



Systematic Review

Assessing the Role of Nursing Professionals in the Delivery of Integrated Primary Health Care

Yopi Harwinanda Ardesa^{1*}, Yuyun Setyorini², Yudha Anggit Jiwantoro³, Wahyu Sulistya Affarah⁴, Nurul Firdausi Paramaiswari⁵, Made Darawati⁶

^{1,6}Department of Nutrition Poltekkes Kemenkes Mataram, Indonesia

²Department of Nursing Poltekkes Kemenkes Surakarta, Indonesia

³Department of Nursing Poltekkes Kemenkes Mataram, Indonesia

^{4,5}Faculty of Medicine Mataram University, Indonesia

ABSTRACT

Background: *The integration of Primary Health Care (PHC) services is crucial for improving health outcomes and efficiency in health systems globally. Nursing professionals play a critical role in delivering these integrated services. Understanding their contribution and the impact of their involvement is essential for optimising PHC delivery.*

The objective of this systematic review is to evaluate the roles and contributions of nursing professionals in the delivery of integrated primary healthcare services.

Methods: *A comprehensive search strategy will be implemented across electronic databases, including PubMed, CINAHL, and Cochrane Library, to identify relevant studies. Studies published from [start date] to [end date] will be considered. Two independent reviewers will screen titles and abstracts for eligibility, followed by a full-text review of potentially relevant articles. Data extraction and quality appraisal will be conducted using standardised forms. A narrative synthesis will be performed to analyse and summarise the findings.*

Conclusion: *This systematic review will provide evidence on the contributions of nursing professionals to integrated primary health care delivery. The findings will recommend policy and practice in primary health care services.*

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CONTACT

Yopi Harwinanda Ardesa



yopipolkesram@gmail.com

Department of Nutrition Poltekkes
Kemenkes Mataram, Indonesia. Jln.
Praburankasari, Dasan Cermen,
Sandubaya, Mataram, Indonesia.

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INTRODUCTION

Integrated primary health care (PHC) is a comprehensive approach to healthcare delivery that aims to provide accessible, coordinated, and patient-centered services. It involves the integration of various health services, including preventive, promotive, curative, and rehabilitative care, delivered by multidisciplinary teams (World Health Organization, 2024). Nursing professionals constitute a significant portion of these teams and play diverse roles in PHC settings, including direct patient care, health education, disease prevention, and health promotion (Donald et al., 2010). The growing

complexity of healthcare needs and the increasing prevalence of chronic diseases necessitate the integration of care, where nursing professionals can significantly contribute to improved patient outcomes and system efficiency (Reeves, Pelone, Harrison, Goldman, & Zwarenstein, 2017).

Recent studies have highlighted the evolving role of nurses in integrated PHC settings, emphasizing their ability to enhance care coordination, manage chronic diseases, and provide comprehensive patient education (Kangovi, Mitra, Grande, Long, & Asch, 2020). For instance, nurses in primary care settings often take on roles traditionally held by physicians, such as conducting assessments, developing care plans, and managing follow-ups (Aiken et al., 2018). This shift not only alleviates the burden on physicians but also leverages the unique skills of nurses to foster a more holistic approach to patient care. Moreover, the involvement of nursing professionals in health promotion and disease prevention activities has been shown to improve community health outcomes (Oldland, Botti, Hutchinson, & Redley, 2020).

The integration of nursing professionals into PHC teams also supports the delivery of culturally competent care, particularly in diverse and underserved populations. Nurses often serve as the primary point of contact for patients, building trust and facilitating communication between patients and other healthcare providers (Rosen et al., 2020). This is particularly important in multicultural settings where language barriers and cultural differences can impede access to care. By fostering strong patient-provider relationships, nursing professionals can help ensure that care is tailored to the unique needs of individuals and communities (Lin, Lee, & Huang, 2017).

Despite their essential contributions, the specific role and impact of nursing professionals in integrated PHC remain underexplored. Existing literature has primarily focused on physician-led models of care or specific nursing interventions, overlooking the holistic contributions of nursing professionals within integrated PHC systems (Josephine, Ipuole, & Jessica, 2024). Understanding the scope of nursing practice within integrated PHC is crucial for optimising healthcare delivery and achieving universal health coverage goals. The complexity and variability of PHC models across different contexts further complicate the understanding of nursing roles (Shahaed et al., 2023).

Barriers to the effective integration of nursing professionals in PHC include insufficient training, lack of role clarity, and limited opportunities for professional development (Yousefi, Ziaee, & Golshiri, 2019). These challenges can hinder the ability of nurses to fully engage in integrated care activities and limit their impact on patient outcomes. Addressing these barriers requires targeted efforts to enhance nursing education, clarify roles within PHC teams, and provide ongoing professional development opportunities (Bauer & Bodenheimer, 2017). Furthermore, healthcare systems need to recognize and support the value of nursing contributions through appropriate policies and resource allocation (Josephine et al., 2024).

Facilitators that enhance the role of nursing professionals in integrated PHC include strong leadership, interprofessional collaboration, and supportive organizational cultures (Reeves et al., 2017). Effective leadership can promote a shared vision of integrated care and advocate for the inclusion of nursing perspectives in decision-making processes. Interprofessional collaboration fosters mutual respect and understanding among team members, enabling nurses to contribute their expertise effectively. Organizational cultures that value continuous learning and innovation also support the integration of nursing professionals in PHC (Rosen et al., 2020).

Emerging evidence suggests that nursing-led models of care within integrated PHC can improve patient satisfaction, reduce healthcare costs, and enhance health outcomes (Griffin, 2017). For example, nurse practitioners and advanced practice nurses have been shown to manage chronic conditions effectively, resulting in lower hospitalisation rates and improved patient adherence to treatment plans (Stanhope, Marcia Lancaster, 2024). These models capitalise on the advanced skills and knowledge of nursing professionals, positioning them as key players in the delivery of integrated PHC.

The role of nurses in Primary Health Care shows a significant contribution to interprofessional collaborative care and patient education. However, recognition of this contribution has not been comprehensive, as the literature still often emphasises physician-led models of care and their specific interventions. These include unclear roles, inadequate training, and limited professional development of nurses. Overcoming this problem requires targeted education, clear role definitions, and supportive policies. New nurse-led care models are showing results in increased patient satisfaction, but fully integrating nurses into primary health care teams through strong leadership and collaboration is critical to maximising their impact.

This systematic review aims to synthesise existing evidence on the role of nursing professionals in integrated PHC delivery. By elucidating the contributions, challenges, and outcomes associated with nursing involvement, this review seeks to inform policy, practice, and future research directions in the field of primary healthcare. A comprehensive understanding of nursing roles within integrated PHC is essential for optimising healthcare delivery, improving patient outcomes, and achieving universal health coverage goals (Chouinard, Contandriopoulos, Perroux, & Larouche, 2017).

MATERIALS AND METHOD

Objectives

The primary objective of this systematic review is to evaluate the roles and contributions of nursing professionals in the delivery of integrated primary health care services. Secondary objectives include examining the outcomes associated with nursing involvement and identifying barriers and facilitators to their effective participation in PHC.

Eligibility Criteria

Inclusion Criteria

Participants: Nursing professionals (registered nurses, nurse practitioners, clinical nurse specialists, and other advanced practice nurses) involved in the delivery of integrated primary health care (PHC).

Interventions: Any model of integrated PHC where nursing professionals have a defined role, including care coordination, chronic disease management, patient education, and health promotion.

Comparators: Non-integrated PHC models or other health professional-led models without significant nursing involvement.

Outcomes: Primary outcomes include patient health outcomes (e.g., clinical indicators, patient-reported outcomes), service delivery efficiency (e.g., wait times, consultation durations), patient satisfaction, and professional satisfaction among nursing staff.

Study Designs: Randomized controlled trials (RCTs), quasi-experimental studies, cohort studies, case-control studies, and qualitative studies.

Setting: Primary health care settings worldwide, including community health centres, family practice units, rural health clinics, and other multidisciplinary health care facilities.

Exclusion Criteria: Studies not focused on the role of nursing professionals.

Studies not conducted in integrated PHC settings.

Non-peer-reviewed articles, commentaries, editorials, and letters.

Information Sources

Electronic Databases: A comprehensive search will be conducted in MEDLINE, PubMed, CINAHL, Scopus, Cochrane Library, and Web of Science.

Grey Literature: Searches will include grey literature databases such as Google Scholar, OpenGrey, and relevant conference proceedings.

Manual Searching: Reference lists of included studies and key journals in the fields of nursing and primary health care will be manually searched to identify additional relevant studies.

Search Strategy

The search strategy will combine keywords and medical subject headings (MeSH) related to nursing professionals, integrated primary health care, and relevant outcomes. The search terms will include combinations of “nursing,” “integrated care,” “primary health care,” “patient outcomes,” “service delivery,” and “satisfaction.”

Study Selection

Titles and abstracts of identified articles will be independently screened by two reviewers to determine their relevance based on the eligibility criteria. Full texts of potentially relevant articles will be retrieved and assessed for eligibility. Disagreements between reviewers will be resolved through discussion or by consulting a third reviewer if necessary.

Data Extraction

Data will be extracted using a standardised data extraction form, which will be piloted and refined as needed. Extracted data will include study characteristics (e.g., study design, sample size, setting), participant details (e.g., demographics, health conditions), intervention descriptions (e.g., role of nursing professionals, type of integrated care model), outcomes measured (e.g., clinical indicators, patient satisfaction scores), and key findings. Data extraction will be performed independently by two reviewers, and discrepancies will be resolved through discussion or consultation with a third reviewer.

Risk of Bias Assessment

The risk of bias in included studies will be assessed using appropriate tools based on study design:

RCTs: The Cochrane Collaboration's Risk of Bias tool will be used to evaluate random sequence generation, allocation concealment, blinding, incomplete outcome data, selective reporting, and other sources of bias.

Non-randomised studies: The ROBINS-I tool will be employed to assess bias due to confounding, selection of participants, classification of interventions, deviations from intended interventions, missing data, measurement of outcomes, and selection of reported results.

Qualitative studies: The Critical Appraisal Skills Programme (CASP) checklist will be used to assess the credibility, relevance, and methodological rigour of qualitative studies.

Data Synthesis

A narrative synthesis will be conducted to summarise findings from all included studies, organised by key themes such as patient health outcomes, service delivery efficiency, patient satisfaction, and professional satisfaction. Where possible, quantitative data will be pooled using meta-analysis with a random-effects model to account for variability among studies. Heterogeneity will be assessed using the I^2 statistic, with values above 50% indicating substantial heterogeneity. Subgroup analyses will be performed to explore potential variations in outcomes based on the type of nursing professional, geographical location, and PHC model.

Reporting

The systematic review will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The findings will be disseminated through publication in peer-reviewed journals, presentations at relevant conferences, policy briefs, and social media platforms to reach a wide audience, including policymakers, healthcare providers, and researchers.

DISCUSSION

The theme of assessing the role of nursing professionals in the delivery of integrated primary health care (PHC) was chosen due to the growing recognition of the critical role nurses play in enhancing healthcare outcomes and system efficiency. The integration of PHC services is pivotal for addressing complex health needs, managing chronic diseases, and promoting preventive care (Reeves et al., 2017). Given the evolving responsibilities of nurses within PHC teams, it is essential to understand their contributions to ensure effective healthcare delivery. This systematic review aims to fill the knowledge gap by providing comprehensive insights into how nursing professionals impact integrated PHC.

However, the systematic review is subject to certain limitations. One potential limitation is the variability in PHC models and the roles of nursing professionals across different healthcare systems and cultural contexts, which might affect the generalizability of findings (Shahaed et al., 2023). Additionally, the review may be constrained by publication bias, where studies with positive outcomes are more likely to be published, skewing the overall analysis (Josephine et al., 2024). Language restrictions could also limit the inclusion of relevant studies published in non-English journals, potentially omitting important international perspectives.

The anticipated contributions of this systematic review include providing evidence-based insights that can inform policy and practice, emphasising the

significance of nursing roles in integrated PHC. The findings are expected to highlight areas for improvement, such as training, role clarity, and professional development opportunities for nurses (Oldland et al., 2020). By elucidating the facilitators and barriers to effective nursing practice within integrated PHC, this review aims to support the development of targeted interventions and policies that enhance the integration of nursing professionals, ultimately improving patient outcomes and healthcare system efficiency.

CONCLUSION

This systematic review protocol highlights the important role of nursing professionals in integrated primary health care, despite several limitations. Variability in integrated primary healthcare models and nursing roles across different healthcare systems and cultural contexts may influence the generalizability of findings, while publication bias and language limitations could potentially compromise the overall analysis. Nevertheless, the expected contribution of this review is quite large.

By synthesising evidence-based insights, it aims to inform policy and practice that enhances nursing's contribution to primary health care. Emphasizing training, role clarity, and professional development opportunities for nurses, this review seeks to identify key facilitators and barriers to effective nursing practice in integrated healthcare care settings. Ultimately, by addressing these challenges, targeted interventions and policies can be developed to optimize the integration of nursing professionals, thereby improving patient outcomes and increasing the efficiency of the healthcare system, especially integrated primary care.

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