

Forensic nursing competencies in disaster situations: a scoping review protocol

Competências da enfermagem forense em situações de desastres: protocolo de revisão de escopo

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ABSTRACT

Objective: to map the sources of technical-scientific information on forensic nursing competencies in disaster situations. **Method:** scoping review protocol, developed following the Joanna Briggs Institute (JBI) methodology. The search will be carried out in three stages, by two reviewers, independently, in selected databases and the grey literature, using keywords and descriptors. The selection, initially, will be conducted through the screening of titles, abstracts, and descriptors, observing the inclusion criteria. Subsequently, the texts will be filed in digital folders and read in full by two researchers with the support of an instrument. After extracting the data, the content analysis will be carried out. The summary of the results will be presented using graphs, diagrams, tables, and flow diagrams for the proper alignment with the review's objective and question.

Descriptors: Disasters; Forensic Nursing; Health.

RESUMO

Objetivo: mapear fontes de informação técnico-científica sobre as competências da enfermagem forense em situações de desastres. **Método:** protocolo de revisão de escopo, desenvolvido em conformidade com a metodologia Joanna Briggs Institute (JBI). A busca será realizada em três etapas, por dois revisores, de maneira independente, em bases de dados selecionadas e na literatura cinzenta, por meio das palavras-chaves e dos descritores. A seleção, inicialmente, será por meio de títulos, resumos e descritores, observando os critérios de inclusão. Posteriormente, os textos serão arquivados em pastas digitais e lidos na íntegra por dois pesquisadores com o apoio de instrumento. Após a extração dos dados, será procedida a análise de conteúdo. A síntese dos resultados será apresentada na forma de gráficos, diagramas, tabelas e fluxos, buscando-se os devidos alinhamentos com o objetivo e a pergunta de pesquisa.

Descritores: Desastres; Enfermagem Forense; Saúde.

INTRODUCTION

Disasters comprise complex phenomena that occur gradually or suddenly, resulting from threats from natural, technological and social sources, exposure, and vulnerabilities, exceeding the capacity for preparation and response⁽¹⁻⁴⁾. They constitute a serious public health problem, as they promote damage in the various dimensions of life for individuals, social groups, and the environment⁽¹⁻⁴⁾.

Since antiquity, humanity has experienced situations of different types of disasters of natural (landslides, floods, droughts, epidemics, and pandemics), technological (fires, breaches of tailings dams, chemical, radio, nuclear, rail, air, and road accidents) and social origin (violence, forced migrations and lack of assistance), triggering basic human needs to be assisted by nursing⁽¹⁻⁴⁾. Regardless of typology, disaster situations have been increasing generating impacts for different societies, as identified in 2021 by the emergency events database (EM-DAT), which recorded 432 disasters that affected 101.8 million people, caused 10,492 deaths and led to a loss of approximately 252.1 billion dollars⁽⁵⁾. Given the epidemiological situation, there is an urgent need to invest in governance, research, training of human resources in multiple areas,

and developing skills and specific competencies to act during disasters^(1,6,7).

In disaster situations, nursing professionals are the first responders, as they generally constitute the largest contingent of health professionals, assuming multiple roles in the pre-incident, incident, and post-incident stages^(1,8-10).

Thus, the International Council of Nurses (ICN), together with the World Health Organization (WHO), pointed out certain challenges regarding the performance of nursing professionals in the health-disaster-care process, which leads to the need for research, discussion, and dissemination of information about essential nursing competencies to act in the different stages of disasters^(8,9,11).

Among the subareas that can bring substantial contributions to support nursing competencies in disasters there is forensic nursing, as it is understood that, in the care process in such situations, problems inherent to forensic aspects emerge, such as cases of unidentified dead victims, presence of remains, abandonment of the elderly, neglect of care for children and people with special needs, injuries, the existence of multiple forensic traces, sexual violence against victims of wars and refugees, and interpersonal violence in temporary shelters and field hospitals, in addition to the need to provide care based on local, regional or national laws⁽¹²⁻¹⁶⁾.

Forensic nursing comprises a new nursing specialty in Brazil, and its formal recognition occurred within the Federal Nursing Council (COFEN) through Resolution number 389, 2011. In turn, the areas of expertise and competencies of forensic nurses were recognized by Resolution number 0556 published by COFEN, in 2017⁽¹⁷⁻¹⁸⁾. It should be noted that disasters, humanitarian missions, and catastrophes represent one of the eight areas of activity of forensic nurses in Brazil, and it is necessary to deepen scientific investigations on the competencies of forensic nurses in this context.

It is identified that the forensic nurse can act in the context of disasters by establishing preventive/mitigating actions, diagnosing the existence of risks and performing interventions, responding to installed situations, and promoting care to individuals⁽¹²⁾.

Given the above, in order to support the development of a scoping review study, a preliminary search was carried out between November and December 2021 in PROSPERO, JBI Evidence Synthesis, MEDLINE (via PubMed), and Cochrane

Database of Systematic Reviews, and no reviews of any nature were identified on forensic nursing competencies in disaster situations, which represents a novelty of this study. Therefore, we decided to carry out a scoping review due to the need to map concepts rigorously and systematically. Thus, it is understood that this synthesis will contribute to supporting further studies on forensic nursing, as well as amplify the discussion with educational institutions regarding the competencies of this field for nurses and nursing students, in addition to potentially aiding the instrumentalization of the training of forensic nurses.

Objective

To map the sources of technical-scientific information on forensic nursing competencies in disaster situations.

METHOD

The proposed scoping review will be conducted under the Joanna Briggs Institute (JBI)⁽¹⁹⁾ methodology. The research protocol was registered in the Open Science Framework, under DOI [10.17605/OSF.IO/3WYSP](https://doi.org/10.17605/OSF.IO/3WYSP).

Review question

What are the competencies of the forensic nurse in disaster situations?

Inclusion criteria

Population

The study population will be professional forensic nurses with knowledge or experience in disaster situations.

Concept

This review study will consider competencies as a concept. Competencies are the quality or state of being skilled to act in complex situations involving multiple problems that require articulation of knowledge for resolution in a critical-reflexive and creative way⁽²⁰⁾. In this sense, studies that point out the competencies and care performed by forensic nurses in disaster situations will be considered.

Context

The context considered is that of disasters, whether of any type: natural, technological, or social. Based on these elements, search terms were mapped using controlled vocabularies: Health

Sciences Descriptors (DECS), Medical Subject Headings (MESH), and Emtree (Embase subject headings). After a preliminary search, additional terms identified in titles, abstracts, and MESH descriptors of the articles were added (Figure 1).

Source types

This review will consider sources of technical-scientific information from existing literature, including primary studies, with a quantitative, qualitative, and mixed approach, experimental and quasi-experimental designs, case-control studies, literature reviews, before and after studies, time series, observational studies, cohort studies, and cross-sectional studies.

A search in the grey literature will also be conducted (theses and dissertations, websites, protocols, guidelines, books, legislations, letters, and opinion articles).

Search strategy

The search will be carried out in three stages by two researchers independently. It is noteworthy that the process of blinding between reviewers will be maintained and that this review will have the support of a librarian.

The first step will comprise a primary search in Medical Literature Analysis and Retrieval System Online (Medline) and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases, allowing the screening of titles, abstracts, and descriptors of the articles.

The second stage will involve a complete search in all databases selected for the study, using the Boolean operators "AND" and "OR", together with the keywords and the following descriptors (Figure 1):

The third stage will comprise the tertiary search by analyzing reference lists of all technical-scientific literature, which contemplates the established inclusion criteria. In addition, this review will include the additional search for information by contacting the authors of primary studies.

It should be noted that temporal and idiomatic restrictions or open-access definitions of sources will not be adopted, to expand the searches.

Databases

Searches will be performed through the Regional Portal of the Virtual Health Library (VHL) under the responsibility of the Latin American and Caribbean Center on Health Sciences Information (BIREME) in the main databases, Latin American and Caribbean Health Sciences

Literature (Lilacs), Spanish Bibliographic Index on Health Sciences (IBECS), Nursing Databases (BDENF), Peruvian Network of Libraries in Health (LIPECS), PubMed of the National Library of Medicine (NLM), and Scientific Electronic Library Online (SciELO).

Through the Capes Portal of Journals, the following databases will be used: Elsevier: Embase and Scopus, Clarivate Analytics: Web of Science, Ebsco: Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Academic Search Premier (ASP). Moreover, searches will be conducted in CAB Direct, a platform that allows researchers to search for CAB Abstracts and Global Health.

The search will also include sites on forensic nursing, professional legislation, the International Council of Nurses, the International Association of Forensic Nurses (IAFN), digital libraries of theses and dissertations, and internet search engines. In order to operationalize the search for grey literature, the following integrators and grey literature portals will be accessed: Science.gov: USA.gov, Epistemonikos: Database of the best Evidence-Based Health Care, information technologies and a network of experts, and National Institute for Health and Care Excellence (NICE).

Sources selection

After searches, all identified citations will be imported into the Rayyan application (Qatar Computing Research Institute, Doha, Qatar). Initially, the sources will be analyzed by two reviewers, who will screen titles, abstracts, and descriptors, according to the inclusion criteria of the scoping review. Disagreements between the two reviewers will be resolved through consensus or decision of a third reviewer. Excluded studies will be registered and described as to the reasons for exclusion. It should be noted that the EndNote Web reference manager will be used to organize the references and identify duplicates, (Clarivate Analytics, PA, USA).

Two researchers will file the texts in digital folders and read them in full format. The selection results will be presented in a flowchart, following the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines⁽²¹⁾.

Data extraction

The selected data will be extracted after full-text screening. For this, the instrument (Figures 2

TERMS
(("Enfermagem Forense" OR "Enfermería Forense" OR "Soins infirmiers médico-légaux" OR "Pratique infirmière en médecine légale" OR "Soins infirmiers médico-légaux" OR "cuidado forense" OR "cuidados forense" OR "enfermeira forense" OR "enfermeiro forense" OR "pratica forense" OR "tecnica forense" OR "examinadores forenses" OR "examinador forense" OR "Exames Forenses" OR "Exame Forense" OR (enfermeir* OR enfermagem OR Enfermer*) AND (Forense*))) OR (("Prova Pericial" OR "Impressão Digital" OR "Impressões Digitais" OR "coleta de vestigio" OR "coleta de vestigios" OR "recolha de vestigio" OR "recolhimento de vestigios" OR "coleta de evidencias" OR "coleta de evidencia" OR "preservação de evidencia" OR "preservação de evidencias" OR "identificação de evidencias" OR "identificación de pruebas" OR "recogida de pruebas" OR "conservación de pruebas" OR "rastreamento de evidências" OR "rastreamento de evidência" OR "cenários de risco de morte" OR "cenário de risco de morte" OR "preservação de cadáver" OR "preservação de cadaveres" OR "Identificação de Víctimas" OR "Identificación de Víctimas" OR "Identification des Victimes") AND (forense* OR enfermeir* OR enfermagem OR Enfermer*))
("Forensic Nursing" OR "Forensic Nursings" OR "Forensic care" OR "Forensic Nurse" OR "Forensic Nurses" OR "Forensic care" OR "forensic practice" OR "forensic technique" OR "Nurse Examiner" OR "Forensic Examinations" OR "Forensic Examination" OR ((forensic) AND (nursing* OR nurse*)) OR ("Expert Testimony" OR "Expert Testimonies" OR Fingerprinting OR Fingerprint* OR "trace collection" OR "collection of evidence" OR "collection of evidence" OR "identifying of evidence" OR "collecting of evidence" OR "preserving of evidence" OR "evidence tracking" OR "evidence screening" OR "death risk scenarios" OR "Victims Identification") AND (forensic OR nursing* OR nurse*))
Desastres OR Desastre OR Catastrophe* OR Calamidade* OR Catástrofe* OR "Eventos com Potencial de Criação de Lesão" OR Tragédia* OR "Eventos con Potencial de Creación de Lesión" OR Sinistres OR Emergências OR "Urgencias Médicas" OR Urgences OR Emergência* OR Urgência* OR "Incidentes com Feridos em Massa" OR "Incidentes con Víctimas en Masa" OR "Événements avec afflux massif de victimes" OR "Acidentes com Múltiplas Víctimas" OR "Feridos em Massa" OR "Grande Número de Feridos" OR "Grande Número de Víctimas" OR "Incidentes de Massa" OR "Víctimas em Massa" OR "Accidentes con Múltiples Víctimas" OR "Gran Número de Víctimas" OR "Heridos en Masa" OR "Incidentes con Gran Número de Víctimas" OR "Víctimas en Masa" OR "Afflux massif de blessés" OR "Afflux massif de victimes" OR "Cas d'afflux massif de victimes" OR "Situation de catastrophe médicale" OR "Événements avec afflux massif de blessés"
Disasters OR Emergencies OR catastrophe OR "catastrophic accident" OR catastrophic* OR Calamity OR "Events with Potential for Injury Creation" OR Tragedies OR Sinister* OR Urgence* OR Urgency* OR Mass Casualty Incidents OR "Mass Casualty Incident" OR "Mass Casualties" OR "Mass Casualty"

Figure 1– Language terms identified in the DECS, MESH, and ENTREE vocabularies. Rio de Janeiro, RJ, Brazil, 2021
Source: Prepared by the authors, 2022.

and 3) will be used, following the Joanna Briggs Institute (JBI)⁽¹⁶⁾ methodology. For the use of this instrument, a pilot test will be carried out on three sources, seeking familiarity with searching, selecting, and extracting data and identifying and making any necessary adjustments.

During the data extraction, the instrument may undergo adjustments as necessary. Disagreements will be resolved by discussion after consensus with a third reviewer. The extracted data will consider aspects such as population, concept, and context.

Data analysis and presentation

After extracting the data, a content analysis will be carried out with the support of the Iramuteq software. Data including study design and appro-

ach, origin and typology of the disaster situation, and forensic nursing competencies in disaster prevention/mitigation, disaster preparedness, disaster response, and disaster recovery/rehabilitation will be collected.

The synthesis of the results will be presented using graphs, diagrams, flow diagrams, and tables, aiming at the proper alignment with the review's objective and research question. Furthermore, a descriptive presentation will accompany the mapped results.

CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

Title	Authors (names, degrees, professions, places of work, countries)	Descriptors	Information sources	Countries/Languages
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Figure 2– Instrument for extracting data for the Scoping Review. Rio de Janeiro, RJ, Brazil, 2021

Source: Prepared by the authors, 2022.

SCOPING REVIEW INSTRUMENT			
Objectives	Study design and approach	Origin and typology of the disaster situation	Forensic Nursing competencies in Disaster Prevention/Mitigation: Disaster Preparedness: Disaster Response: Disaster Recovery/Rehabilitation:

Figure 3– Instrument for extracting data for the Scoping Review. Rio de Janeiro, RJ, Brazil, 2021

Source: Prepared by the authors, 2022.

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