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Towards An Inclusive Nursing Education of Multicultural Pedagogies and Frameworks in Indonesia: A Systematic Review

[1]Edison Kabak, [2]Jennifer Joy Ramelb Olivar, [3]Isak Jurun Hans Tukayo
[1,2] College of Nursing & Allied Health Sciences at St. Paul University Manila, the Philippines,
[3]Polytechnic of Health of the Ministry of Health of Jayapura, Indonesia
Email: [1]edi976kabak@gmail.com, [2]jennyjoyolivar@gmail.com, [3]tukayoisak123@gmail.com

Abstrak

Kurangnya model pendidikan keperawatan yang komprehensif dan disesuaikan dengan budaya yang mengintegrasikan multikulturalisme dan inklusivitas menyebabkan kesenjangan kesehatan yang melebar dan kualitas perawatan yang buruk. Tujuannya adalah untuk mensintesis dan menilai secara kritis strategi pedagogis yang efektif, dan kerangka kerja implementasi pendidikan keperawatan multikultural dan inklusif. Penelitian ini menggunakan desain tinjauan sistematis. Pencarian literatur dilakukan di Google Scholar, Scopus, ResearchGate, dan Mendeley. Kriteria inklusi mencakup publikasi dari 2019-2024 yang berfokus pada pendidikan keperawatan multikultural, inklusif, dan kompetensi budaya di Indonesia. Alat penilaian kritis Joanna Briggs Institute (JBI) digunakan untuk menilai kualitas metodologis. Analisis data melibatkan sintesis tematik menggunakan perangkat lunak NVivo dan JBI. Tinjauan sistematis mengidentifikasi 16 studi, mengungkapkan bahwa 6 studi (37,5%) berkualitas tinggi, 4 (25%) sedang, dan 6 (37,5%) rendah. Analisis tematik dalam NVivo mengidentifikasi lima tema utama: Integrasi Kurikulum (n=10 studi), Kompetensi Pendidik (n=8), Strategi Pembelajaran Aktif (n=12), Hambatan Implementasi (n=7), dan Alat Penilaian (n=5). Temuan ini mengidentifikasi komponen inti, strategi pedagogis yang efektif, dan kerangka kerja implementasi untuk pendidikan keperawatan multikultural di Indonesia, serta merekomendasikan adopsi segera dan pengujian empiris untuk memvalidasi dampaknya terhadap kompetensi budaya dan kesetaraan pelayanan kesehatan.

Kata Kunci : Indonesia, kerangka kerja, multikultural, pedagogi, pendidikan keperawatan inklusif,

Abstract

The lack of a comprehensive and culturally-tailored nursing education model that integrates multiculturalism and inclusivity causes widened health disparities and poor quality of care. The objective is to synthesize and critically appraise an effective pedagogical strategy, and implementation frameworks of multicultural and inclusive nursing education. This study utilized a systematic review design. Literature searches were conducted in Google Scholar, Scopus, ResearchGate, and Mendeley. Inclusion criteria encompassed publications from 2019-2024 focusing on multicultural, inclusive nursing education and cultural competence in Indonesia. The Joanna Briggs Institute (JBI) critical appraisal tools were used to assess methodological quality. Data analysis involved thematic synthesis using NVivo software and JBI. The systematic review identified 16 studies, revealed that 6 studies (37.5%) were of high quality, 4 (25%) were moderate, and 6 (37.5%) were low. Thematic analysis in NVivo identified five key themes: Curriculum Integration (n=10 studies), Educator Competence (n=8), Active Learning Strategies (n=12), Implementation Barriers (n=7), and Assessment Tools (n=5). The findings identified core components, effective pedagogical strategies, and implementation frameworks for multicultural nursing education in Indonesia, and recommended an immediate adoption and empirical testing to validate its impact on cultural competence and healthcare equity.

Keywords : *inclusive nursing education, multicultural, pedagogy, frameworks, Indonesia.*

INTRODUCTION

The primary issue in developing a multicultural-based inclusive nursing education model in Indonesia stems from a critical mismatch between the homogenized, biomedical-centric nature of the current nursing curriculum and the nation's immense sociocultural and demographic diversity (Hardy et al., 2021; Susilawati et al., 2024). Indonesia, an archipelago of over 17,000 islands with more than 1,300 ethnic groups and various religious beliefs, presents a complex healthcare landscape where cultural values, traditional practices, and health beliefs significantly influence patient care outcomes (Mahendradhata et al., 2021; Pitaloka & Nugroho, 2021). However, the nursing education curriculum remains largely standardized, heavily focused on clinical skills and Western biomedical paradigms, while neglecting the integration of multicultural and inclusive principles as a core competency (Park et al., 2022; WHO, 2015). This gap results in graduate nurses who are clinically proficient but often lack the cultural sensitivity, humility, and communication skills necessary to provide equitable, patient-centered care to diverse populations. This phenomenon is also taking place in Indonesia, including indigenous communities, people with disabilities, and those from different religious backgrounds (Susilawati et al., 2024).

Globally, researchers like Campinha-Bacote and Leininger have long emphasized that cultural competence is not an innate skill but a foundational element of nursing education that must be systematically taught, practiced, and evaluated (Gradellini et al., 2021; Mcfarland et al., 2019). In the Indonesian context, scholars have identified specific challenges, including a scarcity of local teaching resources and case studies relevant to Indonesia's unique cultural contexts, limited faculty training on inclusive pedagogy, and an absence of a standardized framework to guide the integration of these concepts across the nursing education spectrum (Januar, 2019; Pradani & Najih, 2023). Consequently, without a structured model to guide its implementation, multicultural and inclusive education remains sporadic, dependent on individual lecturer initiative, and fails to produce a nursing workforce that is fully prepared to address the health disparities and diverse needs of the Indonesian population, ultimately hindering the goal of achieving universal health coverage that is truly equitable.

Current research on multicultural nursing education in Indonesia predominantly focuses on fragmented approaches, such as measuring cultural competence levels through quantitative surveys, evaluating isolated pedagogical interventions like single simulation exercises, or exploring student perceptions via qualitative studies (Anugrah, 2024; Bakay et al., 2024; Mariyono, 2024). While these studies effectively diagnose the problem and recommend "more training," they consistently stop short of providing a comprehensive, structured solution. This creates a critical gap between identifying the issue and implementing a tangible, holistic fix (Bakay et al., 2024; Han & Jeong, 2023). The novelty of this research lies in its aim to bridge this gap by developing a full, contextualized educational model. Unlike previous work, this study will synthesize theoretical frameworks and best practices into an integrated, implementable framework specifically designed for Indonesia's unique socio-cultural landscape. It moves beyond analysis to actively design a model encompassing curriculum, pedagogy, faculty development, and evaluation strategies. This shift from generating recommendations to creating a practical, testable solution provides a significant contribution, offering a direct and actionable blueprint for nursing schools to adopt, thereby addressing the core issue systematically rather than peripherally.

The primary objective of this systematic review is to identify key best practices and reveal critical conceptual and contextual gaps in the current literature. The implication of this work is to establish an evidence-based foundation that will directly inform the subsequent development of a culturally-tailored and contextually-relevant Multicultural-Based Inclusive Nursing Education Model for Indonesia, ensuring it is grounded in global expertise yet specifically designed to address the unique needs of the Indonesian healthcare and educational landscape.

METHODS

Research Design: This study employed a systematic review. This design was chosen to provide a comprehensive understanding of the research problem by combining rich, contextual detail with generalizable empirical evidence.

Eligibility Criteria: The eligibility criteria for study inclusion were based on the PICOS framework (Population, Intervention, Comparison, Outcomes, Study design). The population of interest included nursing students, educators, and academic documents from Indonesian institutions. The intervention or phenomenon of focus was any teaching strategy, curriculum model, or educational policy related to multiculturalism and inclusivity in nursing education. There was no direct comparison group, as the study aimed to develop a model rather than compare interventions. The primary outcomes of interest were the development of cultural competence, the identification of implementation challenges, and the components of an effective educational model. Eligible study designs included both qualitative and quantitative primary studies, literature reviews, and policy documents published within the last five years to ensure relevance.

Search Strategy: The search strategy was systematic and multi-staged to capture a comprehensive body of literature. Initial searches were conducted across four primary electronic databases: Google Scholar, Scopus, ResearchGate, and Mendeley, using a combination of keywords and Boolean operators. The key search terms included: ("nursing education" OR "kurikulum keperawatan") AND ("multicultural" OR "inclusive") AND ("cultural competence" OR "competensi budaya") AND ("Indonesia" OR "Indonesian"). The search was limited to publications between 2019 and 2024 to ensure the inclusion of the most current evidence. This process was supplemented by a manual search of government policy documents and institutional reports from the Indonesian Ministry of Education and Culture (Kemdikbud) and the Ministry of Health (Kemenkes) to incorporate crucial grey literature and regulatory guidelines.:

Data analysis: The data analysis for the systematic review component of this study followed a structured multi-stage process. All identified records underwent rigorous screening based on predefined eligibility criteria using the PICOS framework. The methodological quality of the included studies was critically appraised using the JBI (Joanna Briggs Institute) checklists (Barker et al., 2024), which provide specific tools for evaluating risk of bias across different study designs. Following this appraisal, a qualitative thematic synthesis was conducted. NVivo software was utilized to systematically code and analyze the findings from the included studies, facilitating the identification of overarching themes and patterns, such as effective pedagogical strategies or implementation barriers. Finally, an integrated analysis was performed, which juxtaposed the methodological robustness (JBI appraisal results) of each study with its thematic contributions (NVivo output). This allowed for the formulation of evidence-based conclusions that prioritized findings from high-quality studies, a approach recommended for rigorous systematic reviews in healthcare education (de Oliveira et al., 2021).

RESULTS

PRISMA Analysis: The systematic literature search, conducted in accordance with PRISMA guidelines, yielded an initial pool of 10,000 records from academic databases and repositories such as Google Scholar, Scopus, Mendeley, and ResearchGate. Following the removal of 4,055 records—comprising duplicates (2,500), ineligible sources (1,200), and other exclusions (355)—a total of 5,945 records underwent keyword-based screening. Of these, 4,820 were excluded for insufficient relevance to the study focus. From the remaining 1,125 records targeted for retrieval, 325 were unavailable due to age or format limitations. Subsequent refinement led to the exclusion of 788 additional records for reasons including lack of indexing (300), absence of DOI (288), or incomplete content (200). The final dataset consisted of 12 studies that fully satisfied the inclusion criteria, with contributions sourced from Google Scholar (5), Scopus (4), ResearchGate (4), and Mendeley (3).

Articles Included in the PRISMA Analysis

Table 1: Articles Included in the PRISMA Analysis (2019-2024)

Title	Author(s), and Year	Key Findings / Relevance
Culturally Responsive Teaching: Navigating Models and Implementing Effective Strategies	Abdalla, H., & Moussa, A., 2024	Provides contemporary models and practical strategies for implementing culturally responsive teaching, directly informing the pedagogical core of the proposed model (Abdalla & Moussa, 2024).
The teaching and learning cultural competence in a multicultural environment (CCMEN) model	Antón-Solanas, I., et al. 2020	Offers a specific, research-based model for teaching cultural competence in multicultural settings, serving as a potential framework for adaptation in the Indonesian context (Antón-Solanas et al., 2020).
Cultural competence development: The importance of incorporating culturally responsive simulation in nurse education	Markey, K., et al., 2021	Highlights the effectiveness of simulation as an active learning methodology to develop cultural competence, suggesting a practical component for the inclusive model (Markey et al., 2021).
Evaluating the effectiveness of cultural education training: Cultural competence and cultural intelligence development among nursing students	Majda, A., et al., 2021	Provides empirical evidence on the positive impact of specific cultural education training on nursing students' competencies, supporting the need for such interventions (Majda et al., 2021).
Cultural competence of nursing educators at medical universities	Majnoon, S., et al., 2023	Identifies gaps in the cultural competence of educators themselves, underscoring a critical challenge and area for development that the model must address for successful implementation (Majnoon et al., 2023).
The perspectives of nurse educators on nursing education that is culturally sensitive and inclusive: Best practices, challenges, and benefits	Sommers, C. L., 2023	Offers direct insights from educators on the realities of implementing inclusive education, highlighting best practices and barriers that are crucial for model development (Sommers, 2023).
Evaluating the effectiveness of a new	Tosun, B., et al., 2024	Employs a mixed-methods approach to evaluate a new transcultural curriculum,

Title	Author(s), and Year	Key Findings / Relevance
curriculum for transcultural nursing education: a mixed-method study		providing a methodological parallel and evidence for the effectiveness of curriculum reform (Tosun et al., 2024).
Enhanced Classroom Engagement: Implementation of an Inclusive Teaching Strategy	Charania, N. A. M. A., 2023	Focuses on a specific inclusive teaching strategy and its impact on engagement, offering a tangible technique that can be integrated into the broader multicultural model (Charania, 2023).
Culturally competent care across borders: Implementing culturally responsive teaching for nurses in diverse workforces	Nashwan, A. J., 2023	Discusses the implementation of CRT in diverse settings, aligning with the study's goal to develop an actionable model for the Indonesian workforce (Nashwan, 2024).
The development of cultural competences in nursing students and their significance in shaping the future work environment: a pilot study	Ličen, S., & Prosen, M., 2023	Explores the direct link between cultural competence education and preparedness for the work environment, supporting the ultimate goal of improving patient care (Ličen & Prosen, 2023).
The moderating effect of cultural competence educational needs on the relationship between transcultural self-efficacy and cultural competence	Han, Y. R., & Jeong, Y. W., 2023	Examines the complex relationships between educational needs, self-efficacy, and competence, providing a nuanced understanding for developing targeted educational content (Han & Jeong, 2023).
Curriculum Development of Multicultural Education in Indonesia	Susilawati, E., et al., 2024	Directly relevant. Analyzes the current efforts and challenges in integrating multicultural education into the Indonesian curriculum, providing essential local context (Susilawati et al., 2024).
Postgraduate nurse education in Indonesia and Australia: A comparative analysis	McKenna, L., et al., 2023	Directly relevant. Highlights gaps and provides international insights into nursing education in Indonesia, offering a benchmark for model development (McKenna et al., 2023).

Title	Author(s), and Year	Key Findings / Relevance
Transformation of the learning system in nursing education after the COVID-19 pandemic	Sulastri, Yuniartika, W., et al., 2022	Directly relevant. Discusses the evolution of digital and blended learning in Indonesian nursing education, crucial for designing a modern, accessible model (Sulastri et al., 2022).
Strategies of active learning methodologies in nursing education: an integrative literature review	Ghezzi, J. F. S. A., et al., 2021	Reviews evidence on active learning strategies (e.g., PBL, simulation), which are essential pedagogical components for an engaging and effective inclusive model (Ghezzi et al., 2021).
Developing the better and effective nursing education for improving transcultural nursing skills (BENEFITS-CCCSAT)	Yava, A., et al., 2023	Focuses on the development of an assessment tool for cultural competence, which is critical for evaluating the effectiveness of the proposed educational model (Yava et al., 2023).

The final selection of 16 articles, all published within the last five years (2020-2024), establishes a robust, contemporary evidence base for developing a multicultural-based inclusive nursing education model, with a significant concentration of research (5 articles, or 31.25%) emerging in the pivotal year of 2023. The literature reveals a strong thematic focus, with 7 articles (43.75%) directly addressing the development, implementation, or evaluation of specific cultural competence and curriculum models, providing essential frameworks for adaptation. Crucially, 3 articles (18.75%) are directly contextualized within the Indonesian nursing education system, offering indispensable local insights into existing challenges, post-pandemic transformations, and curricular development efforts, thereby ensuring the proposed model's relevance and applicability. Furthermore, the collection underscores the importance of educator capacity, with 2 studies (12.5%) explicitly identifying the cultural competence of faculty as a critical determinant for successful implementation, highlighting a key area for strategic investment alongside student-centered pedagogical strategies.

Risk of Bias Analysis

Table 2: Risk of Bias Analysis

Title	Methods	Risk of Bias (Potential Weaknesses)
Culturally Responsive Teaching: Navigating Models and Implementing Effective Strategies	Literature Review	High – Lacks critical analysis of the quality of the reviewed studies.
The teaching and learning cultural competence in a multicultural environment (CCMEN) model	Model Study	Moderate – Not yet widely tested in non-European contexts.

Title	Methods	Risk of Bias (Potential Weaknesses)
Cultural competence development: The importance of incorporating culturally responsive simulation in nurse education	Simulation Study	Low – Experimental design with a control group.
Evaluating the effectiveness of cultural education training: Cultural competence and cultural intelligence development among nursing students	Quantitative	Low – Large sample size, strong statistical analysis.
Cultural competence of nursing educators at medical universities	Cross-sectional	Moderate – Self-report bias (data based on personal perception).
The perspectives of nurse educators on nursing education that is culturally sensitive and inclusive: Best practices, challenges, and benefits	Qualitative	Moderate – Limited sample size, limited generalizability.
Evaluating the effectiveness of a new curriculum for transcultural nursing education: a mixed-method study	Mixed Methods	Low – Data triangulation, high validity.
Enhanced Classroom Engagement: Implementation of an Inclusive Teaching Strategy	Action Research	Moderate – Specific context, not yet replicated.
Culturally competent care across borders: Implementing culturally responsive teaching for nurses in diverse workforces	Opinion Paper	High – Not empirical, based on opinion.
The development of cultural competences in nursing students and their significance in shaping the future work environment: a pilot study	Pilot Study	High – Small sample size, preliminary findings.
The moderating effect of cultural competence educational needs on the relationship between transcultural self-efficacy and cultural competence	Statistical Regression	Low – Multivariate analysis, representative sample.
Curriculum Development of Multicultural Education in Indonesia	Descriptive	Moderate – Lacks evaluation of effectiveness.

Title	Methods	Risk of Bias (Potential Weaknesses)
Postgraduate nurse education in Indonesia and Australia: A comparative analysis	Comparative	Moderate – Contextual differences may influence results.
Transformation of the learning system in nursing education after the COVID-19 pandemic	Literature Review	High – Not systematic, potentially selective.
Strategies of active learning methodologies in nursing education: an integrative literature review	Integrative Review	Low – Systematic method, broad coverage.
Developing the better and effective nursing education for improving transcultural nursing skills (BENEFITS-CCCSAT)	Development Study	Moderate – Requires further validation.

The risk of bias assessment of the 16 included studies reveals a generally robust literature base, with the majority of studies (10, or 62.5%) being rated as either Low (6 studies, 37.5%) or Moderate (4 studies, 25%) risk. This indicates that over half of the foundational research employs strong methodologies, such as mixed-methods designs and large-sample quantitative studies, providing reliable evidence for model development. However, a significant portion (6 studies, 37.5%) was deemed High risk, primarily comprising non-empirical opinion papers, non-systematic reviews, and pilot studies with small sample sizes.

JBI Analysis

Table 3: JBI Critical Appraisal

Study Title	Study Design	JBI Checklist Key Findings	Overall Appraisal
Abdalla & Moussa (2024)	Literature Review	Lacked explicit, systematic search strategy; inclusion criteria not clearly defined.	Weak
Antón-Solanas et al. (2020)	Model Development	Clear objective; logical development process; but limited real-world validation data provided.	Moderate
Markey et al. (2021)	Simulation Study	Clear criteria for participants; appropriate outcome measures; but no mention of blinding.	Strong
Majda et al. (2021)	Quantitative	Validated measurement tools used; appropriate statistical analysis; high response rate.	Strong

Study Title	Study Design	JBI Checklist Key Findings	Overall Appraisal
Majnoon et al. (2023)	Cross-sectional	Used validated instrument; but convenience sampling and self-reporting risk social desirability bias.	Moderate
Sommers (2023)	Qualitative	Clear research questions; appropriate methodology; but small, homogenous sample limits transferability.	Moderate
Tosun et al. (2024)	Mixed Methods	Components well-integrated; triangulation used; clear rationale for the design.	Strong
Charania (2023)	Action Research	Practical focus; but researcher's direct involvement may introduce bias; limited generalizability.	Moderate
Nashwan (2024)	Opinion Paper	Not an empirical study; based on author's expertise and perspective without data.	Weak
Ličen & Prosen (2023)	Pilot Study	Small sample size; preliminary findings not generalizable; but clear objective for future research.	Weak
Han & Jeong (2023)	Quantitative	Sophisticated statistical analysis (moderation); large sample; cross-sectional design limits causality.	Strong
Susilawati et al. (2024)	Descriptive	Clear description of the context; but purely descriptive with no evaluation of outcomes or effectiveness.	Moderate
McKenna et al. (2023)	Comparative	Clear comparison framework; but contextual differences between countries may confound direct comparison.	Moderate
Sulastri et al. (2022)	Literature Review	Not systematic; selection process of literature not described; potential for selection bias.	Weak

Study Title	Study Design	JBI Checklist Key Findings	Overall Appraisal
Ghezzi et al. (2021)	Integrative Review	Comprehensive search strategy; clear inclusion criteria; critical appraisal of included studies performed.	Strong
Yava et al. (2023)	Tool Development	Rigorous development process (Delphi, psychometric testing); but requires further validation in other contexts.	Strong

The JBI critical appraisal of the 16 studies reveals a solid methodological foundation for the research, with the majority of studies (10, or 62.5%) being appraised as either Strong (6 studies, 37.5%) or Moderate (4 studies, 25%) quality. This indicates that nearly two-thirds of the evidence base is credible and trustworthy, providing reliable insights from strong mixed-methods, quantitative, and integrative reviews. However, a significant portion (6 studies, 37.5%) was rated as Weak, primarily due to non-systematic reviews, small pilot studies, and non-empirical opinion papers, which substantially limits their validity and utility.

NVIvo Analysis

Table 4: NVivo Thematic Analysis

Study Focus	Key Themes	Frequency	Sample Quote/Evidence
Teaching Strategies	Culturally Responsive Pedagogy; Simulation-Based Learning; Active Learning Methodologies	High (12 studies)	"Simulation enhances cultural self-efficacy and practical application of knowledge." (Markey et al., 2021)
Curriculum Development	Integration of Multicultural Content; Inclusive Curriculum Design; Competency-Based Frameworks	High (10 studies)	"A structured curriculum integrating multicultural principles significantly improves cultural competence." (Tosun et al., 2024)
Educator Competence	Cultural Self-Awareness; Training Needs; Pedagogical Preparedness	Moderate (8 studies)	"Educators reported limited confidence in teaching culturally diverse content due to insufficient training." (Majnoon et al., 2023)
Barriers to Implementation	Resource Limitations; Institutional Resistance; Lack of Policy Support	Moderate (7 studies)	"Institutional support and resource allocation are critical for sustaining

Study Focus	Key Themes	Frequency	Sample Quote/Evidence
			inclusive education models." (Susilawati et al., 2024)
Assessment & Evaluation	Validated Tools for Cultural Competence; Mixed-Methods Evaluation	Low (5 studies)	"The BENEFITS-CCCSAT tool provides a reliable measure of cultural sensitivity and competence." (Yava et al., 2023)
Contextual Relevance	Local Adaptation; Indonesian Cultural Dynamics; Global Comparisons	Moderate (6 studies)	"Curricula must be adapted to local Indonesian cultural contexts to ensure relevance and effectiveness." (McKenna et al., 2023)

The NVivo thematic analysis of the 16 included studies revealed that the dominant focus of the literature was on Teaching Strategies and Curriculum Development, which appeared in 12 (75%) and 10 (63%) of the studies respectively, underscoring their critical role as the foundational pillars for building an inclusive model. Significant attention was also given to the themes of Educator Competence and Barriers to Implementation, each appearing in approximately half of the reviewed articles (8 and 7 studies, or 50% and 44%), highlighting a clear consensus that faculty training and institutional support are major prerequisites for success. Conversely, the theme of Assessment & Evaluation was less prominent (5 studies, 31%), indicating a notable gap in the availability of robust tools and methods to measure the effectiveness of such educational interventions. Crucially, the theme of Contextual Relevance (6 studies, 38%), often supported by studies with strong JBI ratings, consistently emphasized that for a model to be successful in Indonesia.

Integrated Analysis

Table 5: Integrated Analysis

Study Title	JBI Appraisal	Key Themes (NVivo)	Implications for Model Development
Tosun et al. (2024)	Strong	Curriculum Development, Assessment & Evaluation	Provides a validated mixed-methods framework for curriculum design and evaluation. Highly reliable for adoption.
Yava et al. (2023)	Strong	Assessment & Evaluation, Teaching Strategies	Offers a practical tool (BENEFITS-CCCSAT) for measuring cultural competence. Essential for outcome assessment.

Study Title	JBI Appraisal	Key Themes (NVivo)	Implications for Model Development
Ghezzi et al. (2021)	Strong	Teaching Strategies, Curriculum Development	Identifies evidence-based active learning methodologies (e.g., simulation, PBL). Critical for pedagogical design.
Majda et al. (2021)	Strong	Teaching Strategies, Educator Competence	Demonstrates effectiveness of structured training in improving cultural competence. Supports faculty development programs.
Han & Jeong (2023)	Strong	Educator Competence, Assessment & Evaluation	Highlights the link between self-efficacy and cultural competence. Informs training content and evaluation metrics.
Markey et al. (2021)	Strong	Teaching Strategies	Confirms the value of simulation in cultural education. Supports practical component integration.
McKenna et al. (2023)	Moderate	Contextual Relevance, Curriculum Development	Provides comparative insights (Indonesia-Australia). Useful for contextual adaptation but requires local validation.
Susilawati et al. (2024)	Moderate	Curriculum Development, Barriers to Implementation	Discusses Indonesian multicultural curriculum efforts. Highlights local challenges and opportunities.
Sommers (2023)	Moderate	Educator Competence, Barriers to Implementation	Captures educator perspectives on challenges. Informs strategies for overcoming implementation barriers.
Charania (2023)	Moderate	Teaching Strategies	Proposes an inclusive engagement strategy. Useful but requires testing in Indonesian contexts.
Nashwan (2024)	Weak	Teaching Strategies	Opinion-based; provides conceptual ideas but lacks empirical support. Limited utility for model design.
Sulastri et al. (2022)	Weak	Teaching Strategies	Non-systematic review; highlights post-pandemic trends but lacks depth. Low reliability for foundational use.

Study Title	JBI Appraisal	Key Themes (NVivo)	Implications for Model Development
Ličen & Prosen (2023)	Weak	Educator Competence	Pilot study with limited sample; preliminary insights only. Not sufficient for robust recommendations.

The integrated JBI and NVivo analysis reveals that the core evidence for the model is robust, with 6 out of 16 studies (37.5%) appraised as Strong; these high-quality studies exclusively support the key themes of Teaching Strategies, Curriculum Development, and Assessment & Evaluation, providing a validated foundation for the model's pedagogical and structural components. The 4 Moderate-quality studies (25%) primarily contribute crucial insights into Contextual Relevance and Barriers to Implementation, highlighting the necessity for local adaptation and strategic planning to address institutional and faculty challenges. Conversely, the 6 Weak studies (37.5%) offer minimal actionable value, underscoring the importance of prioritizing evidence from the high-quality cluster to ensure the model's efficacy and credibility. This synthesis demonstrates that over 60% of the literature provides credible and directly applicable evidence, creating a clear pathway for developing an evidence-based and contextually relevant educational model.

DISCUSSION

The findings of this study demonstrate that a Multicultural-Based Inclusive Nursing Education Model for Indonesia is not only necessary but also viable, supported by a synthesis of robust theoretical foundations and contemporary empirical evidence. Theoretically, the model is anchored in the principles of Culturally Responsive Teaching (Abdalla & Moussa, 2024) and Universal Design for Learning (Celestini, 2024), which argue that inclusive pedagogy must actively acknowledge diverse cultural backgrounds and provide multiple means of engagement, representation, and expression. This theoretical stance is strongly corroborated by recent empirical findings. The integrated JBI and NVivo analysis revealed that the most impactful themes—Teaching Strategies and Curriculum Development—are predominantly supported by high-quality studies (JBI Strong, 37.5% of the analysed literature). For instance, the works of Tosun et al. (2024) and Yava et al. (2023) provide a validated mixed-methods framework and assessment tools, proving that a structured curriculum significantly improves cultural competence (Tosun et al., 2024; Yava et al., 2023). Furthermore, the recurring theme of Educator Competence (Majnoon et al., 2023; Sommers, 2023) underscores a critical implementation barrier identified in the study's qualitative phase, emphasizing that faculty development is a non-negotiable prerequisite. Therefore, the proposed model successfully bridges theory and practice by integrating these evidence-based, active-learning methodologies (Ghezzi et al., 2021) with a flexible structure designed for contextual adaptation within the Indonesian socio-educational landscape, as highlighted by McKenna et al. (McKenna et al., 2023). This alignment ensures the model is both pedagogically sound and practically implementable, ultimately aiming to enhance the cultural competence of future nurses and improve patient care outcomes nationally.

This study offers significant advancements by developing a structured, context-specific model to address a critical gap in Indonesian nursing education, moving beyond the descriptive and awareness-focused approaches that dominated previous local research (Ibrahim & Qalawa, 2022; Sulistyani et al., 2023). Its primary strength lies in the robust mixed-methods design, which synergistically combined in-depth qualitative exploration with quantitative validation, a approach lauded by de Oliveira et al. (de Oliveira et al., 2021) as essential for comprehensive healthcare research. This rigorous methodology ensured the model was grounded in the real-world experiences of students and educators while also being generalizable, a balance rarely achieved

in earlier Indonesian studies. However, a key limitation is the recruitment method; while random incidental sampling from the online INT community provided national reach, it may have introduced self-selection bias, potentially overlooking the perspectives of less-engaged educators or students from remote areas with limited internet access, a common challenge in online research (Guangul et al., 2020). Furthermore, the study's focus on model development means its long-term effectiveness and sustainability in diverse Indonesian educational settings remain to be empirically tested through longitudinal implementation research. The implications of this work are twofold: practically, it provides nursing education institutions with an actionable framework and strategies for implementation, directly addressing the resource and competency gaps (Dirjen Dikti Kemendikbudim, 2020). For science, it contributes a replicable methodological blueprint for developing culturally adapted educational models in global health contexts, enriching the international discourse on inclusive pedagogy (Hassmiller & Wakefield, 2022).

CONCLUSION

In conclusion, this study successfully developed and initially validated a Multicultural-Based Inclusive Nursing Education Model for Indonesia, thereby affirmatively answering its central hypothesis that such a framework can enhance nursing students' ability to care for culturally diverse patients. The conclusive evidence stems from the sequential explanatory mixed-methods design: the qualitative phase generated the hypothesis by identifying specific, context-rich challenges and potential solutions directly from stakeholders, while the subsequent quantitative phase tested and confirmed these constructs, demonstrating statistically significant relationships between key variables like multiculturalism, inclusivity, and perceived educational success. This empirical confirmation, achieved through rigorous statistical analysis, moves the study beyond theoretical proposition into the realm of evidence-based intervention. The model, therefore, stands as a direct response to the identified research gap—the lack of a practical, tested model in the Indonesian context. For future research, several pathways emerge. First, a longitudinal study is essential to track the model's impact on long-term patient care outcomes and the retention of cultural competence among graduates. Second, research should focus on developing and validating a localized instrument specifically designed to measure cultural competence and inclusivity within the unique socio-cultural fabric of Indonesia, moving beyond adapted Western tools. Finally, implementation science research is critically needed to identify the most effective strategies for scaling and sustaining the model across Indonesia's diverse and resource-variable nursing education institutions, ensuring its equitable application and ultimate success in improving national healthcare equity.

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