BMC Health Services Research

RESEARCH Open Access

A scoping review of cultural competence training gaps among healthcare professionals in low-and middle-income countries

Obasanjo Bolarinwa[1,2*] and Dennis Ampadu Nkansah[1]

Abstract

Background Cultural competence is an essential skill required of healthcare professionals to provide quality and inclusive healthcare, enhancing patients' satisfaction and improving health outcomes. However, its integration in healthcare delivery remains limited, particularly in low- and middle-income countries (LMICs). Thus, this current scoping review aimed to investigate the gap in cultural competence training among healthcare professionals in LMICs.

Methods The study was guided by the methodological framework recommended by Arksey and O'Malley. A comprehensive search was conducted across six databases (PubMed, Scopus, CINAHL, PsycInfo, JSTOR, and AJOL) and non-database website (Google Scholar) to identify studies that assessed cultural competence skills or implemented cultural competence training to healthcare professionals in LMICs since the adoption of the Sustainable Development Goals (SDGs) by the United Nations in 2015 to 2nd April 2025. The search process resulted in the inclusion of thirty-eight (38) for this review.

Results Out of 2,702 studies retrieved during the literature search, 83 studies were selected for full-text review after screening, of which 38 studies were included in the final review for meeting the inclusion criteria. The included studies were conducted between 2015 and 2025 across 14 LMICs. Out of the 38 eligible studies, 27 employed quantitative method, three were conducted using qualitative method, four used a mixed-methods study approach, three employed quasi-experimental design, and one used a cluster randomised controlled trial. Cultural competence interventions were reported in only five of the 38 studies, although they were recommended across the studies reviewed.

Conclusion This scoping review highlights a critical gap between the recognition of cultural competence as a key component of quality healthcare and its integration in healthcare delivery in LMICs. Thus, there is a need to develop and implement more effective, inclusive, and contextually appropriate cultural competence training programmes for healthcare professionals in LMICs. This could significantly contribute to enhancing the cultural competence skills of these professionals, improving healthcare delivery, and enhancing patient satisfaction and health outcomes.

Keywords Cultural competence, Healthcare workers, LMICs, Scoping review, Healthcare equity

*Correspondence:
Obasanjo Bolarinwa
bolarinwaobasanjo@gmail.com
[1]Department of Global Healthcare Management, York St John University, London, UK
[2]Demography and Population Studies Programme, Schools of Public Health and Social Sciences, University of the Witwatersrand, Johannesburg, South Africa

Background

Cultural competence is a vital skill necessary to deliver effective healthcare services and enhance patient satisfaction, a key determinant of quality healthcare [1, 2]. In today's increasingly diverse global society, most healthcare professionals, including physicians, nurses, pharmacists, physiotherapists, and other healthcare workers, encounter patients from diverse cultural backgrounds, each with distinct beliefs, values, and healthcare-seeking behaviours and practices [3–5]. Thus, the need for health professionals to be competent in providing culturally appropriate, sensitive and responsive care has become even more imperative.

Furthermore, evidence shows that healthcare workers in many low- and middle-income countries (LMICs) have limited cultural competence skills [6–9], which could hinder their ability to provide culturally appropriate care to patients [10]. Meanwhile, aside from increasing dissatisfaction among patients [11], lack of cultural competence in healthcare provision contributes to increased health disparities and adverse health outcomes, particularly among minority populations [4].

Fundamentally, cultural competence in health focuses on understanding the essence of social and cultural factors and their influence on patients' health beliefs and health behaviours [12]. According to the World Health Organisation (WHO) [10], cultural competence in healthcare refers to the ability of healthcare professionals to provide culturally appropriate care, taking into account individuals' cultural beliefs, norms, and practices. It is one of the essential skills required of healthcare professionals to promote inclusive healthcare services, minimise health disparities, and improve patient outcomes [11, 13, 14].

In nursing care practice, for instance, cultural competence is associated with enhanced patient-centred care [15], improved nurse-patient relationships, and reduced nurse-patient conflict [16]. Similarly, cultural competence has been associated with enhanced doctor-patient communication [17], which promotes patient-centred care, improves satisfaction and health outcomes [18].

In spite of the increasing global recognition of the importance of cultural competence and its integration in healthcare provision [10, 19], evidence suggests that the cultural competence of healthcare professionals in many LMICs remains limited [6–9]. Besides, whilst cultural competence interventions or training programmes for healthcare professionals have been widely recommended and implemented in many high-income countries (HICs) [20], implementation of such interventions for healthcare professionals in LMICs remains less evident.

With the current global healthcare worker shortage, migrant healthcare workers from LMICs contribute significantly towards addressing the healthcare workforce gap in HICs [21]. Thus, the cultural competency of healthcare professionals in LMICs not only facilitates their ability to provide culturally appropriate care in their home countries but also enhances their ease of integration in the provision of healthcare in foreign countries, promoting job satisfaction [21, 22]. Therefore, understanding the limitations and gaps in cultural competence and cultural competence training among healthcare professionals in LMICs could enhance efforts towards implementing evidence-based measures that improve the cultural competence skills of these professionals and enhance their ability to provide culturally appropriate care, regardless of a patient's cultural background. Thus, the current scoping review could initiate a discourse on measures to improve the cultural competence of healthcare professionals in LMICs, thereby enhancing their capacity to provide culturally appropriate care to a diverse population and promoting health equity and improved health outcomes.

A scoping review systematically maps existing research, synthesises available evidence, and identifies gaps on a given topic [23]. This study conducts a scoping review of cultural competence and cultural competence training among healthcare professionals in LMICs. It aims to summarise current evidence, assess existing training approaches, and identify gaps in methods and outcomes to inform strategies for strengthening cultural competence skills and promoting equitable healthcare in line with the Sustainable Development Goals (SDGs) [24].

Previous studies have used scoping reviews to examine cultural competence and its role in equitable healthcare provision [25–27]. Building on this, the present review aims to provide an overview of current research, highlight deficiencies in the evidence base, and identify areas that require further investigation. Through the analyses of available literature, this review aims to inform future training content and approaches that enhance the effectiveness of healthcare delivery, improve patient satisfaction, and advance health equity in LMICs.

Methods

In this scoping review, we used the methodological framework recommended by Arksey and O'Malley [28]. We achieved the two objectives of conducting scoping, as suggested by Arksey and O'Malley [28], by providing a comprehensive synopsis of the existing evidence on cultural competence and cultural competence training of healthcare professionals in LMICs, and by identifying the current gaps in cultural competence training for these professionals. The processes and findings of the current scoping review are reported in line with the established Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines [29].

Literature search strategy

We began our literature search by conducting initial searches of studies on cultural competence and cultural competence training of healthcare professionals in LMICs. We searched across various databases, including the Joanna Briggs Institute (JBI) and the Cochrane Library. Our search findings showed that no review of the current study exists or is being conducted. However, we did not include JBI and Cochrane Library in the final databases considered for this study. To ensure a comprehensive search, we conducted additional preliminary searches on other major databases, including PubMed and Web of Science. We used this exploratory search and review to guide the development of our search strategy, the list of keywords for the search, the inclusion and exclusion criteria, and to refine our research objective (see Appendix I for the development of the keywords list).

To include all relevant studies in LMICs, a comprehensive search was conducted across various databases, including PubMed, Scopus, CINAHL, PsycInfo, JSTOR, and AJOL. We also searched non-database websites, including Google Scholar and the WHO website, to identify any possible missing studies not found in the databases. The search strategy combined Medical Subject Headings (MeSH) terms and free-text keywords related to cultural competence, training, healthcare professionals and low- and middle-income countries (see Appendix II. Boolean operators (AND, OR) were used to enhance search specificity. Further, we checked the reference lists of included studies to identify additional sources. A literature search was conducted between June 1st and 15th, 2025, and was limited to articles published in English.

Inclusion and exclusion criteria

Population

We included studies involving cultural competence or cultural competence training of healthcare professionals (nurses, midwives, physicians, pharmacists, physiotherapists, dentists, community health workers, and other professionals providing direct healthcare to patients in hospital settings) in LMICs as defined by the World Bank country classification [30]. Studies involving healthcare professionals in high-income countries were excluded. This is to ensure that we capture the current evidence of cultural competence and cultural competence training of healthcare professionals in LMICs.

Table 1 Key terms for measuring cultural competence

Term	Definition
Cultural competence	The ability to provide culturally appropriate care, considering individuals' cultural beliefs, norms, and practices [10].

Concept

We included studies that investigated cultural competence among healthcare professionals and examined whether these studies provided cultural competence training or otherwise. Consequently, all studies that did not focus on cultural competence among healthcare professionals were excluded. We adopted the definition of cultural competence provided by the WHO (Table 1).

Context

We included published studies conducted in LMICs from 10th February 2015 to 2nd April 2025. The start date of 2015 was chosen because it marks the year when the SDGs were adopted by the United Nations [31]. Cultural competence can contribute to attaining health-related SDG targets by ensuring that healthcare services are responsive to diverse cultural needs, minimising barriers for vulnerable populations such as ethnic minorities and the elderly [32], and thereby reducing healthcare inequalities.

Types of studies

In this scoping review, we included qualitative, quantitative, mixed-methods, quasi-experimental and randomised control trial (RCT) studies. Only peer-reviewed articles published in English were included. Other study types, such as commentaries, theses or dissertations, conference abstracts, reviews, research protocols, book chapters, and blog posts, were excluded. This enabled the researchers to focus on established study findings to enhance the evidence.

Eligible studies selection process

After searching for potential studies for inclusion from the various databases, we removed duplicate studies using the reference management software, EndNote X9 (Clarivate). Subsequently, we used Covidence (an online tool for streamlining systematic reviews) to screen the remaining studies. The search results were evaluated by two independent reviewers, who evaluated all study titles and abstracts for their relevance and potential inclusion. Afterwards, the full texts of all relevant studies were obtained and assessed for inclusion by the two independent reviewers, based on the established inclusion and exclusion criteria. Any disagreements between the reviewers on study selection or inclusion were thoroughly discussed until a consensus was reached. This eligibility selection process resulted in the inclusion of 38 studies in the current scoping review. The study methodological quality was not assessed, as this is not required for a scoping review [32].

Data extraction and charting

We used a standardised form in Microsoft Excel to extract the included eligible studies from Covidence. Two independent reviewers did the extraction. The following information was extracted: the first author's surname and year of publication, study location, study design, sample size, study's focus or training content, duration of intervention, outcome measures or key findings, and limitations. Table 2 presents the full information for all the articles included and excluded.

Figure 1 shows the various stages of elimination, the number of results eliminated at each stage, and the reason for elimination using the PRISMA flow diagram.

Results

A total of 2702 studies were retrieved during the literature search, and 1472 were removed as duplicates. One thousand two hundred and thirty (1230) studies were included for title and abstract screening, and 1148 studies were removed after the screening. The remaining 82 studies were included for full-text retrieval and screening. Forty-five (44) studies were excluded after full-text screening for failing to meet the inclusion criteria, and the remaining 38 studies were deemed eligible and included in the final analysis (Fig. 1).

Geographical areas covered

All thirty-eight (38) studies included were individual country studies conducted across 14 LMICs. Of the 38 eligible studies, seven were conducted in Iran [34–40], five in Ethiopia [6, 41–44], five in Türkiye [45–49], four each in the Philippines [50–53] and Thailand [7, 54–56], two each in China [57, 58], Indonesia [9, 59], Kenya [60, 61], and Pakistan [8, 62], and one each in Colombia [63], Cyprus [64], Ghana [65], Nigeria [66], and South Africa [67].

Study type

Among the thirty-eight (38) eligible studies, 27 (71.0%) used a quantitative approach, three (7.7%) were conducted using qualitative method, four (10.3%) were conducted using mixed methods study approaches, three (7.7%) were conducted using quasi-experimental design, and one (2.6%) was conducted using a cluster randomised control trial. All the included studies focused on aspects of cultural competence, including level of cultural competence, cultural competence knowledge and skills, and cultural competence training.

Population focus

Out of the thirty-eight (38) included studies, twenty-nine (28) focused on nurses (registered nurses, paediatric, psychiatric, and critical care nurses) [7–9, 34–44, 46, 49–59, 63, 65], one on midwives [67], one dentist [62], one on both physicians and nurses [47], two nurses, midwives, and health officers [45, 48], three on physicians, nurses, midwives, and other healthcare workers [6, 64, 66], and two studies did not specify the categories of healthcare workers [60, 61]. Meanwhile, only three out of the 38 studies included patients' perspectives [6, 60].

Main findings from the studies of cultural competence among healthcare professionals included in this review

Level of cultural competence among healthcare professionals

Twenty-six (26) studies reported levels of cultural competence of the healthcare professionals, of which four studies reported low levels [6, 8, 9, 34], seventeen reported moderate levels [7, 35–38, 41–43, 45, 46, 48, 49, 56, 57, 62, 63, 67] and four reported high levels [47, 50, 52, 65]. In Ethiopia, for instance, the overall level of cultural competence of healthcare providers (physicians, midwives, and health officers) was 57.3%. Meanwhile, only 27.8% of nurses surveyed in Indonesia reported that they had formal training on cultural competence [59].

Whilst some studies suggested differences in cultural competence between different professional groups or professionals working in different settings [62, 64, 66], others found no significant differences [34, 48]. In Cyprus, for instance, nurses and psychologists were found to be more sensitive to issues of cultural competence and exhibited readiness for culturally competent care compared to other professionals, like midwives and doctors [64]. However, in Türkiye, Savaş and Tuzcu [48] found no significant difference in cultural competence between healthcare workers in primary healthcare facilities and those in secondary facilities.

Factors associated with the cultural competence of healthcare professionals

The studies reported several socio-demographic and organisational or contextual factors that influenced cultural competence among the healthcare professionals. Key socio-demographic factors include educational attainment [41–43, 45, 51, 63] years of professional experience [41, 45, 47, 51, 63, 66], age [7, 38, 45, 51, 57, 63], gender [6, 41, 63], marital status [7, 38, 47], language proficiency [42, 46, 49, 57, 59], occupation [45, 64, 66], and cross-cultural exposure [46, 48, 55, 57, 63, 65]. At the organisational level, factors that influenced cultural competence include the type of healthcare setting [41, 57], presence of organisational feedback systems on cultural competence [41–43], nurse-to-patient ratios [41, 43], organisational support [42, 55, 59], and having received or attended cultural competence training [6, 41, 50, 59, 66].

Table 2 Study characteristics and key findings on cultural competence and cultural competence training among healthcare professionals in LMICs

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Abdullah (2022) [59]	Indonesia	Quantitative	108 nurses	No intervention or training provided. The study assessed differences in cultural among nurses working in inpatient, outpatient, and emergency rooms.	N/A	There is no significant difference in cultural competence among nurses working in the inpatient, outpatient, and emergency units. Cultural competence was not dependent on the type of nursing service, but rather on nurses' cultural knowledge, organisational support, and access to cultural competence training. Only a few of the nurses had formal training on cultural competence. The study recommended cultural competence training.	Conducted in only one hospital, limiting generalizability. A cross-sectional design restricts causal inference.
Ababakari (2024) [65]	Ghana	Quantitative	759 nurses	No intervention or training provided. The study determined the self-rated cultural competency of nurses.	N/A	The nurses' self-rated cultural competence was high. High scores were recorded in all the cultural competence domains except for cultural encounters, which was moderate. Cultural skills were inversely associated with having travelled outside Ghana.	Potential for self-assessment bias or social desirability bias due to reliance on self-reported data. .
Alonzo (2024) [53]	Philippines	Qualitative	10 nurses	No intervention or training provided. The research explored the lived experiences of nurses caring for indigenous clients.	N/A	The nurses faced challenges such as language barriers, cultural misunderstandings, and limited skills to provide culturally competent care. However, they found fulfilment in caring for the indigenous client in spite of the cultural difficulties. The study recommended cultural competence training.	Potential for recall bias due to self-reported data.
Aragaw (2015) [6]	Ethiopia	Mixed-methods	274 maternal healthcare providers (physicians, midwives, health officers and nurses) 7 women attending antenatal, delivery, or postnatal services	No intervention or training provided. The study investigated the level of cultural competence and its associated factors among maternal healthcare providers.	N/A	The overall cultural competence level of the healthcare professionals was low. Significant predictors of higher cultural competence include female gender and having received in-service training related to maternal healthcare. Mothers interviewed expressed dissatisfaction with provider interactions and perceived a lack of cultural sensitivity. The study recommended cultural competence training.	Self-reported data may be influenced by social desirability bias. Limited scope curtails generalizability.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Argyriadis (2022) [64]	Cyprus	Mixed-methods	499 health professionals (doctors, nurses, psychologists, midwives, social workers, and physiotherapists) for quantitative 62 health professionals for qualitative	No intervention or training provided. The study assessed self-perceived cultural competence among the healthcare professionals to identify their development needs.	N/A	Nurses and psychologists were more sensitive to issues of cultural competence and exhibited readiness for culturally competent care compared to other professions. Participants interviewed recognised the importance of cultural competence for individualised healthcare. The study recommended cultural competence training.	Risk for social desirability bias since the data were self-reported.
Berie (2021) [42]	Ethiopia	Mixed-methods	543 nurses	No intervention or training provided. The study investigated cultural competency in nursing care across four domains, including cultural awareness, cultural sensitivity, cultural knowledge and cultural skills.	N/A	The nurses had moderate levels of cultural competence. Key factors that influenced cultural competence among the nurses include the ability to speak languages other than Amharic and English, higher educational attainment, use of interpreters, prior work experience in other health facilities, and organisational feedback systems. Language barriers and lack of training were the main impediments to cultural competent care.	The cross-sectional nature of the study does not permit causal inference.
Birhanu (2023) [43]	Ethiopia	Quantitative	362 nurses	No intervention or training provided The study assessed nurses' cultural competency and its associated factors.	N/A	The nurses had a moderate level of cultural competence. Significant predictors of higher cultural competence among the nurses included the presence of feedback systems in health facilities, higher nurse-to-patient ratios, and higher educational levels. The study recommended cultural competence training.	Risk of social desirability bias, since questionnaires were self-administered.
Bunjitpimol (2016) [7]	Thailand	Quantitative	166 nurses	No intervention or training provided The study assessed nurses' cultural competencies and their associated factors, including multicultural knowledge, attitudes towards cultural differences, and cross-cultural nursing practices.	N/A	The overall level of cultural competency of the nurses was low to moderate. The main factors that influenced multicultural knowledge included age, responsibility, and confidence. Attitude towards cultural differences was influenced by work shift, marital status, and confidence. Cross-cultural practice was strongly associated with confidence and attitude toward foreign patients. The study recommended cultural competence training.	Cross-sectional design limits causal inference. The study was conducted in two hospitals in one city, limiting generalizability.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Bunjit-pimol (2018) [54]	Thailand	Quasi-experimental	166 nurses	The intervention consisted of weekly case-based training sessions designed to simulate cross-cultural healthcare scenarios.	5 months, comprising 3-month weekly case-based interventions, then 2-time monthly boosters at the end of the 4th and 5th months.	Significant improvements in cultural knowledge, attitudes, and practices were recorded among the nurses in the intervention group. The nurses also demonstrated greater confidence and competence in handling culturally diverse patients.	A short follow-up period limits knowledge of the long-term impact.
Cheboi (2021)* [60]	Kenya	Cluster Randomised Controlled Trial (CRT), with qualitative and quantitative methods.	758 women of reproductive age (379 each in the intervention and control group) for training impact assessment. Healthcare professionals were trained, but the actual number was not provided.	Healthcare workers provided culturally sensitive maternity services after receiving training on cultural competence care. Women of reproductive age were interviewed using exit and mystery client surveys.	A three-day cultural competence training workshop was provided to the healthcare workers. After training, cultural competence care provision was done for six months.	Significant improvement in satisfaction with maternity services was observed among women in the intervention group. They reported increased trust in care providers, enhanced satisfaction with information on delivery methods, improved perceptions of delivery room quality and promptness of care, and enhanced service alignment with cultural expectations.	Birthing-related anxiety and enthusiasm could affect client responses. A short-term follow-up period limits the knowledge on the long-term impact of the intervention.
Çınar (2020) [45]	Türkiye	Quantitative	215 healthcare professionals (nurses, midwives, health officers)	No intervention or training provided. The study examined intercultural competencies and their associated factors.	N/A	The healthcare professionals had a moderate intercultural competence level. Factors that influenced intercultural competence levels among the professionals included age, educational level, occupation, years of experience, and the region in the long term. The study recommended cultural competence training.	The study was limited to two hospitals in one city, which could limit generalisability. Cross-sectional design limits causal inference.
Contaoi (2025) [50]	Philippines	Quantitative	250 nurses	No intervention or training provided. The study assessed the cultural competence of non-Muslim nurses caring for Muslim patients, focusing on the nurses' knowledge of Islamic beliefs and practices.	N/A	The nurses demonstrated good knowledge and high cultural competence. A significant positive relationship was found between knowledge of Islamic healing practices and overall cultural competence. Previous diversity training was the only personal factor significantly associated with higher cultural competence. The study recommended culturally specific training.	Context-specific, limited to only Muslim patients. Did not explore patient perspectives, which could enrich understanding.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Geleta (2021) [44]	Ethiopia	Qualitative	8 nurses	No intervention or training provided The study explored nurses' cultural competence and its related barriers.	N/A	The nurses often prioritised biological and clinical factors over cultural aspects of care. However, they expressed genuine respect for patients' cultural and religious beliefs and practices and showed interest in acquiring cultural care knowledge.	Relatively small sample size ($n=8$). Lack of patients' perspectives limits understanding of the phenomenon.
Havlıoğlu (2022) [46]	Türkiye	Quantitative	302 nurses	No intervention or training provided. The study assessed the cultural competencies of nurses.	N/A	The nurses had an above-average cultural competence level. Nurses who had prior exposure to culturally diverse patients, used languages other than Turkish (e.g., Kurdish or Arabic), or believed in the importance of culture-specific care scored significantly higher cultural competence levels. The study recommended cultural competence training.	The study is context-specific, involving only nurses working in hospitals on the Türkiye-Syria border, limiting generalizability.
Herrero-Hahn (2019) [63]	Colombia	Quantitative	211 nurses	No intervention or training provided The study assessed nurses' self-perceived cultural self-efficacy or competence.	N/A	The nurses had a moderate level of cultural self-efficacy. Cultural self-efficacy among the nurses was significantly associated with age, sex, educational level, years of experience, and cross-cultural exposure. The study recommended cultural competence training.	Self-reported data may be influenced by social desirability bias. Cross-sectional design limits causal inference.
Jin (2018) [51]	Philippines	Quantitative	260 nurses	No intervention or training provided The study assessed cultural self-efficacy with the aim of designing a cultural competence training programme for nurses based on findings.	N/A	Educational attainment, age, and willingness to work abroad were positively associated with transcultural self-efficacy among the nurses. However, years of employment negatively influenced practical and affective transcultural self-efficacy. A cultural competence training program was proposed.	No report of implementation and the effectiveness of the proposed training. .
Keklik (2024) [47]	Türkiye	Quantitative	157 healthcare professionals (nurses and physicians) .	No intervention or training provided. The study assessed the cultural competencies of healthcare professionals working in paediatric units.	N/A	High cross-cultural competency levels were recorded among the professionals. Factors that influenced cultural competency level included marital status, total years of professional experience, years working in paediatric units, and perceptions on the importance of cultural learning in patient care. The study recommended a cultural competence training programme.	The study was conducted in only one centre and focused on professionals working in paediatric units only, limiting generalizability.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Khongsa-mai (2020) [55]	Thailand	Quantitative	451 nurses	No intervention or training provided. The study determined the causal factors influencing cultural competence and cultural care behaviour of nurses.	N/A	Cultural attitudes and cross-cultural experience had a direct effect on cultural competence among the nurses. Also, cultural competence and organisational support had a direct effect on the cultural care behaviour of the nurses. The study recommended cultural competence training.	Cross-sectional design limits causal inference despite the use of SEM. The study was limited to private hospitals only, hindering generalisation to other facilities, especially government hospitals.
Kolagari (2022) [34]	Iran	Quantitative	160 nurses	No intervention or training provided. The study assessed the cultural competence of nurses working in the Intensive Care Unit (ICU) and Coronary Care Unit (CCU), and its association with demographic factors.	N/A	Overall, cultural competence was weak among the nurses working in both the ICU and CCU settings. The study found no statistically significant difference in cultural competence between ICU and CCU nurses. Demographic factors, including age, gender, and education, did not significantly predict cultural competence. The study recommended cultural competence training.	The scope of the study was limited to two healthcare facilities in one region, limiting generalisation.
Ma (2020) [57]	China	Mixed-methods	1103 nurses (Qualitative – 15 nurses; Quantitative – 1088 nurses)	No intervention or training provided. The study investigated cultural competence among registered nurses.	N/A	The overall cultural competence score of the nurses was moderate. Significant predictors of higher cultural competence among the nurses included age (≥ 40), working in tertiary hospitals, higher English proficiency, and overseas study/work experience. The study recommended cultural competence training.	The study was conducted in only one municipality, limiting generalizability.
Marata (2019) [52]	Philippines	Quantitative	112 nurses	No intervention or training provided. The study investigated the linguistic and cultural competencies of non-Meranao nurses and the nursing care they render to Meranao clients. items)	N/A	High levels of linguistic and cultural competence were reported among the non-Meranao nurses, and high-quality nursing care was rendered to the Meranao clients. Cultural competence had a significant positive influence on the quality of nursing care, but linguistic competence, while high, did not significantly influence care quality. The study recommended cultural competence training.	The study was limited to care rendered to only one minority population in the Philippines (Meranaos), restricting generalisability to other populations or settings.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Musembi (2024)* [61]	Kenya	Quantitative	156 healthcare workers	Cultural competence training was provided, but the details and nature of the training were not reported.	The actual duration of the cultural competence training was not reported, but the entire study was conducted from September 2023 to March 2024.	Cultural competence training resulted in improved patient satisfaction and health outcomes, enhanced communication effectiveness and trust-building, reduced health disparities and promoted patient-centred care that better aligned with patients' cultural expectations.	Limited information on the nature or type of cultural competence training provided. Lack of long-term follow-up to assess the sustained impact of training.
Ogunlana (2023) [66]	Nigeria	Quantitative	406 healthcare professionals (Medical/dental practitioners, nurses, pharmacists, physiotherapists, occupational therapists)	No intervention or training provided The study assessed the levels of training and practice of cultural competence.	N/A	About one-third of the participants had no formal training in cultural competence. Nurses, physiotherapists, and occupational therapists had more training in cultural competence than doctors (both medical and dental). Predictors of the level of cultural competence training include more years of practice, nursing relative to medical or dental practitioner, and higher personal and organisational cultural competencies.	Potential for social desirability bias, since the data were self-reported.
Perveen (2021) [8]	Pakistan	Quantitative	133 nurses	No intervention or training provided. The study examined nurses' awareness level on culturally competent care in three selected hospitals (Muzaffargarh, Dera Ghazi Khan, and Mian Munshi Hospital) in Punjab.	N/A	The overall cultural competence of the nurses was low. Nurses at Muzaffargarh hospital scored significantly higher levels of cultural competence than those in other hospitals. Nurses with more frequent and long-term patient interactions showed better cultural understanding.	The relatively small sample size and limited scope of the study limit generalisability.
Pitriani (2020) [9]	Indonesia	Quantitative	63 nurses	No intervention or training provided. The study investigated cultural competence and nursing care among Sundanese nurses working in Indonesia.	N/A	The overall cultural competence of the Sundanese nurses was low. Although the nurses possessed high cultural skills and knowledge, their levels of cultural awareness and sensitivity, which are critical components for culturally congruent care, were low.	The sample size was small, limiting generalizability. The study focused on nurses with a specific ethnic background, which restricts the broader applicability of findings.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Purabdollah (2021) [35]	Iran	Quantitative	310 nurses	No intervention or training provided The study assessed cultural competence and sensitivity, and their relationship with perceived stress among nurses.	N/A	The nurses exhibited moderate intercultural competence but low intercultural sensitivity. High levels of perceived stress were reported, with a significant inverse relationship between stress and both competence and sensitivity. Nurses who scored higher in intercultural competence and sensitivity were better equipped to manage stress in culturally diverse healthcare settings.	Self-reported data may be subject to social desirability bias.
Sadeghi (2022) [36]	Iran	Quantitative	267 nurses and 16 head nurses	No intervention or training provided The study assessed the relationships between nurses' cultural competence and ethical code observance in practice.	N/A	The study found a positive and statistically significant relationship between nurses' cultural competence and their observance of ethical codes. Both cultural competence and ethical code observance were rated at moderate levels among nurses. The study recommended cultural competence training.	Data collection was limited to only non-COVID-19 hospitals due to the outbreak of COVID-19 at the time of data collection, affecting generalizability.
Sarfaraz (2025) [62]	Pakistan	Quantitative	316 Dental House Officers (DHOs) and General Dentists (GDs)	No intervention or training provided. The study assessed and compared levels of cultural competence between DHOs and GDs.	N/A	Both DHOs and GDs were somewhat culturally competent. However, DHOs scored higher in self-perception of cultural competence than GDs, while GDs scored slightly higher in patient-centred communication, practice orientation, and cultural competence behaviours. The study recommended cultural competence training.	Self-reported data may be influenced by social desirability bias.
Sarvarizadeh (2024)* [37]	Iran	Quasi-experimental	70 psychiatric nurses (intervention group = 35; control group = 35)	The intervention group received cultural care training using the flipped classroom method.	The training programme consisted of four sessions, which spanned four weeks, with a follow-up assessment one month after completion to evaluate impact.	The training programme significantly improved the nurses' critical cultural competencies as post-test scores in the intervention group were significantly higher than those in the control group. Nurses in the intervention group also demonstrated enhanced ability to recognise and respond to the cultural needs of clients.	A short follow-up period restricts insights into the long-term impact of the intervention provided. The use of a single facility limits generalizability.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Savaş (2022) [48]	Türkiye	Quantitative	435 nurses, midwives, and health officers (87 and 348 working in primary and secondary healthcare, respectively)	No intervention or training provided. The study assessed and compared cultural competence levels between the healthcare professionals working in primary and secondary facilities.	N/A	The healthcare professionals in both primary and secondary healthcare facilities demonstrated moderate levels of cultural competence. No statistically significant difference was found between the two groups. Factors positively associated with higher cultural competence among the professionals included shorter working period, travel abroad for business or tourism, and frequent interaction with culturally diverse individuals. The study recommended cultural competence training.	The healthcare professionals in this study attend to predominantly Syrian refugees, which could influence the study findings due to cultural differences.
Shopo (2023) [67]	South Africa	Quantitative	82 midwives	No intervention or training provided. The study assessed midwives' self-reported levels of cultural competence in providing maternal healthcare.	N/A	A moderate level of competence concerning knowledge and understanding of cultural factors was recorded among the midwives. However, they had low confidence in interviewing patients from different cultural backgrounds. The study emphasised the need for cultural competence training.	The study had a small sample size and a limited scope, which could affect the generalizability of the findings.
Soleimani (2023) [38]	Iran	Quantitative	153 critical care nurses	No intervention or training provided. The study examined the level of cultural competence, empathy, job conflict and work engagement; and the influence of these and individual factors on cultural competence.	N/A	The nurses had moderate levels of cultural competence and high levels of empathy, but low job conflict and work engagement levels. Cultural competence was positively correlated with age, marital status, academic degree, work experience, and empathy, but negatively correlated with job conflict. The main predictors of cultural competence were academic degree and empathy.	Cross-sectional design limits causal inference. Limited scope and convenience sampling restrict the generalisability of the findings.
Songwathana (2015) [56]	Thailand	Quantitative	126 registered nurses	No intervention or training provided. The study assessed the level of Thai nurses' cultural competency in delivering care to patients in a multicultural setting.	N/A	The overall cultural competency of the nurses was moderate. Whereas years of experience, healthcare setting and prior training on multicultural care showed no significant differences, religious belief was significantly associated with cultural competence among the nurses.	Relatively small sample size and limited scope of the study hinder generalisability. Response rate was moderate (126 out of 180 questionnaires returned).
Tan (2022) [58]	China	Qualitative	16 nurses	No intervention or training provided. The study explored nurses' experiences and reflections on caring for a minority population (Tibetan) with Kashin-Beck disease.	N/A	The nurses reported challenges in cross-cultural nursing, including linguistic difficulties, unfamiliarity with Tibetan customs, and emotional strain. However, they expressed a desire to improve their cultural knowledge and advocated for a structured cultural competence training programme.	Findings are context-specific to Tibetan patients with Kashin–Beck disease. Self-reported data may be influenced by social desirability bias.

Table 2 (continued)

First author surname (year)	Study location	Study design	Sample size	Training content/study focus	Duration of intervention	Key Findings	Limitations Gap identified
Yılmaz (2020) [49]	Türkiye	Quantitative	98 registered nurses	No intervention or training provided. The study assessed the intercultural effectiveness level of paediatric nurses and their relationship with the nurses' socio-demographic factors.	N/A	The paediatric nurses' intercultural effectiveness levels were moderate. The most frequently reported challenge was language barriers. Education level, foreign language proficiency, and belief in the relevance of culture to nursing were significantly associated with intercultural effectiveness. The study recommended cultural competence training.	Small sample size and single hospital setting limit generalisability.
Zarei (2019) [39]	Iran	Quantitative	380 nurses	No intervention or training provided. The study evaluated the mediating role of empathy in the cultural competence-forgiveness relationship.	N/A	Empathy significantly mediated the relationship between cultural competence and forgiveness among the nurses. Nurses with higher cultural competence demonstrated greater empathy, which in turn increased their willingness to forgive patients, enhancing therapeutic relationships. The study advocated for cultural competence training.	Potential for social desirability bias as the data was self-reported. The study did not explore clients' perspectives.
Zeidani (2023)* [40]	Iran	Quasi-experimental	54 nurses	Training workshops on cultural competence were provided, which focused on cultural awareness and sensitivity, communication, empathy, respect for family values, and cultural practices.	A 3-hour training workshop session with immediate post-intervention assessments and a follow-up one month later to evaluate impact.	The training contributed to significant improvements in both cultural competence and sensitivity among the nurses. One month after the intervention, both cultural competence and cultural sensitivity scores of the nurses increased significantly.	There was no control group. The sample size was relatively small. The follow-up period was short, which limited the understanding of the long-term impact of the intervention.
Zeleke (2024) [41]	Ethiopia	Quantitative	629 nurses	No intervention or training provided. The study examined the level of cultural competence and its associated factors among nurses.	N/A	The overall level of cultural competence of the nurses was moderate. Predictors of higher cultural competence among the nurses included female gender, 11–20 years of work experience, caring for culturally diverse patients, working in comprehensive hospitals, attending cultural training, the presence of feedback systems, lower nurse-to-patient ratios (1:15), and higher educational attainment. The study recommended cultural competence training.	Potential for social desirability bias, since the data were self-reported. Cross-sectional design limits causal inference.

*Studies that implemented some form of cultural competence training

N/A – not applicable (no duration for intervention, since training was not provided)

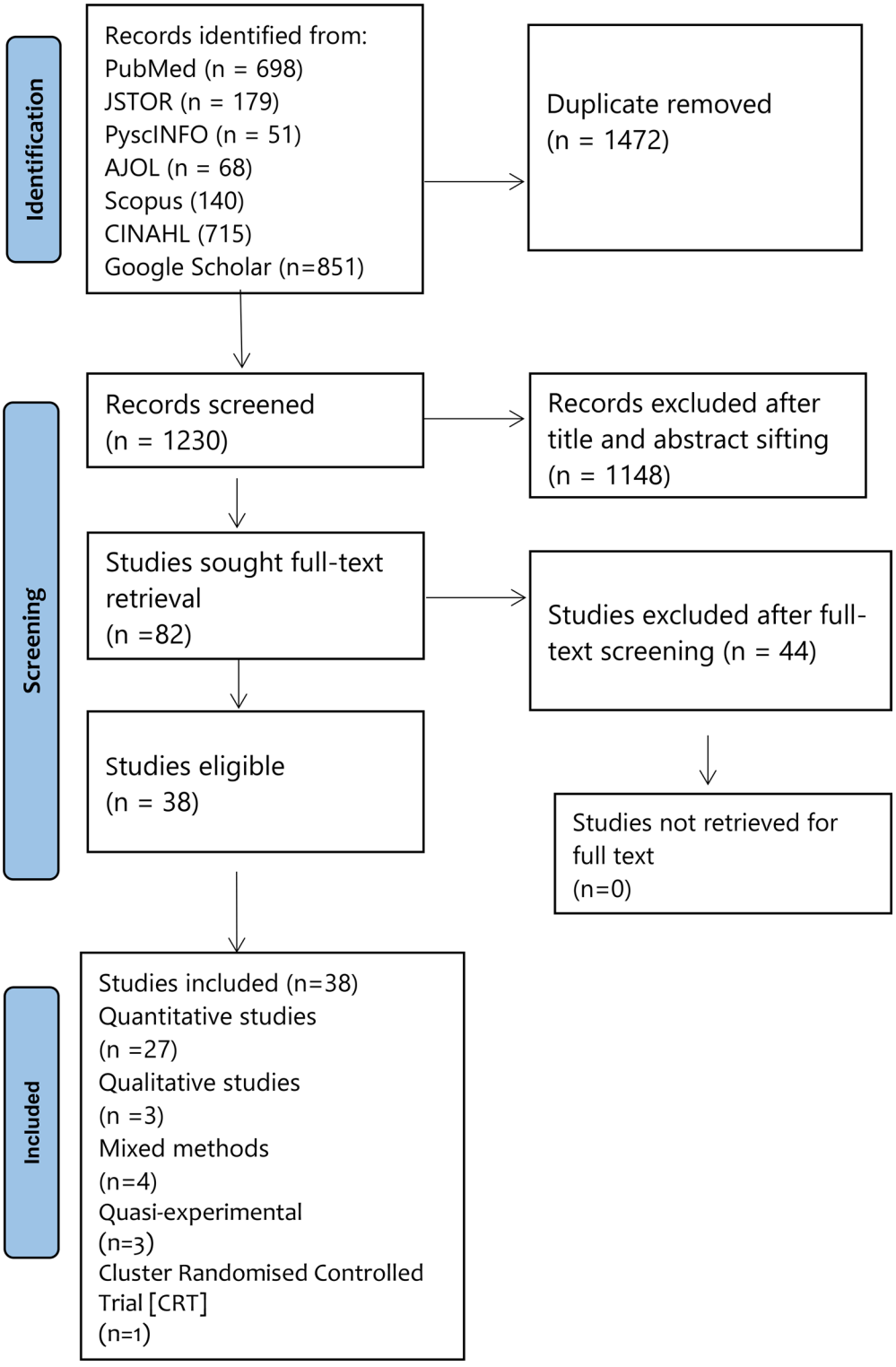

Fig. 1 PRISMA 2020 Flow diagram [33]

Cultural competence training

Although most of the studies included in this review recommended cultural competence training for healthcare professionals, only five of the 38 studies reported on providing cultural competence training or intervention, with two studies each from Iran [37, 40] and Kenya [60, 61], and one from Thailand [54], three of these studies were conducted among nurses [40, 54, 60], whilst the

remaining two were conducted among healthcare workers [37, 40], but the specific cadres of healthcare professionals involved were not provided (Table 2). Meanwhile, varied training approaches were used and outcome measures reported.

Training strategies

The five studies used various approaches in providing cultural competence training or intervention, which included a three-hour training workshop [40], a three-day training programme [60]. Four 2-hour training sessions spanning a period of four weeks, using a flipped classroom approach [37], and weekly case-based training sessions and simulations for three months, with boosters during the fourth and fifth months [54]. One study did not provide details of the cultural competence training provided, including duration of training, although training outcomes were reported [61]. The trainings or interventions focused on improving cultural awareness, knowledge, skills, and empowerment [37]; communication, cultural awareness and sensitivity, and respect for family values in paediatric care [40]; communication, culturally sensitive care, understanding and respecting cultural beliefs and practices [61]; patient-centred maternal care and respect for cultural practices in maternity services [60]; and communication, cultural beliefs and practices, and managing cross-cultural challenges [54].

Training outcomes

Whilst all five studies that provided some form of cultural competence training reported improvement in the cultural competence of the healthcare professionals [37, 40, 54, 60, 61]. Only three studies reported objective measures of the change in level of cultural competence before and after intervention [37, 40, 54]. For instance, among nurses working in a paediatric ward of Namazi Hospital in Iran, Zeidani et al. [40] found that both cultural competence and cultural sensitivity improved significantly one month after the implementation of a cultural competence training programme. Nonetheless, these studies did not investigate the impact of the cultural competence training on patient satisfaction or health outcomes, and patients' perspectives were not included in the studies.

Meanwhile, two studies reported the impact of cultural competence training on patient satisfaction [60, 61], but none of these studies measured the impact of training on health outcomes. For instance, after training maternal healthcare workers on the integration of cultural competence in maternity services in the Marakwet East Constituency in Kenya, maternity clients reported enhanced service alignment with cultural expectations, increased trust in care providers, enhanced satisfaction with information on delivery methods, and improved perceptions of delivery room quality and promptness of care [60], also the study reported that Cheboi et al. [60] reported a positive impact of the cultural competence training provided, some details of the study, including the actual number and categories of healthcare workers trained, were not provided. However, the number of patients used in the outcome assessments was indicated.

Main gaps identified

The analysis of the 38 included studies showed several recurring contextual and methodological limitations that constrain the applicability and generalizability of findings on cultural competence and cultural competence training among healthcare professionals in LMICs. Many studies were conducted in one [37, 47, 59] or a few hospitals [7, 34, 45], or specific units such as psychiatric [37] or paediatric [47, 49] units, limiting the extrapolation of findings to broader healthcare contexts. Besides, cultural competence was frequently assessed using varied, sunstandardised self-administered questionnaires [6, 35, 39, 53, 62, 64–66], raising concerns about social desirability bias and the validity of the reported competencies. Additionally, the studies were predominantly conducted using cross-sectional designs, which restrict causal inference [38, 42, 55, 63]. Although some quasi-experimental or interventional studies were identified, most lacked long-term follow-up, making it difficult to evaluate the sustained impact of the interventions on the cultural competency of healthcare professionals or patient outcomes [37, 40, 54, 60, 61]. Besides, patients' perspectives, which are critical for assessing the cultural competence of healthcare professionals or to evaluate the real-world impact of cultural competence training programmes, were incorporated in only a few studies [6, 60].

Discussion

Across the included studies in this scoping review, the level of cultural competence reported was predominantly moderate, and the number of studies reporting low levels of cultural competence was higher than those reporting high levels. Several socio-demographic factors (e.g., educational attainment, age, and gender) and organisational or contextual factors (e.g., type of healthcare setting, and organisational support) were associated with cultural competence among the healthcare professionals. Whilst most of the included studies recommended training to promote cultural competence among the healthcare professionals, only a few studies (5 out of 38) reported actual implementation through varied approaches, durations, and evaluation methods. Meanwhile, the reviewed studies showed consistent methodological and contextual limitations, including narrow study settings, overreliance on self-reported data, use of cross-sectional designs, short follow-up periods, and limited inclusion of patients' perspectives.

In this review, the level of cultural competence reported across the included studies was predominantly moderate, with more studies reporting lower levels than higher levels of cultural competence. Whilst direct comparisons of cultural competence levels with previous studies in LMICs are not feasible due to inconsistent data measurement methods across the studies included in this scoping review, a previous review from high-income countries (Canada, USA, and Australia) also showed a lack of standardised measures for assessing cultural competence [68]. This further limits meaningful comparison with the findings of the current study. Nonetheless, the current findings reinforce the view that, despite the growing recognition of cultural competence in healthcare education and practice, its practical implementation in patient care remains uneven and often limited [3, 69, 70]. Meanwhile, moderate levels of cultural competence suggest that while some basic cultural awareness and sensitivity may exist, many healthcare professionals lack deeper cultural skills to provide optimal culturally appropriate care, particularly in diverse multicultural healthcare settings. Handtke [71] attributed the limited cultural competence of healthcare professionals to the lack of adequate systemic and behavioural changes required to promote high levels of cultural competence in many healthcare settings. Additionally, the higher frequency of studies reporting low and moderate levels of cultural competence suggests persistent gaps in cultural competence intervention measures, including training, organisational support, and evaluation methods [3], highlighting the need for enhanced efforts and measures to improve cultural competence among healthcare professionals in LMICs.

The current findings also showed varied individual and organisational or contextual factors associated with cultural competence among healthcare professionals. At the individual level, educational attainment, years of professional experience, age, gender, marital status, and language proficiency were associated with varying degrees of cultural competence. This highlights the importance of personal background and professional maturity in developing cultural competence among healthcare professionals [3, 41].

Several studies included in this scoping review identified a range of socio-demographic and organisational factors that influence cultural competence among healthcare professionals in LMICs. For instance, higher educational attainment was mostly associated with increased levels of cultural competence among the healthcare workers [41–43], potentially reflecting increased exposure to diversity-related content during professional education [72]. Similarly, in concordance with findings from previous studies in the USA [73] and Lithuania [74], increased years of professional experience and increased age were largely associated with higher levels of cultural competence among the healthcare professionals. This may reflect the cumulative impact of interpersonal interactions with people from diverse cultural backgrounds, clinical exposure, and reflective practice over time. Older and more experienced healthcare workers may possess greater empathy and intercultural awareness, and communication skills, which could enhance their ability to deliver culturally competent care [75]. Besides, the findings revealed that occupational roles and cross-cultural exposures influenced the cultural competence of the healthcare professionals. For instance, nurses and rehabilitation professionals demonstrated higher cultural competence than other professionals, such as physicians [71], plausibly due to their frequent exposure and direct interactions with diverse patients.

Further, in support of a previous systematic scoping review [1], the current findings showed that organisational and contextual factors such as the type of healthcare setting, presence of organisational feedback systems on cultural competence, nurse-to-patient ratios, organisational support, and having received or attended cultural competence training were significantly associated with cultural competence among the healthcare professionals. For example, healthcare professionals who receive formal training in cultural competence demonstrate a higher level of cultural competent care, emphasising the importance of training in promoting cultural competence among healthcare professionals [76]. These findings highlight the need for a holistic or systems-level approach that integrates individual, professional, and organisational dimensions to design and implement sustainable cultural competence intervention programmes in healthcare in LMICs.

Although cultural competence training was widely recommended across the studies reviewed, only a few reported actual implementation, among these studies, training was delivered using varied approaches, with considerable variations in duration, content, and evaluation methods. For instance, Sarvarizadeh et al. [37] employed a flipped classroom method to foster critical cultural competencies among psychiatric nurses, while Zeidani et al. [40] used training workshops to enhance cultural competence and sensitivity among paediatric nurses. Meanwhile, Bunjitpimol et al. [54] implemented a case-based learning method to improve cultural competence among nurses in private hospitals in Thailand. The current study supports findings from a previous scoping review, which found significant variations in cultural competence training approaches and evaluation methods, with only a few studies using validated tools [76]. The increased heterogeneity of the studies limits comparison and impact assessment, as well as the generalizability of their findings [20].

Meanwhile, although the studies that implemented cultural competence training or interventions suggested positive outcomes [37, 40, 54, 60, 61], the reported evidences were largely limited. For instance, while Musembi and Affey [61] reported improvement in patient satisfaction and health outcomes following cultural competence training, and Cheboi et al. [60] found increased satisfaction with maternity services among women in rural Kenya following a cultural competence intervention, both studies lacked longitudinal follow-up to determine whether these benefits persisted. Diverse intervention and outcome measurement approaches, and a lack of standardised evaluation methods, often make it difficult to assess the effectiveness of cultural competence intervention measures or replicate a successful model in other settings [20, 77, 78]. Besides, Coronado [79] argued that the conceptual differences in cultural competence training, ranging from knowledge-focused to attitude- and skill-based intervention programmes, often result in inconsistent evaluation design and outcome measures, thereby weakening the overall evidence. These findings underscore the need for more rigorous, theory-informed intervention strategies that incorporate validated tools and long-term follow-ups to evaluate the impact of cultural competence training or intervention programmes, especially in healthcare settings in LMICs.

Further, the findings of this review highlight significant methodological and contextual limitations, which collectively affect the applicability and generalisability of the current evidence on cultural competence and cultural competence training of healthcare professionals in LMICs. For instance, aside from the limited scope or settings across the studies [34, 37, 47, 49, 59]Many studies were conducted using varied, sunstandardised self-administered questionnaires [59, 62, 64], supporting concerns about cultural competence measurement reliability highlighted in previous studies [78, 80]. Also, the predominance of cross-sectional designs and limited longitudinal follow-ups restricts causal inference and hinders the assessment of the long-term impact of training on cultural competence and health outcomes [40, 60]. Whilst previous studies advocated for a participatory approach in cultural competence research [70, 77]The current findings show that patients' perspectives were seldom incorporated into the cultural competence studies. These gaps underscore the need for more rigorous and patient-inclusive study approaches to promote culturally responsive healthcare in LMICs.

Practical implications

The findings of this scoping review offer several insights for improving the cultural competence of healthcare professionals, particularly in LMICs. First, considering that the majority of studies reported moderate levels of cultural competence, with a higher number reporting low levels than high, the current evidence provides further support for the need for interventions to improve cultural competence among healthcare professionals in LMICs. Aside from enhancing the curriculum and teaching of cultural competence at healthcare training institutions, there is a need for healthcare facilities in LMICs to prioritise the integration of cultural competence training into the continuous professional development programmes of all clinical staff. Second, although only a few of the studies reviewed implemented cultural competence training, the reported outcomes were generally positive. Therefore, to maximise the impact of these interventions, there is a need for more rigorous, theory-based, and context-specific cultural competence training programmes for healthcare professionals in LMICs, with longitudinal approaches to evaluate impact. For example, incorporating interactive training methods such as community-based learning and engagement, role-play, and case-based learning methods could enhance retention and practical application of cultural competence in clinical practice.

Additionally, the current study revealed several sociodemographic and organisational or contextual factors that impact the cultural competence of healthcare professionals in LMICs. These factors need to be considered when designing and implementing cultural competence intervention programmes. Further, to sustain improvement in cultural competence and hold healthcare institutions accountable, governments and policymakers should establish mandatory feedback, monitoring and evaluation systems for cultural competence in healthcare institutions. Finally, future intervention studies should incorporate patients' perspectives in both the design and evaluation stages of cultural competence intervention programmes in healthcare settings. Enhancing cultural competence integration in healthcare delivery through training of healthcare professionals, healthcare systems in LMICs can improve in the provision of equitable and patient-centred healthcare, promoting patients' satisfaction and improving health outcomes.

Strengths and limitations

This study used comprehensive search strategies to identify publications on cultural competence in LMICs across various electronic databases, reference lists, and grey literature. Thus, the review provides a comprehensive synthesis of existing literature on cultural competence and cultural competence training of healthcare professionals across diverse backgrounds in LMICs. Nonetheless, the study has some limitations. First, the studies used varied measurement approaches in determining the level of cultural competence. Therefore, the reported levels of cultural competence could be influenced by limitations in

measure tool or publication biases. Second, only 5 out of the 38 studies reviewed implemented cultural competence training. This limits the ability to generalise the findings on the effectiveness of the cultural competence training or intervention programmes. Besides, the variability in training content, duration, and evaluation methods further hinders cross-study comparisons. Additionally, most studies did not incorporate patients' perspectives, and there were no longitudinal follow-ups in assessing impact, which limits the understanding of the actual outcomes of these interventions. Also, the current review relied mainly on studies published in English, potentially excluding important studies on cultural competence in LMICs that were published in other languages and thereby narrowing the scope of the current evidence. Further, the search strategy was limited to selected databases and grey literature sources, which could potentially omit unpublished and institution-specific studies that are not indexed. Finally, although the omission of a formal quality appraisal aligns with scoping review methodology, it limits the ability to assess the robustness of the evidence presented in the included studies. Therefore, future reviews should consider integrating a quality assessment component to evaluate the methodological rigour of included studies to better inform policy. Also, including stakeholder consultations, such as interviews with healthcare managers, policy makers, and educators in LMICs, should be considered in future studies to provide deeper insight into context-specific factors that influence cultural competence training in LMICs.

Conclusions and recommendations

This review highlights a critical gap between the recognition of cultural competence as a key component of quality healthcare and its integration in healthcare delivery in LMICs. To address this gap, there is a need for policy reforms and training strategies that embed cultural competence into the development of healthcare professionals in LMICs. Given the moderate to low levels of cultural competence reported in this review, healthcare managers and policy makers should prioritise the implementation of cultural competence training interventions for healthcare workers. These training programmes should consider the socio-demographic and organisational factors influencing cultural competence, such as education, professional experience, language proficiency, and institutional support. Other practical measures to enhance cultural competence among the healthcare professionals include fostering inclusive workplace cultures, promoting multilingual communication, and ensuring equitable staff-to-patient ratios. Although few studies implemented cultural competence training interventions, their generally positive outcomes despite limited evaluation periods and lack of patients' perspectives, underscores the potential of well-designed training programmes. Therefore, developing and implementing more effective, inclusive, and contextually appropriate cultural competence training programmes for healthcare workers in LMICs could contribute significantly towards enhancing the cultural competence skills of these workers, improving healthcare delivery, and enhancing patient outcomes and satisfaction.

Abbreviations

AJOL	African Journals Online
High-Income	Countries
JBI	Joanna Briggs Institute
LMICs	Low- and Middle-Income Countries
MeSH	Medical Subject Headings
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PROSPERO	International Prospective Register of Systematic Reviews
RCT	Randomised Controlled Trial
SDGs	Sustainable Development Goals
WHO	World Health Organisation

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-025-13844-w.

Supplementary Material 1

Acknowledgements
This study was supported by quality-related research funding (QR24-25-99) provided by York St John University.

Author contributions
OB conceptualised and designed the study. OB and DN jointly prepared the draft manuscript, developed the methodology, and carried out the narrative synthesis. They also co-authored the discussion and conclusion sections. OB provided overall supervision of the study's development and critically reviewed the manuscript for methodological rigour and intellectual quality. Both authors reviewed and approved the final manuscript prior to submission.

Funding
This study was supported by quality-related research funding (QR24-25-99) provided by York St John University.

Data availability
All data generated and analysed during this study are provided in the appendix of this manuscript.

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Received: 10 September 2025 / Accepted: 1 December 2025
Published online: 08 December 2025

References

1. McCalman J, Jongen C, Bainbridge R. Organisational systems' approaches to improving cultural competence in healthcare: a systematic scoping review of the literature. Int J Equity Health. 2017;16:1–19.
2. Govere L, Govere EM. How effective is cultural competence training of healthcare providers on improving patient satisfaction of minority groups? A systematic review of literature. Worldviews Evidence-Based Nurs. 2016;13:402–10.
3. Shepherd SM, Willis-Esqueda C, Newton D, Sivasubramaniam D, Paradies Y. The challenge of cultural competence in the workplace: perspectives of healthcare providers. BMC Health Serv Res. 2019;19:1–11.
4. Shorey S, Ng ED, Downe S. Cultural competence and experiences of maternity health care providers on care for migrant women: a qualitative meta-synthesis. Birth. 2021;48:458–69.
5. Dawson A, Turkmani S, Fray S, Nanayakkara S, Varol N, Homer C. Evidence to inform education, training and supportive work environments for midwives involved in the care of women with female genital mutilation: a review of global experience. Midwifery. 2015;31:229–38.
6. Aragaw A, Yigzaw T, Tetemke D, G/Amlak W. Cultural competence among maternal healthcare providers in Bahir Dar City administration, Northwest ethiopia: cross sectional study. BMC Pregnancy Childbirth. 2015;15:227.
7. Bunjitpimol P, Somrongthong R, Kumar R. Factors affecting nursing cultural competency in private hospitals at Bangkok, Thailand. Int J Healthc. 2016;2:7–11.
8. Perveen T, Shahnaz S, Anwar N, Zia T, Latif W, Laique T. Awareness of nurses regarding culturally competent care in hospitals of punjab: cross sectional study. Pak J Med Health Sci. 2021;15:1292–4.
9. Pitriani U, Ibrahim K, Pebrianti S. Cultural competency and nursing care among Sundanese nurses ethnic group in Indonesia. Malahayati Int J Nurs Health Sci. 2020;3:131–7.
10. World Health Organisation. Migration and health: enhancing intercultural competence and diversity sensitivity. 2020.
11. Bishop J, Crisp DA, Grant JB, Scholz B. You say you're inclusive, but can you show us? The importance of cultural competence when working with sexual minorities in a mental health setting. J Clin Psychol. 2022;78:2145–63.
12. Betancourt JR, Green AR, Carrillo JE. Ananeh-Firempong 2nd O: defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. Public Health Rep. 2003;118:293.
13. Nair L, Adetayo OA. Cultural competence and ethnic diversity in healthcare. Plast Reconstr Surgery–Global Open. 2019;7:e2219.
14. Purnell LD, Fenkl EA, Purnell LD, Fenkl EA. Transcultural diversity and health care. Handbook for culturally competent care 2019:1–6.
15. Abrishami D. The Need for Cultural Competency in Health Care. Radiologic technology 2018, 89.
16. Sharifi N, Adib-Hajbaghery M, Najafi M. Cultural competence in nursing: A concept analysis. Int J Nurs Stud. 2019;99:103386.
17. Schouten BC, Meeuwesen L, Harmsen HA. The impact of an intervention in intercultural communication on doctor–patient interaction in the Netherlands. Patient Educ Couns. 2005;58:288–95.
18. Sharkiya SH. Quality communication can improve patient-centred health outcomes among older patients: a rapid review. BMC Health Serv Res. 2023;23:886.
19. McElfish PA, Long CR, Rowland B, Moore S, Wilmoth R, Ayers B. Improving culturally appropriate care using a community-based participatory research approach: evaluation of a multicomponent cultural competency training program, Arkansas, 2015–2016. Preventing chronic disease 2017, 14:E62.
20. Horvat L, Horey D, Romios P, Kis-Rigo J. Cultural competence education for health professionals. Cochrane database of systematic reviews; 2014.
21. Fair F, Soltani H, Raben L, van Streun Y, Sioti E, Papadakaki M, Burke C, Watson H, Jokinen M, Shaw E. Midwives' experiences of cultural competency training and providing perinatal care for migrant women a mixed methods study: operational refugee and migrant maternal approach (ORAMMA) project. BMC Pregnancy Childbirth. 2021;21:340.
22. Al-Btoush A, El-Bcheraoui C. Challenges affecting migrant healthcare workers while adjusting to new healthcare environments: a scoping review. Hum Resour Health. 2024;22:56.
23. Munn Z, Peters MD, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Med Res Methodol. 2018;18:1–7.
24. Stuart E, Woodroffe J. Leaving no-one behind: can the sustainable development goals succeed where the millennium development goals lacked? Gend Dev. 2016;24:69–81.
25. De-María B, Topa G, López-González MA. Cultural competence interventions in European healthcare: A scoping review. Healthc MDPI; 2024: 1040.
26. Chowdhury D, Baiocco-Romano L, Sacco V, El Hajj K, Stolee P. Cultural competence interventions for health care providers working with Racialized foreign-born older adults: protocol for a systematic review. JMIR Res Protocols. 2022;11:e31691.
27. Brottman MR, Char DM, Hattori RA, Heeb R, Taff SD. Toward cultural competency in health care: a scoping review of the diversity and inclusion education literature. Acad Med. 2020;95:803–13.
28. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol. 2005;8:19–32.
29. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. bmj 2021, 372.
30. World Bank country. classifications by income level for 2024–2025 [https://blogs.worldbank.org/en/opendata/world-bank-country-classifications-by-income-level-for-2024-2025
31. United Nations [UN]. Transforming Our World: The 2030 Agenda for Sustainable Development United Nations. 2015.
32. Munn Z, Peters MD, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Med Res Methodol. 2018;18:143.
33. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021;372:n71.
34. Kolagari S, Shahroodi M, Sabzi Z, Hosseinzadeh Younesi E. Cultural competence of nurses working in intensive care units and its relationship with demographic factors: Two-center Cross-sectional study. J Crit Care Nurs. 2022;15:20–7.
35. Purabdollah M, Tabrizi FM, Khorami Markani A, Poornaki LS. Intercultural sensitivity, intercultural competence and their relationship with perceived stress among nurses: evidence from Iran. Mental Health Relig Cult. 2021;24:687–97.
36. Sadeghi N, Azizi A, Tapak L, Oshvandi K. Relationship between nurses' cultural competence and observance of ethical codes. Nurs Ethics. 2022;29:962–72.
37. Sarvarizadeh M, Miri S, Darban F, Farokhzadian J. Innovative cultural care training: the impact of flipped classroom methods on critical cultural competencies in psychiatric nursing: a quasi-experimental study. BMC Nurs. 2024;23:340.
38. Soleimani M, Yarahmadi S. Cultural competence in critical care nurses and its relationships with empathy, job conflict, and work engagement: a cross-sectional descriptive study. BMC Nurs. 2023;22:113.
39. Zarei B, Salmabadi M, Amirabadizadeh A, Vagharseyyedin SA. Empathy and cultural competence in clinical nurses: A structural equation modelling approach. Nurs Ethics. 2019;26:2113–23.
40. Zeidani A, Soltanian M, Edraki M, Mirshah E. The effect of the communication skills training on the sensitivity and cultural competence of the nurses in the pediatric wards: A quasi-experimental study. J Educ Health Promotion. 2023;12:212.
41. Zeleke TS, Wudu MA, Bekalu YE, Wondifraw EB, Birhanu TA, Bazie GW. Cultural competence and associated factors among nurses working in public hospitals of South Wollo zone, Northeast ethiopia: a multi-center cross-sectional study. BMC Nurs. 2024;23:487.
42. Berie KM, Salih MH, Abate HK. Cultural competence nursing care and its associated factors among nurses in Northern ethiopia: a mixed method study design. Nursing: Res Reviews 2021:55–67.
43. Birhanu M, Getnet A, Alem G. Cultural competence and associated factors among nurses working in public health institutions in the Assosa zone, Benishangul Gumuz regional state, Ethiopia, 2022. BMC Nurs. 2023;22:371.
44. Geleta BA, Radie YT, Areri HA. Exploring cultural competence of nurses and associated barriers in Ethiopian tertiary hospitals: A qualitative study. Appl Nurs Res. 2021;62:151511.
45. Çınar F. Examining the cross-cultural competencies of healthcare professionals as a health management strategy. Journal of Social And Humanities Sciences Research (JSHSR); 2020.
46. Havlıoğlu S, Ersin F. Evaluation of cultural competence of nurses working in hospitals on the Syrian border. Cyprus Journal of Medical Sciences; 2022.

47. Keklik D, Nazik E, Özdemir U. Cross-Cultural competence of healthcare professionals working in pediatric units: A Cross-Sectional descriptive study. YOBÜ Sağlık Bilimleri Fakültesi Dergisi. 2024;5:302–13.
48. Savaş M, Tuzcu A. A comparative study on cultural competence of healthcare professionals in primary and secondary healthcare institutions: A cross sectional study. Cyprus J Med Sci 2022, 7.
49. Yılmaz M, Sarı HY, Ünlü M, Yetim P. Investigating intercultural effectiveness of paediatric nurses in a Turkish hospital. Br J Nurs. 2020;29:152–8.
50. Contaoi MRY. Understanding cultural competence in Non-Muslim nurses caring for Muslim patients in the Philippines. ASEAN J Relig Educ Soc. 2025;4:45–66.
51. Jin J-h, Cleofas JV. A proposed cultural competence training program for nurses based on their transcultural self-efficacy. Int J Adv Cult Technol. 2018;6:86–99.
52. Marata BK, Robles CJ. Linguistic, Cultural Competences and Nursing Care of Non-Meranao Staff Nurses. 2019.
53. Alonzo LA, Nieve BB. Transcultural nursing in action: the lived experiences of nurses taking care of Indigenous people. Ignatian Int J Multidisciplinary Res. 2024;2:949–69.
54. Bunjitpimol P, Kumar R, Somrongthong R. Effectiveness of case based cultural competency among nurses working in private hospitals of Bangkok, thailand: A Quasi-experimental study. Pakistan J Med Sci. 2018;34:179.
55. Khongsamai T, Intarakamhang U. Causal model of cultural competence and behavior among nurses in thailand's international hospitals. J Behav Sci. 2020;15:54–69.
56. Songwathana P, Siriphan S. Thai nurses' cultural competency in caring for clients living in a multicultural setting. Pac Rim Int J Nurs Res. 2015;19:19–31.
57. Ma L-L, Jiang H, Peng Y-Q. Cultural competence of nurses in Pudong new area, shanghai: A mixed-method study. Front Nurs. 2020;7:119–28.
58. Tan R, Zhou W, Ye S, Teng F, Zhang J. Nurses' working experiences of their provision of cross-cultural services to Tibetan patients with Kashin–Beck disease: A qualitative study. J Transcult Nurs. 2022;33:363–72.
59. Abdullah SNA, Asmaningrum N, Nur KRM. Comparative analysis of the nurse cultural competency levels in inpatient Rooms, outpatient and emergency unit of regional general hospital Dr. Haryoto Lumajang. Jurnal Ilmu Dan Teknologi Kesehatan. 2022;9:153–63.
60. Cheboi SK, Rucha KK, Kimeu AN, Kithuka P. Impact of cultural competence intervention on satisfaction with maternity services among women of reproductive age in rural Kenya. J Adv Med Med Res. 2021;33:35–48.
61. Musembi M, Affey F. Influence of cultural competence training among health care workers on patient satisfaction and health outcomes in diverse communities. Asian J Res Nurs Health. 2024;7:224–31.
62. Sarfaraz S, Ghani M, Sajjad B, Ghandhi D, Akram T, Abbasi MS, Ahmed N, Heboyan A. Comparison of cultural competence between dental house officers and general dentists: A Cross-Sectional study. Health Sci Rep. 2025;8:e70706.
63. Herrero-Hahn R, Rojas JG, Montoya-Juárez R, García-Caro MP, Hueso-Montoro C. Level of cultural self-efficacy of Colombian nursing professionals and related factors. J Transcult Nurs. 2019;30:137–45.
64. Argyriadis A, Patelarou E, Paoullis P, Patelarou A, Dimitrakopoulos I, Zisi V, Northway R, Gourni M, Asimakopoulou E, Katsarou D. Self-Assessment of health professionals' cultural competence: Knowledge, skills, and mental health concepts for optimal health care. Int J Environ Res Public Health. 2022;19:11282.
65. Abubakari A-K, Gross J, Boateng SK, Ansong R. Cultural competency of nurses in a Multi-Cultural healthcare system in two regions of Ghana. Int J Afr Nurs Sci. 2024;20:100728.
66. Ogunlana MO, Oyewole OO, Aderonmu JA, Onyeso OK, Faloye AY, Govender P. Patterns and predictors of cultural competence practice among Nigerian hospital-based healthcare professionals. BMC Med Educ. 2023;23:933.
67. Shopo KD, Du Preez A, Rabie T, Bester P. Self-Reported level of cultural competence of midwives in the North-West Province of South Africa. J Transcult Nurs. 2023;34:330–42.
68. Ahmed S, Siad FM, Manalili K, Lorenzetti DL, Barbosa T, Lantion V, Lu M, Quan H, Santana M-J. How to measure cultural competence when evaluating patient-centred care: a scoping review. BMJ Open. 2018;8:e021525.
69. Osmancevic S, Großschädl F, Lohrmann C. Cultural competence among nursing students and nurses working in acute care settings: a cross-sectional study. BMC Health Serv Res. 2023;23:105.
70. Betancourt JR, Corbett J, Bondaryk MR. Addressing disparities and achieving equity: cultural competence, ethics, and health-care transformation. Chest. 2014;145:143–8.
71. Handtke O, Schilgen B, Mösko M. Culturally competent healthcare–A scoping review of strategies implemented in healthcare organizations and a model of culturally competent healthcare provision. PLoS ONE. 2019;14:e0219971.
72. Kaihlanen A-M, Hietapakka L, Heponiemi T. Increasing cultural awareness: qualitative study of nurses' perceptions about cultural competence training. BMC Nurs. 2019;18:38.
73. Shepherd SM, Willis-Esqueda C, Newton D, Sivasubramaniam D, Paradies Y. The challenge of cultural competence in the workplace: perspectives of healthcare providers. BMC Health Serv Res. 2019;19:135.
74. Urbanavičė R, El Arab RA, Austys D, Skvarčevskaja M, Istomina N. The cultural competence of nurses and its relationship to socio-demographic factors: a cross-sectional survey. BMC Nurs. 2025;24:497.
75. Gümüşsoy S, Dal NA, Beydağ KD, Toker E. Intercultural awareness, communication, and empathy skills in nurses and midwives working in provinces with mass migration. Perspect Psychiatr Care 2021, 57.
76. Jongen C, McCalman J, Bainbridge R. Health workforce cultural competency interventions: a systematic scoping review. BMC Health Serv Res. 2018;18:232.
77. Truong M, Paradies Y, Priest N. Interventions to improve cultural competency in healthcare: a systematic review of reviews. BMC Health Serv Res. 2014;14:99.
78. Lie DA, Lee-Rey E, Gomez A, Bereknyei S, Braddock CH III. Does cultural competency training of health professionals improve patient outcomes? A systematic review and proposed algorithm for future research. J Gen Intern Med. 2011;26:317–25.
79. Coronado DS. Cultural competency in health care: Framework, training and evaluation-A review of the literature. 2013.
80. campinha-Bacote J. Delivering patient-centered care in the midst of a cultural conflict: the role of cultural competence. Online J Issues Nurs. 2011;16:1–8.

Publisher's note