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Perceived vs. experienced care: a comparison between nursing students' self-assessed competence and patients' reported care

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Abstract

Objective This study explores the flow of care by examining the relationship between nursing students' self-perceived competence and patients' perceptions of received care within a clinical setting.

Methods Using a quantitative, cross-sectional design, data were collected from 167 nursing students and 167 patients at a public city hospital. The Nursing Students' Competence Scale (NSCS) and the Patients' Perceptions of Nursing Students' Care Scale (PPNSCS) were employed to assess students' competence across six subscales (Clinical Biomedical Knowledge, General Clinical Skills, Critical Thinking and Reasoning, Patient Care, Ethics and Professional Responsibility, Lifelong Learning) and patients' care perceptions across four subscales (Professionalism, Assurance, Interpersonal Relationships, Knowledge and Skills), respectively.

Results Students rated their overall competence slightly below the theoretical midpoint, while patients perceived the care they received well below the theoretical midpoint, suggesting a potential perceptual gap. Correlation analyses revealed strong associations between students' Patient Care and General Clinical Skills with patients' Assurance ($r = 0.646$ and 0.520, respectively) and Interpersonal Relationships ($r = 0.639$ and 0.533, respectively), while technical competencies like Clinical Biomedical Knowledge ($r = 0.221$–0.262) and Critical Thinking and Reasoning ($r = 0.255$–0.353) showed weaker links.

Conclusions These findings suggest that patients may prioritize relational and emotional dimensions over technical expertise, highlighting a potential misalignment between what students believe they provide and what patients believe they gain. The study underscores the importance of integrating relational skills into nursing education to better align provider intentions with patient experiences, offering insights for enhancing patient-centered care.

Keywords Nursing students, Patient perceptions, Flow of care, Clinical competence, Nursing education, Patient-centered care

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Introduction

Nursing is widely recognized as a cornerstone of healthcare, where the delivery of high-quality care directly influences patient well-being and clinical outcomes [1–4]. Central to this profession is the ability to integrate technical expertise with compassionate, patient-centered practice, a duality honed through clinical training [5–7]. For nursing students, clinical placements serve as a vital bridge between theory and practice, transforming academic knowledge into the lived realities of caregiving. These experiences not only enhance students' procedural competence but also shape their development of interpersonal, ethical, and reflective skills essential to professional identity formation [8, 9].

Care, in this context, is a multidimensional construct encompassing both technical skills and humanistic values. According to Watson's Human Caring Theory, effective care involves more than clinical interventions—it is a relational process that includes empathy, trust-building, and emotional presence [10, 11]. Nursing students' self-assessed competence often includes both procedural mastery and the ability to connect with patients through ethical responsibility, communication, and responsiveness to needs [11, 12]. Meanwhile, patients evaluate care based on perceived professionalism, interpersonal relationships, and the assurance they feel—factors closely tied to the emotional and relational dimensions of care [13, 14].

Despite the critical importance of aligning these perspectives, existing literature tends to examine nursing students' competence and patients' care experiences as isolated constructs [15, 16]. This fragmented approach overlooks the bidirectional nature of care transmission: how students' internal sense of caregiving translates (or fails to translate) into the patient's lived experience [12, 13]. This gap is particularly relevant in educational settings, where students are still developing their ability to deliver holistic, patient-centered care.

The current study seeks to address this gap by examining the relationship between nursing students' self-perceived competence and patients' perceptions of the care they receive. Specifically, it investigates whether students' confidence in areas such as general clinical skills, ethics, or patient care are reflected in patients' assessments of professionalism, assurance, or relational connection. By framing care as a dynamic interaction shaped by both giver and receiver, this study contributes to a deeper understanding of how perceived competence and experienced care may converge—or diverge—within clinical practice. The aim of this study is to explore the alignment between nursing students' self-assessed clinical competence and patients' reported experiences of care, with the goal of informing future educational strategies that enhance both technical proficiency and relational capacity.

Methods

Study design

This study employed a quantitative, cross-sectional design to investigate the relationship between nursing students' self-perceived competence and patients' perceptions of received care within a clinical context. A cross-sectional approach was selected to capture a snapshot of these perspectives at a specific point in time, allowing for the simultaneous assessment of students' beliefs about their caregiving contributions and patients' experiences of care delivery. This design aligns with the study's aim to explore the flow of care as a dynamic interplay, where the alignment—or potential divergence—between what students believe they provide and what patients believe they gain can be systematically examined.

Participants and setting

This study included 167 nursing students (age: 20.6 ± 2.6 years) and 167 patients (age: 46.0 ± 18.9 years) recruited from a public city hospital and an affiliated university nursing program in a province of Turkey. The nursing student participants were undergraduate students in their second, third, or fourth years of study, reflecting a typical cohort engaged in clinical training. Inclusion criteria for students required current enrollment in clinical practice courses and voluntary consent to participate, ensuring active involvement in patient care during the study period. Students in their first year or those not participating in clinical placements were excluded to maintain focus on individuals with sufficient practical exposure. Patients were selected from hospital wards where these students provided care, with inclusion criteria stipulating a minimum of eight hours of direct care received from a participating student and the ability to provide informed consent. Patients with cognitive impairments, those under 18 years of age, or those hospitalized for less than eight hours were excluded to ensure reliable self-reported perceptions of care. No formal sample size calculation was conducted due to the cross-sectional design; instead, all eligible participants who consented were enrolled to enhance the representativeness of the sample. This setting—a busy public hospital environment—offered a naturalistic context to explore the transmission of care from nursing students to patients, capturing real-world dynamics of clinical practice.

Instruments

Two validated instruments were employed to assess the constructs central to this study: nursing students' self-perceived competence and patients' perceptions of received care. These tools were selected for their established reliability and relevance to the study's aim of exploring the flow of care between providers and recipients. The Nursing Students' Competence Scale (NSCS),

developed and validated by Ülker and Korkmaz (2022), was used to measure students' self-reported competence. This instrument comprises 43 items across six subscales: Clinical Biomedical Science (5 items), General Clinical Skills (7 items), Critical Thinking and Reasoning (4 items), Care (6 items), Ethics and Responsibility (15 items), and Lifelong Learning (6 items). Responses are recorded on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree), yielding a total score ranging from 43 to 301, with higher scores indicating greater perceived competence. The scale's internal consistency is robust, with a Cronbach's alpha of 0.978 for the total scale and subscale coefficients ranging from 0.799 to 0.974, reflecting high reliability [14]. Its validity was established through exploratory and confirmatory factor analyses, ensuring its suitability for assessing multifaceted competence in nursing education.

The Patients' Perceptions of Nursing Students' Care Scale (PPNSCS), originally developed by Jagoda et al. (2019) and adapted into Turkish by Karatana and Öztürk Yıldırım (2023), evaluated patients' experiences of care provided by nursing students. This 28-item scale includes four subscales: Professionalism (e.g., reliability), Assurance (e.g., trust), Interpersonal Relationships (e.g., communication), and Knowledge-Skills (e.g., technical ability). Items are scored on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), with mean scores ranging from 1 to 5; higher averages denote more positive perceptions [15]. The Turkish adaptation of the scale demonstrated strong psychometric properties, with a good fit [RMSEA = 0.03, CFI = 0.99, Cronbach's alpha = 0.94] [16]. The scale's foundation in Watson's Human Caring Theory and the Caring Behaviors Inventory-24 enhances its construct validity for capturing patient-centered care experiences [15].

Data collection

Data were collected directly from participants in the clinical wards of a public city hospital where nursing students were assigned for their practical training. This process took place between October 2024 and January 2025, following ethical approval. The study received ethical approval from the Erzurum Technical University Scientific Research and Publication Ethics Committee (Decision No: 10/16, Date: September 12, 2024). The process occurred following ethical approval and involved face-to-face administration of the study instruments to both nursing students and patients. For students, the Nursing Students' Competence Scale was distributed during scheduled clinical practice sessions, typically at the conclusion of their shifts, to minimize disruption to their duties. Patients completed the Patients' Perceptions of Nursing Students' Care Scale after receiving care from a participating student for at least eight hours, ensuring

sufficient exposure to form informed perceptions. Participation was entirely voluntary; all individuals were informed of the study's purpose, their right to withdraw at any time, and the confidentiality of their responses prior to providing written consent. Each instrument required approximately 10 min to complete, with research assistants available to clarify instructions or assist participants as needed. This approach ensured the collection of reliable, real-time data reflective of the care dynamics between students and patients in an authentic clinical environment.

Data analysis

Data analysis was conducted using IBM SPSS Statistics version 27.0 to examine the relationship between nursing students' self-perceived competence and patients' perceptions of received care. To assess the primary study question—the alignment between what students believe they provide and what patients believe they gain—Pearson correlation coefficients were computed between the subscales of the Nursing Students' Competence Scale (NSCS) and the Patients' Perceptions of Nursing Students' Care Scale (PPNSCS). This approach allowed for an examination of potential associations between specific dimensions, such as students' general clinical skills or caregiving and patients' experiences of assurance or interpersonal relationships. All statistical tests were two-tailed, with a significance level set at $p \leq 0.05$, ensuring a rigorous evaluation of the data while accounting for the exploratory nature of the study.

Results

The correlation analysis elucidated the relationships between nursing students' self-reported competence, as measured by the Nursing Students' Competence Scale (NSCS), and patients' perceptions of care, as assessed by the Patients' Perceptions of Nursing Students' Care Scale (PPNSCS). The correlation matrix, presented in Table 1, provides a detailed overview of these associations across the respective subscales, offering insights into the potential flow of care from students' perceived contributions to patients' experiences. Descriptive statistics further illustrate the mean scores and standard deviations for both groups. Students' perceived competence across the NSCS subscales showed averages of 3.6 ± 0.8 for Clinical Biomedical Knowledge, 3.8 ± 0.8 for General Clinical Skills, 3.6 ± 0.9 for Critical Thinking and Reasoning, 3.1 ± 0.6 for Patient Care, 4.1 ± 0.5 for Ethics and Professional Responsibility, and 4.1 ± 0.9 for Lifelong Learning, with a total competence score of 3.8 ± 0.3, slightly below the theoretical midpoint of 4.0 on a 1–7 scale. In contrast, patients' perceptions of care across the PPNSCS subscales averaged 2.3 ± 0.7 for Professionalism, 1.9 ± 1.0 for Assurance, 2.7 ± 1.4 for Interpersonal Relationships, and 3.6 ± 0.8 for

Table 1 Correlation matrix between nursing students' competence scale (NSCS) and patients' perceptions of nursing students' care scale (PPNSCS) subscales

NSCS Subscales	Professionalism	Assurance	Interpersonal Relationships	Knowledge and Skills	Total Care Perception
Clinical Biomedical Knowledge	0.282*	0.221*	0.262*	0.002	0.270*
General Clinical Skills	0.346*	0.520*	0.533*	0.072	0.506*
Critical Thinking and Reasoning	0.353*	0.255*	0.255*	0.061	0.304*
Patient Care	0.254*	0.646*	0.639*	0.263*	0.642*
Ethics and Professional Responsibility	0.241*	0.412*	0.411*	0.328*	0.462*
Lifelong Learning	0.188*	0.264*	0.305*	-0.072	0.268*
Total Competence Score	0.536*	0.762*	0.796*	0.186*	0.812*

*$p \leq 0.05$

Knowledge and Skills, with a total care perception score of 2.3 ± 0.7, well below the theoretical midpoint of 3.0 on a 1–5 scale. These findings suggest that students may rate their competence higher than patients perceive the care they receive, potentially indicating a perceptual gap that warrants further exploration.

Students' perceived competence in General Clinical Skills demonstrated moderate to strong positive correlations with patients' ratings of Assurance ($r = 0.520$, $p \leq 0.05$) and Interpersonal Relationships ($r = 0.533$, $p \leq 0.05$), suggesting that practical skills might contribute to patients' sense of trust and relational quality. Similarly, the Patient Care subscale exhibited particularly robust associations with Assurance ($r = 0.646$, $p \leq 0.05$) and Interpersonal Relationships ($r = 0.639$, $p \leq 0.05$), indicating that students' confidence in caregiving could be reflected in patients' emotional and interactive experiences. In contrast, correlations involving Clinical Biomedical Knowledge and Critical Thinking and Reasoning were weaker, with coefficients ranging from 0.221 to 0.353 ($p \leq 0.05$), hinting that these cognitive and theoretical dimensions may have a more limited influence on patients' care perceptions. The Ethics and Professional Responsibility subscale showed moderate correlations with Assurance ($r = 0.412$, $p \leq 0.05$) and Interpersonal Relationships ($r = 0.411$, $p \leq 0.05$), suggesting a potential link between ethical conduct and patients' trust or engagement. However, Lifelong Learning displayed the weakest associations, with the highest correlation being 0.305 ($p \leq 0.05$) with Interpersonal Relationships, implying that this aspect might not significantly shape patients' views of care.

From the patient perspective, the Total Care Perception score correlated moderately with the Total Competence Score ($r = 0.812$, $p \leq 0.05$), reflecting a broad alignment across the assessed domains. Notably, Assurance ($r = 0.762$, $p \leq 0.05$) and Interpersonal Relationships ($r = 0.796$, $p \leq 0.05$) exhibited the strongest overall correlations with students' total competence, while Professionalism ($r = 0.536$, $p \leq 0.05$) and Knowledge and Skills ($r = 0.186$, $p \leq 0.05$) showed weaker ties. These patterns may suggest that patients could prioritize relational and emotional dimensions of care, potentially interpreting students' efforts through a lens of trust and interaction rather than solely technical proficiency.

Discussion

The findings of this study highlight the significant role of relational and emotional dimensions in shaping patients' perceptions of care delivered by nursing students, suggesting a potential divergence in how care is conceptualized by providers and recipients. The strong positive correlations between students' General Clinical Skills ($r = 0.520$ with Assurance, $r = 0.533$ with Interpersonal Relationships) and Patient Care ($r = 0.646$ with Assurance, $r = 0.639$ with Interpersonal Relationships) and patients' ratings of Assurance and Interpersonal Relationships indicate that patients may place greater emphasis on trust, empathy, and communication rather than technical proficiency alone. Students rated their overall competence slightly below the theoretical midpoint, while patients perceived the care they received well below the theoretical midpoint, suggesting a potential perceptual gap. This pattern suggests that while nursing students might focus on mastering procedural skills, patients could interpret these efforts through a lens of emotional connection and relational warmth, aligning with the flow of care as a dynamic interplay between perceived provision and received experience. This observation is consistent with evidence suggesting that patients often prioritize interpersonal attributes when evaluating care quality, particularly when technical competence is assumed to be a baseline expectation [17, 18]. For instance, research has shown that patients value nurses' ability to foster trust and empathy, which may explain why relational dimensions emerge as dominant in their perceptions, potentially overshadowing the technical contributions students believe they provide [19, 20]. This emphasis on relational dimensions aligns with Watson's Human Caring Theory, which posits that caring is a transpersonal process involving emotional connection and mutual trust [21]. The concept of caring moments—meaningful interactions where patients feel genuinely seen and supported—may explain why patients prioritize

Assurance and Interpersonal Relationships, as these reflect the emotional presence that transcends technical skills. These findings challenge the traditional emphasis on technical training and underscore the need to consider patients' emotional needs as a critical component of care delivery, reflecting a patient-centered perspective that could inform future educational priorities.

The limited associations between nursing students' Clinical Biomedical Knowledge (r ranging from 0.221 to 0.262) and Critical Thinking and Reasoning (r ranging from 0.255 to 0.353) with patients' perceptions of care, as measured across all PPNSCS subscales, suggest that technical and theoretical competencies may play a less prominent role in shaping patients' care experiences. This observation could indicate that patients might lack the expertise to directly evaluate complex dimensions such as biomedical knowledge or clinical reasoning, or they may simply prioritize more observable aspects of care, such as emotional support and interpersonal engagement, over these cognitive skills. Such a pattern aligns with existing literature, which frequently notes that patients often assume a baseline level of technical competence in healthcare providers, focusing instead on tangible behaviors like attentiveness and communication as primary indicators of quality [22–24]. This discrepancy highlights a critical aspect of the flow of care: while students may believe they provide value through their theoretical knowledge and problem-solving abilities, these contributions might not fully translate into patients' lived experiences, underscoring the need to bridge this perceptual gap in clinical training.

The moderate correlations between nursing students' Ethics and Professional Responsibility and patients' perceptions of Assurance ($r = 0.412$) and Interpersonal Relationships ($r = 0.411$) suggest that ethical conduct and professional accountability might play a supportive role in fostering patient trust and engagement. This finding indicates that students who exhibit behaviors such as respect, reliability, and adherence to ethical standards could contribute to a sense of security and connection among patients, reflecting an important facet of the care delivery process. The relatively modest strength of these associations, however, may imply that while ethical practices enhance patients' perceptions, their impact might be less pronounced compared to direct caregiving or relational skills, possibly due to the abstract nature of ethical competence that requires observable demonstration to be fully appreciated. This observation finds resonance in prior research, which highlights that ethical behavior—such as maintaining patient dignity and confidentiality—often underpins patient confidence in healthcare providers [25, 26]. This interplay underscores the flow of care as a process where ethical dimensions, though influential, may require reinforcement through

visible patient-centered actions to maximize their perceived value.

The robust correlations between nursing students' Patient Care and patients' perceptions of Assurance ($r = 0.646$) and Interpersonal Relationships ($r = 0.639$), juxtaposed against the weaker associations of Clinical Biomedical Knowledge ($r = 0.221$–0.262) and Critical Thinking and Reasoning ($r = 0.255$–0.353) with patient outcomes, suggest a compelling case for prioritizing relational skills in nursing education. These findings imply that students' confidence in caregiving and direct patient interaction may resonate more strongly with patients' experiences of trust and connection, potentially overshadowing the impact of technical or theoretical competencies. This pattern highlights a critical dimension of the flow of care, where the emotional and interpersonal aspects of care delivery might hold greater significance for patients than the procedural expertise students perceive as central to their role. Such an observation is supported by literature indicating that effective nursing education increasingly emphasizes communication and empathy to enhance patient satisfaction, aligning with evidence that relational competencies are key predictors of care quality [10, 11]. Consequently, integrating simulation-based exercises or role-playing scenarios that blend technical proficiency with empathetic engagement could better equip students to align their perceived contributions with patients' expectations, fostering a more holistic approach to clinical training.

This study addresses a notable gap in the nursing literature by integrating nursing students' self-perceived competence with patients' perceptions of care, offering a novel perspective on the flow of care as a relational exchange between provider and recipient. While prior research has frequently examined student competence or patient satisfaction in isolation, often focusing on either the development of clinical skills or patient-reported outcomes, the interplay between these two dimensions has received limited attention [27, 28]. The current findings, particularly the strong correlations between Patient Care and General Clinical Skills with patients' Assurance ($r = 0.646$ and 0.520, respectively) and Interpersonal Relationships ($r = 0.639$ and 0.533, respectively), suggest that patients may place significant value on relational aspects, potentially prioritizing emotional support over technical expertise. This integrated approach challenges the traditional focus on technical training in nursing education, as evidenced by the weaker associations of Clinical Biomedical Knowledge ($r = 0.221$–0.262) and Critical Thinking and Reasoning ($r = 0.255$–0.353) with patient perceptions, aligning with studies that note patients' tendency to emphasize observable, interpersonal behaviors over theoretical competencies. By bridging these perspectives, this study contributes to the literature by illustrating how

students' perceived contributions might translate into patients' experiences, providing a more holistic understanding of care transmission that can inform both educational strategies and clinical practice.

Strengths and limitations

This study has several strengths that contribute to its relevance and originality. It addresses a relatively underexplored area in nursing education by directly comparing nursing students' self-perceived competence with patients' evaluations of care received, using validated instruments from both perspectives. The study's real-world clinical setting and the inclusion of matched student-patient dyads enhance the ecological validity and contextual relevance of the findings. However, some limitations must be acknowledged. The cross-sectional design precludes any causal inferences, and the data reflect only a specific point in time. Additionally, the study was conducted in a single geographic region and healthcare system, which may limit the generalizability of the findings to other settings or cultural contexts. Social desirability bias may have influenced self-reports, particularly among students. Lastly, although validated scales were used, perceptions are inherently subjective and may be influenced by factors beyond the scope of this study.

Conclusion

This study explored the alignment between nursing students' self-perceived competence and patients' perceptions of care received. The findings revealed that students' perceptions in the domains of Patient Care and General Clinical Skills were moderately associated with patients' perceptions of Assurance and Interpersonal Relationships. In contrast, students' more technical competencies, such as Clinical Biomedical Knowledge and Critical Thinking and Reasoning, showed weaker associations with patient-reported care.

Students' self-assessed competence scores were slightly below the theoretical midpoint, while patients' evaluations of received care were noticeably lower. These findings suggest that patients may assign greater importance to relational and emotional dimensions—such as empathy, trust, and communication—rather than to technical expertise alone. These results are consistent with previous literature emphasizing the significance of emotional presence and interpersonal sensitivity in perceived care quality.

Practical implications

The study highlights the value of integrating relational competencies into clinical training programs. While technical skills remain foundational, nursing education may benefit from more explicit inclusion of training modules focused on communication, empathy, and emotional support. These components can help bridge the perceptual gap between what students intend to provide and what patients actually experience during care. Educators should consider emphasizing interpersonal aspects of care during practical placements to enhance students' holistic caregiving capacity. Such targeted strategies may contribute to better alignment between educational objectives and real-world care expectations.

Data availability

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request. All data were anonymized to protect participant privacy, and access will be granted in accordance with institutional policies and ethical standards, ensuring the responsible use of sensitive information.

Declarations

Ethics approval and consent to participate

This study received ethical approval from the Scientific Research and Publication Ethics Committee of Erzurum Technical University (Decision No: 10/16, Date: September 12, 2024). The committee reviewed the research protocol, including all instruments and procedures, and unanimously determined that the study posed no ethical concerns, ensuring compliance with national and international guidelines for research involving human participants. The study was conducted in accordance with the principles of the Declaration of Helsinki. Informed consent was obtained from all participants prior to their involvement in the study. Both nursing students and patients were provided with detailed information regarding the study's purpose, procedures, and their rights, including the option to withdraw at any time without consequence.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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