

HEALTH VULNERABILITY ASSESSMENT TOOLS: A SCOPING REVIEW PROTOCOL

HERRAMIENTAS DE EVALUACIÓN DE LA VULNERABILIDAD SANITARIA: PROTOCOLO DE REVISIÓN DEL ALCANCE

INSTRUMENTOS DE AVALIAÇÃO DA VULNERABILIDADE EM SAÚDE: PROTOCOLO DE REVISÃO DE ESCOPO

Francisco Douglas Canafístula de Souza¹

Raquel Sampaio Florêncio²

Keila Maria de Azevedo Ponte Marques³

Antonia Tainá Bezerra Castro⁴

¹Universidade Estadual do Ceará, Fortaleza, Brazil. ORCID:

<https://orcid.org/0000-0002-8845-1062>.

²Universidade Estadual do Ceará, Fortaleza, Brazil. ORCID:

<https://orcid.org/0000-0003-3119-7187>.

³Universidade Estadual Vale do Acaraú, Sobral, Brazil. ORCID:

<https://orcid.org/0000-0001-5215-7745>.

⁴Universidade Estadual do Ceará, Fortaleza, Brazil. ORCID:

<https://orcid.org/0000-0001-9126-8990>.

Corresponding Author

Francisco Douglas Canafístula de Souza

Rua Padre Nóbrega, n:125, Serrinha, Fortaleza, Brazil. CEP: 60741-410; phone: +55(88) 99267-9004; E-mail: douglas21091997@gmail.

Submission: 21-07-2025

Approval: 19-11-2025

ABSTRACT

Objective: To map studies concerning instruments for assessing health vulnerability within the context of primary health care. **Methodology:** The review will be conducted following the Joanna Briggs Institute (JBI) methodology and registered on the Open Science Framework (OSF) platform. The consulted databases will include: The Cochrane Central Register of Controlled Trials (Cochrane Library); Literature of Latin America and the Caribbean (LILACS); Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed; Medical Literature Analysis and Retrieval System Online (MEDLINE) via the Virtual Health Library (VHL/BVS); Nursing Virtual Health Library (BDENF); Scopus; Embase; Cumulative Index to Nursing and Allied Health Literature (CINAHL); and Web of Science. For grey literature search, the following portals will be utilized: the Coordination for the Improvement of Higher Education Personnel (CAPES) Thesis and Dissertation Catalog (CTD), Open Grey, Open Access Theses and Dissertations (OATD), the Brazilian Digital Library of Theses and Dissertations (BDTD), and Google Scholar. The obtained results will initially be exported to EndNote and subsequently screened using the Intelligent Systematic Review (Rayyan) platform. The organization of the findings will be demonstrated using a PRISMA flow diagram. **Results:** The study is expected to identify records concerning health vulnerability assessment instruments and perform an analysis regarding the utilization of these tools by primary health care services. **Conclusion:** Thus, the present research will enable a greater understanding of the utilization and importance of such instruments.

Keywords: Assessment Tools; Health Vulnerability; Primary Health Care.

RESUMO

Objetivo: mapear estudos sobre instrumentos de avaliação da vulnerabilidade em saúde no contexto da atenção primária. **Metodologia:** Conduzido conforme a metodologia do Joanna Briggs Institute, registrado na plataforma Open Science Framework. As bases consultadas serão: The Cochrane Central Register of Controlled Trials (Cochrane Library); Literature of Latin America and the Caribbean (LILACS); Medical Literature Analysis and Retrieval System Online (MEDLINE) via Pubmed; Medical Literature Analysis and Retrieval System Online (MEDLINE), via Biblioteca Virtual em Saúde (BVS); Biblioteca Virtual em Saúde Enfermagem (BDENF); Scopus; Embase; Cumulative Index to Nursing and Allied Health Literature (CINAHL) e Web of Science. Para a busca de literatura cinzenta, serão utilizado no portal da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), o Catálogo de Teses e Dissertações (CTD), Open Grey e Teses e Dissertações de Acesso Aberto (OATD), a Biblioteca Digital Brasileira de Teses e Dissertações (BDTD) e google acadêmico. A partir dos resultados obtidos, será realizado a exportação dos dados inicialmente para EndNote e em seguida, utilizará o Intelligent Systematic Review (Rayyan). A organização dos achados será demonstrada no fluxograma PRISMA. **Resultados:** Espera-se com a realização do estudo, ao encontrar arquivos acerca de instrumentos de avaliação de vulnerabilidade em saúde, fazer uma análise em relação a utilização das ferramentas pela atenção primária. **Conclusão:** Desse modo, a presente pesquisa possibilitará maior entendimento sobre a utilização de tais ferramentas e a sua importância.

Palavras chaves: Instrumentos de Avaliação; Vulnerabilidade em Saúde; Atenção Primária à Saúde.

RESUMEN

Objetivo: Mapear estudios sobre instrumentos de evaluación de la vulnerabilidad en salud en el contexto de la atención primaria. **Metodología:** Realizado según la metodología del Instituto Joanna Briggs, registrada en la plataforma Open Science Framework. Las bases de datos consultadas serán: Registro Cochrane Central de Ensayos Controlados (Biblioteca Cochrane); Literatura de América Latina y el Caribe (LILACS); Sistema de Análisis y Recuperación de Literatura Médica en Línea (MEDLINE) vía Pubmed; Sistema de Análisis y Recuperación de Literatura Médica en Línea (MEDLINE), vía Biblioteca Virtual en Salud (BVS); Biblioteca Virtual en Salud Enfermagem (BDENF); Scopus; Embase; Índice Acumulativo de Literatura de Enfermería y Afines (CINAHL) y Web of Science. Para la búsqueda de literatura gris, el portal de la Coordinación para el Perfeccionamiento del Personal de Nivel Superior (CAPES) utilizará el Catálogo de Tesis y Disertaciones (CTD), las Tesis y Disertaciones Grises y de Acceso Abierto (OATD), la Biblioteca Digital Brasileña de Tesis y Disertaciones (BDTD) y Google Académico. Con base en los resultados obtenidos, los datos se exportarán inicialmente a EndNote y posteriormente se utilizará la Revisión Sistemática Inteligente (Rayyan). La organización de los hallazgos se describirá en el diagrama de flujo PRISMA. **Resultados:** Se espera que el estudio analice el uso de estas herramientas en atención primaria mediante la búsqueda de archivos sobre herramientas de evaluación de la vulnerabilidad en salud. **Conclusión:** De esta manera, esta investigación permitirá una mayor comprensión del uso de dichas herramientas y su importancia en la atención primaria.

Palabras clave: Herramientas de Evaluación; Vulnerabilidad en Salud; Atención Primaria de Salud.

INTRODUCTION

Primary Health Care (PHC) serves as the preferred point of entry to the Brazilian Health Care Network (HCN/RAS) and functions as the foundational organizer of the health system. Its objective is to expand basic protection coverage and move away from the traditional medical-centered model. Currently, for many Brazilians, PHC represents their sole point of contact with the health system. Nationally, its consolidation primarily occurred between 1998 and 2018⁽¹⁾.

Furthermore, PHC is distinguished by its ordering capacity, meaning it is responsible for the care, flow, and counterflow of individuals within the HCN. In Brazil, PHC operates through the Family Health Strategy (FHS/ESF), a technical-assistance model that operationalizes PHC and facilitates its consolidation and territorial expansion. The guiding principles of the FHS are central to this: person- and family-centered care, establishing a bond with the user and the population, comprehensiveness (integrality), coordination of care, articulation with the assistance network, social participation, and intersectoral action. Thus, PHC becomes responsible for responding to the majority of the needs of the population within its registered catchment areas⁽²⁾.

The identification of health needs transcends various spheres, including the social, existential, symptomatic, and therapeutic. Consequently, health care provision encompasses the management of various

diseases, such as diabetes, hypertension, mental health conditions, cancer, oral health issues, and infectious diseases, and addresses diverse population groups⁽³⁾.

Health needs are typically categorized as visible, relating to demands centered on the body and the processes of illness, and invisible to the professional's eyes, pertaining to processes distanced from purely biological aspects. However, it is important to note that the services offered in PHC often focus on the disease and the medicalization of user-presented problems, positioning them as the core health needs to be addressed while neglecting other dimensions⁽⁴⁾.

In this regard, the persistent failure to resolve health needs, which are intrinsically articulated between the social and individual spheres⁽⁵⁾, leads to a state of Health Vulnerability (HV)⁽⁶⁾. A clarification of HV⁽⁷⁾ defines it as a concept constructed through the interaction between the subject and the social context, characterized by a power relationship that shifts towards a condition of precariousness when adequate health responses are not experienced by the individual or collective. This is a complex concept, featuring diverse, interconnected, and multiple elements that are non-hierarchical and non-dissociated, where the social-subject and subject-social maintain an almost imperceptible transitional communication⁽⁷⁾.

In its conceptual characterization⁽⁷⁾, two major organizing axes, individual and social, were interpreted in its structure. These two essential elements are defined, where the first refers to the subject who experiences the

phenomenon and the second refers to the scenario where it occurs. From this interaction, a series of susceptibilities of different degrees and natures of individuals and collectivities arise, which can hinder empowerment and increase precariousness in the processes of HV, leading them to suffering, illness/aggravation and finitude⁽⁷⁾.

Therefore, discussing HV holds significant potential in the realm of health promotion. By comprehending its dimensions in the routine of human life, better strategies can be organized to bring about change in the precarious reality of human life⁽⁸⁾.

In this context, it is crucial to emphasize the commitment of PHC, through its management and care teams, to identify and monitor situations involving the patient's life in all contexts. This aims for more complete care, moving beyond the biomedical perspective, and focusing on health needs arising from contexts of HV. This process may be viewed as a potential avenue for finding solutions to the majority of issues encountered in PHC⁽⁴⁾.

Based on this conception, it is evident that assessing the HV aspects encompassing patients within the PHC context is an excellent strategy to corroborate the objective of collective health, which is disease prevention and health promotion. However, due to the inherent subjective aspect of HV, it is often difficult for professionals to operationalize practical aspects in the work environment⁽⁹⁾. In an attempt to operationalize care and management in PHC, several instruments are used, including: family

registries, individual and collective follow-up forms, among others, in addition to indicators used for evaluation and to support the financing of PHC⁽¹⁰⁻¹²⁾.

In the international context, the adoption of the Primary Care Assessment Tool (PCATool) can be cited as the main instrument for evaluating PHC within the Brazilian Unified Health System (SUS). This tool consists of validated questionnaires in a reduced version, noted for its use of psychometric properties and its widespread utilization^(13,14).

Currently, the PHC service process is being refined through the contribution of researchers using new tools that assist in the evaluation process and the establishment of treatments, such as educational booklets, manuals and consultation protocols, media, and applications. Furthermore, a primary search for instruments regarding HV identified five studies that reviewed their use and described their construction. These documents addressed HV in relation to the elderly; analysis of synthetic vulnerability indices from the perspective of social determinants of health; socio-environmental and climatic conditions; family and the life course; and a specific territory and geographic spaces⁽¹⁵⁻¹⁹⁾.

Consequently, conducting this study is important as it will provide insight into the use of assessment instruments in PHC regarding health vulnerability, fostering an understanding of how they are utilized and which aspects they address. Moreover, in the previously evaluated studies, it was observed that the assessment

items are more related to the terms of risk and do not conduct a joint approach to the subject and social dimensions. Thus, this represents a gap to be explored for the establishment of a construct with greater completeness.

The objective of this scope review is to map studies on instruments for assessing health vulnerability in the context of primary care. Thus, it seeks to answer the following guiding question: What is known about health vulnerability assessment instruments that can be utilized in the context of primary care?

METHODOLOGY

The present study adheres to the recommendations set forth by the JBI Scoping Review Methodology Group for the drafting of a scoping review protocol⁽²⁰⁾. The purpose of this methodology is to identify sources that provide evidence for specific fields of information, and to identify and analyze existing gaps in knowledge. It is noteworthy that this study is registered on the Open Science Framework

(OSF) platform, with the DOI: 10.17605/OSF.IO/2VK8Z.

It will follow the following steps⁽²¹⁾, with additional elements⁽²⁰⁾: defining and aligning the objective with the research question; developing and aligning the inclusion criteria with the objective and question; describing the planned approach for evidence search, selection, data extraction, and evidence presentation; searching for evidence; selecting evidence; extracting evidence; analyzing evidence; presenting results; and summarizing the evidence in relation to the review's purpose, drawing conclusions, and highlighting any implications of the findings. It is emphasized that the PRISMA extension for Scoping Reviews will be used for the reporting structure⁽²²⁾. The PCC framework (Population, Concept, Context)⁽²⁰⁾ was employed, as shown in Table 1, with adaptations for the ECUS strategy (Purpose, Extraction, Conversion, Combination, Construction, Use)⁽²³⁾.

Table 1 – PCC Strategy. Fortaleza, CE, Brazil, 2025.

Objective/Problem	What is known about health-vulnerability assessment instruments that can be used in the context of primary care?		
	P	C	C
Extraction	Assessment instruments	Health vulnerability	Primary health care
Conversion (MeSH terms)	Evaluation Tool	Health Vulnerability	Primary Health Care
Combination	evaluation tool; scale; measurement; index; questionnaire; instrument; item bank; indicator; assessment tools; scales; measurements; indexes; questionnaires; instruments; item banks; indicators	Health Vulnerability; Vulnerability; vulnerability and health; Vulnerabilities; vulnerabilities and health	Primary Health Care; Primary care; primary Nursing; primary care; community health; first Level of Attention

Construction	(“evaluation tool” OR “assessment tools” OR “scale” OR “scales “ OR “measurement” OR “measurements” OR “index” OR “indexes” OR “questionnaire” OR “questionnaires” OR “instrument” OR “instruments” OR “item bank” OR “item banks” OR “indicator” OR “indicators”)	(“health vulnerability” OR “vulnerability” OR “Vulnerabilities” OR “vulnerability and health” OR “vulnerabilities and health”)	(“primary health care” OR “primary care” OR “primary nursing” OR “primary care” OR “community health” OR “first Level of attention”)
Use	(“evaluation tool” OR “assessment tools” OR “scale” OR “scales “ OR “measurement” OR “measurements” OR “index” OR “indexes” OR “questionnaire” OR “questionnaires” OR “instrument” OR “instruments” OR “item bank” OR “item banks” OR “indicator” OR “indicators” AND “health vulnerability” OR “vulnerability” OR “Vulnerabilities” OR “vulnerability and health” OR “vulnerabilities and health” AND “primary health care” OR “primary care” OR “primary nursing” OR “primary care” OR “community health” OR “first Level of attention”)		

Source: Prepared by the authors, 2025.

Inclusion criteria

Studies that focus on the creation and/or validation of assessment instruments will be included, regardless of their specific type (e.g., scales, indices, questionnaires, and item banks). Conversely, research focusing on other measurement methods will be excluded.

The primary concept addressed in this study is HV, specifically relating to the interaction process between the subject and social dimensions⁽⁷⁾, with results concerning the use of this terminology and its influence on potential interventions. Eligible studies must report the importance of using this concept for health practice. It is emphasized that studies may address all dimensions of HV or only a subset thereof.

Regarding the Context, documents presenting instruments that are applicable in PHC, whether nationally or internationally, and relevant to both direct care and management aspects, will be considered.

Types of sources

The review will include studies written in any language, with no time limitation, that report issues related to the utilization of health vulnerability assessment instruments that can be employed in PHC. Ongoing trials and editorials will be excluded.

Search strategy

The following sources will be utilized for data retrieval: The Cochrane Central Register

of Controlled Trials (Cochrane Library); Literature of Latin America and the Caribbean (LILACS); Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed; Medical Literature Analysis and Retrieval System Online (MEDLINE) via the Virtual Health Library (VHL/BVS); Nursing Virtual Health Library (BDENF); Scopus; Embase; Cumulative Index to Nursing and Allied Health Literature (CINAHL); and Web of Science.

To maximize the number of references on the theme, searches will be conducted in the grey literature, with results classified by relevance. The portals used will be the Coordination for the Improvement of Higher Education Personnel (CAPES), utilizing the Thesis and Dissertation Catalog (CTD), Open Grey, Open Access Theses and Dissertations (OATD), the Brazilian Digital Library of Theses and Dissertations (BDTD), and Google Scholar. The first 100 records retrieved will be classified by relevance.

Derived from the guiding question, the ECUS strategy was employed, as outlined in Table 1. Furthermore, to ensure the feasibility of the study, the guidelines of the Peer Review of Electronic Search Strategies (PRESS) Checklist will be utilized⁽²⁴⁾.

For the development of the search strategy, controlled vocabularies such as Medical Subject Headings (MeSH), Health Science Descriptors (DeCS), Embase's Emtree, and CINAHL Subject Headings will be used. These will be combined with free-text natural language

terms using the Boolean operators AND and OR to achieve a broader set of equivalent results⁽²⁵⁾.

To establish an appropriate parameter of specificity, related terms, not only those specific to the core keywords derived from the guiding question, were employed. For example, for the expression instrumento de avaliação (assessment instrument), other terms such as "scale," "questionnaire," etc., were used to broaden the search without losing the core meaning of the guiding question. Although the retrieved files may contain the signaling words in their descriptions, the final selection will be made through careful reading for better quality control.

The decision was made not to use the term "Primary Health Care" in the search equations. This aims to maintain the largest literary collection of assessment instruments that could be used in that context, regardless of whether their application is explicitly stated as PHC.

Additionally, variants of the terms in Portuguese will be established for optimal searching on the LILACS platform. For databases like Scopus and Web of Science, the standard search will be used, while others will maintain searches standardized to their subject headings. Grey literature sources will be searched on the same day to minimize potential selection bias. A preliminary search was conducted via the Virtual Health Library (VHL/BVS) on April 17, 2025, using the following search pattern: ((vulnerabilidade)) AND (instrumento OR instrumentos OR questionário OR questionários OR índice OR

índices OR escala OR escalas OR indicador OR indicadores OR "banco de item" OR "banco de itens") AND (revisão). This was done to obtain a preliminary analysis of the theme and initial grounding for the topic addressed.

Evidence selection process

The data retrieved from the established information sources will initially be exported to the free version of EndNote to exclude duplicated records. Subsequently, the Intelligent Systematic Review (Rayyan) platform will be used to screen articles based on their titles and abstracts, ensuring methodological rigor and transparency among reviewers⁽²⁶⁾. The subsequent phase involves reading the full text of the selected studies and conducting a new screening using the inclusion and exclusion criteria.

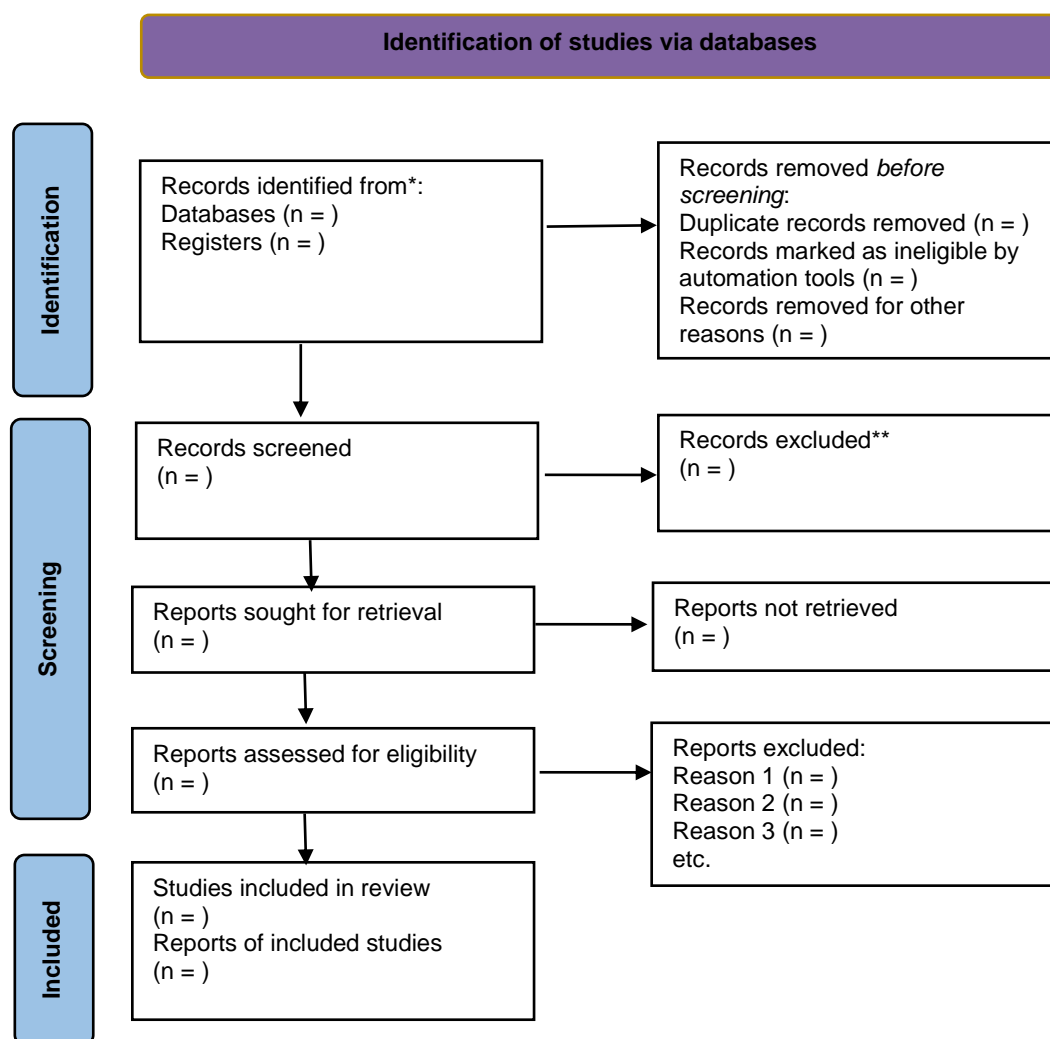
To ensure the selection of qualified studies, two independent researchers will analyze the titles and abstracts to identify potential material, followed by the reading of pre-selected full-text articles. A third researcher

will resolve any conflicts during the selection process.

To measure the level of agreement between the reviewers, Cohen's Kappa coefficient will be used, employing the following classification: 0–0.20 (none), 0.21–0.39 (minimal), 0.40–0.59 (weak), 0.60–0.79 (moderate), 0.80–0.90 (strong), and above 0.90 (almost perfect)⁽²⁷⁾. It is defined that if the agreement is 0.79 or less, meeting times for training and verification among evaluators will be held to increase the reliability level of the process; a preliminary test will be conducted with the evaluators.

Following this process, the second phase will proceed: the full reading of the selected studies by the same independent reviewers to confirm eligibility. Any incompatibilities will necessitate the involvement of a third evaluator for verification. The third phase will involve a manual search of the references of the included studies, and the entire identification, screening, and inclusion process will be demonstrated in the PRISMA flow diagram⁽²⁸⁾, as shown in Figure 1.

Figure 1 - Schematic representation of the methods for identifying, screening, assessing eligibility, and including studies, adapted from the PRISMA Study Selection Process Diagram.



Extracting the evidence

Data extraction will be performed by a pair of independent reviewers and organized in a table using Microsoft Office Excel 2013. The accuracy of the information will be verified by a third reviewer, and any disagreements will be resolved through discussion among all authors.

The mapping of information will be based on an adaptation of the JBI instrument to characterize the scientific production, which will include: (i) author(s); year of publication; (ii) origin/country of origin (where the source was

published or conducted); (iii) objectives; (iv) methodology; and (v) the main findings related to the scope review question(s)⁽²⁰⁾. The initial version of the data extraction tool may be modified and revised if necessary during the process, and any changes will be documented in the scope review report. Furthermore, in cases where relevant data on the theme are incomplete or unclear, the authors will contact the original study authors and references to request and verify the information.

Analysis of the evidence

The articles included as results will be analyzed and organized descriptively, employing a narrative approach. Initially, they will be presented in a characterization table to broadly demonstrate the scope and distribution of the included documents. The discussion will be conducted by categorizing the identified themes, which will be established by the authors following a thorough reading and exploration of the articles.

Ethical considerations

It is declared that this study, while analyzing information from existing primary documents, will not identify any participant and therefore did not require ethical committee approval.

RESULTS

Primary health care is viewed as the entry point to the HCN/RAS and the principal entity responsible for disease prevention and health promotion. This process occurs in varied ways, ranging from clinical consultation to population-level actions⁽¹⁾. In addition, amid the ongoing health innovation revolution, the use of instruments that support best practices has emerged as an important facilitator, providing guidance for care and enabling a qualified assessment of the condition of the patients involved^(11,12).

In this regard, it is important to highlight that the concept of HV addressed in

PHC is often contextualized as one of risk, thereby failing to address other dimensions crucial for providing a more comprehensively prepared form of patient care. Consequently, a preliminary literature search found studies that addressed the use of HV instruments, with some focusing on the family, social contexts, and the elderly, related to the social determinants of health, socio-environmental factors, climatic conditions, and specific territories and geographic spaces⁽¹⁵⁻¹⁹⁾.

A gap was identified concerning the use of health vulnerability assessment instruments in PHC that are oriented toward a broader conceptualization. Specifically, there is a lack of instruments that provide a combined measurement of the subject and social dimensions, rather than focusing solely on illness, the nature of medicalization, or addressing only a single aspect. Therefore, this scope review protocol endeavors to make a significant contribution to the understanding of the use of instruments employed in HV assessment.

CONCLUSION

The completion of the present study will facilitate a detailed evaluation of the utilization of tools designed to assess health vulnerability in Primary Health Care (PHC). By doing so, it will contribute to understanding the application of the concept and how this process occurs, thereby providing a foundation for the creation of strategies aimed at elucidating the importance of this theme in primary care.

REFERENCES

1. Massuda A. Mudanças no financiamento da Atenção Primária à Saúde no Sistema de Saúde Brasileiro: avanço ou retrocesso? *Ciência Saúde Col* [Internet]. 2020 [citado 2025 Nov 12];25(4):1181-88. Disponível em: <https://www.scielo.org/article/csc/2020.v25n4/1181-1188/>
2. Brasil. Portaria nº 2.979, de 12 de novembro de 2019. Institui o Programa Previne Brasil, que estabelece novo modelo de financiamento de custeio da Atenção Primária à Saúde no âmbito do Sistema Único de Saúde, por meio da alteração da Portaria de Consolidação nº 6/GM/MS, de 28 de setembro de 2017. *Diário Oficial da União*; 2019.
3. Freitas GC, Flores JA, Camargo KR. “Necessidades de saúde”: reflexões acerca da (in)definição de um conceito. *Saúde Sociedade*. 2022;31(1):1-9. Doi: <https://doi.org/10.1590/S0104-12902021200983>
4. Farão EMD, Penna CMM. As necessidades em saúde de usuários e sua interação com a atenção primária. *REME - Rev Min Enferm*. 2020; 24(1):1-9. Doi: <https://doi.org/10.5935/1415-2762.20200029>
5. Silva CSSLD, Daher DV, Faria MGDA, Koopmans FF, Maia L, Castro FM, et al. Necessidades de saúde e práticas de cuidados na Atenção Primária em Saúde. *Rev Nursing*. 2019;22(249):2668–75. Doi: <https://doi.org/10.36489/nursing.2019v22i249p2668-2675>
6. Ayres JRCM, França Júnior I, Calazans GJ, Saletti Filho HC. O conceito de vulnerabilidade e as práticas de saúde: novas perspectivas e desafios. *Promoção da saúde - conceitos, desafios, tendências*. 1ª edição. Rio de Janeiro: Fiocruz; 2003.
7. Florêncio RS, Moreira TMM. Modelo de vulnerabilidade em saúde: esclarecimento conceitual na perspectiva do sujeito-social. *Acta Paulista Enfermagem*. 2021;34:1-15. Doi: <https://doi.org/10.37689/acta-ape/2021AO00353>
8. Florêncio RS, Moreira TM, Pessoa VL, Cestari VR, Silva VM, Rabelo SM, et al. Mapeamento de estudos sobre vulnerabilidade em saúde: uma revisão de escopo. *Res Society Devel*. 2020;9(10): 2079108393. Doi: <https://doi.org/10.33448/rsd-v9i10.8393>.
9. Florêncio RS, Cestari VRF, Azevedo SGV, Borges JWP, Santiago JCS, Pessoa VLMP, Moreira TMM. Vulnerabilidade em saúde: evidências de validade de um banco de itens. *Acta Paulista Enfermagem*. 2024;37: 1-8. Doi: <https://doi.org/10.37689/acta-ape/2024AO0000602>.
10. Ministério da Saúde (BR). Secretaria de Atenção em Saúde. Departamento de Atenção Básica. Manual do instrumento de avaliação da atenção primária à saúde: primary care assessment tool PCATool-Brasil [Internet]. Brasília-DF: Ministério da Saúde; 2010. [citado 2025 Nov 12]. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/manual_avaliacao_pcatool_brasil.pdf
11. Uchoa YLA, Pessoa AA, Araújo CSS, Sousa MVT, Portela MJS, Lemos ALL et al. Utilização de tecnologias para educação em saúde na Atenção Básica: revisão integrativa da literatura. *Pesquisa, Sociedade e Desenvolvimento*. 2021;16: e255101623909. Doi: <https://doi.org/10.33448/rsd-v10i16.23909>.
12. Rostirolla LM, Adamy EK, Vendruscolo C. Tecnologias educacionais para a consulta do enfermeiro: revisão integrativa. *Saberes Plurais Educação na Saúde*. 2022;6(1): 81–98. Doi: <https://doi.org/10.54909/sp.v6i1.125286>
13. Ferreira J, Geremia DS, Geremia F, Celuppi IC, Tombini LHT, Souza JB de. Avaliação da estratégia saúde da família à luz da tríade de Donabedian. *Avances Enfermería*. 2021;39(1):63-73. Doi: <https://doi.org/10.15446/av.enferm.v39n1.85939>
14. Ministério da Saúde (BR). PCATool-Brasil – 2020: manual do instrumento de avaliação da atenção primária à saúde [Internet]. Brasília-DF: Ministério da Saúde; 2020. [citado 2025 Nov 12]. Disponível em: http://189.28.128.100/dab/docs/portaldab/documentos/12052020_Pcatool.pdf.

15. Mallmann DG, Hammerschmidt KS de A, Santos SSC. Instrumento de avaliação de quedas para idosos (IAQI): enfermeiro analisando vulnerabilidade e fragilidade. *Revista Brasileira De Geriatria E Gerontologia*. 2012;15(3): p. 517–527. <https://doi.org/10.1590/S1809-98232012000300012>
16. Schumann LRMA, Moura LBA. Índices sintéticos de vulnerabilidade: uma revisão integrativa de literatura. *Ciência Saúde Col*. 2015;20(7):2105-20. Doi: <https://doi.org/10.1590/1413-81232015207.10742014>
17. Italiano NBC, Nascimento Do N, Simão JO, Santo FHE, Ribeiro MNSR. Aplicabilidade dos instrumentos - Índice de Vulnerabilidade Clínico- Funcional-20 (IVCF-20) e o Vulnerable Elders Survey (VES-13). *Rev Med Minas Gerais*. 2023;33:e-33206. Doi: <https://dx.doi.org/10.5935/2238-3182.2023e33206>
18. Oliveira OD, Menezes EKC, Martins MIM, Marrone LCP. Vulnerabilidade e envelhecimento humano, conceitos e contextos: uma revisão. *Estudos Interdisciplinares Sobre o Envelhecimento*. 2022;27(1). <https://seer.ufrgs.br/index.php/RevEnvelhecer/article/view/98223>.
19. Drachler ML, Lobato MAO, Lermen JJ, Fagundes S, Ferla AA, Drachler CW et al. Desenvolvimento e validação de um índice de vulnerabilidade social aplicado a políticas públicas do SUS. *Ciênc saúde coletiva*. 2014;19(9):3849–58. Doi: <https://doi.org/10.1590/1413-81232014199.12012013>
20. Peters MDJ, Godfray C, Mcinerney P, Munn Z, Tricco AC, Khalil H. Capítulo 11: Revisões de escopo. *Manual JBI para Síntese de Evidências*. Sydney: Instituto Joanna Briggs; 2020. <https://jbi-global-wiki.refined.site/space/MANUAL/4687342/Chapter+11%3A+Scoping+reviews>
21. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Inter J Social Res Methodol*. 2005;8(1):19–32. Doi: <https://doi.org/10.1080/1364557032000119616>
22. Tricco AC, Lillie E, Zarin W, O'brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA ScR): Checklist and Explanation. *Ann Intern Med*. 2018;169:467–73. Doi: <https://doi.org/10.7326/M18-0850>
23. Oliveira Araújo WC. Recuperação da informação em saúde: construção, modelos e estratégias. *ConCI: Convergências em Ciência da Informação*. 2020;3(2):100-34. Doi: <https://doi.org/10.33467/conci.v3i2.13447>
24. McGowan J, Sampson M, Salzweid DM, Cogo E, Foerster V, Lefebvre C. PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. *J Clin Epidemiol*. 2016;75:40-46. Doi: <https://doi.org/10.1016/j.jclinepi.2016.01.021>
25. Siddaway AP, Wood AM, Hedges LV. How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annu Rev Psychol*. 2019;70: 747-70. Doi: <https://doi.org/10.1146/annurev-psych-010418-102803>
26. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan — um aplicativo web e móvel para revisões sistemáticas. *Syst Rev*. 2016;5(1):210. Doi: <https://doi.org/10.1186/s13643-016-0384-4> PMID:27919275
27. Banerjee M, Capozzoli M, Mcsweeney L, Sinha D. “Além do kappa: Uma revisão das medidas de concordância entre avaliadores”. *Canadian J Statistics*. 1999;27(1): 3-23. Doi: <https://doi.org/10.2307/3315487>
28. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. A declaração PRISMA 2020: uma diretriz atualizada para relatar revisões sistemáticas. *BMJ*. 2021;372(71):e112. Doi: <https://doi.org/10.26633/RPSP.2022.112>

Funding and Acknowledgments: Research without funding.

Authorship Criteria (Author Contributions)

Francisco Douglas Canafístula de Souza.
Contributed substantially to the conception and/or planning of the study; contributed to the writing and/or critical review and final approval of the published version.

Raquel Sampaio Florêncio. Contributed substantially to the conception and/or planning of the study; contributed to the writing and/or critical review and final approval of the published version.

Keila Maria de Azevedo Ponte Marques.
Contributed to the writing and/or critical review and final approval of the published version.

Antonia Tainá Bezerra Castro. Contributed to the writing and/or critical review and final approval of the published version.

Conflict of Interest Statement

Nothing to declare.

Scientific Editor: Italo Arão Pereira Ribeiro.
Orcid: <https://orcid.org/0000-0003-0778-1447>