Global Academic Nursing Journal

Challenges, determinants policies and strategies ensure the Availability and Accessibility of Nursing in Brazil: a scoping review protocol

Desafíos, políticas y estrategias determinantes para garantizar la Disponibilidad y Accesibilidad de la Enfermería en Brasil: un protocolo de revisión del alcance

Desafios, políticas e estratégias determinantes para garantir a Disponibilidade e Acessibilidade da Enfermagem no Brasil: um protocolo de scoping review

Ana Paula Cavalcante de Oliveira[1*]
ORCID: 0000-0003-0654-1417
Ana Beatriz Zanardo Mion[1]
ORCID: 0000-0002-6944-3905
Gabriela Di Donato[1]
ORCID: 0000-0001-9451-064X
Mariana Lopes Galante[1]
ORCID: 0000-0003-2072-7875
Helen Fernanda Barbosa Batista[2]
ORCID: 0000-0001-7965-694X
Isabel Craveiro[3]
ORCID: 0000-0003-4348-1986
Silvana Mishima[1]
ORCID: 0000-0002-3936-7729
Ana Maria Laus[1]
ORCID: 0000-0002-6339-0224
Aldira Samantha Garrido Teixeira[4]
ORCID: 0000-0002-3326-0146
Carla Aparecida Arena Ventura[1]
ORCID: 0000-0003-0379-913X

[1]Universidade de São Paulo. PAHO/WHO Collaborating Centre for Nursing Research Development. São Paulo, Brazil.
[2]Instituto de Medicina Social da Universidade do Estado do Rio de Janeiro. Rio de Janeiro, Brazil.
[3]Global Health and Tropical Medicine da Universidade Nova de Lisboa. Lisbon, Portugal.
[4]Universidade Federal Fluminense. Rio de Janeiro, Brazil.

*Corresponding author:
apco.hrh@gmail.com

Abstract

The aim was to identify the existing challenges, determinants, policies, and strategies to ensure the availability and accessibility of nursing personnel by the population in Brazil. Scoping review of peer-reviewed papers and technical and political documents. Eight scientific databases will be searched (such as PubMed, BVS, and EMBASE). Sources of unpublished studies/ grey literature to be searched include websites from the Ministry of Health, councils, and institutions. No language or publication date restrictions will apply. The review will consider documents that contain information regarding nursing personnel in the Brazilian context and address: I. the challenge of availability and/or accessibility of nursing personnel; II. the causes of the challenge; or III: strategies to deal with the challenge: either (a) in a state of description of implemented interventions or (b) evaluation of the strategy in its implementation stage. The result will be described narratively, descriptive statistics will be presented as necessary, and the information will be grouped, summarized, and compared. For the qualitative analysis of the documents, both inductive and deductive thematic content analysis will be used. The results can reveal information about gaps and imbalances in the workforce, enabling the implementation of strategies to address these challenges.

Descriptors: Health Services Accessibility; Distribution of Nursing; Health Workforce; Policy Making; Scoping Review.

Resumén

El objetivo fue identificar los desafíos, determinantes, políticas y estrategias que existen para garantizar la disponibilidad y accesibilidad del personal de enfermería por parte de la población en Brasil. Revisión del alcance de artículos y documentos técnicos y de políticas revisados por pares. Se buscarán en ocho bases de datos científicas (como PubMed, VHL y EMBASE). Las fuentes de estudios no publicados/literatura gris que se deben buscar incluyen sitios web, consejos e instituciones del Ministerio de Salud. No se aplicarán restricciones de idioma o fecha de publicación. La revisión considerará documentos que contengan informaciones sobre el personal de enfermería en el contexto brasileño y abordará: I. el desafío de la disponibilidad y/o accesibilidad del personal de enfermería; II. las causas del desafío; o III: estrategias para enfrentar el desafío: ya sea (a) en estado de describir las intervenciones implementadas o (b) evaluando la estrategia en su fase de implementación. El resultado se describirá narrativamente, se presentarán estadísticas descriptivas según sea necesario y la información se agrupará, resumirá y comparará. Para el análisis cualitativo de los documentos se utilizará el análisis de contenido temático inductivo y deductivo. Los resultados pueden revelar información sobre brechas y desequilibrios en la fuerza laboral, permitiendo la implementación de estrategias para abordar estos desafíos.

Descriptores: Accesibilidad a los Servicios de Salud; Distribución de Enfermería; Personal de Salud; Formulación de Políticas; Revisión del Alcance.

Resumo

Objetivou-se identificar os desafios, determinantes, políticas e estratégias existentes para garantir a disponibilidade e acessibilidade do pessoal de enfermagem pela população no Brasil. Revisão de escopo de artigos revisados por pares e documentos técnicos e políticos. Serão pesquisadas oito bases de dados científicas (como PubMed, BVS e EMBASE). As fontes de estudos não publicados/literatura cinzenta a serem pesquisadas incluem sites do Ministério da Saúde, conselhos e instituições. Nenhuma restrição de idioma ou data de publicação será aplicada. A revisão considerará documentos que contenham informações sobre o pessoal de enfermagem no contexto brasileiro e abordarão: I. o desafio da disponibilidade e/ou acessibilidade do pessoal de enfermagem; II. as causas do desafio; ou III: estratégias para lidar com o desafio: seja (a) em estado de descrição das intervenções implementadas ou (b) avaliação da estratégia em sua fase de implementação. O resultado será descrito de forma narrativa, estatísticas descritivas serão apresentadas conforme necessário e as informações serão agrupadas, resumidas e comparadas. Para a análise qualitativa dos documentos, será utilizada análise de conteúdo temática indutiva e dedutiva. Os resultados podem revelar informações sobre lacunas e desequilíbrios na força de trabalho, permitindo a implementação de estratégias para enfrentar estes desafios.

Descritores: Acessibilidade aos Serviços de Saúde; Dimensionamento de Enfermagem; Força de Trabalho em Saúde; Elaboração de Políticas; Revisão do Escopo.

Introduction

Human Resources for Health directly affects the performance of health systems and services. Nevertheless, shortages, geographical and skill-mix imbalances, uneven distribution across levels of health care, barriers to interprofessional collaboration, inefficient use of resources, inadequate working conditions and limited availability of health workforce data[1] are common and persistent challenges to countries in providing an available, accessible, acceptable, and quality workforce.

Having a global density of 3.7 professionals per thousand inhabitants and approximately 8.4 in the Americas region, nursing plays an important role in the health system beyond its numerical representation. Comprising approximately 70% of the health workforce, nursing personnel licensed to practice - composed of professional nurses and associate professional nurses (mid-level nurses including nursing technicians and nursing auxiliaries), representing a density of 10.1 in Brazil, in 2019[2].

In the context of the International Year of Nursing and Midwifery (2020), two reports were organized with contributions from representatives of the World Health Organization (WHO) member states and their regions: the "State of World's Nursing: investing in education, employment and leadership"[3] and the "State of World's Midwifery 2021"[4]. Brazil contributed to these reports by establishing a Working Group ("State of Nursing in Brazil Working Group") to collect and discuss the data collaboratively. The analysis of the Brazilian data showed that these professionals are the largest occupational group in the health sector, with a workforce composed mostly of middle-level professionals, women, and young professionals. A geographical maldistribution was observed and the distribution among its categories is not uniform among the states. Also, a lack of competence assessment for professional practice, violence prevention measures and nursing leader programs and the incipient participation in the policymaking process were observed among others' problems[2,5–7].

Nursing also faces an insecure working environment and working conditions, such as short-term contracts and wage insecurity, as salary is linked to various working arrangements, such as per shift and hour work, resulting in a lack of institutional ties and generating precariousness and multi-employment[8]. Despite those challenges, nurses must respond to the population's increasingly complex and demanding needs, providing essential healthcare to individuals and the community[9]; it can be highlighted that nursing personnel experienced a high workload during the pandemic, triggering several factors that harm their health[10].

Even though nursing is widely recognized as a public activity with unquestionable social, scientific, and technological value, the distribution of these professionals does not correspond to the characteristics of the Brazilian population and society, making safe and effective nursing care impossible for users of various health services and in different regions of the country. The distribution of nursing workforce may also reflect how the country's income, industrialization, and already-existing urbanization are spread out, all of which create cycles of benefits and disadvantages across the country regions[11].

Regardless of recent advances in the distribution and density of professionals, disparities still exist in the country, and the information related to the workforce remains restricted, with a lack of consistency among the many databases. In this aspect, there is a deficiency of data and information for decision-making. In this context, policymakers and managers are challenged to ensure the availability and accessibility of healthcare for the entire population, considering the increasing demand for health workers, shortages, and maldistribution. Information is more important than ever to inform decision-making processes and political dialogue, in projecting and sustaining the agendas of the nursing workforce, allowing the expansion of access and coverage of services, as well as strengthening the SUS towards Universal Health.

A preliminary search of MEDLINE, the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis was conducted and no current or underway systematic review or scoping review describing challenges, determinants and the policy and strategies to ensure the availability and accessibility of nursing workforce were identified in the Brazilian context. Adequate planning of the nursing workforce, development of political interventions that enable the realignment of the nurses' training to the objectives of the health system, and optimization of investment to reduce the global shortage of these professionals are indispensable in Brazil. Therefore, this review can provide valuable insights into the current state of the nursing personnel, assisting in understanding the challenges and their determinants through the analytical lenses of the conceptual framework of the Health Labour Market to help tailor policies specific to the Brazilian setting.

In this scenario, this scoping review aims to identify the existing challenges, determinants, policies, and strategies to ensure the availability and accessibility of nursing personnel by the population in Brazil, thus contributing to the design of policies and programs by managers and political decision-makers.

Methodology

The present scope review will follow the methodological recommendations[12] using the following steps: (1) identification of the research question; (2) identification of relevant studies; (3) selection of studies, (4) data mapping; (5) group, summarize and report the results. It will be conducted by the JBI methodology for scoping reviews[13]. The review was registered on November 7, 2022, at the Open Science Framework (https://doi.org/10.17605/OSF.IO/ZFDHR), and it will be reported in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR)[14].

Review question (s)

With the review, we intend to address the following question "What are the challenges, determinants, policies,

and strategies implemented to ensure the Availability and Accessibility of Nursing in Brazil?", with the following operational questions:

1. What are the existing challenges to ensure the availability of nursing personnel in Brazil?
2. What are the existing challenges to ensure accessibility for nursing personnel in Brazil?
3. What are the determinants/causes of these challenges?
4. What policies and strategies have been implemented to address these challenges in the country?

The PICo (Participant, Phenomenon of Interest, Context) search tool will be used to answer research questions 1, 2, and 3; and the PICOC tool (Population, Intervention, Comparison, Results, Context) to answer the 4th question[15].

The structure of 1st and 3rd questions will be as follows: P - Nursing personnel; I - Challenges faced to ensure the availability and accessibility of nursing personnel and the determinants/causes of these challenges; and Co – Brazil.

The structure of 4th question will be considered as follows: P - Nursing personnel; I - Policies and strategies implemented to address existing challenges to ensure the availability and accessibility of nursing personnel; C - No intervention or other intervention; O - Improved availability and accessibility of nursing personnel, and C – Brazil.

Chart 1. Search strategy. Ribeirão Preto, SP, Brazil, 2022

Database	Search strategy	Results
Pubmed	(((Nurses[MeSH Terms] OR "Licensed Practical Nurses"[MeSH Terms] OR "Nursing Staff"[MeSH Terms] OR "Health Workforce"[MeSH Terms]) OR (Nurses OR "Nursing Personnel" OR "Nursing Staff" OR "professional nurses" OR "nursing associate" OR "Nursing Professionals" OR "nursing assistants" OR "auxiliary nurses" OR "nursing auxiliaries" OR "licensed practical nurses" OR " nursing team " OR enfermeir* OR "profisional de enfermagem" OR "equipe de enfermagem" OR "auxiliar de enfermagem" OR "técnico de enfermagem" OR "personal de enfermería" OR "equipo de enfermería" OR "human resources for health" OR "health professionals" OR "health workforce" OR "nursing workforce" OR "Health labour market" OR "recursos humanos em saúde" OR "profissionais de saúde" OR "recursos humanos en salud" OR "recursos humanos para la salud" OR "profesionales de la salud" OR "personal sanitario")) AND (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR Stocks OR flows OR supply OR provision OR carência OR insuficiência OR deficiência OR ausência OR falha OR escassez OR falta OR desequilíbrio OR recrutamento OR retenção OR distribuição OR estoques OR fluxos OR provimento OR carencia OR insuficiencia OR deficiencia OR falta OR ausencia OR falla OR escasez OR falta OR desequilibrio OR reclutamiento OR retención OR distribución OR estoques OR flujos OR provisión)) AND (Brazil OR Brasil)	1.862
BVS via BIREME	((mh:(nurses OR "Licensed Practical Nurses" OR "Nursing Staff" OR "Health Workforce")) OR (nurses OR nurse OR "Nursing Personnel" OR "Nursing Staff" OR "professional nurses" OR "nursing associate" OR "Nursing Professionals" OR "nursing assistants" OR "auxiliary nurses" OR "nursing auxiliaries" OR "licensed practical nurses" OR "Nursing team" OR enfermeir* OR "profisional de enfermagem" OR "equipe de enfermagem" OR "auxiliar de enfermagem" OR "técnico de enfermagem" OR "personal de enfermería" OR "enfermeras profesionales" OR "equipo de enfermería" OR "asistentes de enfermería" OR "auxiliares de enfermería" OR "enfermeras auxiliares" OR "enfermeras" OR "técnicos de enfermería" OR "human resources for health" OR "health professionals" OR "health workforce" OR "nursing workforce" OR "Health labour market" OR "Health labor market" OR "profissionais de saúde" OR "força de trabalho em saúde" OR "mercado de trabalho em saúde" OR "recursos humanos em saúde" OR "recursos humanos en salud" OR "recursos humanos para la salud" OR "profesionales de la salud" OR "fuerza laboral de salud" OR "fuerza de trabajo de enfermería" OR "fuerza laboral de enfermería" OR "personal sanitario")) AND (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR stocks OR flows OR supply OR provision OR carência OR insuficiência OR deficiência OR desprovimento OR ausência OR falha OR escassez OR falta OR desequilíbrio OR recrutamento OR retenção OR distribuição OR estoques OR fluxos OR provimento OR carencia OR insuficiencia OR deficiencia OR falta OR ausencia OR falla OR escasez OR falta OR desequilibrio OR reclutamiento OR retención OR distribución OR estoques OR flujos OR provisión) AND (brazil OR brasil)	1.182
Scopus	(nurses OR "Licensed Practical Nurses" OR "Nursing Staff" OR "Nursing Personnel" OR "professional nurses" OR "nursing associate" OR "Nursing Professionals" OR "nursing assistants" OR "auxiliary nurses" OR "nursing auxiliaries" OR "licensed practical nurses" OR "nursing team" OR "human resources for health" OR "health professionals" OR "health workforce" OR "nursing workforce" OR "Health labour market") AND (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR stocks OR flows OR supply OR provision) AND (brazil)	1.140
CINAHL	(Nurses OR "Licensed Practical Nurses" OR "Nursing Staff" OR "Nursing Personnel" OR "professional nurse" OR "nursing associate" OR "Nursing Professionals" OR "nursing assistants" OR "auxiliary nurses" OR "nursing auxiliaries" OR "licensed practical nurses" OR "nursing team" OR "human resources for health" OR "health professionals" OR "health workforce" OR "nursing workforce" OR "Health labour market") AND (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR Stocks OR flows OR supply OR provision) AND (Brazil)	1.689
Web of Science	Todos os campos: (Nurses OR "Licensed Practical Nurses" OR "Nursing Staff" OR "Nursing Personnel" OR "professional nurses" OR "nursing associate" OR "Nursing Professionals" OR "nursing assistants" OR "auxiliary nurses" OR "nursing auxiliaries" OR "licensed practical nurses" OR "nursing team" OR "human resources for health" OR "health professionals" OR "health workforce" OR "nursing workforce" OR "Health labour market" OR "Health labor market") AND Todos os	1.983

	campos: (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR Stocks OR flows OR supply OR provision) AND Todos os campos: (Brazil)	
Embase	(nurses OR 'nursing staff' OR 'nursing personnel' OR 'professional nurse' OR 'nursing associate' OR 'nursing professionals' OR 'nursing assistants' OR 'auxiliary nurses' OR 'nursing auxiliaries' OR 'licensed practical nurses' OR 'nursing team' OR 'human resources for health' OR 'health professionals' OR 'health workforce' OR 'nursing workforce' OR 'health labour market' OR 'health labor market') AND (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR stocks OR flows OR supply OR provision) AND (brazil)	1.683
Human Resources (HR) Abstracts	(nurses OR 'nursing staff' OR 'nursing personnel' OR 'professional nurses' OR 'nursing associate' OR 'nursing professionals' OR 'nursing assistants' OR 'auxiliary nurses' OR 'nursing auxiliaries' OR 'licensed practical nurses' OR 'nursing team' OR 'human resources for health' OR 'health professionals' OR 'health workforce' OR 'nursing workforce' OR 'health labor market') AND (scarcity OR shortage OR lack OR imbalance OR recruitment OR retention OR distribution OR stocks OR flows OR supply OR provision) AND (brazil)	15

Eligibility criteria

This review will consider documents involving participants who are considered nursing personnel. As presented in the State of the World's Nursing 2020[3], the terminology refers to two occupational groups defined by the 2008 International Standard Classification of Occupations (ISCO-08): professional nurse (ISCO code 2221), and nursing associate professional (ISCO code 3221), equivalent to the Brazilian Occupation Classification (CBO): nurses and similar (CBO Code 2235, referring to higher level professionals) and Nursing technicians and nursing auxiliaries (CBO code 3222, mid-level professionals). Moreover, Brazil's nursing workforce is primarily comprised of mid-level professionals.

Therefore, studies that address both higher and mid-level professionals will be included. The document may bring one of the professionals considered here at any level of care provision, whether primary, secondary, or tertiary care and regardless of the type of employment relationship.

Regarding the phenomena of interest, two conceptual frameworks will be considered to guide the focus of the research and its analysis: an adaptation of the conceptual framework of the health labour market[16,17] and the AAAQ conceptual framework[18]. The health labour market conceptual framework can be used to contribute to understanding the dynamics of the health labour market, identify its challenges and guide the development of relevant policy options toward a desirable stock in size, composition, distribution, quality, and effectiveness to meet the needs of health care and services[16]. The AAAQ conceptual framework[18] will be used, which presents the dimensions of availability (e.g., stock and production), accessibility (e.g., spatial, temporal, and financial), quality (e.g., skills and regulation), and acceptability (e.g., gender and socio-culture) applied to the health workforce. The focus of this research is the availability dimensions more precisely in terms of stock (number and composition) and production, and accessibility in terms of their distribution – e.g., geographic, across sectors, across levels of care, and services.

Availability refers to the sufficient supply and stock of appropriate health workers with the relevant skills, production, and a mix of skills that match the health needs of the population[18] and services. Several challenges are posed to maintain the availability of professionals. Among them, there is the ability of a country to educate, train and encourage young people with the appropriate base knowledge to enter training programs in the health area and, subsequently, enter and remain in the health labour market - working conditions, regulation, and migration[18]. In addition, accessibility refers to the equitable distribution of professionals in terms of spatial, temporal, financial, and organizational dimensions and impacts on equitable access to health professionals, including in terms of travel and transport time, opening hours and workforce frequency, referral mechanisms (seeking continuity of care between levels of care) and direct and indirect cost of services[18,19].

This review will consider documents that explore one of three moments: I. the challenge of availability (such scarcity of professionals) and/or accessibility (such as uneven distribution between primary and tertiary levels of care) of nursing personnel; II. the causes of the challenge, for example, the causes of shortage being due to the high number of graduate positions available, unemployment, and emigration; among other aspects; or III: strategies to deal with the problem: either (a) in a state of description of implemented interventions or (b) evaluation of the strategy in its implementation in Brazil.

Due to the objective of this review, our focus is on documents undertaken in the Brazilian context. It will also be included in this review documents other countries, but it should enable identifying information related to the Brazilian context itself.

Data selection and extraction

This scoping review will consider experimental and quasi-experimental study designs, including randomized controlled trials, non-randomized controlled trials, descriptive observational studies, and analytical observational study designs. This review will also consider qualitative studies and grey literature (technical and political documents).

Documents that present data without their processing/analysis and without introducing conclusions, news, editorials, conference abstracts, reviews (e.g., systematic, integrative, bibliographic), and documents that address the determinants/causes of accessibility and availability of professionals without establishing a direct link

with the problem or the determinant or studies that only describe potential interventions will not be considered for inclusion in this scoping review.

The search strategy, including all identified keywords and index terms, will be adapted for each included database and/or information source. The reference list of all included sources of evidence will be screened for additional studies. Studies published in any language will be included, and no publication date limitation will be established.

The databases to be searched include electronic databases (PubMed, BVS, CINAHL, WEB OF SCIENCE, SCOPUS, EMBASE, Human Resources Abstracts - EBSCO and HRH Regional Repository). Sources of unpublished studies/ grey literature to be searched include (search on websites of the Ministry of Health and Federal Council of Nursing, Pan American Health Organization, Observatory of Human Resources (Observatório RH Brasil) Workstations and consults the reference lists of key documents on the theme.

Following the search, all identified citations will be collated and uploaded to EndNote Web and duplicates will be removed. Following, we will upload the reference file to Rayyan[20] where the selection of documents will begin; titles and abstracts will then be screened by two independent reviewers for assessment against the inclusion criteria for the review. If the abstract is unavailable, the criteria must be applied in the executive summary or the document's introduction. The full text of selected citations will be assessed in detail against the inclusion criteria by two independent reviewers. Reasons for exclusion of sources of evidence in full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at each stage of the selection process will be resolved through discussion, and all conflicts will be checked by the third reviewer.

The results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) flow diagram[21], including number of retrieved documents, number of duplicates, number of documents screened for abstract or equivalent, number of excluded records and reason for exclusion in the evaluation summary, number of documents included for full-text analysis, number of documents excluded during full-text analysis, and number of documents for data extraction.

Data will be extracted from papers included in the scoping review by two independent reviewers (randomly divided among four) using a data extraction tool developed by the reviewers using Maxqda. The draft data extraction tool will be reviewed and modified as necessary during an initial data extraction period by two senior reviewers, and the modifications will be detailed in the scoping review. A draft extraction form is provided (Chart 2). A thematic analysis of the data will be carried out, extracting information from the documents selected according to predetermined categories and subcategories, including some subcategories after reading the documents. The documents for data extraction will be randomly divided between two reviewers for data collection. Reviewers are expected to collaborate whenever doubts or questions arise. A third researcher may be consulted to resolve disagreements.

Chart 2. Data extraction instrument. Ribeirão Preto, SP, Brazil, 2022

Data from study						Challenges regarding the availability and accessibility of nursing personnel		Causes and determinants of the problem		Strategies and programs	
Author	Year	Aim of study	Methods	Professional of the study	Country	Relevant outcomes	Key findings/ Results	Relevant outcomes	Key findings/ Results	Relevant outcomes	Key findings/ Results

Data analysis and presentation

The result will be described narratively, descriptive statistics will be presented as necessary and the information will be grouped, summarized and compared regarding challenges and established causes (availability versus accessibility and determining causes in the labour market components - education, workforce and population needs), political interventions raised according to the challenges to be faced and the political area of intervention (consistency and continuity); description of the political interventions raised (temporality, objectives, scope of their implementation - location and group of professionals - and evaluations).

For the qualitative analysis of the documents, both inductive and deductive thematic content analysis, the Maxqda software will be used. From the research questions and the conceptual framework, a thematic analysis of the data will be carried out, extracting information from the documents according to pre-determined categories (questions) and subcategories (relation to the conceptual framework), including some subcategories from the reading of the documents, as shown on the Chart 2.

Expected Results

The expected results of this review will allow a deeper understanding of the workforce's current capacity to meet healthcare demands. In addition, the results can reveal information about gaps and imbalances in the workforce, enabling the implementation of strategies to address these challenges.

Final Considerations

This review can shed light on a comprehensive and accurate assessment of the existing workforce. Collecting relevant data regarding the nursing workforce makes it possible to obtain a complete picture of the situation of

those professionals in Brazil. This information is crucial for identifying gaps and challenges faced by the profession and helps to guide the formulation of policies that address these issues in a targeted way.

Acknowledgments

References

1. World Health Organization (WHO). Global strategy on human resources for health: Workforce 2030 [Internet]. Geneva, Switzerland: World Health Organization; 2016 [cited on 21 Sep 2023]. Available from: https://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf
2. Oliveira APC, Ventura CAA, Silva FV, et al. State of nursing in Brazil. Rev Lat Am Enfermagem; 28. Epub ahead of print 2020. DOI: 10.1590/1518-8345.0000.3404
3. World Health Organization (WHO). State of the World's Nursing 2020: investing in education, jobs and leadership [Internet]. Geneva, Switzerland: World Health Organization; 2020 [cited on 21 Sep 2023]. Available from: https://www.who.int/publications/i/item/9789240003279
4. United Nations Population Fund, International Confederation of Midwives, World Health Organization. The state of the world´s midwifery [Internet]. New York: United Nations Population Fund; 2021 [cited on 21 Sep 2023]; 80. Available from: https://www.unfpa.org/publications/sowmy-2021
5. Oliveira APC, Ventura CAA, Galante ML, et al. The Current State of Obstetric Nursing in Brazil. Rev Lat-Am Enferm; 29. Epub ahead of print 2021. DOI: 10.1590/1518-8345.0000.3510
6. Mendes M, Martins MS, Acordi I, et al. Força de trabalho de enfermagem: cenário e tendências. Rev Enferm da UFSM 2022;12:e11. DOI: 10.5902/2179769267928
7. Silva PFA, Shimizu HE, Sanchez MN, et al. Analysis of the distribution of the health workforce in Brazil. Res Soc Dev 2022;11:e37511830992. DOI: 10.1590/1413-81232020251.27572019
8. Machado MH, Koster I, Aguiar Filho W, et al. Mercado de trabalho e processos regulatórios – a Enfermagem no Brasil. Cien Saude Colet. 2020;25:101–112. DOI: 10.1590/1413-81232020251.27552019
9. Silva MCN, Machado MH. Challenges for the nursing in Brazil. Cien Saude Colet 2020;25: 7–13. DOI: 10.1590/1413-81232020251.27572019
10. Dumarde LT, Moreira FMSM, Bonela LZ, Dumarde CLS. A pandemia de COVID-19 e a saúde mental da categoria de enfermagem. Glob Acad Nurs. 2022;3(5):e334. https://dx.doi.org/10.5935/2675-5602.20200334
11. Oliveira BLCA, Silva AM, Carneiro AD. A distribuição de enfermeiros no Brasil segundo as pesquisas de assistência médico-sanitária (2002, 2005, 2009). Rev Gestão e Saúde [Internet]. 2015 [cited on 21 Sep 2023];6: 1334–1353. Available from: https://periodicos.unb.br/index.php/rgs/article/view/2919
12. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol. 2005;8:19–32. DOI: 10.1080/1364557032000119616
13. Aromataris E, Munn Z. JBI Manual for Evidence Synthesis. JBI. Epub ahead of print 2020. DOI: 10.46658/JBIMES-20-01
14. Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. Ann Intern Med 2018;169:467–473. DOI: 10.7326/M18-0850
15. Booth A, Noyes J, Flemming K, et al. Formulating questions to explore complex interventions within qualitative evidence synthesis. BMJ Glob Heal. 2019;4:e001107. DOI: 10.1136/bmjgh-2018-001107
16. Oliveira APC, Dussault G, Craveiro I. Challenges and strategies to improve the availability and geographic accessibility of physicians in Portugal. Hum Resour Health. 2017;15:24. DOI: 10.1186/s12960-017-0194-3
17. World Health Organization (WHO). Health labour market analysis guidebook [Internet]. Geneva: World Health Organization; 2021 [cited on 21 Sep 2023]. Available from: https://www.who.int/publications/i/item/9789240035546
18. Campbell J, Dussault G, Buchan J, et al. A universal truth: No health without a workforce. Forum Report, Third Global Forum on Human Resources for Health [Internet]. l. Geneva, Global Health Workforce Alliance and World Health Organization; 2013 [cited on 21 Sep 2023]. Available from: https://www.who.int/publications/m/item/hrh_universal_truth
19. Dubey S, Vasa J, Zadey S. Do health policies address the availability, accessibility, acceptability, and quality of human resources for health? Analysis over three decades of National Health Policy of India. Hum Resour Heal. 2021;19:139. DOI: 10.1186/s12960-021-00681-1
20. Ouzzani M, Hammady H, Fedorowicz Z, et al. Rayyan—a web and mobile app for systematic reviews. Syst Rev. 2016;5:210. DOI: 10.1186/s13643-016-0384-4
21. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021;71. DOI: 10.1136/bmj.n71