



Original Article



Cultural Competence among Nurses Working in Tertiary Care Hospitals of Peshawar

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ABSTRACT

The importance of cultural competency among nurses in diverse healthcare settings cannot be underestimated. Understanding cultural differences is essential for effective patient care. Cultural competence is vital globally, especially in places like Peshawar, Pakistan, with a growing migrant population. Despite a shortage of nurses, their role in fostering cultural understanding is crucial. Assessing nurses' knowledge of cultural competence in Peshawar's major hospitals is vital, offering insights for targeted training programs and improving healthcare. **Objective:** To assess the cultural competence levels of registered nurses in tertiary care hospitals of Peshawar and identify factors influencing their cultural awareness and sensitivity. **Methods:** A cross-sectional study in four major tertiary care hospitals in Peshawar, Pakistan, utilized a convenient sample of 268 registered nurses directly involved in patient care were surveyed using an adopted questionnaire of 11 questions on culture competencies. Data analyzed using SPSS version 21.0. Ethical approval was obtained from Rehman College of Nursing and hospital ethics boards while ensuring participant confidentiality, voluntary participation and informed consent. **Results:** Results showed 0.37% were adequately competent, 16.04% moderately competent, and 83.20% highly competent. The mean score was 17.65 with a standard deviation of 2.122. Participants' backgrounds, training attendance, and work experiences were considered in the analysis. **Conclusions:** The study revealed that elderly, veterans, especially those with extensive cross-cultural patient interactions, displayed greater cultural competence. This information is useful for tailoring culturally sensitive training programs to the nurses who will benefit the most from them.

INTRODUCTION

Cultural competency among nurses is essential for providing inclusive and effective healthcare in a diverse setting. The term "Cultural Competence" is composed of the words "Competence" and "Cultural." Some studies describe cultural competence as a spectrum or process, while others focus on culture and explore strategies to foster cultural competence [1]. Almutairi's Critical Cultural Competence (CCC) model, designed to guide healthcare professionals in delivering culturally competent care within multicultural healthcare environments. [2]. According to rural-to-urban migration trends, the population movement

from rural regions to urban areas like Peshawar is expected to increase steadily. This shift brings together individuals from diverse cultural backgrounds, each with unique views on health, posing challenges for the healthcare sector especially for nurses. As ethnic and cultural diversity grows, so does the need for cultural competence in healthcare delivery [3]. Nurses who provide direct care on the frontlines must combine cultural sensitivity with patient safety awareness. This qualitative study explored how cultural differences impact clinical practice and communication between host and migrant registered



nurses in New Zealand [4]. In nursing, cultural competence refers to the knowledge and understanding nurses have about the cultural backgrounds of their patients. Culture is a shared system of rules, meanings, values, and beliefs that significantly influence how people behave and think in the workplace [5]. Kersey-Matusiak (2012) emphasized that nurses must integrate and critically assess both their own values and those of their institutions to provide culturally sensitive, transcultural care [6]. Campinha-Bacote (2002) introduced a model highlighting cultural competence as an ongoing process crucial for effective healthcare delivery [7]. Glen (2015) explained convenience sampling as a non-probability sampling technique used for its ease of participant accessibility, often employed in practical research settings [8]. Due to globalization and international migration, nurses frequently care for individuals with varying cultural expectations and needs [1]. Cultural differences can significantly hinder the quality of care. Nurses lacking cultural knowledge and skills may struggle in cross-cultural interactions, which can result in unequal healthcare outcomes [9]. This study investigated how cultural competency, structural empowerment, and effective communication are interrelated among nurses in Saudi Arabia [10]. Today, cultural competence is globally recognized as a vital skill in nursing [1]. As nurses typically spend more time with patients than doctors do, they are in a unique position to prevent misunderstandings and promote positive outcomes [11]. The World Health Organization projects a global shortage of 9 million nurses by 2035, highlighting the urgent need to support and retain nursing staff. In Pakistan, the healthcare system currently requires about 60,000 more nurses to meet the growing demand [12, 13]. Cultural intelligence a concept introduced in the early 21st century within business and social psychology remains underutilized in healthcare [14, 15]. Though the importance of cultural competence in nursing was recognized over two decades ago and numerous theories were developed, gaps remain in its practical application and understanding [16]. Tools have since been designed to assess cultural competence and validated through psychometric testing [2]. Pakistan's five provinces—Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, and Gilgit Baltistan along with the Federally Administered Tribal Areas (FATA), are home to various ethnic groups and languages including Sindhi, Balochi, Pashto, Saraiki, Punjabi, and Hindko. These groups also differ in dietary habits, gender norms, and family structures. Understanding these variations is crucial for delivering effective and equitable care [9]. Andrews (1992) identified four major barriers that prevent nurses from delivering culturally competent care: disparities among ethnic groups, communication difficulties (including

language and symbolism), religious ethical dilemmas, and a lack of trust or rapport between nurses and patients [3]. Such limitations hinder the delivery of holistic care, making it vital for nurses to understand the cultural contexts of their patients. While numerous international studies have explored nurses' cultural competence in terms of knowledge, attitudes, and practices, few have focused specifically on Pakistani nurses [9].

This study aimed to assess the level of cultural competence among nurses working in tertiary care hospitals in Peshawar, Pakistan. Its significance lies in identifying existing knowledge gaps and recommending areas for improvement. By analyzing nurses' cultural competency, the study seeks to inform training programs that enhance culturally sensitive nursing practices.

METHODS

A cross-sectional study was conducted from September 2024– December 2024 to assess the level of cultural competence among nurses. Ethical approval was obtained, and the IRB reference number was RCN/IRB/0071/2025. The study was carried out in four tertiary care hospitals two from the public sector and two from the private sector in Peshawar, Khyber Pakhtunkhwa, Pakistan. The target population included registered nurses affiliated with the Pakistan Nursing Council (PNC) who were directly involved in patient care. A convenience sampling technique was employed to recruit participants. This non-probability method allowed selection based on participants' availability, willingness to participate, and proximity to the researcher [8]. The sample size was calculated using Raosoft software, considering a known population of 876 registered nurses. With a 5% margin of error and a 95% confidence interval, the required sample size was determined to be 268 participants. An adopted questionnaire comprising 11 items was used to evaluate nurses' cultural competency. This tool assessed various dimensions of cultural awareness, knowledge, and interaction in healthcare settings. The total score was later categorized into three levels of competency: adequately, moderately, and highly culturally competent. Inclusion criteria included all registered nurses (BSN and General Nursing diploma holders) who were actively involved in direct patient care in the selected hospitals. Nurses in administrative roles or those not directly engaged in nursing care were excluded from the study. Data collection was followed by analysis using SPSS version 21.0. Descriptive statistics were employed to summarize demographic variables and cultural competency scores. Ethical approval for this study was obtained from the Ethical Review Board of Rehman College of Nursing and the respective hospitals. Written informed consent was taken from each participant. Participants were fully informed

about the purpose of the study, and confidentiality and anonymity were assured. Any information provided was kept strictly confidential and disclosed only with the participant's consent.

RESULTS

The results of this research on cultural competency among nurses, conducted through comprehensive analysis using SPSS version 25, have yielded insightful findings. With a sample size of 268 nurses, the purpose of this study was to investigate and evaluate the degree of cultural competency in the Peshawar, KP and nursing profession. The qualification of most of the participants was BS in nursing ($n=144$, 53.7%). Among the 268 participants, ($n=152$, 56.7%) were unmarried. The age of most of the participants was 20-25 years ($n=135$, 50.4%). Most of the participants belonged to the Pashtun background ($n=176$, 65.7%) as shown in table 1.

Table 1: Demographic Characteristics of Participants ($n=268$)

Characteristics	Frequency (%)
Age (Years)	
20-25 Years	135 (50.4%)
26-30 Years	94 (35.1%)
31-35 Years	27 (10.1%)
36-40 Years	9 (3.4%)
41 and above	3 (1.1%)
Marital Status	
Single	152 (56.7%)
Married	115 (42.9%)
Divorced	1 (4%)
Qualification	
BSN	144 (53.7%)
Post-RN	97 (36.2%)
Diploma (3 Years)	27 (10.1%)
Race/Ethnicity	
Pashtun	176 (65.7%)
Baloch	1 (4%)
Punjabi	6 (2.2%)
Chitrali	85 (31.7%)
Work Experience	
1-3 Years	178 (66.4%)
4-9 Years	63 (23.5%)
10-15 Years	19 (7.1%)
Above 15 Years	8 (3%)

The preponderance of the participants encountered patients from diverse cultural backgrounds in their work ($n=168$, 62.7%). The training session regarding cultural competency was attended by the participants ($n=80$, 29.9%) as shown in table 2.

Table 2: Assessment of Nurses' Exposure to Cultural Diversity and Training in Cultural Competency in Tertiary Care Hospitals of Peshawar

Sr. No.	Statements	Frequency (%)
1	How often do you encounter patients from diverse cultural backgrounds in your work?	
	Frequently	168 (62.7%)
	Occasionally	50 (18.7%)
	Rarely	36 (13.4%)
2	Have you attended any training related to cultural competency before?	
	Yes	80 (29.9%)
	No	188 (70.1%)

The majority of the participants had 1-3 years of work experience ($n=178$, 68.4%) as shown in figure 1.

Work Experience of Participants

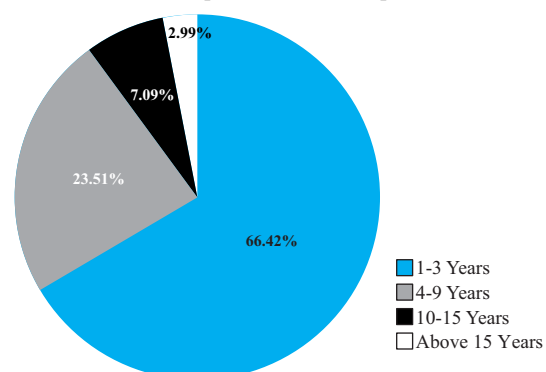


Figure 1: Distribution of Participants Based on Work Experience in Tertiary Care Hospitals

The questionnaire contained 11 questions with a total of 22 points. Three categories were made: (1 to 8) adequately culturally competent, (9 to 15) moderately culturally competent, and (16 to 22) highly culturally competent. The histogram revealed that only 0.37% were adequately culturally competent, 16.04% were moderately culturally competent, and 83.20% were highly culturally competent. The mean of the obtained number was 17.65, and the standard deviation was 2.122, as shown in figure 2.

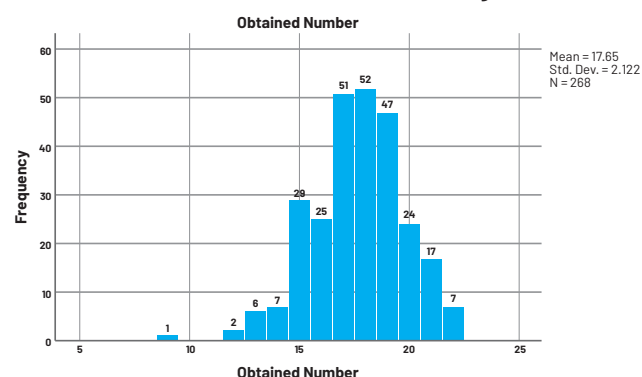


Figure 2: Distribution of Cultural Competence Scores Among Nurses ($n=268$)

DISCUSSION

The application of the present study was to measure cultural skills among nurses using a structured questionnaire consisting of 11 elements, each with three response options: never, sometimes, and always. The findings revealed that a significant majority of nurses were highly culturally competent, demonstrating an understanding of the importance of cultural competence in their practice. Comparing these findings with international studies, a cross-sectional study conducted among Chinese nurses reported an average cultural competence score of 101.7 out of 145, which corresponds to a 70.1% competency level, considered low to moderate [5]. This contrast may reflect differences in patient demographics, training infrastructure, or exposure to diverse populations. In contrast, a study conducted in the United Kingdom revealed a higher mean cultural competence score of 143.92 out of 205 with a standard deviation of 20.07, suggesting a broader awareness and perhaps more structured training in cultural care [18]. These findings align with the present study's conclusion that practical exposure significantly enhances nurses' cultural competence. The UK-based results may reflect the outcome of better integration of cultural education into the nursing curriculum and a multicultural healthcare system. A study conducted in Lahore, Pakistan, recorded an average cultural competency score of 24.31 ± 3.457 , which, although measured using a different tool, also indicated awareness among nurses regarding culturally sensitive care [16]. Similar studies conducted across Punjab have shown consistent findings of moderate awareness but also highlighted a lack of formal training opportunities [16]. The results from the current study showed that only 0.37% of participants were adequately culturally competent, 16.04% moderately, and 83.20% highly culturally competent, with an overall mean score of 17.65 ± 2.122 out of 22. These findings are particularly interesting when considering that only 29.9% of the nurses had received any formal training on cultural competence. This indicates that the nurses' competence might be primarily derived from direct exposure to culturally diverse patients, especially given that 62.7% of the participants frequently cared for patients from different cultural backgrounds. This aligns with the work of Gallagher and Polanin (2015), who concluded through meta-analysis that cultural competence improves significantly with targeted educational interventions [10]. Moreover, the high levels of competence found among early-career nurses (68.4% having 1–3 years of experience) in the current study suggest that early exposure to a multicultural clinical setting may be just as critical as formal instruction. However, a lack of regular seminars and workshops related to cultural awareness was noted as a

gap in the local healthcare system, consistent with observations from Saudi Arabia and Taiwan, where structured cultural training was shown to positively influence competence and communication [9, 13]. Despite a 100% response rate, generalizability of the findings is limited as the study was confined to four tertiary care hospitals in a single region. Future studies should include larger, more diverse samples from various provinces in Pakistan to provide broader insights. Based on the current results and literature comparison, it is recommended that the Pakistan Nursing Council and hospital administrations develop and implement regular workshops, simulation-based training, and continuous professional education programs to strengthen cultural competence among nurses nationwide. Such initiatives could significantly enhance culturally appropriate care delivery and bridge the existing gaps between theoretical knowledge and practical application. In addition to international studies, Turale et al., (2020) emphasized the importance of international exposure in building cultural competence among undergraduate nursing students, arguing that real-world experiences in multicultural environments enrich future care practices [17]. This parallels the high cultural competence scores seen in the current study, where nurses were frequently exposed to diverse patient populations, despite the limited formal training. Zarzycka et al., (2020) validated the Nurse Cultural Competence Scale in Polish, highlighting that structured evaluation tools can identify specific competence gaps and training needs among nurses [18]. The current study used a similar assessment strategy, though on a smaller scale, supporting the idea that such tools are valuable even in low-resource settings. Kaihlanen et al., (2019) found that cultural competence training improved nurses' awareness and responsiveness to patients' diverse needs, but also noted that some training programs were too generic or theoretical [19]. This aligns with our finding that, despite limited formal training, practical exposure led to high competence suggesting that localized and experience-based learning might be more impactful than generic sessions. Finally, Loftin et al., (2013) reviewed various tools and models used to measure nurses' cultural competence and concluded that integrating assessment with ongoing professional development leads to sustained competence improvements [20]. This reinforces the recommendation that the Pakistan Nursing Council and institutions should implement continuous, structured cultural training programs rather than one-time workshops.

CONCLUSIONS

It was found that nurses in this study demonstrated a high degree of cultural competency. Specifically, nurses with greater years of experience and age, who had extensive

interaction with patients from different cultural backgrounds, demonstrated a deeper understanding of various cultures. These results can assist in identifying nurses who would benefit the most from cultural training and in creating training initiatives that are culturally sensitive.

Authors Contribution

Conceptualization: AZ

Methodology: AS, RA, KR, RU, AZ

Formal analysis: SS

Writing, review and editing: GR, RA, KR, AQ

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

All the authors declare no conflict of interest.

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