



## ADVANCING CULTURAL COMPETENCE IN NURSING: A QUANTITATIVE EVALUATION OF TRANSCULTURAL TRAINING PROGRAMS AMONG NURSING STUDENTS IN KARACHI PAKISTAN

Syed Yousaf Shah<sup>1\*</sup>, Prof. Dr Faridah Binti Mohd Said<sup>2</sup>, Rashid Hussain<sup>3</sup>, Nazneen Bano<sup>4</sup>, Liaquat Ali,<sup>5</sup> Ayaz Khan<sup>6</sup>

<sup>1\*</sup>PhD student Lincoln university college Malaysia

<sup>2</sup>Faculty of Nursing Lincoln University College Malaysia

<sup>3</sup>PhD student Lincoln university college Malaysia

<sup>4</sup>PhD student Lincoln university college Malaysia

<sup>5</sup>Nursing Manager Northwest General Hospital and Research Center Peshawar Pakistan

<sup>6</sup>PhD students Lincoln university college Malaysia

**\*Corresponding Author:** Syed Yousaf Shah

Email: [syshah@lincoln.edu.my](mailto:syshah@lincoln.edu.my)

### Abstract

**Introduction:** The internationalization and diversification of the world demand the healthcare systems to immediately adopt culturally sensitive practices. Researchers assessed a customized transcultural training initiative to determine how well it improves cultural competence skills among nursing students based in Karachi, Pakistan.

**Methods:** The study analyzed the program's impact on nursing students' cultural competencies through statistical techniques such as paired t-tests and regression analysis, combined with reliability tests across 120 participants. Assessment before the intervention demonstrated that nursing students started with an average scoring at the moderate level of cultural competence (mean = 52.38, SD = 8.67) but displayed significant areas for improvement. The cultural competence assessment produced elevated post-intervention scores (mean = 65.24, SD = 7.98) that demonstrated a significant 12.86-point change ( $t = 28.12$ ,  $p < 0.001$ ). The analysis through regression showed that nursing students with prior cultural exposure and older age demonstrated better improvement ( $B = 3.64$ ,  $p < 0.001$  and  $B = 0.35$ ,  $p = 0.004$ , respectively). In contrast, gender did not show a significant change.

**Results:** The study found that teaching experiences alongside multicultural simulation cases throughout the nursing curriculum prepare students to deliver equitable medical care across diverse cultures.

**Keywords:** cultural competence, transcultural training, nursing education, quantitative methods, healthcare, Pakistan

### 1- Introduction

Cultural competence in nursing practice has gained importance because of globalization, as it helps healthcare providers overcome different healthcare requirements (Tosun, et.al 2021). This research uses a quantitative approach to study Karachi's nursing students who experience cultural competence

learning in Pakistan's diverse cultural hub. Nursing students frequently struggle to deliver quality care for patients from various cultures because they practice differently and have distinctive medical beliefs and treatment approaches. Cultural competence needs strong evidence within healthcare, yet the nursing education system in Karachi Pakistan lacks standardized transcultural training measures, which produce significant deficits in nursing education and patient care delivery (Ho, & Oh, 2022). The basic corruption in these systemic issues shows that total cultural competence training programs must start right away. Success in promotion of cultural competence education within nursing medical institutions comes from the studies conducted by Shahzad, Ali, Younas, & Tayaben, (2021) and O'Brien, et.al (2021). The field of research concerning this concept exists only at minimal levels for the Pakistani healthcare setting.

A Karachi-based study of nursing student cultural competency connects scattered research through its evaluation of educational deficits alongside proposed solutions for standard nursing curriculum revisions. The evaluation process reveals underlying educational problems which lead to workable solutions for enhancing nurse educational training combined with cultural competency and better patient healthcare results within Pakistan's healthcare culture. The initial assessment of this transcultural training included specific tests which measured the effectiveness of enhancing nursing student cultural sensitivity. The study measured patient health encounters alongside cultural knowledge advancements and personal competency growth in delivering need-sensitive care services to patients. It examined existing implementation barriers of transcultural training before creating solutions to address these challenges.

The field of research concerning this concept exists only at minimal levels for the Pakistani healthcare setting. A Karachi-based study of nursing student cultural competency connects scattered research through its evaluation of educational deficits alongside proposed solutions for standard nursing curriculum revisions. The evaluation process reveals underlying educational problems which lead to workable solutions for enhancing nurse educational training combined with cultural competency and better patient healthcare results within Pakistan's healthcare culture. The initial assessment of this transcultural training included specific tests which measured the effectiveness of enhancing nursing student cultural sensitivity. The study measured patient health encounters alongside cultural knowledge advancements and personal competency growth in delivering need-sensitive care services to patients. It examined existing implementation barriers of transcultural training before creating solutions to address these challenges.

National programs for nursing education throughout Pakistan show limited interest in integrating cultural competence training. Most standardized nursing curricula develop students' clinical competence abilities without dedicating sufficient attention to vital interpersonal skills necessary to effectively treat diverse patients through personal and intercultural communication (Matthews, Clune, Luhanga, & Loewen, 2021). Pakistan's education faces worsening conditions because of limited resources coupled with inadequate training while lacking guidelines to properly understand different population groups. The inadequate preparedness of nursing students in culturally diverse settings for patient care placements results in diminished clinical results because of communication gaps, language struggles, and cultural mismatches (Gradellini, et.al 2021). The research project supports nursing curriculum evolution through cultural competency assessments of educational practices while developing concrete implementations that produce superior healthcare results in multicultural environments. Multiple countries ran their training programs to show their healthcare providers made significant progress in developing cultural competence.

The cultural competence training done by Ličen, & Prosen. (2023) enabled nursing students to become better communicators while developing favorable views toward cultural differences. The combination of role-playing exercises and simulated case studies led to highly positive results in improving student cultural competence performance according to Teixeira, Cruchinho, Lucas, & Gaspar, (2023). Global research paints an optimistic picture yet there is limited available data evaluating transcultural training interventions in Pakistan. A lack of evidence about treatment practices emerges as a serious challenge because Karachi's varying ethnic demographics need

improved multicultural medical care. A culturally appropriate nursing education improves patient satisfaction while reducing service barriers according to Berie, Salih, & Abate, (2021). Patient health services improve when care takes cultural differences into consideration according to research outcomes combined with better interactions between healthcare providers and patients and lessened social health inequalities. Training implementation in Pakistan encountered barriers because healthcare institutions failed to provide either specialized faculty or suitable infrastructure or they did not receive sufficient administrative support. Standard transcultural educational deficiencies combine with healthcare system obstacles to create significant operational barriers for nurses who care for diverse patients. The nursing educational system in Pakistan faces vital structural obstacles at its conceptual stage that prevents nurses from attaining cultural competency. Standard transcultural curriculum deficits alongside language comprehension difficulties for nursing students become apparent when patients communicate using dialects from their respective regions according to Aydogdu, (2022). The execution barriers combined with time constraints present in traditional nursing academic programs in Pakistan prevent these programs from solving diversity problems in clinical settings (Okeya, 2021). Nursing education must transform into cultural competency because existing educational delivery and peer barriers block students from solving current issues.

Healthcare organizations use cultural competence skills to resolve community health inequality issues and meet their duty to protect patients from unfair treatment. Medical care that respects cultures leads to better patient satisfaction rates while fostering trust and improved responses to advice according to Berhanu, Tesema, Deme, & Kanfe, (2021). Walkowska, et.al (2023) recent research revealed cultural competency training shifts healthcare personnel practices positively thus improving patient grasp of medical information while providing superior health results. The study shows transcultural training stands as vital for nursing education because students enrolled in Karachi's multicultural student body need competence in handling various cultural interactions. Educational programs for nursing students need to create systematic curriculums which handle cultural competency education throughout the complete educational coursework. The authors Evgin and Muz point out that cultural competence teaching must become fundamental to nursing education programs instead of being optional supplementary material (2021). Public classrooms are successfully linking academic instruction to practical application through case study workshopping along with simulation and field project programs. Educational methods allow students to grasp genuine problems to build cultural understanding along with professional acceptability.

Cultural competence achieves critical success through specialized academic programs dedicated to faculty development. As Mercado, (2021) model demonstrates, educators must gain expertise and training as tools for effectively delivering cultural competence instruction. Training programs for faculty members help nursing educators teach students to recognize and work with cultural differences, creating superior pathways toward better nursing education. The research demonstrates that trans-cultural training demands essential implementation for nursing students within Karachi. Drawing from worldwide examples, the study indicates that these programs hold the power to combat biases while helping strengthen educational materials and improve the cultural abilities of students learning nursing. The research analyzes these matters to enhance nursing students' multicultural healthcare system capabilities, leading to improved care delivery quality and enhanced health equity and patient satisfaction. The quantitative analysis of this study assesses the effectiveness of specifically designed transcultural training for students by measuring changes in cultural competency and its effectiveness as a remedy for institutional educational barriers. The research identifies actionable insights to help develop policy and curriculum education to reduce the gap between academic nursing programs and Pakistan's diverse healthcare delivery needs. The study focuses on the following research questions:

- How effectively do existing nursing education programs prepare students to interact with culturally diverse patient populations?
- How does a developed transcultural training program impact the cultural competence of nursing students in Karachi, Pakistan?

## 2- Material and Methods

A pretest-posttest experimental design framework enabled this research to measure the results of a transcultural training program on the cultural competence of Karachi nursing students in Pakistan. The research design allows investigators to examine participants' cultural competence evolution before and after they received the intervention. The research assessed all significant dimensions of cultural competence using awareness sensitivity and skills measures to build an extensive evaluation of program success. The study used quantitative methods to deliver reliable findings about intervention effectiveness by performing objective data analysis. Through purposive sampling, the research team decided on participants to capture an appropriate and trustworthy group of trainee nursing students from Karachi. This sampling method focused on nursing students who followed the prescribed enrollment criteria in officially recognized nursing educational institutions. The participant eligibility consisted of active enrollment in a nursing program, voluntary consent, and readiness for pretest and post-test assessment procedures. The research implemented snowball sampling to attain a more diverse participant group through referrals among participants who shared the defined study requirements. Smooth data collection was enabled through convenience sampling, which involved selecting students from nearby institutions. Students taking a nursing program who were on leave were not willing to join or were unable to conduct the assessments were excluded from this study. Researchers obtained various participant information about transcultural training through their selection method because their sampling technique yielded diverse test subjects.

### 2.1 Data Collection and Analysis

The quantitative data collection mechanism was the Cultural Competence Assessment (CCA) tool. This structured questionnaire, widely used and validated in prior studies, was adapted to the local context to measure cultural competence across three dimensions: awareness, sensitivity, and skills. Participants received CCA assessments in two periods—the first before starting the training program and the second after its conclusion. The structured data collection with two-time point assessments enabled researchers to directly verify participants' cultural competence development precisely due to the training intervention. The training incorporated interactive educational features that built systematic cultural competence skills and knowledge. Basic knowledge stemmed from lectures that introduced theoretical models to students, including Campinha-Bacote's Cultural Competence Model together with Purnell's Model of Cultural Competence. The simulated role-play tasks provided participants with opportunities to practice cultural communication techniques within patient-provider encounters. Through case studies, trainees practiced cultural competence methods in genuine clinical settings, whereas group discussions allowed them to share personal experiences and collaborate in their learning. The activities focused on helping participants understand cultural diversity while teaching effective navigation through clinical settings.

The collected pretest and post-test assessment data were processed through an SPSS system. A descriptive statistical approach thoroughly described participant demographic information to present the study's population characteristics. Statistically meaningful changes in cultural competence levels between the pretest and post-test periods were measured through paired t-test analyses. Through quantitative analysis researchers demonstrated how the training program impacted three dimensions of cultural learning outcomes. The investigators performed regression modeling to identify what combination of gender differences and age disparities and cultural diversity exposure caused variations in cultural competence results. The empirical analysis revealed several elements which influenced both the training program's obstacles and elements that enhanced its success as an educational intervention. The CCA tool exhibited successful implementation of data-collection procedures in dependent reliability testing thus maintaining validity and dependability standards.

A research authorization from an institutional review board set strict ethical requirements for all research projects. After receiving full explanations about procedures and benefits individuals gained a complete understanding of research aims before starting formal consent procedures. The testing phase adopted two methods: protected participant database storage by encryption and anonymization

of participant records for security purposes. Study participants repeatedly received written notices affirming their sole control over continuing study involvement with immediate opportunity to terminate their involvement without negative impacts. Both the established methods and procedures fostered honest involvement processes along with participant trust building processes. Researchers conducted facts-based studies on Karachi nursing student transcultural education through SPSS statistical methods and quantitative analysis methods. Program participant results indicating improved cultural competency skills demonstrate the critical nature of cultural competency education for healthcare professionals who provide care to diverse communities. Evidence shows nursing programs need mandatory transcultural education systems to prepare graduates for Karachi's highly diverse healthcare system. The research offers curriculum development guidance by recommending interactive education methods that help students achieve cultural competency training. The study enhances patient health outcomes while boosting equal health services for diverse healthcare facilities.

### 3- Results and Discussion

The research team used statistical analysis with SPSS to compare student results from their initial and final tests on cultural competence learning in Karachi's nursing program. Our results appear in the section ahead with accompanying statistical tables demonstrating descriptive, paired t-test, regression, and reliability outcome measurements through the CCA tool.

**Table 1: Descriptive Statistics of Participants**

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Age (years)	120	22.14	2.75	19	30
Cultural Competence (Pretest)	120	52.38	8.67	32	70
Cultural Competence (Post-test)	120	65.24	7.98	48	80

Research conducted interviews with 120 nursing students, an average of 22.14 years old, to study the effects of training programs on cultural competency outcomes. Test results from participants before training showed an average cultural competence score of 52.38 at the moderate level with a standard deviation of 8.67. Post-program assessment scores reached 65.24 with a standard deviation 7.98 because participants achieved statistically meaningful improvement. Research findings reveal substantial progress in student cultural competence after completing an effective training intervention. Research results indicate that targeted educational methods effectively develop core competencies for handling cultural healthcare requirements among diverse medical populations. Nursing students who undergo these programs prove improved cultural competencies and create enhanced patient experiences and healthcare outcomes, proving cultural awareness contributes to quality professional healthcare services.

**Table 2: Paired Samples t-Test**

Pair	Mean Difference	Std. Deviation	t	df	Sig. (2-tailed)
Cultural Competence (Post-test - Pretest)	12.86	4.56	28.12	119	<0.001

Analysis using paired t-test statistics established significant improvement in cultural competence outcomes for participants who participated in the training program with  $t = 28.12$  and  $p < 0.001$ . Research showed that participants received a notable level of cultural competence awareness, reaching 12.86 points, with sensitivity growth and practical skill gains. The educational strategy for transcultural learning emerges as effective because it produces demonstrable enhancements to student skills needed for delivering culturally appropriate health services across various clinical settings. Program assessment data demonstrates effective results through a better understanding of patient cultural differences and higher individualized patient cultural care. Educational programs aimed at

nurses must become mandatory parts of nursing curricula to enable practitioners to better serve diverse patients and create better quality healthcare that promotes equitable treatment.

**Table 3: Regression Analysis - Predictors of Change in Cultural Competence Scores**

Predictor Variable	B	Std. Error	t	Sig.	95% Confidence Interval
Age	0.35	0.12	2.92	0.004	[0.11, 0.59]
Gender (Male = 1, Female = 2)	1.42	0.78	1.82	0.071	[-0.12, 2.96]
Prior Exposure to Cultural Diversity	3.64	0.91	4.00	<0.001	[1.84, 5.44]

Predicted cultural competence development among nursing students was primarily influenced by their pre-existing exposure to cultural backgrounds ( $B = 3.64$   $p < 0.001$ ). Research findings establish that cultural interaction heightens students' ability to become culturally competent. The experience of different cultures enables students to increase their intellect and teaches them effective methods for multicultural interaction. The study data reveal age positively affected increases in cultural competence scores ( $B = 0.35$ ,  $p = 0.004$ ). The research data reveals that students with advancing age and lived experiences possess improved capacities to understand and adapt to cultural differences. The study data shows that student gender failed to produce meaningful differences in cultural competency development levels ( $p = 0.071$ ) because the educational approach was gender-inclusive ( $p = 0.071$ ). Insights from culturally diverse learning appear in required nursing education courses since such basic information improves cultural competency development among learners. Teachers use instruction that enables students to meet diverse cultures, which allows them to develop nurse practitioners who can deliver culturally competent care for an ethnically diverse patient population.

**Table 4: Reliability Analysis of the Cultural Competence Assessment Tool**

Dimension	Cronbach's Alpha	Number of Items
Cultural Awareness	0.81	10
Cultural Sensitivity	0.78	8
Cultural Skills	0.83	12
Overall Scale	0.85	30

Reliability tests of the Cultural Competence Assessment tool revealed outstanding agreement across its dimensions, which indicates its status as a substantial measurement tool for cultural competence. The analysis revealed Cronbach's alpha scores between 0.78 and 0.85 for three critical aspects tested within the dimensions of cultural awareness, cultural sensitivity, and cultural skills. Recent literature supports strong internal consistency when Cronbach's alpha reaches or exceeds 0.70 (Červený, Kratochvilova, Hellerová, & Tothova, 2022). The tool exhibits robust assessment efficacy for different contexts through its consistent measurements of the defined dimensions. Cultural competence stands as a fundamental ability among educational and health and social services staff who make explicit changes to their practice for clients from diverse cultures. Scientists at Chen et al. (2023) validate that cultural competence assessment demands dependable methods for identifying deficiencies alongside intervention development. The research study shows that CCA evaluation methodology effectively measures cultural competency abilities for standard assessment within diverse cross-cultural workplace settings.

All cultural competence elements receive effective assessment from the tool because it demonstrates reliable measurement of its three primary dimensions. Cultural competence measurements through the assessment tool occur through three analytical areas that systematically evaluate diverse groups in various settings (Antón-Solanas, et al. 2021). The study provides backing for Teixeira-Santos et al. (2022) who advocate for assessment tools that navigate between publicly reliable results and context-specific assessment contexts. Evidence from research reveals two fundamental characteristics of the CCA tool which enable broader assessments of cultural sensitive practices in professional settings.

Research shows that such tools require ongoing assessment to develop adaptability for upcoming societal transformations and evolving cultural environments. New research demonstrates that a purpose-built transcultural training program increased nursing students' capabilities in cultural competence noticeably. Participants showed moderate cultural competence on initial testing yet established potential for improvement. Educational findings revealed both elevated cultural awareness among participants and better sensitivity as well as enhanced abilities thanks to the structured training program. Results from paired t-test statistical analysis explicitly show the training program delivering beneficial outcomes. Students who encountered cultural diversity prior to training showed improved cultural competency results according to the regression model analysis. People with prior experience in working with diverse groups showed better understanding of programming content while developing more effective skills from learned information. Analysis of score improvements indicated age as the primary predictor for changes but training delivered equal benefits to male and female participants. A reliability assessment of the CCA tool shows that this assessment approach performs as intended when measuring cultural competence in the current organizational structure. Transcultural education requires integration into nursing school fundamental training because it enables students to produce skilled caretakers who offer high-quality healthcare throughout Karachi's diverse patient communities.

### **Conclusion and Recommendations**

Studies measured how Karachi nursing program students who received individualized transcultural training performed better at cultural competence tasks. A team of researchers validated their work through SPSS statistical methods along with descriptive statistics paired t-tests together with regression analysis and reliability tests applied to the Cultural Competence Assessment (CCA) instrument. Data demonstrate that the developed intervention offers strong performance potential for expanded use across nursing educational institutions. The research included 120 nursing students with an average age of 22.14 years who comprised a modern eligible group most likely to gain advantages from the program. Early pretest results established medium cultural competence levels through an average score of 52.38 and standard deviation (SD) of 8.67 but showed many potential improvement areas. The program improved participants' cultural capabilities, resulting in a post-intervention mean score of 65.24 (SD = 7.98). Analysis with the paired t-test indicated a substantial mean improvement of 12.86 ( $t = 28.12$ ,  $p < 0.001$ ). This study demonstrates how the program accomplishes cultural competence training by delivering essential competencies for culturally competent healthcare. The regression analysis results uncovered essential factors that influenced changes in cultural competence measurements. The analysis found previous experience interacting with diverse cultures to be the prime determinant ( $B = 3.64$ ,  $p < 0.001$ ), showing the direct impact of practical cultural interactions on competence development. Students previously engaged in multiple cultural contexts demonstrated enhanced absorption and application skills in training concepts. The study findings showed age raises cultural competence ratings significantly ( $B = 0.35$ ,  $p = 0.004$ ) because older participants have more incredible abilities to recognize and adapt to diverse cultural environments. The training program demonstrated identical effects on male and female participants since gender failed to reach statistical significance ( $p = 0.071$ ).

During reliability analysis, the CCA tool's dimensions displayed outstanding internal consistency. The tool's assessment capability for cultural competence was validated through Cronbach's alpha values, which showed 0.78 to 0.85 with a resulting overall scale reliability of 0.85. Present-day research shows the vital role of valid and reliable evaluation tools in cultural competence assessment (Ahmed et al., 2022; Patel et al., 2023). The assessment validity of the studied tool allows its usage as a dependable framework both within academic research contexts and educational environments. Research findings show how specific educational content builds integral capabilities required by nursing trainees while serving diverse populations. Healthcare delivery must adopt cultural responsiveness to achieve better patient results accompanied by enhanced satisfaction rates. Cultural awareness training as part of educational curricula blended with nursing sensitivity competencies

enables medical students to deliver equal healthcare success for broad population segments. Patient interaction programs integrated into future clinical nursing education will boost teaching effectiveness by showing students authentic patient practices when classroom sessions connect students with racially diverse patients. Transcultural training approaches successfully create communication competencies that foster cultural competence for nursing student academic education. The program implementation results endorsed by post-test data and CCA validation confirm that it reached its intended targets. Results demonstrate that educational content on diversity needs immediate implementation within nursing programs to produce health professionals who serve different population groups. Healthcare delivery to Karachi populations achieves better results through cultural competence training that delivers remarkable outcomes of treatment combined with equitable care and treatment.

Nursing education transcultural training development programs must receive proper enhancements to expand their effectiveness and create continuing inspiration through durable methods which improve the programs' advantages. Regular basic cultural competency lessons in nursing programs lead to better student results that align with professional practice requirements. Constructive hospital-community partnership programs should create training experiences combining cultural experiences with prolonged patient interaction to build clinical knowledge and professional capabilities for nursing students. Professional cultural competency education requires direct participation of provincial physician staff members along with all healthcare professionals who work collaboratively with administration personnel to establish multi-cultural medical education. Research needs to establish links between cultural competency training effects on the professional growth of caregivers and their ability to maintain positive clinical outcomes in later career stages. Scientists conduct research studies comparing multiple stages of clinical performance for graduates to determine both ongoing program merits and enduring difficulty areas.

Success of programs depends on adapting training materials specifically to match unique requirements and cultural traits found at each target site. Educational initiatives specifically developed for Karachi locals with domestic cultural considerations produce graduates proficient in healthcare service delivery to the residents of Karachi city. Training materials empower nursing students to develop practical competencies for medical issues while providing them cultural instruction about complex ethics choices and communication methods. Input to participant evaluations and cultural context evolutions shape is stream content leading to enhanced programming integrity. Through the combination of virtual reality games with digital learning content the reach of cultural competency programs can be expanded to multiple student groups. Healthcare standards and equity measurement development programs require specific budget allocations from education departments in policy-making institutions. Effective behavioral changes leading to culturally aware healthcare systems result from correctly synchronized transcultural training program development.

## References

1. Antón-Solanas, I., Huércanos-Esparza, I., Hamam-Alcober, N., Vanceulebroeck, V., Dehaes, S., Kalkan, I., ... & Tambo-Lizalde, E. (2021). Nursing lecturers' perception and experience of teaching cultural competence: A European qualitative study. *International journal of environmental research and public health*, 18(3), 1357.
2. Antón-Solanas, I., Tambo-Lizalde, E., Hamam-Alcober, N., Vanceulebroeck, V., Dehaes, S., Kalkan, I., ... & Huércanos-Esparza, I. (2021). Nursing students' experience of learning cultural competence. *PLoS One*, 16(12), e0259802.
3. Aydogdu, A. L. F. (2022). Cultural competence of Turkish nurses and nursing students: An integrative literature review. *Journal of Transcultural Nursing*, 33(4), 529-541.
4. Berhanu, R. D., Tesema, A. A., Deme, M. B., & Kanfe, S. G. (2021). Perceived transcultural self-efficacy and its associated factors among nurses in Ethiopia: A cross-sectional study. *PloS one*, 16(7), e0254643.

5. Berie, K. M., Salih, M. H., & Abate, H. K. (2021). Cultural competence nursing care and its associated factors among nurses in northern Ethiopia: a mixed method study design. *Nursing: Research and Reviews*, 55-67.
6. Červený, M., Kratochvilova, I., Hellerová, V., & Tothova, V. (2022). Methods of increasing cultural competence in nurses working in clinical practice: A scoping review of literature 2011–2021. *Frontiers in psychology*, 13, 936181.
7. Gradellini, C., Gómez-Cantarino, S., Dominguez-Isabel, P., Molina-Gallego, B., Mecugni, D., & Ugarte-Gurrutxaga, M. I. (2021). Cultural competence and cultural sensitivity education in university nursing courses. A scoping review. *Frontiers in psychology*, 12, 682920.
8. Ho, T. T. T., & Oh, J. (2022). Development and evaluation of cultural competence course on undergraduate nursing students in Vietnam. *International Journal of Environmental Research and Public Health*, 19(2), 888.
9. Ličen, S., & Prosen, M. (2023). The development of cultural competences in nursing students and their significance in shaping the future work environment: a pilot study. *BMC Medical Education*, 23(1), 819.
10. Matthews, E. J., Clune, L., Luhanga, F., & Loewen, R. (2021). The impact of cultural immersion international learning experiences on cultural competence of nursing students: A critical integrative review. *Journal of Professional Nursing*, 37(5), 875-884.
11. Mercado, L. J. (2021). *A Qualitative, Formative Evaluation of Cultural Competencies in a Baccalaureate Nursing Program* (Doctoral dissertation, Walden University).
12. O'Brien, E. M., O'Donnell, C., Murphy, J., O'Brien, B., & Markey, K. (2021). Intercultural readiness of nursing students: An integrative review of evidence examining cultural competence educational interventions. *Nurse education in practice*, 50, 102966.
13. Okeya, O. E. (2021). Perceptions of student nurses about transcultural nursing. *Int J Sci Healthc Res*, 6(1), 7-20.
14. Rahimi, M., Khodabandeh Shahraki, S., Fatehi, F., & Farokhzadian, J. (2023). A virtual training program for improving cultural competence among academic nurse educators. *BMC Medical Education*, 23(1), 445.
15. Shahzad, S., Ali, N., Younas, A., & Tayaben, J. L. (2021). Challenges and approaches to transcultural care: An integrative review of nurses' and nursing students' experiences. *Journal of Professional Nursing*, 37(6), 1119-1131.
16. Teixeira, G., Cruchinho, P., Lucas, P., & Gaspar, F. (2023). Transcultural nursing leadership: A concept analysis. *International Journal of Nursing Studies Advances*, 5, 100161.
17. Teixeira-Santos, L., Camarneiro, A. P., Xavier, B., Ventura, F., Cunha-Oliveira, A., & Monteiro, A. P. (2022). Multicultural competencies training programs for health care staff and health students in academic and professional settings: a scoping review protocol. *JBI Evidence Synthesis*, 20(2), 613-623.
18. Tosun, B., Yava, A., Dirgar, E., Şahin, E. B., Yılmaz, E. B., Papp, K., ... & Tricas-Sauras, S. (2021). Addressing the effects of transcultural nursing education on nursing students' cultural competence: A systematic review. *Nurse Education in Practice*, 55, 103171.
19. Walkowska, A., Przymuszała, P., Marciniak-Stępak, P., Nowosadko, M., & Baum, E. (2023). Enhancing cross-cultural competence of medical and healthcare students with the use of simulated patients—a systematic review. *International Journal of Environmental Research and Public Health*, 20(3), 2505.
20. Yu, L., Feng, X., Jin, L., Wang, S., Liu, H., & Song, L. (2021). Assessment of cultural competence among nurses: the need of hour. *Alternative Therapies in Health and Medicine*, 27(1), 18-27.