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ORIGINAL ARTICLE

Stress levels and related factors in primary care health professionals: an integrative review

Níveis de estresse e fatores relacionados em profissionais de saúde da atenção primária: revisão integrativa

Adriano Dos Santos Muniz[1], Kayron Rodrigo Ferreira Cunha[2], Francirômulo da Costa Nascimento[3], Isabella Velasco Morimitzu[4], Walter Emmanoel Brito Neto[5], Maria Eduarda Soares Frota[6], Júlia Oliveira Melo[7], Nanielle Silva Barbosa[8,*]

[1]*Metropolitan Union of Education and Culture. Lauro de Freitas, Bahia, Brazil.*
[2]*Federal University of Piauí. Teresina, Piauí, Brazil.*
[3]*Ibirapuera University. Sao Paulo, Sao Paulo, Brazil.*
[4]*Pontifical Catholic University of Paraná. Londrina, Paraná, Brazil.*
[5]*Santo Agostinho University Center. Teresina, Piauí, Brazil.*
[6]*State University of Piauí. Teresina, Piauí, Brazil.*
[7]*Faculty of Medical Sciences of Minas Gerais. Belo Horizonte, Minas Gerais, Brazil.*
[8]*Graduate Nursing Department, Federal University of Piauí. Teresina, Piauí, Brazil.*

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KEYWORDS

Health personnel
Occupational stress
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Psychological stress

ABSTRACT

Objective: To identify, based on the evidence in the literature, stress levels and related factors in health professionals working in Primary Health Care.
Methods: An integrative review was carried out, with the guiding question, "What are the stress levels and related factors in health professionals working in Primary Health Care?". The search occurred in December 2022 in the Lilacs, MEDLINE, CINAHL, and Scopus databases. Primary studies available in full in English, Portuguese, and Spanish were included.
Results: Of the 1,358 productions initially found, 14 texts were included as a sample. It was observed that professionals face different stress levels in their daily work. Stress can be related to physical and emotional exhaustion, dissatisfaction, overload, and less engagement at work, longer working hours, female sex, work in the COVID-19 pandemic, and organizational and communication problems.
Conclusions: The evidence allows critical reflection on the need for more concern and involvement on the part of the authorities and competent bodies with the health of workers to direct actions that can intervene on risk factors in the work environment and minimize vulnerabilities caused by stress.

*Corresponding author:
Departamento de Pós- Graduação em Enfermagem, Universidade Federal do Piauí.
End.: Campus Universitário Ministro Petrônio Portela – Bairro: Ininga. Teresina, Piauí, Brasil | CEP 64.049-550
Phone: +55 86 3215-5558
E-mail: naniellesilvabarbosa@hotmail.com (Barbosa NS)

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PALAVRAS-CHAVE

Atenção primária à saúde
Estresse ocupacional
Estresse psicológico
Pessoal de saúde

RESUMO

Objetivo: Identificar, a partir das evidências da literatura, os níveis de estresse e fatores relacionados em profissionais de saúde atuantes na Atenção Primária à Saúde.
Métodos: Foi realizada uma revisão integrativa, tendo como questão norteadora "Quais os níveis de estresse e fatores relacionados em profissionais de saúde atuantes na Atenção Primária à Saúde?''. A pesquisa ocorreu em dezembro de 2022, nas bases de dados Lilacs, MEDLINE, CINAHL e Scopus. Foram incluídos estudos primários disponíveis na íntegra em inglês, português e espanhol.
Resultados: Das 1.358 produções inicialmente encontradas, 14 textos foram incluídos como amostra. Observou-se que os profissionais enfrentam diferentes níveis de estresse em seu cotidiano de trabalho. O estresse pode ser relacionado à exaustão física e emocional, insatisfação, sobrecarga e menor engajamento no trabalho, maior tempo de atuação, sexo feminino, atuação na pandemia da COVID-19, problemas organizacionais e de comunicação.
Conclusões: As evidências permitem a reflexão crítica acerca da necessidade de maior preocupação e envolvimento por parte das autoridades e órgãos competentes com a saúde dos trabalhadores, a fim de direcionar ações que possam intervir sobre os fatores de risco no ambiente de trabalho e minimizar as vulnerabilidades ocasionadas pelo estresse.

INTRODUCTION

Situations experienced in the work environment can often be considered stressful. The health of professionals is harmed by these factors and by work-related burnout. In recent decades, there has been a growing demand for investigations into the impact of stress on workers' health and its effect on care activities since patient safety is also impaired[1,2].

Stress is defined physiologically as a process that involves reactions of the autonomic and endocrine nervous systems[3]. The subjective response to it is influenced by the relationship between its qualities and the demands of the environment or the disparities between the internal and external environments and the individual's sense of responsiveness. This coping ability concerns how the individual faces the problem, driven by cognitive and behavioral efforts, thus avoiding bodily or mental illness[4].

Health professionals are the most likely to develop and suffer from stress symptoms[5]. Although still invisible to a segment of civil society, workers' mental health issues are highly prevalent in health services, requiring specialists to redouble their efforts to define and adapt the therapies and tactics of care practices[6].

Considering the organizational arrangement of the Health Care Networks, the Primary Health Care (PHC) services are characterized as the "gateway" for accessing the system, presenting a complex work process. Therefore, it is recognized that professionals working at this level of care are essential to guarantee the quality of care provided. Because they are in direct contact with the community, it is known that these workers are exposed to different stressful situations involving the health team and users[7,8].

Consequently, these professionals are prone to illness and suffering caused by the stress of the work environment. From the previous prerogatives, the interest in investigating stress levels and related stressors in this group of health workers is justified. Considering that stress risks their mental and physical health and impacts the quality of care they provide, the relevance of scientific evidence on the subject is understood. Therefore, this study aimed to identify, based on evidence in the literature, levels of stress, and related factors in health professionals working in PHC.

METHODS

This study is an integrative literature review[9,10]. After defining the theme, the following research question was elaborated: "What are the levels of stress and factors related to them in health professionals working in Primary Health Care?" The recommended acronym PICo (Population, Interest, and Context) was adopted to formulate this question properly.

Next, the terms identified in the Medical Subject Headings (MeSH) and MH Exact Subject Heading (CINAHL vocabulary) were selected, which were combined with Boolean operators AND and OR, generating specific search expressions in each database: Latin American and Caribbean Literature in Health Sciences (Lilacs), Medical Literature Analysis and Retrieval System Online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Scopus, as shown in Table 1. This step occurred in December 2022.

Primary studies available in full and that answered the research question, published in English, Portuguese, or Spanish, were included. Duplicate studies and reviews were excluded. There was no time frame, as the reviewers intended to analyze how the phenomenon presented itself over the years.

The reference manager Rayyan[11] and the PRISMA Extension for Scoping Reviews (PRISMA- ScR)[12] were used to optimize and organize the selection of articles. In addition, this step was conducted by two researchers, independently and simultaneously, following a targeted protocol. The articles selected by both were compared to identify possible discrepancies. In situations where these divergences occurred, the collaboration of a third reviewer was requested.

The texts included were read in full, and the following variables were critically analyzed for later presentation: authorship, journal and year of publication, country of study, type of study, sample, objectives, results, and conclusions.

Table 1 — Descriptors and search expressions applied in the databases.

Database	Search strategies
Lilacs	((mh:("pessoal de saúde")) OR ("pessoal da saúde") OR ("prestadores de cuidados de saúde") OR ("profissionais da saúde") OR ("profissionais de saúde") OR ("profissional da saúde") OR ("profissional de saúde") OR ("trabalhador da saúde") OR ("trabalhador de saúde") OR ("trabalhadores da saúde") OR ("trabalhadores de saúde")) AND ((mh:("estresse psicológico")) OR ("agente de estresse psicológico") OR ("estresse da vida") OR ("estresse relacionado a aspectos da vida") OR ("fatores de estresse psicológico") OR ("tensão da vida") OR ("tensão vital")) AND ((mh:("atenção primária à saúde")) OR ("atendimento básico") OR ("atendimento primário") OR ("atendimento primário de saúde") OR ("atenção básica") OR ("atenção básica à saúde") OR ("atenção básica de saúde") OR ("atenção primária") OR ("atenção primária de saúde") OR ("atenção primária em saúde") OR ("cuidado de saúde primário") OR ("cuidado primário de saúde") OR ("cuidados de saúde primários") OR ("cuidados primários") OR ("cuidados primários à saúde") OR ("cuidados primários de saúde") OR ("primeiro nível de assistência") OR ("primeiro nível de atendimento") OR ("primeiro nível de atenção") OR ("primeiro nível de atenção à saúde") OR ("primeiro nível de cuidado") OR ("primeiro nível de cuidados")) AND (db:("LILACS"))
MEDLINE	((((((((("health personnel"[MeSH Terms]) OR ("health care providers"[All Fields])) OR ("health care provider"[All Fields])) OR ("healthcare providers"[All Fields])) OR ("healthcare provider"[All Fields])) OR ("healthcare workers"[All Fields])) OR ("healthcare worker"[All Fields])) OR ("health care professionals"[All Fields])) OR ("health care professional"[All Fields])) AND ((((((("stress, psychological"[MeSH Terms]) OR ("psychological stresses"[All Fields])) OR ("life stress"[All Fields])) OR ("life stresses"[All Fields])) OR ("psychologic stress"[All Fields])) OR ("psychological stressor"[All Fields])) OR ("psychological stressors"[All Fields])) OR ("psychological stress"[All Fields]))) AND ((("primary health care"[MeSH Terms]) OR ("primary healthcare"[All Fields])) OR ("primary care"[All Fields]))
CINAHL	(""Health Personnel"" OR (MH "Health Personnel") OR" "Health Care Providers"" OR"" Healthcare Providers"" OR"" Healthcare Workers"" OR"" Healthcare Worker"" OR"" Health Care Professionals"" OR"" Health Care Professional"") AND ((MH "Stress, Psychological") OR "Stress, Psychological" OR" "Psychological Stresses"" OR"" Life Stress"" OR"" Life Stresses"" OR"" Psychologic Stress"" OR"" Psychological Stressor"" OR"" Psychological Stressors"" OR"" Psychological Stress"") AND ((MH "Primary Health Care") OR" "Primary Health Care"" OR"" Primary Care"")
Scopus	((TITLE-ABS-KEY ("Health personnel") OR TITLE-ABS-KEY ("Health care providers") OR TITLE-ABS-KEY ("Health care provider") OR TITLE-ABS-KEY ("Healthcare providers") OR TITLE-ABS-KEY ("Healthcare provider") OR TITLE-ABS-KEY ("Healthcare workers") OR TITLE-ABS-KEY ("Healthcare worker") OR TITLE-ABS-KEY ("Health care professionals") OR TITLE-ABS-KEY ("Health care professional"))) AND ((TITLE-ABS-KEY ("Psychological stresses") OR TITLE-ABS-KEY ("Life stress") OR TITLE-ABS-KEY ("Life stresses") OR TITLE-ABS-KEY ("Psychologic stress") OR TITLE-ABS-KEY ("Psychological stressor") OR TITLE-ABS-KEY ("Psychological stressors") OR TITLE-ABS-KEY ("Psychological stress"))) AND ((TITLE-ABS-KEY ("Primary Health care") OR TITLE-ABS-KEY ("Primary Healthcare") OR TITLE-ABS-KEY ("Primary care")))

RESULTS

Figure 1 shows the article selection flowchart. Initially, the search generated 1,358 articles, 54 of which were duplicates and excluded. After the entire selection process, 14 texts were included as a sample for this review.

Regarding the year of publication, one article was published in 2003[15], 2009[19], 2010[23], 2013[25], 2015[17] and 2021[13], while two in 2017[16,24], 2018[18,20], 2019[14,26] and 2022[21,22]. Brazil stood out with seven productions [13,16,17,20,22,25,26]. The other articles were divided in this way: two carried out in Bosnia-Herzegovina[14,24], two in China[15,18], one in Mexico[19], one in Singapore[21,] and one concurrently in the United States, United Kingdom, and Germany[23].

The journal with the most publications was the International Journal of Nursing Practice[15,18], with two articles. All studies were cross-sectional and quantitative, with samples ranging from 32[22] to 1,040[21] health professionals working in PHC. Table 2 brings the information in detail.

Studies have shown that professionals face different stress levels in their daily work, which can be related to physical and emotional exhaustion, dissatisfaction, overload and less engagement at work, longer working hours, female sex, and work in the COVID-19 pandemic, organizational and communication problems. Table 3 presents in detail the synthesis of the productions.

DISCUSSION

It was possible to identify the stress levels from the gathered literature and know the main related factors raised by the investigations. It is observed that the work environment is surrounded by variables that contribute to these levels being high or moderate but never absent.

An exploratory study on psychological distress related to stress in Primary Care professionals found that those workers with higher workload were stressed and had a higher risk of mental illness. These professionals faced daily limitations such as the lack of material resources[25].

A recent Brazilian investigation with nurses working in the PHC listed as factors related to stress the

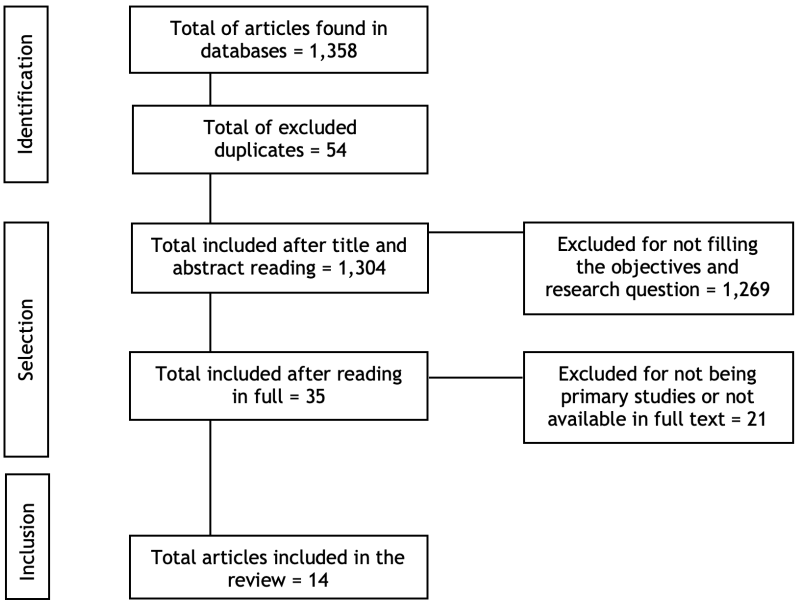

Figure 1 — Article selection flowchart.

Table 2 — Synthesis of productions according to journal, country of study, type of study, and sample.

Reference	Journal	Country	Sample
13	Revista Escola de Enfermagem da USP	Brazil	122 nurses
14	Acta Medica Academica	Bosnia Herzegovina	211 doctors
15	International Journal of Nursing Practice	China	362 nurses
16	Revista Brasileira de Epidemiologia	Brazil	450 Primary Care workers
17	Saúde em Redes	Brazil	34 Primary Care workers
18	International Journal of Nursing Practice	China	1015 nurses
19	Revista Medica del Instituto Mexicano del Seguro Social	Mexico	167 family medicine workers
20	Revista de APS	Brazil	54 dental surgeons
21	Singapore Medical Journal	Singapore	1040 primary health workers
22	São Paulo Medical Journal	Brazil	32 doctors
23	Social Science and Medicine	United States, United Kingdom, and Germany	640 doctors
24	Medical Archives	Bosnia Herzegovina	489 primary and secondary care workers
25	Revista de Enfermagem UEPE	Brazil	80 primary health professionals
26	Revista Brasileira de Enfermagem	Brazil	150 primary care workers

Table 3 — Synthesis of productions according to objectives and main results/conclusions.

Reference	Objective	Results/conclusion
13	Correlate indicators of job dissatisfaction, occupational stress factors, and professional exhaustion among manager nurses and assistant nurses working in Primary Health Care units.	32% had considerable stress levels, indicators of emotional exhaustion, dehumanization, and disappointment at work at moderate and high levels.
14	To investigate the level and causes of stress and the risk of burnout *among* physicians in a Primary Care Center in Banja Luka.	A high level of stress was found in 77.7% of the sample. Depersonalization was correlated with a low level of personal fulfillment and stress, while the level of personal fulfillment was negatively correlated with stress.
15	To investigate the stress of nurses working in primary care in Hong Kong.	The results indicate that nurses in this environment experience a low to moderate frequency of stress.
16	Evaluate Family Health Strategy professionals' perceived stress (PE) and the association with team characteristics. The association between PE and self-reported morbidity was also investigated.	Higher levels of EP were observed in those with work time equal to or greater than one year in the same team, in the categories of doctors, nurses, and community health agents, female gender, non-practitioners of religious beliefs, and in UBS professionals with incomplete teams (absence of the doctor). It was observed that individuals with higher levels of PE are more likely to report chronic health problems.
17	Evaluate the stress in workers of primary health care services in Dourados/MS.	Concerning the perception of stress, with scale values from 0 to 56 (lowest and highest perception, respectively), the minimum score was 13 and the maximum 41, with an average of 23.9.
18	To explore the perceived level of stress at work and its influencing factors among community nurses.	Community health nurses in China perceived high levels of stress at work. Permanently employed nurses, on-duty nurses, and those over 45 years of age and with less training related to community nursing and child health involvement were more likely to experience high-stress levels.
19	To determine stress levels in health workers at family medicine units in Enseada, Baja California.	11% of the sample had a low-stress level, 25% a minimum level, 37% a normal level, 25% a high level, and 2% a critical stress level. Although it was not statistically significant, workers with a higher stress level were married and had fewer years of work. Women had higher levels of stress.

Table 3 — Synthesis of productions according to objectives and main results/conclusions (cont.).

Reference	Objective	Results/conclusion
20	To explore the relationship between stress and public service dentists' work process, consider professionals from Basic Health Units (UBS) and Family Health Units (USF).	Individuals working at USF are exposed to a higher frequency of stress conditions when compared to UBS professionals.
21	To understand contributing factors to perceived stress levels in health workers in a public primary care setting during the COVID-19 pandemic, including their training, protection, and support (TPS), job stress, and perceived stigma and interpersonal avoidance.	Respondents who reported greater perceived stress were those who had made alternative living arrangements, were more affected by the current pandemic, reported greater stress at work, and were Muslim.
22	To assess levels of occupational stress and work engagement among medical professionals in primary health care.	Six professionals (19.4%) had significant stress. The main stressors were a lack of prospects for career growth, a way of distributing tasks, poor training, and insufficient time to carry out the work.
23	To analyze job stress levels among primary care physicians (PCPs) in three different healthcare systems in the United States, the United Kingdom, and Germany.	The results demonstrate a higher level of stress in professionals from Germany. A negative correlation between professional autonomy and stress at work is observed in the three countries, but neither this nor the characteristics of the work environment explain the observed differences between the countries.
24	Identify and compare the work environment stressors experienced by doctors and nurses in primary health care and secondary care.	The study results indicate that Primary Health Care subjects perceive more organizational stress, and emotional and communication problems.
25	To investigate psychic suffering in health workers who participated in the Training Course for Multipliers in Workshops – Caring for the Caregiver.	Most workers are stressed and in worrisome stages. Regarding the SRQ-20, 30 people were at risk of psychological distress.
26	Assess levels of occupational stress and engagement in primary health care workers.	More than a third had occupational stress. Workers with high levels of occupational stress tend to have lower engagement.

lack of organizational information, insufficient time to perform their activities, lack of clarity in task distribution, and ineffectiveness in interpersonal communication, factors that contribute to the overload of the professionals. Nevertheless, 32% of these professionals showed moderate to high-stress levels when correlated with emotional exhaustion, dehumanization, and disappointment at work[13].

A high-stress level was also identified in the participants of an observational study. Shifts with high patient demand and legislative changes in work performance, emphasizing the implications of excessive workload, were listed as the most common resulting causes and provoked feelings of emotional exhaustion, depersonalization, and personal derealization in these workers[14].

In addition to the abovementioned excessive work demands, the lack of prospects for career progression, the effort-reward imbalance, insufficient time to dedicate to work and personal activities, lack of autonomy at work, and substantial changes in the organization and remuneration for the work activity were other factors emphasized as triggering stressful situations, being reported by physicians working in Brazilian[22] and international[23] primary care. It is important to emphasize that the cultural context in which these professionals are inserted also influences their levels and coping mechanisms.

Work overload is related to worker stress. Research in Bosnia-Herzegovina sought to identify and compare stressors in the work environment of doctors and nurses in primary and secondary health care. The results showed that these workers were susceptible to multiple stressors, with those associated with work organization, finances, and communication being prevalent. There was also a significant difference between primary and secondary health professionals experiencing these stressors, such as administrative work overload [24].

All inadequate and unsatisfactory working conditions contribute to an increase in the individual's psychic load. Such conditions have a negative impact on the worker's health and consequently lead to wear and physical, mental, emotional, and professional exhaustion[26].

Physical and mental exhaustion is a symptom related to Burnout Syndrome (BS). Stress and burnout are different phenomena that affect the individual. As for the existing correlation between them, BS results from a prolonged exposure process and attempts to deal with certain stressful situations when there is no possibility of a solution[27]. In both situations, there is suffering and illness for the worker[28].

In a survey in Chinese primary care, a low to moderate prevalence of stress could be observed, associated with conflicts between nurses and doctors, with 96% of the affected sample being female workers [15]. Similarly, this prevalence was identified by Silva and Barros[17], where 92% of respondents with considerable stress related to work were also female.

Still corroborating the previous data, descriptive research, in which the different stress levels in workers of the Family Medicine Units were evaluated, highlighted that the workers with higher stress levels were female[19].

Notably, the numbers related to stress in female professionals may be related to two factors. The first is that because it is a health scenario, the professional categories are predominantly occupied by women, which ends up interfering with the sample number of investigations [29]. Second, women face the so-called double or triple workday, which involves taking care of the family, routine work, and household chores, which makes them more prone to mental illness than men[30].

Stress-related symptoms were reported by dentists in a city in southern Brazil. There was a higher prevalence of complaints of irritation, nervousness, lack of motivation, discouragement, lack of concentration, boredom, and impatience, reaching 61.5% of participants[20]. Higher levels of perceived stress were observed in workers of the Family Health Strategy teams. These were more likely to report chronic health problems[16].

Occupational stress can contribute to the development of several chronic diseases, bringing direct negative repercussions on the performance and organization of services. In the health area, it is possible to verify various diseases that can be triggered by excessive stress. However, stress is not an isolated risk factor, being associated with other individual predispositions[31].

Health professionals are also subject to suffering from the impacts caused by psychological exhaustion. Like stress, BS impacts the professional's quality of life and mental health, acting negatively under its influence. Physical health can be considered a triggering factor for various diseases and organic disorders. Studies carried out with nurses in Paraíba and Rio Grande do Norte identified moderate levels of work-related *burnout*, demonstrating a correlation between this and workload. Notably, preventive measures for these professionals' health are necessary to avoid their illness[32,33].

The scenario of the COVID-19 pandemic was also a factor that caused negative impacts on the lives of health professionals[34,35]. A study identified average levels of perceived stress in workers in a public primary care environment during the new coronavirus pandemic. Factors related to these levels were observed to be high demands for care and recurrent changes in workflows, suggesting an increase in psychological stress during these individuals' work in the global health context[22].

This review presents limitations and contributions. As one of these limitations, the number of databases consulted can be mentioned, representing only a portion of the productions related to the theme. However, the evidence presented contributes to in-depth reflections on workers' health needs. The importance of developing actions to promote the health of these professionals is ratified, considering the work context in which they are inserted.

CONCLUSION

Primary care health professionals constantly face levels of stress related to several factors, such as dissatisfaction, overload, high workloads, devaluation, organizational problems, and lack of resources that contribute to worse engagement at work beyond physical

and emotional individual's exhaustion.

It is necessary to expand knowledge on the subject to provide the necessary foundation in the scientific field so that measures to prevent mental illness and promote occupational health are adopted, guaranteeing better attention to the worker, decent working conditions, and the quality of assistance offered to users of the health system.

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