Ocakci A. Nutrition Knowledge Level of Nurses. *Health Science Journal* 2013;7(1):99-108.
18. Döngel HE, Kol EÖ, Gönderen K. Attitudes, knowledge, and evaluations of nurses working in training and research hospital regarding nutritional care. *Clin Sci Nutr* 2022;4:80–7.
19. Kalender N, Tosun N, Kiliç S. Determination of the level of knowledge of nurses working at an education hospital about total parenteral nutrition. *Turkiye Klinikleri J Nurs Sci* 2015;7:10–9. [Article in Turkish]
20. Corkins MR, Guenter P, DiMaria-Ghalili RA, Jensen GL, Malone A, Miller S, et al. Malnutrition diagnoses in hospitalized patients: United States, 2010. *JPEN J Parenter Enteral Nutr* 2014;38:186–95.
21. Kıymaz D, Kılıç Ü, Yücesan S, Öztürk R, Toraman M. The knowledge levels of intensive care nurses on nutritional care. *Kırşehir Ahi Evran Univ J Health Sci* 2023;7:172–84.
22. Hossaini Alhashemi S, Ghorbani R, Vazin A. Improving knowledge, attitudes, and practice of nurses in medication administration through enteral feeding tubes by clinical pharmacists: a case-control study. *Adv Med Educ Pract* 2019;10:493–500.
23. Kim H, Chang SJ. Implementing an educational program to improve critical care nurses' enteral nutritional support. *Aust Crit Care* 2019;32:218–22.
24. Sharour LA. Improving oncology nurses' knowledge, self-confidence, and self-efficacy in nutritional assessment and counseling for patients with cancer: A quasi-experimental design. *Nutrition* 2019;62:131–4.