Challenges and Strategies of Implementing Nurses' Professional Identity in Disaster Management in Indonesia: A Literature Review

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Abstract. Indonesia's status as one of the world's most disaster-prone countries presents unique demands on nurses, whose roles extend beyond clinical care to include leadership, coordination, and rapid decision-making during emergencies. However, the implementation of nurses' professional identity in disaster management remains underexplored and faces considerable challenges within the Indonesian context. This literature review aims to identify the key challenges and explore context-specific strategies for strengthening the professional identity of nurses involved in disaster management in Indonesia. A systematic literature review was conducted using five databases PubMed, Scopus, ProQuest, Google Scholar, and Garuda guided by PRISMA protocols. Inclusion criteria focused on studies from 2013 to 2023 addressing professional identity in nursing within disaster contexts. Twenty eligible articles were appraised using the CASP checklist and AMSTAR 2 tool. Thematic analysis was applied to synthesize findings. Five major thematic challenges were identified: (1) lack of disaster-focused education and training, (2) role conflict between personal and professional obligations, (3) limited organizational and logistical resources, (4) cultural barriers including gender norms and community perceptions, and (5) unclear or insufficient policies regarding nurses' roles in emergencies. Promising strategies include simulation-based curricula, psychosocial support systems, participatory policy development, interprofessional collaboration, and culturally sensitive educational interventions. Strengthening nurses' professional identity in Indonesia's disaster management requires an integrated, multisectoral approach involving education reform, policy innovation, resource provision, and sociocultural adaptation. These efforts are essential for empowering nurses to perform confidently, ethically, and effectively in high-risk settings.

Keywords: Disaster Management, Indonesia, Nurses, Nursing Education, policy, Professional Identity, Simulation Training

1   Introduction

Indonesia ranks among the most disaster-prone countries globally, experiencing thousands of natural disasters annually, including earthquakes, floods, volcanic eruptions,

and tsunamis (BNPB, 2024). In such high-risk environments, nurses are not only required to perform clinical tasks but are often expected to lead, coordinate, and make rapid decisions under pressure. These expanded responsibilities place the professional identity of nurses at the center of disaster preparedness and response (Veenema et al., 2016;ICN, 2019). Thus, understanding and strengthening nurses' professional identity in disaster settings is particularly vital for Indonesia's context.

Nurses' professional identity is defined as an internalized sense of values, beliefs, roles, and ethical responsibilities that shape how nurses perceive themselves within their profession (Johnson et al., 2012;Hoeve et al., 2014). In disaster contexts, this identity significantly influences nurses' resilience, ethical decision-making, and interprofessional collaboration (ICN, 2019). However, in Indonesia, the implementation of this identity remains challenged by role ambiguity, insufficient training, limited institutional support, and sociocultural constraints.

While existing studies often focus on nurses' clinical roles in disaster response, few have explored how professional identity is developed, sustained, or compromised in disaster-prone settings, particularly in Indonesia. Therefore, this literature review aims to identify the challenges and strategies associated with implementing nurses' professional identity within the specific context of disaster management in Indonesia, drawing from relevant theoretical frameworks such as Role Theory (Biddle, 1986) and identity formation models in nursing (Li & Hasson, 2020);Johnson et al., 2012).

2 Methods

This review employed a descriptive-analytic literature review methodology, structured around the PRISMA guidelines (Page et al., 2021). Literature searches were conducted across five databases: PubMed, Scopus, ProQuest, Google Scholar, and Garuda. The Boolean search strategy used the following syntax: ("nurse" OR "nursing") AND ("professional identity") AND ("disaster management" OR "disaster response") AND (Indonesia).

Inclusion criteria were: (1) studies published between 2013 and 2023; (2) full-text availability; (3) relevance to the topic of nurses' professional identity in disaster settings; and (4) English or Indonesian language. Studies were excluded if they did not focus on nurses, lacked discussion of professional identity, or were not related to disaster contexts.

The initial search yielded 742 articles. After removing 128 duplicates, 456 articles were screened by title and abstract. A total of 78 articles underwent full-text review, with 58 excluded for not meeting the inclusion criteria. Finally, 20 articles were included in the review.

To ensure methodological rigor, each article was assessed for quality using the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies and the AMSTAR 2 tool for systematic reviews (Aghaei, N., 2023). Thematic analysis was applied using the Braun & Clarke, (2006) six-step method to identify recurring challenges and strategies related to professional identity implementation.
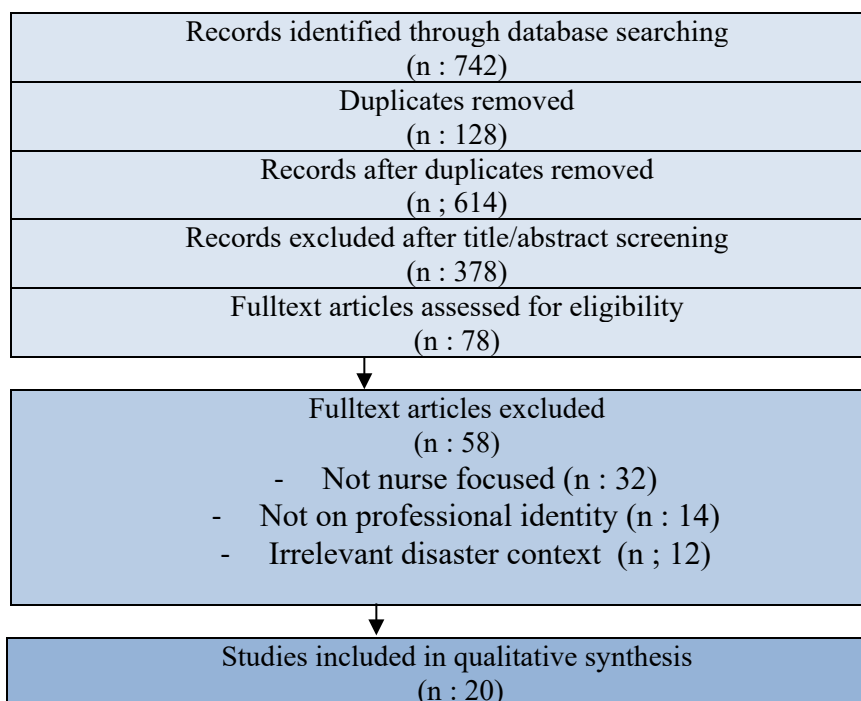
Records identified through database searching (n : 742)
Duplicates removed (n : 128)
Records after duplicates removed (n ; 614)
Records excluded after title/abstract screening (n : 378)
Fulltext articles assessed for eligibility (n : 78)

Fulltext articles excluded (n : 58) - Not nurse focused (n : 32) - Not on professional identity (n : 14) - Irrelevant disaster context (n ; 12)

Studies included in qualitative synthesis (n : 20)

Fig. 1. PRISMA Protocol for Collecting Data

A total of 742 records were identified. After removing 128 duplicates, 614 records remained. Title and abstract screening excluded 378 articles. Full-text screening of 78 articles resulted in 20 studies included in the final analysis. Reasons for exclusion: not nurse-focused (n = 32), not about professional identity (n = 14), or irrelevant disaster context (n = 12).

3   Results and Discussion

3.1   Results

Twenty articles were analyzed, revealing five major themes:

Lack of Disaster Education and Training.
Most nurses in Indonesia lack adequate disaster training (Labrague et al., 2018;Thobaity, 2024). Simulation-based training improves preparedness and strengthens professional identity (Ma et al., 2021).

Role Conflict.
Nurses often experience a dilemma between professional responsibilities and family safety, which undermines their commitment to their professional role during disasters (Khan et al., 2018).

Limited Resources.
Logistical constraints, insufficient human resources, and inadequate infrastructure limit nurses' ability to perform optimally (Fung et al., 2008).

The selected studies were critically appraised for contextual relevance to Indonesia. Structural challenges including the absence of disaster content in the national nursing curriculum (WHO, 2021b), the limited role of nurses in national disaster policies and fragmented coordination between health and emergency response agencies, as discussed in national disaster policy documents (BNPB, 2024) Recommended strategies such as simulation-based training, legal role clarification, and community-level partnerships were thus proposed to align with Indonesia's current health, regulatory, and disaster-response landscape.

Challenges such as inadequate disaster education, role ambiguity, resource constraints, and cultural barriers are prevalent. These issues reflect gaps in disaster nursing curricula, limited legal recognition of nursing roles in emergency frameworks, and the need for culturally adaptive strategies (ICN, 2019; WHO, 2021).

The reviewed studies indicate that implementing nurses' professional identity in disaster settings is influenced by both individual-level factors (knowledge, resilience, commitment) and system-level variables (policy clarity, training, organizational support). This supports (Hoeve et al., 2014), who argued that professional identity is formed through dynamic interactions between the nurse's role and societal expectations.

3.2 Discussion

The findings indicate that implementing nurses' professional identity in disaster management is influenced by both internal (knowledge, resilience, ethical commitment) and external factors (policy, resources, organizational culture). This is consistent with (Hoeve et al., 2014), who noted that professional identity develops dynamically through interaction with the profession and society.

1. A lack of disaster-focused education and training remains a critical barrier. This finding supports the conclusions of (Labrague et al., 2018), who emphasized the importance of simulation-based education in enhancing clinical competence and professional identity among nurses. Consistently, broader reviews (Geng, Cong et al., 2021) and global frameworks (WHO, 2021b) argue for structured disaster curricula to embed preparedness into nursing education.
2. Role conflict between professional obligations and personal responsibilities during disaster response increases psychological stress and may erode professional commitment. (Han & Yeun, 2024) emphasize that psychosocial support mechanisms

such as stress monitoring, self-care routines, and post-deployment follow-up are essential to bolster mental resilience and sustain professional engagement

3. Limited resources such as inadequate logistics, equipment, and organizational support—impede nurses' ability to meet clinical expectations, ultimately reducing service quality and weakening professional identity. Conversely, the availability of training, supportive policies, and organizational resources has been shown to enhance nurses' confidence and reinforce the legitimacy of their professional role (Kimin et al., 2022). Adequate resources contribute to higher professional confidence and a stronger sense of role legitimacy.

4. Cultural barriers, including gender-based role expectations and community stigma, may hinder nurses' ability to engage effectively in professional interactions during disaster scenarios. The International Council of Nurses (ICN, 2019) stresses that the development of disaster nursing competencies must be grounded in local cultural contexts. Complementing this, the conceptual analysis by (Fung et al., 2008) underlines the importance of culturally adapted curricula to promote acceptance and effectiveness of disaster preparedness training.

5. Inadequate policies and a lack of organizational support contribute to role ambiguity and undermine professional legitimacy. Low role clarity has been shown to diminish job satisfaction and weaken organizational commitment, particularly when it is not accompanied by sufficient supervisory and peer support (ul-Hassan et al., 2021; Rao et al., 2023). In contrast, the development of inclusive and participatory policies has been found to enhance role clarity and strengthen professional identity (White, 2019;Donaldson, 2008).

Practically, these findings suggest that nursing education institutions, professional organizations, and policymakers should take a more proactive and empathetic stance in supporting nurses' development and disaster readiness. They should:

1. Integrate disaster-specific training and simulation exercises early in nursing education to cultivate both technical competence and a deep sense of professional purpose.

2. Establish psychosocial support systems to help nurses navigate the emotional strain caused by conflicting personal and professional roles, particularly in high-pressure disaster settings.

3. Ensure the consistent provision of essential resources including logistics, equipment, and organizational backing—to enable nurses to perform their duties confidently and effectively.

4. Design culturally sensitive curricula and interventions, recognizing that sociocultural dynamics, including gender norms and community perceptions, significantly influence nurses' roles and acceptance in disaster response.

5. Develop clear, inclusive, and participatory policies that define nurses' roles in emergencies, reduce ambiguity, and promote a stronger sense of identity, legitimacy, and professional belonging.

By implementing these measures, stakeholders can empower nurses not only to respond to disasters with competence, but also to carry out their duties with confidence,

integrity, and resilience qualities that are essential for the future of nursing in an increasingly uncertain world.

Strategies to Push Forward.

So, what can realistically be done? Several strategies have shown promise and are supported by findings in the literature.

1. Enhancing Education and Simulation-Based Training: Realistic disaster simulations significantly improve nurses' preparedness and confidence. Moreover, integrating disaster-related content into nursing curricula helps develop a stronger professional identity from early training stages (ICN, 2019).
2. Developing Supportive and Clear Policies: Nurses require well-defined roles during disaster response, along with legal protection and institutional support when deployed. Such policies reinforce a sense of accountability and strengthen professional identity in high-pressure situations (Veenema et al., 2016)(WHO, 2021a).

Challenges	Potential Strategies
Lack of disaster training	Simulation-based training, curriculum integration
Role conflict	Emotional and psychosocial support, flexible leave policies
Limited resources	Improved logistics and resource management
Cultural barriers	Context-sensitive and culturally informed training
Policy gaps	Clear regulations, stronger leadership frameworks

4   Conclusion and Suggestions

4.1   Conclusion

The implementation of nurses' professional identity in disaster management within the Indonesian context remains fraught with systemic, educational, and cultural challenges. Core issues include inadequate disaster-specific training, persistent role ambiguity during emergency deployments, limited organizational and logistical support, and insufficient policy frameworks that fail to clearly define the scope of nursing responsibilities in crisis contexts. These obstacles collectively weaken nurses' resilience, reduce their sense of professional legitimacy, and compromise the quality and continuity of disaster response services.

However, this review affirms that professional identity being a dynamic construct shaped by both individual and systemic factors can be effectively reinforced through targeted strategies that combine education, psychosocial support, organizational commitment, and policy reform.

4.2   Suggestion

To address these multifaceted challenges and enhance the role of nurses in disaster preparedness and response, the following actionable recommendations are proposed:

1. Curriculum Reform and Simulation-Based Training
   Incorporate structured disaster nursing content, including scenario-based simulations and interprofessional drills, into national and institutional nursing curricula. This fosters early identity formation grounded in clinical competence and crisis readiness.

2. Psychosocial and Emotional Support Mechanisms
   Establish mental health support systems to address role conflict and psychological strain, particularly for nurses torn between familial obligations and professional duties during disaster scenarios. This includes peer counseling, post-deployment debriefing, and access to resilience-building programs.

3. Policy Development and Legal Role Clarification
   Advocate for clear and enforceable policies that define nurses' authority, accountability, and legal protection in emergency settings. Participatory policy-making should include nurses' voices and be aligned with international disaster nursing standards (e.g., ICN Core Competencies).

4. Resource Strengthening and Institutional Support
   Ensure consistent access to logistical resources (e.g., protective equipment, transport, communication tools) and institutional support (e.g., leadership backing, incentives, flexible deployment protocols) to facilitate optimal role performance.

5. Culturally Contextualized Interventions
   Design disaster training and community engagement strategies that are sensitive to local cultural values, gender norms, and religious perspectives to increase community trust and nurse acceptance in diverse Indonesian regions.

6. Cross-Sector and Interprofessional Collaboration
   Promote integrated disaster response involving nurses, emergency personnel, local authorities, and civil society organizations to strengthen coordination, role synergy, and collective preparedness.

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