ABSTRACT

Objective: To analyze the scientific literature concerning the workloads of nurses in Primary Health Care, identifying the generating elements and their interactions. Method: This is a bibliographic study employing an integrative literature review method, utilizing scientific databases from 2020 to 2023 in English, Spanish, or Portuguese, and using the descriptors "Workloads" and "Workload." Inclusion criteria were articles addressing the following themes: workloads of the nursing team in primary health care; studies addressing the definition of workload(s); studies examining the nursing work process in primary health care; and factors of wear and protection related to work. Results: Fifteen articles were analyzed; 12 (80%) were conducted in Brazil, with a total of 857 participants; and 3 (20%) in Germany, Colombia, and France, with 563 participants. Identified workloads included physiological (n = 2) and combined categories such as mechanical and psychological (n = 2); physical and psychological (n = 1); and physiological and psychological (n = 1). The absence of isolated loads, including physical, chemical, mechanical, and biological, was noted. Conclusion: Workloads are directly related to nurses’ work activities and processes, impacting workforce availability and consequently overloading other professionals, potentially leading to work-related illnesses. Descriptors: Workload; Primary Health Care; Worker Health Surveillance; Occupational Nursing.

RESUMO

Objetivo: Analisar a literatura científica relativa às cargas de trabalho dos enfermeiros na Atenção Primária à Saúde, identificando os elementos geradores e suas interações. Método: Estudo bibliográfico do tipo revisão integrativa da literatura, nas bases de dados científicas, entre 2020 e 2023, nos idiomas inglês, espanhol ou português, utilizando os descriptores únicos: "Cargas de Trabalho" e "Carga de Trabalho". Os critérios de inclusão foram artigos que abordam as seguintes temáticas: cargas de trabalho da equipe de enfermagem na atenção primária à saúde; estudos que abordam a definição de carga e/ou cargas; estudos que abordam o processo de trabalho da enfermagem na atenção primária à saúde; fatores de desgaste e proteção relacionados ao trabalho. Resultados: Foram analisados 15 artigos; 12 (80%) foram realizados no Brasil, com um total de 857 participantes; e 3 (20%) na Alemanha, Colômbia e França, com 563 pessoas. Foram identificadas cargas fisiológicas (n = 2) e conjugadas como: mecânicas e psíquicas (n = 2); físicas e psíquicas (n = 1); e cargas fisiológicas e psíquicas (n = 1). Notou-se a ausência de cargas isoladas, entre elas físicas, químicas, mecânicas e biológicas. Conclusão: As cargas de trabalho estão diretamente relacionadas às atividades laborais do enfermeiro e ao seu processo de trabalho, refletindo na ausência da força de trabalho e, por consequência, em sobrecarga aos demais profissionais, podendo acarretar doenças relacionadas ao trabalho. Descriptores: Carga de trabalho; Atenção Primária à Saúde; Vigilância em saúde do trabalhador; Enfermagem do trabalho.
INTRODUCTION

In the realm of Primary Health Care (PHC) in Brazil, the essential role of nurses is prominently highlighted. These professionals, due to their close relationship with the community, recognize health needs while undertaking various responsibilities, encompassing managerial, clinical, educational, and investigative activities. Through their activities, they significantly impact the quality of services within the health network.

PHC has undergone various structural and systemic adaptations due to the COVID-19 pandemic, involving the restructuring of work processes and the adoption of new technologies, including the expansion of telehealth on a global scale. These transformations have affected the well-being of health professionals, particularly nurses, increasing concerns regarding their mental health.

The work of nurses in PHC is grounded in the health needs of a specific time and population. Nurses perform their roles with a social and collective practice, in addition to other attributes defined by their professional regulations, a practice that interacts with societal changes, the world of work, and the context of the Unified Health System (SUS in Portuguese).

In the labor processes of PHC, the context of "workloads," encompassing physical, cognitive, and emotional aspects, plays a crucial role. Given the complexity of the relationship between health and work, coupled with the rapid changes in this scenario, there arises an urgent need for continuous investigation into the workloads of nurses.

"Workloads," which include biological, physical, mechanical, physiological, and psychological aspects, play a crucial role in the labor processes of PHC. Given the complexity of the relationship between health and work, along with the rapid changes in this scenario, there arises an urgent need for continuous investigation into the workloads of nurses.

OBJECTIVE

This review aims to analyze the scientific literature concerning the workloads of nurses in PHC, with the purpose of identifying the generating elements of these workloads and their interactions. Their identification will serve as the basis for the creation of an instrument aimed at assessing and managing the workloads of nurses in PHC, with the goal of reducing, protecting, preventing, and enhancing the health of the professionals involved.
METHOD

This study is an integrative literature review (IR) that contributes to the deepening of knowledge on a particular topic. Through it, it is possible to systematically and orderly gather and synthesize research results, facilitating the incorporation of evidence into the redirection of care practices.

The stages of this IR included: 1) Defining the review question: “What are the nursing workloads in PHC evidenced in the scientific literature?”; 2) Searching and selecting primary studies from the Virtual Health Library (BVS in Portuguese) and the following databases: MEDLINE, SCOPUS, Web of Science, CINAHL/EBSCO, available through the Coordination for the Improvement of Higher Education Personnel (CAPES) Journal Portal; 3) Extracting data from the primary studies, selected by two researchers with the aid of Rayyan; 4) Critically evaluating the primary studies; 5) Synthesizing the review results; and 6) Presenting the review.

The studies were organized using the PRISMA framework (Figure 1). Searches were conducted in May 2023 using the unique descriptors: “Workloads” and “Workload” and the combined descriptor: “Workloads AND nursing AND primary health care.” The Boolean operator “AND” was used to combine the descriptors.

An advanced search by title, abstract, subject, topics, or all, using only the descriptor "workload" in the BVS, was applied due to the generality of the descriptor, using the following filters: full text; main subject: workload, burnout, occupational stress, and COVID-19.

The PICO (P – Population, I – Intervention, C – Comparator, and O – Outcomes) framework was established as follows: Population - studies involving nurses and/or nursing teams working in PHC; Intervention - experience of workloads within the context of PHC; Comparator - not applicable; and Outcome - presence of workloads and their measurement within the work process, identifying generating elements.

Inclusion criteria for analysis in Rayyan (Intelligent Systematic Review online reference manager) were studies addressing the workloads of the primary health care nursing team; the definition of workload(s); the nursing work process in primary health care; and work-related wear and protection factors. This stage involved reading titles and abstracts by two independent researchers. Articles that met the eligibility criteria were read in full. Subsequently, their reference lists were checked for additional articles.
Original articles published between January 2020 and April 2023, available online in full, and in Portuguese, English, or Spanish, were selected. The year 2020 was chosen as the temporal cut-off, justified by the onset of the COVID-19 pandemic.

Exclusion criteria included duplicate articles, those addressing other populations and professional categories, different themes involving other theoretical frameworks not aligned with the review's objective, articles focusing on workload and/or job satisfaction, and publications in languages not covered by the inclusion criteria.

Finally, the selected articles were organized into a Microsoft Excel® spreadsheet with the following data: authors, year of publication, title, journal, number of participants, target audience, main results, and empirical indicators.

Figure 1. Flowchart of identification, selection, eligibility and inclusion of studies in the review according to PRISMA\textsuperscript{14}
RESULTS

Of the 15 articles included, 12 (80%) were conducted in Brazil, involving a total of 857 participants, and 3 (20%) in Germany, Colombia, and France, involving a population of 563 participants. Thus, the 15 articles analyzed involved a total of 1,420 participants.

In Primary Health Care (PHC), the professional team composed of nurses, doctors, nursing technicians, and nursing assistants predominated (n = 11; 1,304 professionals). Three articles, totaling 81 participants, exclusively addressed nurses. Only one article focused on managers (35 managers).

The qualitative methodological approach was predominant. Regarding the theme, all the studies related to the concept of "Workloads," encompassing aspects of workload, wear, symptoms, and diseases.

The predominant workloads identified in the studies were psychological (n = 9), followed by physiological workloads (n = 2), as well as combined workloads, such as mechanical and psychological (n = 2), physical and psychological (n = 1), and physiological and psychological (n = 1). There was a noted absence of isolated workloads, such as physical, chemical, mechanical, and biological.

Chart 1 presents the main data from the articles.
### Chart 1 - Studies on the workload of Primary Health Care nurses from 2020 to 2023.

<table>
<thead>
<tr>
<th>Id.</th>
<th>Authors</th>
<th>Year</th>
<th>Title</th>
<th>Magazine</th>
<th>Prof. No.</th>
<th>Target audience</th>
<th>Main results</th>
<th>Empirical indicators/generators</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Juliano et al.</td>
<td>2022</td>
<td>Workloads and fatigue among primary health care workers in Brazil COVID-19 pandemic</td>
<td>Rev Nursing UERJ</td>
<td>132</td>
<td>Professionals including nurses and doctors from Basic Health Units in 14 Brazilian states and the Federal District.</td>
<td>The most frequently identified workloads were: secretions (81.8%); positions uncomfortable (72.7%); accidents with sharps (76.5%); fear of contamination by COVID-19 (64.3%); overwork (56.8%); and conflicts (47.7%).</td>
<td>Secretions; Ergonomics; Puncture accidents; Fear; Interpersonal conflict;</td>
</tr>
<tr>
<td>A2</td>
<td>Machado et al.</td>
<td>2022</td>
<td>Management in the Family Health Strategy: workloads and structured institutional violence</td>
<td>Rev Bras Enferm</td>
<td>35</td>
<td>Managers of basic health units in the five regions of Brazil who worked in the Health Strategy of the Family.</td>
<td>The charges were analyzed using thematic categories: &quot;related to the management work itself&quot;; &quot;related to other management bodies in the health system&quot;; &quot;related to users and the population&quot;. There was an interrelationship between increased workloads for managers and institutional violence.</td>
<td>Institutional violence; Fear; Psychological pressure;</td>
</tr>
<tr>
<td>A3</td>
<td>Mendes et al.</td>
<td>2021</td>
<td>Nursing practices in the family health strategy in Brazil: interfaces in illness</td>
<td>Rev Gaúcha Enferm</td>
<td>79</td>
<td>Nursing professionals from 20 basic health units.</td>
<td>Practices in the care dimension prevailed, followed by the administrative-managerial and educational dimensions. Illness due to workloads, predominantly psychological, was related to care practices, Potentiated by overload and poor working conditions.</td>
<td>Unhealthy conditions; Work overload;</td>
</tr>
<tr>
<td>A4</td>
<td>Biff et al.</td>
<td>2020</td>
<td>Nurses’ workloads: lights and shadows in the Strategy Family Health</td>
<td>Science and Collective Health</td>
<td>40</td>
<td>Nurses who were part of Family Health teams (eSF).</td>
<td>Factors that increase burdens are the precariousness and deficits in the work environment, materials and equipment, added to the numerical deficit in the workforce, and the excessive demand for care. However, teamwork, recognition for the work done, bonds with users and good interpersonal relationships help to reduce the</td>
<td>A precarious environment; Lack of PPE; Increased activity; Team relationships;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A5</th>
<th>Mendes et al.\textsuperscript{19}</th>
<th>2020</th>
<th>Workloads in the Family Health Strategy: interfaces with the wear and tear on nursing professionals</th>
<th>Nursing professionals from 20 Family Health Units in eight municipalities in the five regions of the country.</th>
<th>The workloads were related to structural and managerial problems. The workloads that stood out were psychological, due to excessive demands and staff shortages; physiological workload, due to the overload of activities that generate physical pain and exhaustion; physical and mechanical workload, due to inadequacies in the work environment and equipment; biological workload, due to the presence of microorganisms; and chemical workload, due to exposure to dust and smoke.</th>
<th>Lack of material and management resources; Excess demand; Few employees; Overload of activities; A precarious environment; Presence of microorganisms; Exposure to dust and smoke;</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6</td>
<td>Pires et al.\textsuperscript{20}</td>
<td>2020</td>
<td>Nurses and doctors in the family health strategy: workloads and coping</td>
<td>UBS professionals, including nurses and doctors.</td>
<td>Factors that increase the loads are excess demand, overload of work and failures in working conditions, organization and management. Teamwork, planning, bonds with users and resolving problems help to reduce workloads. Physical activity and disconnecting from work stand out as ways of coping with workloads.</td>
<td>Overload; High demand; Lack of material; Lack of management; Teamwork; Planning; Physical activity;</td>
</tr>
<tr>
<td>A7</td>
<td>Schulze et al.\textsuperscript{21}</td>
<td>2022</td>
<td>Psychosocial burden in nurses working in nursing homes during the COVID-19 pandemic: a cross-sectional study with quantitative and qualitative data.</td>
<td>Nursing professionals including nurses and assistants working in nursing homes in Germany.</td>
<td>The sample scored significantly worse on the scales 'quantitative demands', 'hiding emotions', 'work-privacy conflicts', 'role conflicts', 'quality of leadership', 'support at work', 'recognition', 'physical demands', 'intention to leave the profession', 'burnout', 'presenteeism' and 'inability to relax'. Six main themes related to nurses' psychosocial stress were revealed: 'general working conditions', 'concern for residents', 'managing family members', 'inability to provide terminal care', 'tensions between being infected and infecting others' and 'technicalization of care'. 'Improved</td>
<td>Hiding emotions; Conflicts; Increased activity; Leadership; Support; Recognition; Exhaustion; Presenteeism; Concern; Lack of education; Fear; Family; Coercion; Social relations;</td>
</tr>
<tr>
<td>A8</td>
<td>Trespalacios et al., 2021</td>
<td>Social perception of emotional distress in health professionals nursing: experiences with the patient and the organization.</td>
<td>Occupational Health</td>
<td>8</td>
<td>Nursing professionals</td>
<td>Seven themes as generators of emotional exhaustion; typical nursing work, excessive administrative work, family-work conflict, relationships, lack of control over work, work overload and negative results observed in the patients. As a consequence of failures of emotional exhaustion are identified in patient safety, job dissatisfaction and low productivity.</td>
</tr>
<tr>
<td>A9</td>
<td>Sousa et al., 2021</td>
<td>Development of psychological burdens related to nursing work in Psychosocial Care Centers</td>
<td>Rev Bras Enferm.</td>
<td>50</td>
<td>Nursing professionals (nursing technicians and nurses).</td>
<td>The factors that trigger psychological burdens arise primarily from the pace of work, the precarious physical structure, working with mentally ill users, the lack of support from management, the insufficient multidisciplinary team and the lack of clinical supervision.</td>
</tr>
<tr>
<td>A10</td>
<td>Gillet et al., 2020</td>
<td>The effects of job demands on nurses’ burnout and presenteeism through sleep quality and relaxation</td>
<td>JCN Clinical Nursing</td>
<td>378</td>
<td>Nursing professionals from several French health centers</td>
<td>In line with our hypotheses, our findings revealed that emotional dissonance and workload were statistically negatively related to sleep quality and relaxation, which in turn were related to lower levels of presenteeism and emotional exhaustion. Workload and emotional dissonance were also directly and positively related to emotional exhaustion, while emotional dissonance was associated with higher levels of presenteeism. Finally, the indirect effects of emotional dissonance</td>
</tr>
</tbody>
</table>
and workload on emotional exhaustion through sleep quality, as well as the indirect effects of emotional dissonance on emotional exhaustion through relaxation, were significant and positive.

<table>
<thead>
<tr>
<th>Study ID</th>
<th>Authors</th>
<th>Year</th>
<th>Title</th>
<th>Journal</th>
<th>Participants</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>A11</td>
<td>Schultz et al.</td>
<td>2020</td>
<td>Prevalence of Burnout Syndrome in Primary Health Care Nurses</td>
<td>Scientific Interfaces</td>
<td>Nurses in PHC in the municipality of Santa Maria-RS</td>
<td>The results: 36.7% work at the Basic Health Unit (BHU), 80% see personal fulfillment and development as the meaning of their work, 56.7% say there is no emotional support, 85% feel happy at work, 80% say they have no physical or mental illness, 57% have been off work due to a health condition. 33% are in the initial phase of BS, 64% have the possibility of developing BS and 3% are already in the onset phase.</td>
</tr>
<tr>
<td>A12</td>
<td>Julio et al.</td>
<td>2022</td>
<td>Prevalence of anxiety and depression in Primary Health Care workers</td>
<td>Cadernos Brasileiros de Terapia Ocupacional</td>
<td>Professionals from Primary Health Care teams.</td>
<td>Anxiety was present in 45.3% of the professionals, 25.0% with mild anxiety, 9.9% with moderate anxiety and 10.5% with severe anxiety. Depression was present in 41.0% of the professionals, 28.9% with mild depression and 12.1% with moderate depression. There was a higher prevalence of anxiety (17.3%) and depression (28.3%) among Community Health Workers and a lower prevalence of anxiety (1.2%) and depression (0.6%) among doctors.</td>
</tr>
<tr>
<td>A13</td>
<td>Tamborini et al.</td>
<td>2022</td>
<td>Impacts of the COVID-19 pandemic on primary health care professionals</td>
<td>Unijui</td>
<td>Health professionals among nurses.</td>
<td>The results: 24.0% of the participants said they had a confirmed diagnosis of COVID-19. 76.0% said they had never contracted the disease, but the vast majority (92.0%) reported that team members had been absent as a result of the disease. 74.0% say they have suffered from work overload as a result of their absence. With regard to support for the physical and mental health of</td>
</tr>
</tbody>
</table>

| A14 | Viana et al.\(^{28}\) | 2022 | Mato Grosso nurses' work process in Primary Health Care during the COVID-19 pandemic: challenges and limitations | Tempus | 11 | Professional nurses in Primary Health Care in Mato Grosso. | A central category emerged entitled: "Challenges and limitations faced by Primary Health Care nurses in the work process during the COVID-19 pandemic". The analysis of the data revealed that the main challenges were related to the organization of the work process, which compromised care and testing of the general population, a deficit in the health team, there were also difficulties in sensitizing the community to the risks and how to prevent contamination, as well as the need for theoretical improvement of professionals regarding the correct period for requesting the COVID-19 test. | Lack of professionals; Difficulty in raising public awareness of COVID-19; Organization of the work process; |
| A15 | Carvalho; Silveira and Ribeiro.\(^{29}\) | 2023 | Perceived stress among Primary Health Care nursing staff working during the COVID-19 pandemic | Research, Society and Development | 130 | Nursing professionals working in 43 PHC units in a medium-sized municipality in the interior of Minas Gerais. | In terms of PE, 27.5% of nurses and 30.7% of nursing technicians had normal and moderate levels of PE, respectively. The rho test showed that PE was negatively correlated with the number of hours of sleep and leisure time | Stress; Sleep; Leisure; |

Among the empirical indicators found in the studies, those that increase workloads are directly related to psychological workloads, followed by physiological, physical, biological, mechanical, and chemical workloads. Other indicators are also related to the reduction of workloads, including satisfaction, leisure, and family (Chart 2).

**Chart 2.** Empirical indicators and their relationship with the type of workload.

<table>
<thead>
<tr>
<th>Workloads</th>
<th>Empirical indicators identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological loads</td>
<td>Secretions; Presence of microorganisms; Sharps;</td>
</tr>
<tr>
<td>Chemical charges</td>
<td>Exposure to dust and smoke;</td>
</tr>
<tr>
<td>Physical loads</td>
<td>Unhealthy conditions; precarious environment; lack of PPE;</td>
</tr>
<tr>
<td>Mechanical loads</td>
<td>Accidents with sharps; Ergonomics;</td>
</tr>
<tr>
<td>Physiological loads</td>
<td>Work overload; Increase in activities; Lack of material and management resources; Excessive demand; Job deviation; Work pace;</td>
</tr>
<tr>
<td>Psychic loads</td>
<td>Fear; Interpersonal conflict; Institutional violence; Psychological pressure; Hiding emotions; Conflicts; Exhaustion; Presenteeism; Worry; Family; Coercion; Social relations; Embarrassment; Violence; Psychological/emotional support; Emotional exhaustion; Family-work conflict; Satisfaction; Overload with emotional consequence; Mental health; Mental illness; Emotional support; Happiness; Sleep; Stress;</td>
</tr>
</tbody>
</table>

**DISCUSSION**

The studies highlight empirical indicators primarily associated with psychological workloads, such as fear, interpersonal conflict, institutional violence, psychological pressure, hiding emotions, conflicts, burnout, presenteeism, worry, family issues, coercion, social relations, embarrassment, violence, psychological/emotional support, emotional exhaustion, work-family conflict, satisfaction, emotional overload consequences, mental health, mental illnesses, emotional support, happiness, sleep, and stress. These workloads are shown to contribute significantly to the wear and tear on nursing professionals, directly affecting their health.¹⁸

A particular focus on psychological workloads reveals fear as a prominent experiential and empirical factor. Fear is considered one of the most evident aspects in the work of PHC nurses, where work processes underwent significant interference, changes, and adaptations. This was especially challenging with the need to reorganize
processes during the COVID-19 pandemic, necessitating professionals to reinvent their work practices.\textsuperscript{3} Identifying these workloads is essential to ensure that workers integrate into a healthy and balanced work environment, contributing to their occupational well-being.\textsuperscript{30}

Another notable factor is the excessive workload burdening PHC nurses, linked to increased activity, human resource shortages, excessive demands, functional distractions, and changes in work pace. These organizational factors, divided among administration, support, and management,\textsuperscript{31} indicate the working conditions of PHC nurses. Environmental and occupational safety factors, such as inadequate facilities and lack of individual and collective protective equipment, can influence physiological and psychological workloads, primarily resulting in complaints of excessive stress related to the shortage of qualified professionals.\textsuperscript{13}

The overload was associated with the increased demand during the COVID-19 pandemic, affecting a large number of individuals seeking care across various health services. This led to a high spontaneous demand, contributing to the excessive activities and overload for nurses.\textsuperscript{20,32}

Biological workloads, such as those arising from direct contact with fluids and secretions during the handling of contaminated materials or during disposal, transport, and cleaning stages, involve items like needles, catheters, and dressing materials—essentially the instruments used in nursing practice. Chemical workloads are related to handling various chemical substances, including dust, smoke, fibers, vapors, liquids, greases, among others. Physical workloads encompass aspects such as temperature changes, noise, humidity, electricity, ionizing and non-ionizing radiations, including situations like excessive noise, radiation exposure, temperature variations, inadequate lighting, vibrations, and shocks.\textsuperscript{12}

Mechanical workloads are easily identifiable among external body pressures, recognized as disruptions in physical integrity caused by impacts, cuts, and fractures.\textsuperscript{12} These workloads were less identified compared to psychological and physiological workloads.

PHC is responsible for managing the burden on the health system by handling self-limiting cases of symptomatic COVID-19 without complications and utilizing the health care network when necessary, supporting the continuous and comprehensive management of patients with other health issues.\textsuperscript{33}
The review highlighted problems related to daily sleep and lifestyle factors focused on free time, which contributed to increasing or decreasing the stress levels of nurses. Sociodemographic variables, work variables, and lifestyle associated with perceived stress among professionals, as well as the impact of these results on workplace and social performance and health, were factors that altered perceived workloads among professionals.34

A study showed that at least one empirical characteristic was related to all workloads.12 Some of them were perceived only after prolonged exposure or became consequences of these exposures, such as psychological underload, influenced as a consequence of mechanical, physical, or physiological workloads.

Some study limitations include the time elapsed between data collection and its utilization. It is inevitable that some publications on conceptual practice or related topics have been released. The loss of indexed research in databases other than those selected in the sample, academic studies, and gray literature may have affected the exclusion of some studies.

CONCLUSION

This integrative review identified the generating elements of nurses' workloads and their interfaces within PHC, utilizing current scientific material.

Workloads are directly related to worker health, reflecting on the assistance provided by the workforce to the population. Therefore, it is important to maintain a balance between these aspects to ensure satisfactory psychological, emotional, biological, physical, chemical, and mechanical working conditions for them.

Identifying the elements that highlight the various workloads of PHC nurses is relevant for understanding the work process and its implications related to the COVID-19 pandemic, especially the workloads related to the mental and psychological challenges faced by these professionals.

The findings also underscore the need for preventive and health-promoting measures for these workers, aimed at improving their work process, minimizing risks, exposures, wear, and workloads resulting from working conditions.

Based on the results presented in this review, strategies can be reflected upon and implemented to improve the working environment conditions, combined with...
programs focused on worker health that can influence the reduction of workloads and enhance the quality of health services.

**CONTRIBUTIONS**

All authors contributed equally to the design of the research project, search, analysis, interpretation and discussion of data, as well as to the writing and critical review of the content with intellectual contribution and approval of the final version of the scientific article.

**CONFLICTS OF INTERESTS**

The authors declare no conflict of interest.

**REFERENCES**


Correspondence:

Everson Vando Melo Matos
E-mail: matoseverson70@gmail.com

Copyright © 2024 Revista de Enfermagem UFPE on line/REUOL.

Este é um artigo de acesso aberto distribuído sob a Atribuição CC BY 4.0 Creative Commons Attribution-ShareAlike 4.0 International License, a qual permite que outros distribuam, remixem, adaptem e criem a partir do seu trabalho, mesmo para fins comerciais, desde que lhe atribuam o devido crédito pela criação original. É recomendada para maximizar a disseminação e uso dos materiais licenciados.