ORIGINAL ARTICLE

Evaluation of the Perceived Quality of the Undergraduate Nursing Curriculum from the Perspective of Students and Faculty Members at Mashhad University of Medical Sciences

Fatemeh Karimi[1], Hossein Karimi Moonaghi[2,*], Seyyed Reza Mazloum[3]
[1]Clinical Research Development Unit of Akbar Hospital, Faculty members of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
[2]Medical Sciences Education Research Center, and Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
[3]Department of Medical-Surgical Nursing, School of Nursing and Midwifery, Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
[*]School of Nursing and Midwifery, Mashhad University of Medical Sciences, Kharazmi Complex, Mashhad, 9137913199, IRAN
+985138591511, Email: karimih@mums.ac.ir

Background: Universities play a crucial role in knowledge transfer and training skilled human resources, making continuous evaluation of educational quality essential. Assessing the quality of the undergraduate nursing curriculum from the perspectives of students and faculty members can enhance learning outcomes. Therefore, this study aimed to evaluate the quality of the undergraduate nursing program.

Method: This descriptive cross-sectional study was conducted at the School of Nursing and Midwifery, Mashhad University of Medical Sciences, during the 2024-2025 academic year. The participants consisted of 214 nursing students and 17 faculty members. Data were collected using a researcher-made questionnaire to evaluate curriculum quality across four dimensions: objectives, content, teaching strategies, and evaluation methods. The data collection process was carried out through both online and in-person methods.

Results: Overall, the means of perceived curriculum quality scores (range: 17–85) were 47.77 ± 10.83 for faculty members and 52.54 ± 5.22 for students. Both groups assessed the quality as 'relatively desirable' (score range: 40–62), as well as across all four dimensions: objectives ($p = 0.028$, $g = 0.54$), content ($p = 0.004$, $g = 0.56$), teaching strategies ($p = 0.002$, $g = 0.61$), and assessment strategies ($p < 0.001$, $g = 0.63$).

Conclusion: Identifying the strengths and areas for improvement in the curriculum provides a practical basis for educational reform, paving the way for enhancing clinical competencies and the future quality of nursing care.

Keywords: Quality, Perspective, Curriculum, Students, Faculty members, Nursing

تقييم الجودة المدركة لمنهج التمريض الجامعي من وجهة نظر الطلاب وأعضاء هيئة التدريس في جامعة مشهد للعلوم الطبية

الخلفية: تلعب الجامعات دوراً حيوياً في نقل المعرفة وإعداد كوادر بشرية مؤهلة، مما يجعل التقييم المستمر لجودة التعليم أمراً ضرورياً. ويمكن أن يؤدي تقييم جودة منهج التمريض الجامعي - من منظور الطلاب وأعضاء هيئة التدريس - إلى تحسين مخرجات التعلم. ولذا، هدفت هذه الدراسة إلى تقييم جودة برنامج التمريض الجامعي.

الطريقة: أجريت هذه الدراسة الوصفية المقطعية في كلية التمريض والقبالة بجامعة مشهد للعلوم الطبية خلال العام الدراسي ٢٠٢٤-٢٠٢٥. شملت الدراسة ٢١٤ طالباً في تخصص التمريض و١٧ عضواً من هيئة التدريس. تم جمع البيانات باستخدام استبانة أعدها الباحثون لتقييم جودة المنهج عبر أربعة أبعاد: الأهداف، والمحتوى، واستراتيجيات التدريس، وطرق التقييم. وقد تمت عملية جمع البيانات عبر وسائل إلكترونية وحضورية.

النتائج: بشكل عام، بلغ متوسط درجات الجودة المدركة للمنهج (التي تتراوح بين ١٧ و٨٥ درجة) ٤٧,٧٧ ± ١٠,٨٣ لدى أعضاء هيئة التدريس و٥٢,٥٤ ± ٥,٢٢ لدى الطلاب. وقد قيّمت كلتا المجموعتين الجودة بأنها "مرغوبة نسبياً" (ضمن نطاق الدرجات ٤٠-٦٢)، وذلك على مستوى المنهج ككل وكذلك في الأبعاد الأربعة جميعها: الأهداف ($p=0.028$, $g=0.54$)، والمحتوى ($p=0.004$, $g=0.56$)، واستراتيجيات التدريس ($p=0.002$, $g=0.61$)، واستراتيجيات التقييم ($p<0.001$, $g=0.63$).

الخلاصة: يوفر تحديد نقاط القوة ومجالات التحسين في المنهج أساساً عملياً للإصلاح التعليمي، مما يمهد الطريق لتعزيز الكفاءات السريرية وجودة الرعاية التمريضية في المستقبل.

الكلمات المفتاحية: الجودة، وجهة النظر، المنهج، الطلاب، أعضاء هيئة التدريس، التمريض.

بررسی کیفیت ادراک شده برنامه درسی کارشناسی پرستاری از دیدگاه دانشجویان و اعضای هیأت علمی پرستاری دانشگاه علوم پزشکی مشهد

زمینه و هدف: دانشگاه‌ها در انتقال دانش و تربیت نیروی انسانی ماهر نقش اساسی دارند؛ از این رو ارزیابی مستمر کیفیت آموزش ضرورت دارد. سنجش کیفیت برنامه درسی کارشناسی پرستاری از دیدگاه دانشجویان و اعضای هیأت علمی می‌تواند به بهبود فرآیند یادگیری و ارتقاء نتایج آموزشی منجر شود. این مطالعه با هدف ارزیابی کیفیت ادراک شده برنامه درسی کارشناسی پرستاری انجام شد.

روش: این مطالعه توصیفی ـ مقطعی در دانشکده پرستاری و مامایی دانشگاه علوم پزشکی مشهد در سال تحصیلی ۱۴۰۴-۱۴۰۳ انجام شد. شرکت‌کنندگان شامل ۲۱۴ دانشجو و ۱۷ عضو هیأت علمی گروه پرستاری بودند. ابزار گردآوری داده‌ها پرسشنامه محقق‌ساخته ارزیابی کیفیت برنامه درسی در چهار بُعد اهداف، محتوا، راهبردهای تدریس و راهبردهای ارزشیابی بود. گردآوری داده‌ها به‌صورت آنلاین و حضوری انجام گرفت.

یافته‌ها: در مجموع، نمره کیفیت ادراک شده برنامه درسی (دامنه نمره ۱۷ تا ۸۵) در اعضای هیأت علمی (۱۰/۸۳ ± ۴۷/۷۷) و در دانشجویان (۵/۲۲ ± ۵۴۵۲) بود و هر دو گروه کیفیت را در سطح نسبتاً مطلوب (بازه ۴۰ تا ۶۲) ارزیابی شد. با این حال، نمره کل اساتید به طور معناداری بالاتر از دانشجویان بود ($p<0.001$, $g=0.72$). همچنین اساتید در تمام ابعاد چهارگانه نمرات معنادار بالاتری دادند: اهداف ($p=0.028$, $g=0.54$)، محتوا ($p=0.004$, $g=0.56$)، راهبردهای تدریس ($p=0.002$, $g=0.61$) و راهبردهای ارزشیابی ($p<0.001$, $g=0.63$).

نتیجه گیری: شناسایی نقاط قوت و زمینه‌های قابل‌بهبود در برنامه درسی، مبنایی کاربردی برای اصلاحات آموزشی فراهم می‌آورد که بسترساز ارتقای شایستگی‌های بالینی و کیفیت مراقبت‌های پرستاری در آینده خواهد بود.

واژه های کلیدی: کیفیت دیدگاه برنامه درسی، دانشجویان، اعضای هیأت علمی، پرستاری

مشہد یونیورسٹی آف میڈیکل سائنسز میں طلبہ اور فیکلٹی ممبران کے نقطہ نظر سے انڈر گریجویٹ نرسنگ نصاب کے معیار کا جائزہ

پس منظر: یونیورسٹیاں علم کی منتقلی اور ہنر مند افرادی قوت کی تربیت میں اہم کردار ادا کرتی ہیں، جس کی وجہ سے تعلیمی معیار کا مسلسل جائزہ لینا ناگزیر ہے۔ طلبہ اور فیکلٹی ممبران کے نقطہ نظر سے انڈر گریجویٹ نرسنگ نصاب کے معیار کا جائزہ لینے سے سیکھنے کے نتائج (learning outcomes) کو بہتر بنایا جا سکتا ہے۔ لہٰذا، اس تحقیق کا مقصد انڈر گریجویٹ نرسنگ پروگرام کے معیار کا جائزہ لینا تھا۔

طریقہ: یہ وضاحتی کراس سیکشنل (descriptive cross-sectional) مطالعہ تعلیمی سال ۲۰۲۵-۲۰۲۳ کے دوران مشہد یونیورسٹی آف میڈیکل سائنسز کے اسکول آف نرسنگ اینڈ مڈوائفری میں کیا گیا۔ اس میں ۲۱۳ نرسنگ طلبہ اور ۱۷ فیکلٹی ممبران شریک ہوئے۔ نصاب کے معیار کو چار پہلوؤں—مقاصد، مواد، تدریسی حکمت عملی، اور جانچ کے طریقوں—کے تحت جانچنے کے لیے محقق کے تیار کردہ سوالنامے کا استعمال کیا گیا۔ ڈیٹا اکٹھا کرنے کا عمل آن لائن اور بالمشافہ (in-person) دونوں طریقوں سے مکمل کیا گیا۔

نتائج: مجموعی طور پر، نصاب کے معیار کے بارے میں تاثر کے اسکورز (حد: ۱۷ تا ۸۵) کی اوسط فیکلٹی ممبران کے لیے ۴۷٫۷۷ ± ۱۰٫۸۳ اور طلبہ کے لیے ۵۲٫۵۳ ± ۵٫۲۲ رہی۔ دونوں گروپوں نے معیار کو 'نسبتاً مطلوبہ' (اسکور کی حد: ۴۰ تا ۶۲) قرار دیا؛ یہی صورتحال چاروں پہلوؤں میں بھی دیکھی گئی: مقاصد ($p=0.028$, $g=0.54$)، مواد ($p=0.004$, $g=0.56$)، تدریسی حکمت عملی ($p=0.002$, $g=0.61$)، اور جانچ کی حکمت عملی ($p<0.001$, $g=0.63$)۔

نتیجہ: نصاب میں خوبیوں اور بہتری کے امکانات کی نشاندہی تعلیمی اصلاحات کے لیے ایک عملی بنیاد فراہم کرتی ہے، جس سے کلینیکل صلاحیتوں اور نرسنگ کیئر کے مستقبل کے معیار کو بہتر بنانے کی راہ ہموار ہوتی ہے۔

کلیدی الفاظ: معیار، نقطہ نظر، نصاب، طلبہ، فیکلٹی ممبران، نرسنگ

Copyright©2026 Mashhad University of Medical Sciences. This work is licensed under a Creative Commons Attribution-Noncommercial 4.0 International License https://creativecommons.org/licenses/by-nc/4.0/deed.en

INTRODUCTION

Rapid global developments have brought significant changes to various aspects of life, including social, political, economic, and cultural domains. In parallel, the nursing profession has been evolving, gradually shifting from a medically oriented, task centered model toward a more human centered approach that prioritizes communication, shared decision making, and individualized care (1). Universities, as primary institutions for knowledge production and the development of human resources, shoulder three essential missions: education, research, and service (2). They are responsible for generating and transferring knowledge and preparing qualified professionals; therefore, continuous assessment, revision, and updating of educational programs are crucial to ensure high quality training (3).

Higher education inherently encompasses both quantitative and qualitative dimensions (4). An emphasis on quantitative expansion without adequate attention to quality may lead to adverse consequences, such as academic underachievement, scientific dependency, reduced creativity and innovation, and increased brain drain (5). Medical sciences education, as a vital component of the higher education system that directly influences human health, is particularly sensitive to these challenges. Nursing, as one of the complex and multifaceted fields within the health sciences, occupies a pivotal position in this system (6). Educational planning in nursing must balance the needs of the healthcare system with societal, economic, and institutional capacities (7). Evidence indicates that educational outcomes in medical sciences are deeply influenced by curriculum content, design, and implementation processes (8, 9). Since the primary goal of nursing is to promote health across the lifespan (10), the quality of nursing curricula directly affects patient care and overall health system performance (11, 12).

Nursing educational programs are typically designed by qualified faculty members using evidence based resources and implemented within structured academic and clinical settings (13). However, traditional curricula and teaching approaches are increasingly inadequate for preparing competent nurses capable of meeting evolving healthcare demands (14). Although the effectiveness of active learning strategies in enhancing deep and sustainable learning has been widely demonstrated, traditional teaching methods remain predominant in many institutions, often due to cultural resistance, reliance on established routines, and perceived instructional safety (3). Nonetheless, reforming teaching approaches and improving perceived curriculum quality must be considered educational priorities.

Curriculum theory provides the conceptual framework for designing, delivering, and evaluating educational programs. Classical curriculum models outline fundamental components including educational objectives, learning experiences, organization, and evaluation. Specifically, Tyler's (1949) curriculum rationale proposed a systematic approach structured around four fundamental questions: defining educational objectives, selecting useful learning experiences, effectively organizing these experiences, and evaluating curriculum outcomes (15).

Empirical studies indicate persistent challenges in achieving optimal curriculum quality. For instance, Haghighat et al. (2019) reported that despite the implementation of the revised national undergraduate nursing curriculum in Iran (2014), improvements in students' professional identity were limited, with scores remaining below expected standards (16). Additionally, students in multiple studies have reported issues such as unclear clinical responsibilities, with 96% stating that no explicit job description was provided during clinical rotations. In contrast, research on nursing students at Tehran University identified clear articulation of learning objectives and responsibilities as a significant strength of clinical education. Establishing explicit objectives is widely recognized as a critical component of effective learning (3).

Azizi et al. (2019) compared the Iranian undergraduate nursing curriculum with that of Widener University in the United States and found that the Iranian curriculum demonstrated weaker performance in areas such as clinical reasoning, critical thinking, evidence based practice, leadership, adequacy of clinical hours, gerontology content, research methods, prerequisite structures, and pharmacology (17). Traditional approaches to curriculum evaluation typically focus on determining alignment with national or international accreditation standards across domains such as mission and goals, educational programs, student performance, faculty members' qualifications, educational resources, governance, and continuous improvement. However, these evaluations often function primarily as checklists and may fail to identify deeper barriers that hinder the attainment of quality standards (15).

A review of existing literature reveals that while many studies have attempted to assess and analyze nursing curricula, most have focused on student satisfaction rather than conducting comprehensive, quantitative evaluations of curriculum components. These components include objectives, content, teaching strategies, and assessment methods from both student and faculty members perspectives. The limited use of robust theoretical frameworks, such as Tyler's evaluation model, further highlights significant gaps in curriculum research. The lack of comprehensive tools capable of evaluating all

curriculum dimensions within a unified framework also emphasizes the need for further studies.

Therefore, considering the importance of curriculum planning, the managerial structure of educational programs, current challenges, and the need to identify gaps and educational needs among undergraduate nursing students, this study was conducted. Its aim was to determine the quality of the undergraduate nursing curriculum from the perspectives of students and faculty members at Mashhad University of Medical Sciences.

METHODS

Study Design

This descriptive study was carried out at the School of Nursing and Midwifery, Mashhad University of Medical Sciences, during 2024–2025. The study population consisted of nursing students at all academic levels and nursing faculty members at the School of Nursing and Midwifery. The study included graduate students because they are alumni of the undergraduate program, providing a valuable retrospective evaluation of the curriculum.

Participants and Sampling

Students

Stratified random sampling was used for the student group. Students were divided into three strata based on their academic level: undergraduate, master's, and doctoral (PhD). The required sample size for each stratum was determined using Krejcie and Morgan Table based on the population size within each stratum.

The list of students in each stratum was obtained from the education office, and a unique code was assigned to each individual. Participants were randomly selected using a lottery method from each stratum. According to Krejcie and Morgan Table, the required sample size was estimated at 230 students. Among those selected, 214 met the eligibility criteria and were included in the study. Sixteen individuals were excluded due to unwillingness to participate or incomplete questionnaires. All 214 enrolled students completed the questionnaire and were included in the final analysis.

Faculty Members

Although Krejcie and Morgan Table was initially considered, all eligible faculty members (n = 35) were invited to participate due to the limited number of nursing faculty members. Of these, 17 consented and were included in the study (response rate: 48.6%), while 18 declined or did not respond. All participating faculty members completed the questionnaire and were included in the analysis.

Data Collection Instrument

Data were collected using a two-part questionnaire. The first part included demographic information, and the second part consisted of items related to the quality of the undergraduate nursing curriculum. The perceived curriculum quality assessment questionnaire was a researcher-made instrument based on Tyler's curriculum model, which evaluates perceived curriculum quality in four domains: objectives, content, teaching strategies, and evaluation methods.

Validity and Reliability Assessment

To design the questionnaire, the researchers reviewed relevant literature, textbooks, and research articles and developed items within the four domains. The questionnaire was then reviewed by an expert panel and evaluated for face and content validity both qualitatively and quantitatively. For qualitative face validity, the items were assessed in terms of difficulty level, relevance, and ambiguity. After revisions based on expert feedback, quantitative face validity was assessed using the impact score, which determines the importance of questionnaire items. Since none of the items had an impact score below 1, no items were removed at this stage.

Content validity was then assessed by experts in nursing education, medical education, and questionnaire design. Modifications were made regarding grammar, wording, and appropriate placement of items. Quantitative content validity was evaluated using the Content Validity Ratio (CVR) and the Content Validity Index (CVI). As none of the items had a CVI score below 0.70 or a CVR score below 0.49, no items were eliminated; however, all items were revised accordingly.

Based on this procedure, the final questionnaire consisted of 17 items. The questionnaire was designed using a five-point Likert scale (5 = very high, 4 = high, 3 = moderate, 2 = low, 1 = very low). The total score assessed the internal quality of the undergraduate nursing curriculum. The questionnaire dimensions included: objectives (items 1–3), content (items 4–6), teaching strategies (items 7–13), and evaluation strategies (items 14–17). The total score of the curriculum quality instrument ranged from 17 to 85. To interpret the perceived quality, scores were categorized into three levels based on equal interval widths: 17–39 (Undesirable), 40–62 (Relatively Desirable), and 63–85 (Desirable).

To assess reliability, the questionnaire was administered to 10 participants, and Cronbach's alpha coefficient was calculated. The Cronbach's alpha for the total perceived curriculum quality questionnaire was 0.87. Although preliminary reliability was assessed in a pilot study of 10 participants, internal consistency was recalculated using the full study sample (n = 231). Cronbach's alpha was 0.91 for the total curriculum evaluation scale, and ranged from 0.77 to 0.85 across all subscales, indicating excellent internal consistency.

Data Collection Procedure

After obtaining written approval from the Research Deputy of the School of Nursing and Midwifery and presenting the authorization to the educational

authorities, data collection was conducted. The researchers invited faculty members and students to participate both in person and online. Interviews with faculty members were conducted at the School of Nursing and Midwifery in Mashhad. The questionnaires were completed voluntarily with participants' consent, and they were assured that their information would remain completely confidential. In this study, the term 'Bachelor of Nursing curriculum' encompasses the entire approved academic program, including both theoretical courses and clinical training (i.e., clinical clerkships and internships). The research instrument was designed to ensure that respondents evaluated the four specified dimensions with a comprehensive perspective of their entire program of study.

Statistical Analysis

After collecting the questionnaires, statistical analysis was performed using SPSS software (version 26). Descriptive statistics including mean, standard deviation, frequency, percentage, and confidence intervals were used. The mean scores of faculty members and students' perspectives were compared using analytical tests including the independent t-test (for normally distributed quantitative variables) and the Mann–Whitney test (for non-normally distributed quantitative variables). Before conducting the analyses, the normality of the data was assessed using the Shapiro-Wilk test, and the homogeneity of variances was evaluated using Levene's test. Due to the violation of the assumption of homogeneity of variances (Levene's $p < 0.05$) and the unequal sample sizes between faculty and students, Welch's t-test was employed to compare the means. Chi-square and Fisher's exact tests were used for qualitative variables. A significance level of 95% ($\alpha = 0.05$) was considered for all statistical tests.

RESULTS

Among the participating faculty members, 13 individuals (76.5%) were female. The mean age of the faculty members was 41.53 ± 6.70 years. While the mean age of the students was 24.99 ± 4.04 years. Of the students, 113 (52.8%) were female, and the majority (n = 139, 65%) were enrolled in the undergraduate program (Tables 1 and 2).

In line with the study objectives, the overall quality of the curriculum and its four dimensions were evaluated from the perspectives of both faculty members and students.

The mean total perceived curriculum quality score was 54.52 ± 5.22 from the faculty members' perspective and 47.77 ± 10.83 from the students' perspective. This difference indicates that faculty members evaluated the perceived curriculum quality more favorably than students. Overall, both groups rated the perceived curriculum quality as relatively desirable.

Dimension 1 – Quality of Educational Objectives: The mean score was 9.82 ± 1.42 from the faculty members' perspective and 8.73 ± 2.45 from the students' perspective.

Dimension 2 – Quality of Educational Content: The mean score for this dimension was 9.52 ± 1.23 according to faculty members and 8.23 ± 2.94 according to students.

Dimension 3 – Quality of Teaching Strategies: Faculty members rated this dimension with a mean of 22.11 ± 2.52, whereas students reported a mean of 19.39 ± 5.17.

Dimension 4 – Quality of Evaluation Strategies: The mean score was 13.05 ± 1.56 from the faculty members' perspective and 11.39 ± 3.26 from the students' perspective.

Across all four dimensions, faculty members assigned higher scores than students, reflecting a more positive evaluation of the perceived curriculum quality compared to students (Table 3). Overall, participants reported a relatively favorable perception of the undergraduate curriculum. Comparison between the two groups revealed that faculty members perceived the overall curriculum quality significantly higher than students did (54.52 ± 5.22 vs. 47.77 ± 10.83; $p < 0.001$), with a medium-to-large effect size (Hedges' $g = 0.72$).

Across specific dimensions, faculty members reported significantly higher ratings than students in all assessed domains: curriculum objectives ($p = 0.028$, $g = 0.54$), curriculum content ($p = 0.004$, $g = 0.56$), teaching strategies ($p = 0.002$, $g = 0.61$), and assessment strategies ($p < 0.001$, $g = 0.63$). The largest perceptual discrepancies between the two groups were observed in the domains of teaching strategies and assessment strategies (Table 3).

DISCUSSION

The present study was conducted to determine the perceived quality of the undergraduate nursing curriculum from the perspectives of students and faculty members at Mashhad University of Medical Sciences during 2024–2025. The findings were analyzed according to the established objectives. The results indicated that the perceived curriculum quality score from the faculty members' perspective was higher than that of the students; however, both groups assessed the perceived curriculum quality as relatively desirable. This finding aligns with the results of the study by Riazi et al. (2020), which reported the perceived curriculum quality to be at a desirable level from the perspective of nursing students (18). In that study, the core components of a competency-based curriculum—including content, student evaluation, and the overall curriculum—were also emphasized, suggesting that these factors can be effective in decision-making for nursing curriculum revisions and reforms. However, when comparing these

Table 1. Comparison of participants' age in the study

Variable	Group	
	Faculty members (n = 17)	Students (n = 214)
	Mean (SD)	Mean (SD)
Age	41.53 (6.70)	24.99 (4.04)

Table 2. Frequency distribution of study participants by gender and educational level

Variable		Group	
		Faculty members (n = 17)	Students (n = 214)
		n (%)	n (%)
Gender	**Female**	13(76.5)	113(52.8)
	Male	4(23.5)	101(47.2)
Educational level	**Bachelor's Degree (BSc)**	0(0.0)	139(65.0)
	Master's Degree (MSc)	2(11.8)	62(29.0)
	Doctor of Philosophy (PhD)	15(88.2)	13(6.1)
	Total	17(100.0)	214(100.0)

Table 3. Curriculum perceived quality and its dimensions in faculty members and students

Variable	Faculty members	Students	Mean difference (95% CI)	Effect size (Hedges'g)	p-value
	Mean (SD)	Mean (SD)			
Quality of curriculum objectives	9.82 (1.42)	8.73 (2.45)	1.09 (0.13, 2.05)	0.54	0.028
Quality of curriculum content	9.52 (1.23)	8.23 (2.94)	1.29 (0.45, 2.13)	0.56	0.004
Quality of teaching strategies	22.11 (2.52)	19.39 (5.17)	2.72 (1.10, 4.34)	0.61	0.002
Quality of assessment strategies	13.05 (1.56)	11.39 (3.26)	1.66 (0.83, 2.49)	0.63	<0.001
Overall perceived curriculum quality score	54.52 (5.22)	47.77 (10.83)	6.75 (3.65, 9.85)	0.72	<0.001

Welch's t-test was employed due to unequal sample sizes and variance; Effect size (Hedges' g) reported for bias correction in small samples.

findings, methodological differences must be noted: Riazi et al. utilized a competency-based evaluation model, whereas the present study employed Tyler's objective-centered framework. Nonetheless, while the Context, Input, Process, and Product)CIPP(model is a significant framework for evaluating the quality of health sciences curricula, it does not fully correspond with the dimensions of perceived curriculum quality assessment from Tyler's perspective (9). In the study by Yazdani et al. (2017), which focused primarily on student perspectives without faculty member participation using a similar framework in Iran, the perceived curriculum quality was also reported as desirable (9), which is consistent with the current findings. The higher scores reported by faculty members should be interpreted cautiously; potential explanations, such as greater professional oversight or educational experience, were not measured in this study and remain as assumptions. Furthermore, a study by Santos et al. (2023) identified competency, evaluation, and skills as critical factors in perceived curriculum quality and confirmed that students are well-equipped to evaluate the curriculum (19), which was also demonstrated in the current study, yielding acceptable results.

Students, particularly those in their final year and alumni, are the primary consumers of the curriculum; they hold different perspectives from faculty members and can precisely evaluate the quality of objectives, content, teaching strategies,

and assessment. The findings of Alhammimat et al. (2021) in Jordan also support this, reporting the nursing perceived curriculum quality as acceptable from the perspective of final-year students (20). Similarly, a study by Apia et al. (2020) conducted on nursing faculty members in the Philippines evaluated perceived curriculum quality as desirable (21). However, direct comparisons with these international studies must be made with caution due to substantial differences in institutional contexts, national nursing education systems, and sample characteristics (e.g., Apia evaluated only faculty members with a smaller sample, whereas the present study integrated both faculty members and multi-level student perspectives). Furthermore, the findings were analyzed according to different dimensions of curriculum quality: In the first dimension, "Quality of Educational Objectives," results indicated a desirable level, though faculty members scores were higher than student scores. Students rated the quality of objectives lower than faculty members did; however, this dimension performed better compared to other quality dimensions. This suggests that curriculum developers and revisers should pay special attention to objectives. According to Bista and Priestley (2013), clear and explicit objectives provide a foundation for transparent decision-making regarding the inclusion or exclusion of curriculum elements and are vital for enhancing students' knowledge, skills, and performance (22). The discrepancy between faculty members and student views might also be attributed to the faculty members' deeper involvement in curriculum design and syllabus implementation, compared to students' learning-oriented perspective.

In the second dimension, "Quality of Content," findings showed that content quality was desirable for both groups, yet faculty members scores remained higher. Organization and content are critical components of the undergraduate nursing program; identifying existing needs in this area can aid program enhancement. Lopez et al. (2019) emphasized the need for curriculum content revision and suggested integrating certain courses to reduce content load, although their focus was primarily on clinical education and within a different curriculum structure, making direct comparison limited (23). The present study quantitatively reported content quality as desirable, but reaching a "highly desirable" level requires continuous updates to reduce unnecessary content overload. The third dimension, "Quality of Teaching Strategies," was also rated as desirable, with faculty members scores exceeding those of students. Students play a key role in evaluating teaching methods, as their perceptions of teaching and the educational atmosphere directly influence the quality of the learning environment (24). Khan et al. (2019) found that faculty members respect for students' diverse approaches positively impacts perceived curriculum quality (15). Furthermore, Alhammimat et al. (2021) showed that a significant percentage of students rated teaching strategies as "very good" (20). The slight variance between their results and the current study may stem from contextual and instructional differences as well as the diversity of academic levels among our participants. In the fourth dimension, "Quality of Evaluation Strategies," scores were also at a desirable level, with faculty members giving higher scores than students. Alhammimat et al. (2021) similarly confirmed the clarity and high quality of evaluation strategies from the students' perspective (20). Systematic planning and the use of standardized evaluation methods are essential for measuring learning outcomes. This study differs from previous research by also incorporating faculty members' perspectives within Tyler's model, providing a more balanced evaluation of curriculum assessment strategies in the Iranian context.

This study was conducted with the participation of students and faculty members at the School of Nursing and Midwifery, Mashhad University of Medical Sciences, and the findings primarily reflect the perceptions within this specific institutional context. While the undergraduate nursing curriculum is standardized at the national level, its actual implementation is significantly influenced by local factors, such as faculty expertise, teaching methodologies, clinical resources, and institutional environment. Therefore, the findings should not be broadly generalized to other nursing schools across the country. Instead, the study serves as an initial assessment of perceived curriculum quality in our setting, and we recommend further multi-center studies to compare findings across diverse academic institutions and identify variations in curriculum implementation nationally.

This study has several limitations. First, it was conducted in a single institution with a relatively small faculty sample (n=17, response rate: 48.6%), which may introduce non-response bias and limit the generalizability of the findings to other settings with different contextual and clinical resources. Second, data were collected via self-report questionnaires, potentially leading to social desirability and response bias. Third, the cross-sectional design precludes evaluating temporal changes in participants' perceptions. Fourth, unmeasured factors such as faculty teaching experience, pedagogical styles, and environmental conditions may have influenced the outcomes. Fifth, terms such as "desirable" reflect predefined categories of the evaluation instrument based on subjective ratings, representing perceived quality. Finally, direct clinical outcomes and objective practice competencies were not evaluated, as this

rather than an objective curriculum assessment. cross-sectional study primarily focused on perceived educational quality. Future multi-center studies employing qualitative or mixed-methods approaches are recommended to provide a deeper understanding of curriculum quality.

CONCLUSION

Although this study did not directly assess clinical outcomes or the quality of nursing care, the identified strengths and areas for improvement in the current curriculum may provide a basis for future curriculum reforms. Such reforms could potentially contribute to improving nursing education and, indirectly, the quality of future nursing care delivery.

Ethical Considerations:

This study was approved by the Ethics Committee of Mashhad University of Medical Sciences under the ethical code: IR.MUMS.REC.1401.077. Participation in the study was voluntary, and all participants' information was collected and analyzed confidentially and anonymously.

ACKNOWLEDGMENTS

This article is derived from a research project approved by the Research Vice-Chancellor of Mashhad University of Medical Sciences (Grant No. 4001036). The authors would like to express their sincere gratitude to the Research Vice-Chancellor of the university for financial and administrative support, as well as to all individuals who assisted and supported us throughout the study. We also extend our deep appreciation for the scientific support and meaningful contributions of the late Saeed Parnian, MSc in Pediatric Nursing, whose efforts and collaboration greatly enriched this research. His memory will always remain in our hearts and minds.

Financial Support: This research was financially supported by the Deputy of Research at Mashhad University of Medical Sciences, Mashhad, Iran.

Conflict of Interest: The authors declare that they have no competing interests.

REFERENCES

1. Jiménez-Gómez MA, Cárdenas-Becerril L, Velásquez-Oyola MB, Carrillo-Pineda M, Barón-Díaz LY. Reflective and critical thinking in nursing curriculum. Rev Lat Am Enfermagem. 2019;27:e3173.
2. Rayatdoost E JRR, Ayalbar A, Kalani N. Factors Affecting The Quality Of Clinical Education From The Perspective Of Medical Students. intjmi. 2022;11(1):142-53.
3. Kermansaravi F, Navidian A, Yaghoubinia F. Nursing students' views of nursing education quality: a qualitative study. Global journal of health science. 2015;7(2):351-9.
4. Jafari Asl M CMM, 3Shafipour S Z, Ghanbari A. Quality of Educational Services from ViewPoint's of Nursing and Midwifery Students of Guilan University Based on Servqual Model. gums-rme. 2014;6(1):50-8.
5. Sajadi S A MNJ, Nezamzadeh M. Comparative study of nursing education in Iran and Japan. Clinical-Excellence. 2016;4(2):81-99.
6. Michaeli Manee F SE, Baghaei R, Alipour M. Testing the Seven-Factor Model of Academic Motivation (MUSIC) in Medical Sciences Students. IJME. 2017;17(0):69-81.
7. Parto S CM, Asgari F K IE. Educational status and related factors of students of Shahid Beheshti Nursing and Midwifery School: Shahid Beheshti Nurs Midwifery Sch; 2012.
8. Carr G. Changes in nurse education: delivering the curriculum. Nurse Educ Today. 2008;28(1):120-7.
9. Yazdani N, Moradi M. Evaluation of the Quality of Undergraduate Nursing Education Program in Ahvaz Based on CIPP Evaluation Model. Sadra Medical Journal. 2017;5(3):159-72.
10. Issenberg SB, McGaghie WC, Petrusa ER, Lee Gordon D, Scalese RJ. Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. Med teach. 2005;27(1):10-28.
11. Arshadi M, RahkarFarshi M. Conformity of Nursing Researches with Comprehensive Health Plan of Iran: Case Study: Master's Theses and Ph.D. in Nursing of Tabriz University of Medical Sciences. Health Information Management. 2015;12(1):61-8.
12. Ghorbani F RFM, Valizadeh L. Comparison of Master's curriculum of pediatric nursing in Iran and United states. J-Nurs-Edu. 2015;4(3):41-7.
13. Ghasemi MR, Moonaghi HK, Heydari A. Strategies for sustaining and enhancing nursing students' engagement in academic and clinical settings: a narrative review. Korean J Med Educ. 2020;32(2):103-17.
14. Khalid BA. The current status of medical education in the Gulf Cooperation Council countries. Ann Saudi Med. 2008;28(2):83-8.
15. Khan RA, Spruijt A, Mahboob U, van Merrienboer JJG. Determining 'curriculum viability' through standards and inhibitors of curriculum quality: a scoping review. BMC Med Educ. 2019;19(1):336.
16. Haghighat S, Borhani F, Ranjbar H, Naseri P. Evaluating the formation of professional identity in Iranian nursing students after implementation of a new curriculum. J Nurs Midwifery Sci. 2019;6(3):138-43. doi:10.4103/2345-5756.231386.
17. Azizi S NM, Babamohamadi H. Undergraduate Nursing Curriculum at Iranian and Universities and Widener University in the USA. J-Nurs-Edu. 2019;8(2):8-19.
18. Riazi S DN, Hosseinikhah A, Aliasgari M. Understanding gaps and needs in the undergratue nursing curriculum in Iran: A prelude to design a competency-based curriculum model. payeshj. 2020;19(2):145-58.
19. Santos APR, Silva DMR, Silva MVF, Oliveira MFG, Lages I, Souza CFQ, et al. Competency-based curriculum from the perspective of undergraduate nursing students. In: Challenges and Innovations in Education: Scientific Perspectives. Seven Editora; 2023. p. 1-15.
20. Al Hmaimat N, Melhem O, Rosita A, Devadas B, Abboud H. Curriculum evaluation: Measuring the students' achievement of a program level learning outcomes in the baccalaureate degree of nursing. Int J Nurs Health Care Res. 2021;4(12):1267. doi:10.29011/2688-9501.101267.
21. Appiah S. Quality of nursing education programme in the Philippines: faculty members perspectives. BMC Nursing. 2020;19(1):110.
22. Priestley M. The 3-18 Curriculum in Scottish Education. 2013. In T.G.K. Bryce & W.M. Humes (eds.), Scottish Education, 4th edition, Referendum, Edinburgh: Edinburgh University Press.
23. López-Entrambasaguas OM, Calero-García MJ, Díaz-Meco-Niño AM, Martínez-Linares JM. Quality Assurance in Nursing Education: A Qualitative Study Involving Students and Newly Graduated Nurses. Int J Environ Res Public Health. 2019;17(1).
24. Roff S, McAleer S. What is educational climate? Med teach. 2001;23:333-4.