



Cultural Competence of Nursing Students and Its Relationship with Resilience and Empathy: A Descriptive Study

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ARTICLE INFO	ABSTRACT
Article Type: Research Article	<p>Cultural competence refers to the ability to provide effective, safe, and high-quality care to clients from diverse cultural backgrounds, while considering various aspects of their culture during the delivery of care. This study aimed to determine the level of cultural competence and its relationship with empathy and resilience among third-year nursing students. This descriptive-correlational study included 100 third- and fourth-year nursing students, selected through a census sampling method based on inclusion criteria. The data collection tools included a demographic form, the Cultural Competence Questionnaire, the Jefferson Scale of Empathy, and the Connor-Davidson Resilience Scale, all of which were completed via self-report. Descriptive statistics, correlation analysis, and linear regression were used to analyze the data. No significant correlation was observed between cultural competence and gender, age groups, academic semester, experience of cultural care, and empathy. However, a significant correlation was found between previous cultural diversity training and resilience. Multivariate regression analysis revealed that cultural competence had a significant influence on resilience ($p = 0.001$, $t =$ accounting for 8% of its variance, but had no significant effect on empathy ($p = 0.72$, $t = 0.35$). The findings revealed that cultural competence ($\beta = 0.622$, $p < 0.001$) could predict resilience, but did not affect empathy ($\beta = 0.018$, $p = 0.72$). It is recommended that future research further explore the relationships among these variables. Additionally, nursing administrators and instructors should also incorporate cultural competency models in the undergraduate nursing curriculum to enhance cultural competency in nursing students.</p> <p>Keywords: Cultural competence; Empathy; Psychological resilience; Nursing students</p>
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Introduction

In recent years, multiculturalism has significantly evolved, resulting in notable demographic shifts across various populations. Asian countries are increasingly embracing multiculturalism, leading to changes in areas such as healthcare service utilization and the needs of healthcare service users [1]. Cultural competence in healthcare is a fundamental objective for addressing health disparities among diverse patient groups, particularly vulnerable populations [2]. It is a critical component in preparing nursing students to provide care for clients from diverse cultural backgrounds [3].

Cultural competence is defined as the ability to deliver practical, safe, and high-quality care to clients from diverse cultural backgrounds by considering various cultural aspects during care delivery [4]. This competence is rooted in intercultural nursing theories, particularly Leininger's model from the 1970s, which examines various cultures in relation to nursing, care practices, values, beliefs, and concepts of health and illness. The aim is to ensure effective and meaningful nursing care that aligns with cultural values. Campinha-Bacote defined cultural competence as a continuous process consisting of five components: awareness, knowledge, skills, encounters, and desire [6].

Cultural awareness involves understanding the influences of one's own culture, which helps avoid prejudice towards other cultures. To acquire cultural knowledge, healthcare professionals must integrate their understanding of health-related beliefs, cultural values, disease incidence and prevalence, and treatment effectiveness [7].

Cultural skill, defined as the ability to communicate effectively with people from other cultures, incorporates their beliefs, values, and practices into care planning and delivery [8].

Cultural encounters are defined as the process by which healthcare providers are encouraged to engage directly in intercultural interactions with clients from diverse backgrounds [7]. Nurses cannot acquire cultural competence solely through self-directed learning or other cognitive activities alone. They must develop direct personal and professional interactions with clients from different cultures to revise their assumptions and avoid biased behaviors [9].

Cultural desire refers to the internal drive to be culturally competent, characterized by genuine openness and flexibility towards others, acceptance of differences, and a willingness to learn from others [10].

Cultural competence in healthcare necessitates a systematic understanding of the cultural and social

influences on individuals' health-related beliefs and behaviors, as well as on multiple levels of the healthcare system [11].

Consequently, nursing care must be culturally sensitive and responsive. To address cultural diversity, nurses must be aware of their clients' cultural needs. Receiving culturally appropriate healthcare is a fundamental human right, and every individual is entitled to nursing care that aligns with their cultural background. Cultural competence in nursing has been recommended as a means of providing effective and high-quality care for all clients [12]. It contributes to the personal and professional development of nurses and improves communication and nursing performance [13].

The absence of cultural competence disrupts effective communication between care providers and clients, leading to mistrust, client dissatisfaction, non-adherence to treatment, and poor health outcomes [2]. Nurses who lack cultural competence may place patients at risk for delayed treatment, misdiagnosis, noncompliance, and even death [13]. Research indicates that neglecting cultural competence in educational methodologies, undervaluing culturally congruent care in clinical environments, inadequate intercultural communication, and a deficiency in cultural humility skills present significant challenges to the cultural competence of Iranian nursing students. Cultural considerations are frequently disregarded within Iranian nursing curricula, and specific courses addressing these issues are generally absent [12].

Healthcare providers must acknowledge that patients' needs, desires, and motivations may differ according to their cultural expectations. Respecting these differences necessitates that cultural competence extends beyond a superficial understanding of customs, reflecting a more profound worldview that must be integrated into clinical decision making. Consequently, cultural competence can be perceived as complementary to empathy, requiring healthcare professionals to comprehend and value diverse perspectives [14].

Empathy is a crucial attribute and fundamental factor in enhancing cultural competence. This is manifested through a comprehensive care attitude that considers the individual experiences of clients [15]. Healthcare professionals must engage with and collaborate with diverse client populations to augment their empathy and cultural competence. Empathy involves the capacity to understand and perceive the world from another individual's perspective and connect with their experiences or emotions [16]. It plays a pivotal role in establishing a therapeutic nurse-client relationship and ensuring the quality of nursing care [17]. Moreover, empathy enhances treatment

adherence, patient satisfaction, and overall health outcomes. Furthermore, empathy can improve treatment adherence, patient satisfaction, and overall health outcome. Nurses who provide empathetic care are better equipped to comprehend patients' responses to health issues, as well as the underlying sources and objectives of those responses [18]. Conversely, a lack of empathy results in unawareness of patients' psychological needs during communication and an inability to promptly interpret patient feedback, ultimately weakening the nurse–patient relationship and the outcomes of nursing care [18]. Numerous studies have been conducted on the instruction of empathy and cultural competence in clinical settings. Some studies have demonstrated that empathy is not solely dependent on individual characteristics but can also be cultivated through education [19]. Conversely, a high level of cultural competence may lead to increased client empathy. A positive outcome of providing culturally appropriate care is the facilitation of communication between care providers and clients, which can serve as the foundation for empathetic communication between the two groups [20, 21].

Some studies suggest that cultural bias toward patients or insufficient cultural knowledge may be associated with diminished empathy among nurses. For instance, a recent qualitative study of Iranian nurses revealed that a lack of adequate cultural knowledge is linked to a reduction in empathy, leading them to prefer avoiding care for patients from different cultural backgrounds. Consequently, patients were deprived of holistic care. Therefore, assessing nurses' cultural competence and empathy is essential to ensure holistic and culturally responsive care [22]. Empirical evidence indicates that culture significantly influences resilience development, affecting how individuals interpret and respond to adverse events. Cultural values offer meaning and strength to individuals facing hardships [23].

Resilience, defined as the capacity to overcome challenging situations in nursing care delivery, is crucial for moral sensitivity and cultural competence [24]. It encompasses adaptive processes in response to trauma, adversity, and stressors, contributing to the development of personal strengths, positive psychological adjustment, and the maintenance of effective functioning [25]. In a study conducted by Üzar Özçetin and Sarioğlu, nurses reported low resilience levels, which correlated with diminished moral sensitivity and cultural competence. The study identified a significant positive correlation between resilience and cultural competence, underscoring the necessity of regularly assessing nurses' resilience levels and implementing effective enhancement programs [26].

Resilience is a vital protective factor in nursing and is increasingly recognized for its central role in enhancing nursing competency. It enables nurses to adapt to and manage the inherent stressors of their work environment, recover from adversity, and maintain their well-being despite challenges. The relationship between resilience and nursing competence is crucial, as it directly impacts the quality of patient care and the overall effectiveness of healthcare delivery [27]. Moreover, limited research has explored the association between cultural competence, resilience, and empathy [14].

Nursing performance is often compromised by workforce shortages and excessive workload, leading to inadequate care provision. Consequently, patients may receive only physical support rather than comprehensive, patient-centered care. Therefore, assessing nurses' levels of cultural competence, empathy, and resilience is essential for developing patient-centered interventions that effectively support patients [26]. In this context, the present study was conducted to determine the level of cultural competence and its relationship with empathy and resilience among nursing students.

Materials and Methods

This descriptive correlational study was conducted in the 2023–2024 academic year. All registered third- and fourth-year undergraduate nursing students ($n=100$) at the Khorramabad Nursing School were invited to participate in the study. A census-based sampling method was employed. The inclusion criteria were willingness to participate in the study and completion of at least four academic semesters of internship in clinical settings. The exclusion criterion was the failure to complete the questionnaire.

Instruments and Data Collection

1. Demographic Information Self-Report Form

Demographic characteristics included age, gender, marital status, academic semester, and cultural background information (including records of previous cultural diversity training and experience caring for patients with diverse cultural backgrounds).

2. Cultural Competence Scale

This unidimensional self-report scale was derived from Mokken's cultural competence scale and covers cultural sensitivity, knowledge, and skills. It contained 20 items. Each item was scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The total score ranged from 20 to 100. Higher scores indicate greater cultural competence. The original form of the instrument showed high internal

consistency, with a Cronbach's alpha of 0.97 [28]. In Iran, the original version of the tool was simultaneously translated from English to Farsi by two experienced translators fluent in Both Languages. The validity of the tool's content was assessed through five expert opinions, which were accepted as valid. Subsequently, the reliability of the Persian version of the CCS was assessed using a questionnaire completed by 349 participants, yielding Cronbach's alpha and test-retest coefficients of 0.83 and 0.84, respectively [29].

3. Jefferson Scale of Empathy - Health Professions Students Version (JSE-HPS)

Developed by Connor and Davidson in 2003, this 25-item scale includes five subscales: personal competence (items 10, 11, 12, 16, 17, 23, 24, and 25), trust in one's instincts/tolerance of negative affect (items 6, 7, 14, 15, 18, 19, and 20), positive acceptance of change/secure relationships (items 1, 2, 4, 5, and 8), control (items 13, 21, and 22), and spirituality (items 3 and 9). Items are rated on a 5-point Likert scale (0 = not true at all to 5 = true nearly all the time), with total scores ranging from 0–100. A cutoff score of 50 indicated a high level of resilience. The Persian version, translated by Mohammadi, showed a Cronbach's alpha of 0.89 and test-retest reliability of 0.73.

4. Connor-Davidson Resilience Scale (CD-RISC)

Developed by Connor and Davidson in 2003, this 25-item scale includes five subscales: personal competence (items 10, 11, 12, 16, 17, 23, 24, and 25), trust in one's instincts/tolerance of negative affect (items 6, 7, 14, 15, 18, 19, and 20), positive acceptance of change/secure relationships (items 1, 2, 4, 5, and 8), control (items 13, 21, and 22), and spirituality (items 3 and 9). Items are rated on a 5-point Likert scale (0 = not true at all to 5 = true nearly all the time), with total scores ranging from 0–100. A cutoff score of 50 indicates a high level of resilience. The Persian version, translated by Mohammadi, showed a Cronbach's alpha of 0.89 and a test-retest reliability of 0.73.

Data Analysis

Descriptive statistics were used to analyze the demographic information and levels of cultural competence, empathy, and resilience. The Kolmogorov-Smirnov test was used to verify the normality of the data distribution. Spearman (i.e., ordinal scale or non-normally distributed variables) and Pearson (i.e., normally and linearly distributed variables) correlation tests, intragroup correlation coefficients, and linear regression analyses were used to assess the study hypotheses in the inferential analysis. Data were analyzed using Stata 17 software at a significance level of $p < 0.05$.

Results

Demographics and Mean Levels of Variables

A total of 100 nursing students participated in this study. Kolmogorov–Smirnov tests confirmed normal distribution for all main variables ($p > 0.05$). More than half of the participants were female. The mean age of the participants was 22.11 ± 1.1 . Most of them (28%) were in the seventh semester of the Bachelor of Nursing Program. Over half (57%) reported having experience in cultural care, and 68% had not received any cultural care training (Table 1).

The mean (\pm SD) scores for cultural competence, empathy, and resilience were 71.82 ± 9.18 , 82.66 ± 4.82 , and 96.5 ± 12.28 , respectively. Cultural competence and empathy were moderate, whereas resilience was high. Pearson's test showed a significant positive correlation between cultural competence and resilience ($r = 0.51$, $p < 0.001$), but no significant correlation between cultural competence and empathy ($r = 0.02$, $p = 0.84$) (Table 2).

Correlation between variables and multiple linear regression

Independent t-tests and ANOVA revealed no significant differences in cultural competence by gender ($p = 0.60$, $t = 0.51$), age group (<20 vs. >20) ($p = 0.85$, $t = -0.18$), academic semester ($p = 0.42$, $F = 0.94$), or experience in diverse cultural care ($p = 0.40$, $t = 0.83$). However, a significant association was found with previous cultural care training ($p = 0.01$, $t = 2.51$), which accounted for 28% of the variation in resilience (Table 1).

In the multivariate regression analysis, cultural competence was the predictor variable, and empathy and resilience were the outcome variables. Only demographic variables significantly associated with the dependent variables were included. The results indicated that cultural competence significantly predicted resilience ($t = 5.11$, $p = 0.001$), explaining 28% of the variance in resilience. However, previous cultural care training did not significantly predict resilience ($t = -1.17$, $p = 0.24$).

Furthermore, cultural competence ($t = 0.35$, $p = 0.72$) and previous cultural care training ($t = 1.92$, $p = 0.05$) did not significantly predict empathy scores. The findings showed that cultural competence significantly predicted resilience ($\beta = 0.622$, $p < 0.001$) but not empathy ($\beta = 0.018$, $p = 0.72$), as indicated by the low standardized beta for empathy (Table 3).

Table 1. Description and correlation of cultural competence and demographic variables of Nursing Students

Variable		Frequency	N (%)	Cultural Competence Mean (SD)	Statistic
Gender	Male	42	42	71.26(8.41)	P = 0.6
	Female	58	58	72.22(9.73)	t = 0.51
Academic Semester	Fifth	25	25	73.24(10.57)	P = 0.42
	Sixth	23	23	71.56(8.12)	
	Seventh	28	28	69.57(10)	F = 0.94
	Eighth	24	24	73.2(7.37)	
Cultural Care Training	Yes	32	32	75.09(7.89)	P = 0.01
	No	68	68	70.27(7.37)	t = 2.51
Experience in Cultural Care	Yes	62	62	48.82(43.4)	P = 0.4
	No	38	38	81.42(5.00)	t = 0.83
Age	<20	9	9	22.11 (1.1)	P = 0.85
	>20	91	91		t = -0.18

Table 2. Description and Pearson correlation among cultural competence, empathy, and resilience in nursing students

Predictor Variable	Dependent variable	Mean(SD)	r(p-value)
Cultural Competence		71.82(9.18)	
	Empathy	82(4.62)	r=-0.02(0.84)
	Resilience	96.5(12.28)	r=0.51(0.001)

Table 3. Results of the Multivariate Regression Model (Adjusted Effects)

Dependent variable	Predictor variable	Unstandardized coefficient		Standardized coefficient	t	P
		β	Standard Error	β		
Resilience	Cultural Competence	0.622	0.122	0.468	5.11	<0.001
	Cultural Care Training	-2.72	2.30	-0.105	-1.17	0.24
Empathy	Cultural Competence	0.018	0.052	0.036	0.353	0.72
	Cultural Care Training	0.196	1.01	1.95	1.92	0.05

Discussion

With the evolving global order, individuals from diverse cultural backgrounds increasingly live and interact with each other. Healthcare providers play a crucial role in addressing the health needs of these patients. They must understand cultural differences and regulate their emotions while recognizing those of their clients. They must demonstrate empathy, resilience, and strong cultural competence to provide adequate care for emotionally vulnerable individuals from diverse cultural contexts [34].

In the present study, nursing students demonstrated moderate levels of cultural competence and empathy and high levels of resilience. The findings indicated that cultural competence was not significantly associated with demographic variables such as age, gender, academic semester, or experience in cultural care; however, it had a significant relationship with previous cultural care training. Furthermore, cultural competence was a significant predictor of resilience.

The moderate level of cultural competence found among nursing students in this study is consistent with the results of previous research, which reported similar levels of competence among nursing students [35, 36]. A cross-national assessment conducted in four European higher education institutions also revealed that undergraduate nursing students demonstrated high levels of intercultural sensitivity but only moderate cultural awareness and competence [37]. Cruz et al. found that undergraduate nursing students in nine countries had moderate cultural competence scores. Country of residence, gender, age, academic level, previous diversity training, experience caring for patients with diverse cultural backgrounds, belonging to special population groups, and living in a multicultural environment were identified as factors affecting cultural competence [38]. The moderate level of cultural competence observed suggests that nursing students still face limitations in assessing and responding to patients' cultural care needs. Additionally, the present study found a significant association between previous cultural care training and cultural competence scores, consistent with previous review studies indicating that cultural care education

has a positive effect on students' cultural competence [5, 39].

Our study showed that cultural competence was not significantly related to demographic variables. However, other studies have shown that graduating nursing students have higher cultural competence scores than novice nurses. They also have greater cultural awareness and sensitivity [40]. Moreover, cultural competence was found to be higher in students with previous cultural care experience, those who had received multicultural education, and male students compared to female students [41]. Zoka et al. [42] and Kolagari et al. [43] also found no statistically significant differences in cultural competence based on age or gender. In our study, the students were generally of similar age and at the beginning of their professional careers.

The students' level of empathy was moderate, which is consistent with a recent study conducted among nursing students in Saudi Arabia. In the nursing profession, specific skills, such as effective communication, using facilitative strategies, active listening, and understanding the significance of being present in relationships with patients, are crucial. Nurses can utilize empathy and reflective thinking to better comprehend their patients' emotions, thereby facilitating adaptive processes [44].

Contrary to previous studies, no significant correlation was found between cultural competence and empathy in this study. These findings are consistent with those of Suk et al. [45]. Additionally, previous research has reported that cultural competence has a direct and significant effect on empathy [46–48]. In the present study, cultural competence was not identified as an empathy predictor. In contrast, Geun's study reported that cultural competence significantly predicts empathy [21]. These findings underscore the importance of enhancing nurses' cultural competence to facilitate empathetic understanding of patients from diverse backgrounds. This could ultimately lead to effective and quality care. The lack of structured and comprehensive educational programs on cultural competence may hinder nursing students from developing their cultural competence, thereby affecting their ability to relate to patients with empathy and compassion.

The nursing students in this study demonstrated high resilience. A significant relationship was found between cultural competence and resilience. Üzar Özçetin and Sarıoğlu also reported a positive and significant correlation between cultural competence and resilience among nurses in Turkey. They

suggested that resilience may play a crucial role in mitigating the impact of exposure to traumatic events. Cultural competence influences this process. However, more research is needed to understand how cultural competence and resilience enable nurses to deliver culturally appropriate care to all patients, not just vulnerable populations [26]. In the current study, cultural competence was a significant resilience predictor. Yan et al also identified a strong correlation between resilience and nursing competencies [49]. Thus, enhancing nursing competencies through strategic interventions may improve resilience, suggesting a bidirectional relationship between them. Understanding and strengthening this relationship is vital for nurse educators and administrators, who can develop strategies to enhance nurses' cultural competence. Since the data collection tools were supplemented with self-reports, respondent bias and social desirability may have affected the results of this study. Additionally, the findings may not be generalizable to nursing students from other geographical regions. Personality traits, such as introversion, extroversion, self-awareness, and stress tolerance, may influence resilience and empathy. The psychological and emotional states of students while completing the questionnaire were also considered limitations of this study.

Conclusion

The nursing students reported moderate cultural competence and empathy, and high resilience. No significant associations were found between cultural competence, age, academic semester, or empathy levels. However, cultural competence was significantly associated with predicting resilience and was also significantly associated with previous cultural care training. These findings highlight the importance of regularly assessing nursing students' cultural competence and implementing effective programs to enhance it. Given the limited studies examining the relationship between cultural competence, empathy, and resilience, further research is recommended. Nurse educators and decision-makers should take the current findings seriously and adopt innovative educational approaches, such as simulation, integration of cultural competence training into undergraduate nursing curricula, and cultural immersion programs, to ensure the design of effective teaching strategies for nursing student. Nursing students should be encouraged to participate in student exchange programmes. Cultural competency, empathy, and resilience were incorporated into the undergraduate nursing curricula.

Authorship contribution statement

All authors have reviewed and approved the final version of the manuscript. Sh B conceived and designed the study. AH A, R J, S K conducted the study and collected the data; RM performed the data analysis and interpretation; and R H, guided the study design

Ethical Consideration

The research obtained approval from the Ethics Committee of Lorestan University of Medical Sciences (IR.LUMS.REC.1402.011).

Declaration of Competing Interest

The authors have no conflict of interests related to this article

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Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Declaration of Generative AI

The authors declare that they have not used any type of generative artificial intelligence for the writing of this manuscript, nor for the creation of tables, or their corresponding captions.

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