

# Preventive Strategies For Burnout Syndrome Identified By Brazilian Researchers: An Approach Through The Lens Of Work Ecology

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## **Abstract:**

**Background:** Brazil has a high prevalence of burnout syndrome, with adverse effects on workers' health and organizational performance. This study analyzes the academic literature on burnout prevention from the perspective of Work Ecology.

**Materials and Methods:** A mixed systematic review with qualitative convergence was conducted in the CAPES Periodicals Portal using the exact descriptors "burnout" and "prevention." Document analysis enabled the findings to be organized into two thematic categories: (i) definitions and characteristics of burnout syndrome, including symptoms, causes, and consequences; and (ii) prevention strategies.

**Results:** Despite the relevance of the topic, the literature on burnout prevention remains limited and is concentrated mainly on healthcare professionals and teachers, which highlights the need for studies involving broader populations. The strategies identified included work-life balance, flexible schedules, well-being activities, open communication, and organizational social support. Training for managers and workers and the strengthening of a sense of purpose at work also emerged as relevant measures.

**Conclusion:** A Work Ecology perspective supports more comprehensive interventions by considering both individual symptoms and working conditions, thereby promoting healthier and more productive work environments for individuals and organizations.

**Keywords:** Burnout syndrome, Occupational burnout, Professional exhaustion, Professional burnout, Work Ecology.

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## I. Introduction

Benjamin Franklin's statement that work dignifies human beings reflects a longstanding view of the value and meaning of work in human life. Work not only gives direction to life, but also promotes goals, self-realization, responsibility, and the possibility of turning aspirations into reality. Sturza and Marques (2017) argue that work is a fundamental element of the human social condition because it shapes individuals through what they produce and, when dignified, elevates their role in the process of social transformation.

Abusive dynamics in organizational settings and their psychological effects substantially increase the risk of developing burnout syndrome (BS), which is characterized by profound emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment. Given this reality, it is necessary to produce knowledge that enables organizations to understand the severity of burnout and its direct impact on employee well-being, while also encouraging the adoption of preventive and corrective measures.

Codo (1999) describes burnout as a state of energy loss, disinterest, and a sense of futility in relation to work (Codo & Vasques-Menezes, 1999). Burnout is a response to chronic work-related stress, and its main symptoms include emotional and physical exhaustion, cynicism, and reduced professional efficacy, all of which negatively affect individuals at multiple levels. It is also one of the main reasons for employee absenteeism (Areosa & Queirós, 2020).

Individuals who develop burnout frequently present symptoms such as persistent fatigue, irritability, difficulty concentrating, low self-esteem, sleep disturbances, and depersonalization. The syndrome affects not only workers' health and well-being, but also their productivity, performance, and overall quality of life (Vieira, 2010; Lima Filho et al., 2023).

Data reported by the National Association of Occupational Medicine and by the International Stress Management Association in Brazil (ISMA-BR) indicate the magnitude of the problem in the country. According to the figures cited in the Brazilian literature, 72% of Brazilians experience work-related stress and 32% present burnout, placing Brazil among the countries with the highest levels of occupational stress. Burnout was officially classified by the World Health Organization (WHO) as an occupational phenomenon in the ICD-11, which came into effect in 2022 (World Health Organization, 2022).

The need to adopt both individual and organizational strategies to mitigate stress and prevent burnout therefore appears evident, particularly if the aim is to promote healthier and safer work environments. In this sense, producing knowledge about prevention strategies already identified in scientific literature is relevant both to work organizations and to society.

### **Organizational Ecology, Work Ecology, and Mental Health**

Organizational Ecology is still a relatively little-known theory that uses a biological model to explain how environmental conditions affect interorganizational abundance and diversity. This perspective questions the power of managers over the fate of institutions and challenges the traditional view of management. At the same time, it goes beyond concern with the immediate organizational environment by examining the interactions between organizations and the settings in which they operate, including competition, cooperation, available resources, and adaptation to change (Ceretta, 2015).

From a similar perspective, Work Ecology addresses the relationship between the intraorganizational work environment and workers' behavior, using this concept as a means of promoting balance and increasing productivity in organizations. In this view, the workplace is understood as a complex ecosystem in which the interactions among internal and external elements directly influence employee performance and satisfaction (Leite, 2006).

In other words, the work environment is integrated into the broader environment, and this integration determines whether working conditions will affect labor relations positively or negatively. Leite (2006) argues that ecology, insofar as it studies the relationship between human beings and their habitat, necessarily studies work, because work is the means by which people establish their relationships with the environment and with others.

Work Ecology is based on the idea that the work environment has a significant impact on workers' behavior, performance, and well-being. As in nature, where the elements of an ecosystem interact dynamically and interdependently, the variables present in the work environment are also interrelated in complex ways.

Within this framework, it becomes clear that organizations should create work environments that stimulate employees' intrinsic motivation, that is, the motivation arising from personal interests and satisfaction in the work itself rather than from external rewards alone (Leite, 2006).

To address these challenges and promote a more balanced and productive work environment, Leite (2006) proposes strategies based on the principles of Work Ecology. These include flexible working-time arrangements, employee participation in organizational decisions, the promotion of a healthy climate grounded in trust and mutual respect, investment in personal and professional development programs, and strategies aimed at maintaining mental health and preventing psychological distress, among other measures.

Accordingly, the author recommends understanding and managing the workplace as a dynamic ecosystem in which the interactions among multiple elements directly influence employees' motivation and performance.

For this reason, a Work Ecology approach cannot be limited to analyzing the physical conditions of the workplace; it must broaden its scope to include more comprehensive perspectives on work (Leite, 2006).

Burnout, as a mental health problem associated with the work environment, has received increasing attention in recent years because of the growing number of cases of professional exhaustion.

Work Ecology, in turn, seeks to understand the complex relationship between human beings and their work environment by considering not only physical and organizational aspects, but also the psychosocial and emotional factors that shape the experience of work. It also emphasizes the importance of creating healthy work environments that promote balance between personal and professional life, respect for workers' individuality, and the valuation of overall well-being (Dejours, 2022).

The relationship between burnout and Work Ecology is evident because the development of burnout is intrinsically associated with workplace conditions. From this perspective, it becomes important to identify and mitigate risk factors and to promote practices and policies that support workers' mental health and well-being. Promoting mental health in the workplace also requires an integrated and collaborative approach involving employers, managers, health professionals, and workers (Vasconcelos & Farias, 2008). Measures such as mental health promotion programs, psychosocial support, psychosocial risk assessment, and work environments that encourage dialogue and participation can contribute to burnout prevention and well-being at work (Rodrigues et al., 2020).

Burnout syndrome and Work Ecology are therefore interconnected in the construction of healthy and sustainable work environments. Preventing burnout and promoting workers' well-being are essential to ensuring that work remains a source of accomplishment and satisfaction rather than of suffering and illness. Employers, managers, and workers must therefore act jointly to promote practices and policies that value mental health and well-being and create favorable conditions for personal and professional development

## II. Materials And Methods

The CAPES Periodicals Portal was selected because it is regarded as the main database providing Brazilian researchers with access to scientific information (Canto & Pinto, 2018).

The study is characterized as a mixed systematic review with qualitative convergence because it transforms the results of qualitative, quantitative, and mixed-methods studies into qualitative findings (Galvão & Ricarte, 2019).

To achieve the study objective, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were used (Moher et al., 2009). The PRISMA checklist and flow diagram were employed to verify the relevant reporting items and the flow of the inclusion and exclusion criteria.

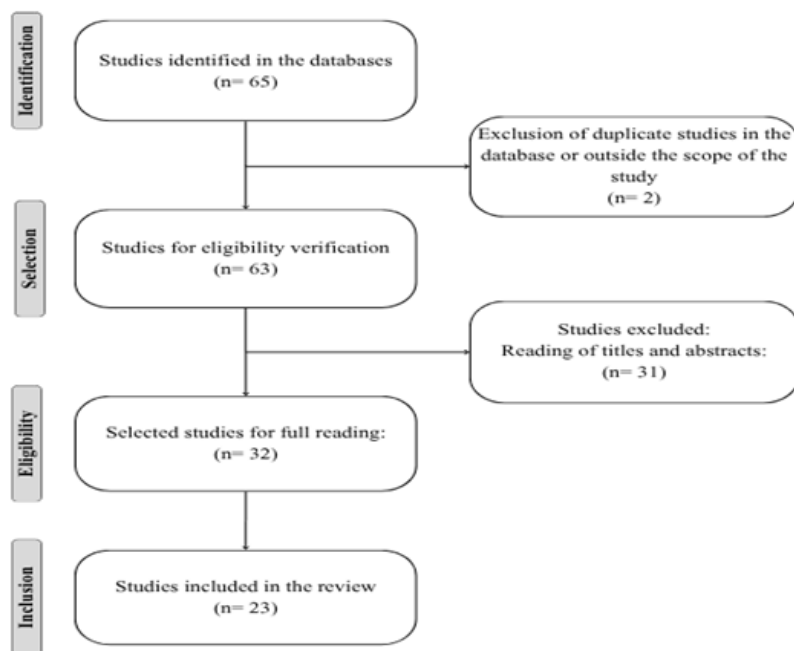
To answer the research question, the study followed these steps:

(i) construction of the research protocol; (ii) formulation of the question using the PICO acronym; (iii) search for studies and definition of descriptors; (iv) selection and review of studies using predefined inclusion and exclusion criteria; (v) critical appraisal of the articles; (vi) data collection; and (vii) synthesis of results and grouping of studies according to their similarities (Ercole et al., 2014).

The search used the exact descriptors “burnout” and “prevention.” The inclusion criteria were as follows:

- (i) articles published between 2016 and 2023;
- (ii) open-access articles; and (iii) peer-reviewed articles.

The following were excluded: (i) studies that did not address both topics; (ii) foreign publications; (iii) literature reviews, whether narrative, integrative, bibliographic, or similar; and (iv) theses or dissertations. A review framework was then prepared containing the title, journal, method, prevention strategies, and main results of each study. The initial search retrieved 65 articles, of which 2 were duplicates. After application of the inclusion and exclusion criteria, eligibility screening, and title and abstract analysis, 32 articles remained. Full-text reading then resulted in a final sample of 23 studies. This process is presented in the PRISMA flowchart shown in Figure 1.



Reading the articles and applying Document Analysis (Bardin, 2011) made it possible to analyze the relevant information contained in the corpus and to group it into two thematic categories: (1) burnout syndrome—conceptual definitions, symptoms, causal aspects, correlates, and consequences; and (2) prevention strategies

### III. Results

The results of the documentary review are summarized in Table 1.

Year	Title and author(s)	Journal	Method	Main objective	Prevention Strategies	Main results
1. 2023	Burnout in family health residents: a longitudinal study. Santos, L. L.; Loyola Netto, L. P.	Revista Brasileira de Medicina de Família e Comunidade	Longitudinal study	To present the occurrence of burnout, as well as risk and protective factors, among residents in family and community medicine and multiprofessional residency programs within primary health care.	Measures to ensure better professional development, responsibly preparing graduates for the labor market.	Burnout was associated with work overload, lack of leisure activities, and psychiatric treatment.
2. 2023	Burnout syndrome and quality of life among nursing staff in a hospital setting. Burlim, A. J. G. O.; Siqueira Júnior, A. C.	Revista Foco	Cross-sectional quantitative and analytical study	To analyze the presence or absence of burnout syndrome and quality of life among nursing staff.	Awareness and prevention so that employees and managers understand workplace risks and learn to deal with stressors.	Awareness and prevention are essential to avoid the progression of burnout and the consequent reduction in quality of life.
3. 2023	Stress and burnout in the teaching profession: a study of the working conditions of early childhood education teachers. Yaegashi, J. G. et al.	Notandum	Bibliographic research of the state-of-knowledge type	To investigate psychosocial, structural, and relational factors in teaching that may trigger stress and burnout among early childhood education teachers.	Preventive actions and social support to ensure teachers' quality of life.	Workload, interpersonal relationships, and school environmental conditions were the factors most associated with stress and burnout among teachers.
4. 2023	Psychosocial factors and burnout syndrome among basic education teachers. Souza, M. C. L.; Carballo, F. P.; Lucca, S. R.	Psicologia Escolar e Educacional	Systematic literature review	To verify the association between psychosocial work factors, individual characteristics, and burnout syndrome among teachers in basic education.	Actions aimed at psychosocial work factors.	Teachers suffer physically and emotionally because of precarious infrastructure, high demands, lack of autonomy, poor relationships, and violence.
5. 2023	Burnout syndrome: impacts on people management and forms of prevention. Souza, I. S. et al.	Revista Foco	Bibliographic and field research	To understand burnout syndrome and ways of preventing it through people management.	Lectures and teamwork at the group and organizational levels, with encouragement at the personal level.	Burnout is a response to work-related stress that generates negative feelings and attitudes.
6. 2023	Burnout, anxiety, and depression among nurses in the context of the COVID-19 pandemic. Ferreira, L.; Tomás, C.	Revista de Enfermagem Referência	Quantitative descriptive, correlational, and cross-sectional study	To assess the impact of the COVID-19 pandemic on nurses in relation to burnout, anxiety, and depression.	Health surveillance programs; adequate material resources; good communication with superiors; well-being promotion; rest days and vacation.	The pandemic context, together with social and family circumstances, led nurses to experience symptoms of burnout, anxiety, and depression.
7. 2023	Prevalence of burnout syndrome among nurses in a public hospital in Pernambuco: a cross-sectional study. Lima Filho, C. A. et al.	Revista de Enfermagem Atual In Derme	Descriptive cross-sectional quantitative study	To analyze the prevalence of nurses with signs and symptoms of burnout syndrome in a public hospital in Recife.	Implementation of coping measures and warning actions related to symptom development.	Institutional policies limit safety practices and aggravate damage to workers' physical and mental health because of working conditions.
8. 2023	An approach to burnout syndrome and its repercussions in company routines. Matos, J. J.; Menezes, T. D.; Nunes, A. L. P. F.	ID on line Revista de Psicologia	Systematic literature analysis	To investigate the impacts of burnout syndrome, characterized by emotional and physical exhaustion, depersonalization, and reduced personal	Implementation of more inclusive and collaborative leadership practices.	Burnout syndrome poses significant challenges for companies.

				accomplishment.		
9. 2022	Strategies for the management of stress and burnout among healthcare professionals in Brazil. Balbinot, M. A.; Bordignon, M.	Revista Brasileira de Medicina do Trabalho	Scoping review	To map evidence in the scientific literature regarding the implementation of prevention and management strategies for stress and/or burnout and their impact among healthcare professionals in Brazil.	Integrative and complementary practices, educational strategies, and stress-reduction programs.	Published studies report intervention and experience-based strategies aimed at preventing and managing stress and burnout.
10. 2022	Stress and burnout among emergency nurses in a referral hospital for urgency and trauma. Souza, M. C. L.; Silva, S. M.; Souza, S.	Revista de Enfermagem do Centro-Oeste Mineiro	Descriptive cross-sectional quantitative study	To investigate stress and burnout among emergency nurses in a trauma referral hospital in Belo Horizonte.	Actions at the individual level to facilitate adaptation to stressful situations in daily work.	Nurses are exposed to a highly stressful work environment conducive to burnout.
11. 2022	Burnout syndrome and self-efficacy among physical education teachers. Pereira, E. C. S.; Ramos, M. F. H.; Ramos, E. M. L. S.	Revista Brasileira de Educação	Quantitative descriptive study	To identify the prevalence of burnout and levels of self-efficacy among 63 physical education teachers working in basic education.	Interventions for burnout treatment and prevention, as well as programs to develop teachers' self-efficacy.	Among participants, 69.8% reported high emotional exhaustion, 44.4% high depersonalization, and 41.2% low personal accomplishment at work.
12. 2022	Common mental disorders and burnout syndrome among university professionals. Silva, J. L. L. et al.	SMAD, Revista Eletrônica Saúde Mental Álcool e Drogas	Epidemiological study with a descriptive cross-sectional design	To describe suspected burnout syndrome and common mental disorders among university professionals.	Awareness of the importance of promoting a healthy environment that ensures the subject's wholeness in its broadest dimensions.	Mental health affects professionals' social structure, including family involvement, relationships with coworkers, and physical health.
13. 2021	The burnout epidemic during the COVID-19 pandemic: the role of LMX in alleviating physicians' burnout. Moura, E. C.; Furtado, L.; Sobral, F.	RAE-Revista de Administração de Empresas	Field research	To identify effective ways of reducing stressors in order to prevent burnout among healthcare professionals.	High-quality relationships between supervisors and medical staff.	Leader-member exchange helps prevent burnout, although with lower efficacy among frontline workers than among those without direct contact with COVID-19.
14. 2020	Burnout among nursing students: predictors and association with empathy and self-efficacy. Lopes, A.; Nihei, O. K.	Revista Brasileira de Enfermagem	Field research	To test the hypothesis that burnout is negatively associated with empathy and self-efficacy.	Adjustment of internship workload; incentive programs for physical and leisure activities; educational activities aimed at developing empathy and self-efficacy.	Personal and academic factors predict burnout among nursing students; self-efficacy and empathy may help prevent the syndrome.
15. 2020	Sociodemographic and occupational aspects associated with burnout in military nursing workers. Dorneles, A. J. A. et al.	Revista Brasileira de Enfermagem	Field research	To analyze the association between burnout and sociodemographic and occupational characteristics of military nursing workers.	Engagement in leisure activities.	Burnout was associated with the military health organization, length of service in military nursing, and engagement in leisure activities.
16. 2020	Burnout syndrome in Family Health Strategy managers. Porciuncula, A. M.; Venâncio, S. A.; Silva, C. M. F. P.	Ciência & Saúde Coletiva	Descriptive study	To identify factors associated with the development of burnout among Family Health Strategy managers in Rio de Janeiro.	Changes in service organization and work processes.	Deadlines, demands, responsibilities, lack of appreciation, career advancement, institutional support, autonomy, and respect for decision making were associated with

						burnout.
17. 2020	Association of empathy and occupational stress with burnout among primary healthcare professionals. Pinheiro, J. P.; Sbicigo, J. B.; Remor, E.	Ciência & Saúde Coletiva	Field research	To investigate the association of empathy and occupational stress with burnout among primary healthcare professionals.	Perspective taking and empathic concern as protective factors; focus on resources, stressors, and refinement of empathic skills.	Empathy—especially empathic concern and perspective taking—may protect against burnout and influence its relationship with occupational stress.
18. 2019	Descriptive analysis of burnout dimensions: a study with young workers. Souza, M. B. C. A.; Helal, D. H.; Paiva, K. C. M.	Cadernos Brasileiros de Terapia Ocupacional	Field research	To investigate burnout by analyzing professional fulfillment, emotional exhaustion, and depersonalization among young workers.	Attention to subjective aspects linked to work.	Organizational interventions that enrich young workers' activities may prevent suffering and burnout-inducing situations.
19. 2019	Job stress among teachers: associations with occupational factors according to social support. Birolim, M. M. et al.	Ciência & Saúde Coletiva	Field research	To analyze occupational factors associated with job stress among elementary school teachers.	Social support.	Job strain is associated with specific teaching conditions, and social support may moderate some of these associations.
20. 2018	Preliminary identification of burnout syndrome in military police officers. Bezerra de Lima, F. R. et al.	Motricidade	Quantitative observational study	To identify burnout syndrome in military police officers and its relationship with physical exercise.	Physical exercise.	There was an alarming prevalence of early-stage burnout among police officers; although physical exercise did not prevent the syndrome, it should be encouraged because of its benefits.
21. 2016	Correlations among teachers' educational social skills, burnout, and the teacher-student relationship. El Achkar, A. M. N. et al.	Estudos e Pesquisas em Psicologia	Predictive study	To investigate variables that may promote or hinder resilience processes in the school context and, at the same time, favor or harm the teacher-student relationship.	Interventions focused on learning educational social skills.	Technobureaucratic issues overload teachers, hinder tasks, and reduce personal and professional satisfaction, thereby negatively affecting well-being and job performance.
22. 2018	Quality of life of nursing professionals working in critical care units. Souza, V. S. et al.	Revista Cuidarte	Quantitative cross-sectional study	To analyze the quality of life of nursing professionals working in critical care units.	Adequate rest and sleep periods to minimize the effects of stress on body and mind.	Quality of life is impaired by professional practice in ways that affect multiple dimensions of workers' lives.
23. 2018	Wellness room as a strategy for reducing occupational stress: a quasi-experimental study. Jacques, J. P. B. et al.	Revista Brasileira de Enfermagem	Quasi-experimental study	To compare occupational stress levels among surgical-block nursing workers before and after the wellness-room intervention.	Aesthetic-care sessions, relaxation, lectures, and workshops in an on-site wellness room.	The intervention reduced demand and increased control and social support in nursing, although without statistical significance across all occupational groups.

Among the 23 articles, three were published in *Ciência & Saúde Coletiva*, three in *Revista Brasileira de Enfermagem*, and two in *Revista Foco*. The remaining studies were distributed across different journals. Another relevant finding is that six articles were published in journals with “Nursing” in their title, three in psychology journals, and two in medicine journals.

With regard to the terms used by the authors to characterize their methods, seven studies were described as quantitative; six as field research; six used the term descriptive; five used the term cross-sectional; and five referred to review methods, whether systematic, bibliographic, or scoping. The remaining studies used expressions such as epidemiological study with a cross-sectional design, longitudinal study, predictive study, correlational study, quasi-experimental research, and observational study.

The populations or samples specified in the studies' objectives were distributed as follows: six studies investigated nursing professionals; six collected data from healthcare professionals, predominantly in public health programs; five investigated teachers at different educational levels; two focused on military personnel; and the remaining four addressed different groups.

All articles addressed burnout directly or indirectly within the health field. Considering that the descriptors used in the search did not include the term "health," this concentration of studies is a significant finding.

### **Category 1. Burnout Syndrome: Conceptual Definitions, Symptoms, Causal Aspects, Correlates, and Consequences**

As discussed by Moura et al. (2021) and Dorneles et al. (2020), burnout syndrome represents a disorder arising from occupational stress in which workers experience intense emotional exhaustion and a loss of interest in their work activities.

The syndrome is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion refers to feeling emotionally overloaded and mentally depleted, making recovery for the following day more difficult.

Depersonalization manifests itself as a negative, apathetic attitude toward coworkers or service recipients, resulting in interpersonal relations marked by detachment and emotional coldness. Reduced personal accomplishment, in turn, denotes a sense of incompetence in relation to work, involving a negative self-perception of one's skills and abilities to perform tasks and leading to professional impairment, in which work is no longer seen as meaningful (El Achkar et al., 2016).

Among the fields most affected by burnout are healthcare and education, mainly because of work overload in these settings. Nursing professionals, for example, bear high responsibility for patients, since errors may cost lives; they also face long working hours and demands for both physical and mental stamina, which makes them vulnerable to burnout (Lopes & Nihei, 2020).

During the COVID-19 pandemic in particular, physicians were strongly affected by burnout because of long working hours, fear, and uncertainty related to the disease. Neither the health system nor professionals were fully prepared for an infection of that magnitude. Abrupt changes in working conditions contributed to their vulnerability to burnout (Moura et al., 2021).

Among educators, the causes of burnout identified in the literature include excessive workload, inadequate pay, large classes, violence inside and outside schools, poor working conditions, task accumulation, and career devaluation (El Achkar et al., 2016; Birolim et al., 2019).

Porciuncula et al. (2020) and Souza et al. (2019) identified characteristic symptoms of burnout such as disillusionment, discouragement, extreme frustration with work, fatigue, sleep disturbances, muscle pain, headache, irritability, aggressiveness, inability to relax, inattention, memory changes, slowness, isolation, irony, loss of interest in leisure activities, and absenteeism, among others.

### **Category 2. Prevention Strategies**

The preventive practices identified in the reviewed studies were diverse and operated at both the personal and organizational levels. Moura et al. (2021), for example, discuss Leader–Member Exchange (LMX) theory, according to which high-quality relationships between supervisors and subordinates function as sources of social support and resources that help workers cope with job demands, workplace stressors, routine changes, and physical and psychological fatigue.

Dorneles et al. (2020), Bezerra de Lima et al. (2018), and Jacques et al. (2018) highlight leisure activities, physical exercise, aesthetic care and relaxation sessions. Pleasant activities tend to alleviate stress and may therefore help combat burnout. In the study by Bezerra de Lima et al. (2018), physical exercise did not prevent burnout among military police officers, but it appeared to prevent progression of the condition. Similarly, Lopes and Nihei (2020) indicate that lack of physical activity and absence of leisure activities were antecedent variables associated with high burnout.

Birolim et al. (2019) emphasize social support as a means of combating burnout. In their analysis, social support refers to the help provided by significant others in the form of material aid, information, or emotional assistance in stressful situations. Teachers perceive it as the possibility of sharing emotions in the workplace.

El Achkar et al. (2016) likewise address social support and interpersonal relationships, showing that, depending on their nature, these relationships may foster resilience or vulnerability. This once again underscores the relevance of social support in the workplace for burnout prevention.

In primary healthcare, empathy appeared both as a protective factor and as a possible trigger for burnout. Empathic concern—understood as emotional attunement to the patient and genuine interest in the patient's situation—may increase meaning and satisfaction in professional practice and thus help prevent

burnout. By contrast, personal distress, another dimension of empathy, may reduce the other's experience to an egocentric perspective and lead to emotional exhaustion when workers take the patient's suffering as their own (Pinheiro et al., 2020).

Organizational characteristics are also associated with burnout because organizations often expect employees to devote increasing amounts of time, effort, talent, and flexibility to work without offering proportional career opportunities, stability, or security in return.

According to Porciuncula et al. (2020), it is therefore necessary to change work processes so that workload is adjusted to working hours and a cooperative and creative work environment is encouraged, including fair and adequate reward and recognition mechanisms that help professionals feel valued and satisfied.

The findings also highlight the importance of managers paying attention to workers' subjectivity in order to identify better working conditions, increase satisfaction, and improve work capacity. It should be noted that the study in question was not diagnostic in nature, but it did identify syndrome-related characteristics among the participants.

Souza et al. (2018) stress the importance of adequate rest and sleep periods to minimize the effects of stress on workers' bodies and minds. Good physical health-related quality of life can positively influence several dimensions of life and support work performance. This tendency may also improve nurses' job satisfaction and the quality of the work performed.

Table 2 presents, in summary form, the strategies that emerged from the analysis and that, according to the reviewed studies, have the potential to prevent and reduce the occurrence of burnout when applied appropriately and responsibly.

The identified strategies were synthesized into organizational and individual dimensions and grouped into two attributes: work environment and intersubjectivity, and physical and mental health.

**Table 2. Summary of burnout prevention strategies**

<b>Dimension</b>	<b>Strategies</b>
Organizational Work environment and intersubjectivity	<ul style="list-style-type: none"> <li>• Professional fulfillment</li> <li>• Adaptation to stressful situations in daily work</li> <li>• Understanding of the work environment and its risks</li> <li>• Teamwork</li> <li>• Actions focused on psychosocial work factors</li> <li>• Provision of adequate material resources</li> <li>• Promotion of a healthy environment</li> <li>• More inclusive and collaborative leadership practices</li> <li>• High-quality relationships between supervisors and teams</li> <li>• Adequate workload distribution</li> <li>• Empathic concern for workers</li> <li>• Attention to subjective aspects linked to work</li> </ul>
Individual Physical and mental health	<ul style="list-style-type: none"> <li>• Leisure activities</li> <li>• Participation in stress-reduction programs</li> <li>• Acceptance of social support</li> <li>• Physical exercise</li> <li>• Participation in quality-of-life programs</li> <li>• Maintenance of healthy relationships</li> </ul>

The analysis indicates that burnout prevention in work environments requires a multifaceted approach supported by a range of organizational strategies. Professional fulfillment, for example, can be promoted through adequate material resources and balanced workload distribution, allowing workers to perform their tasks efficiently and without overload.

Adaptation to stressful situations in everyday work may also be facilitated by promoting healthy work environments and implementing actions aimed at psychosocial work factors. Understanding the work environment and its risks is therefore essential to burnout prevention.

This may be achieved by observing intersubjective aspects associated with work and by promoting high-quality relationships between managers and teams. Likewise, inclusive and collaborative leadership practices, together with teamwork, can improve workplace dynamics and reduce stress. Empathic concern for workers is another critical element in promoting well-being and preventing burnout.

#### **IV. Conclusion**

The studies reviewed here allow the conclusion that burnout syndrome is a growing problem in the work environment and that it can seriously affect workers' mental health and well-being. Preventing this condition requires organizations to adopt proactive strategies aimed at promoting a healthy work environment.

First, it is essential to foster a culture that values balance between personal and professional life and ensures that workers have clearly defined schedules, adequate workloads, and sufficient time for rest and leisure. Such a culture may be supported by flexible working-time arrangements and by organizational practices that help workers manage their time and step back when necessary to protect their mental health.

Well-being activities such as mindfulness programs, physical exercise, and counseling may also help create an environment in which workers' mental health is treated as a priority. Open communication and the training of managers are likewise central to burnout prevention. Leaders should be attentive to signs of stress and exhaustion in their teams, encourage dialogue, and provide support whenever necessary.

Training focused on stress management and conflict resolution may help employees deal with work pressures in healthier ways. Ultimately, burnout prevention is intrinsically linked to well-being at work, because healthy and secure workers tend to be more productive, committed, and satisfied, which benefits both organizations and individuals.

Another important strategy in burnout prevention is to foster a sense of purpose and meaning at work. When workers understand how their contributions align with the organization's mission and recognize the value of their activities, they are more likely to develop a positive attitude toward work. This may be strengthened by aligning personal and organizational goals and by regularly recognizing workers' achievements.

In this sense, burnout prevention goes beyond caring for employees' mental health in isolation; it involves creating a work environment in which workers feel secure, valued, engaged, and satisfied, thereby promoting well-being at work and organizational health more broadly.

Work Ecology also contributes an important interpretive framework because it supports the need for a holistic and systemic approach to the management of the work environment, taking into account not only physical aspects, but also the psychological, social, and organizational dimensions that shape workers' experience and motivation.

Accordingly, Work Ecology emerges as a model that seeks to reconcile employees' individual needs with organizational demands in order to build a healthy and harmonious environment conducive to personal and professional development (Leite, 2006).

Applying Work Ecology theory at the intersection with burnout offers a perspective that is both comprehensive and still relatively scarce in the literature. This approach recognizes that burnout is not merely an individual phenomenon but is also influenced by the work environment. Through this lens, it becomes possible to understand how job demands, available resources, and organizational support contribute—by their presence or absence—to the development of burnout.

Work Ecology also draws attention to the broader context, including sociocultural and economic factors that may influence the experience of burnout.

By applying Work Ecology theory to the study of burnout, more effective interventions can be developed that address not only individual symptoms, but also the working conditions that contribute to the syndrome. This may lead to healthier and more productive work environments, benefiting both individuals and organizations. Work Ecology therefore constitutes a valuable framework for understanding and addressing burnout and reinforces the need for systemic intervention.

Within the scope of Work Ecology, burnout prevention raises important issues related to protecting employees' well-being and promoting safe and healthy work environments. Practices inspired by this perspective are relevant to the regulation of work shifts, the promotion of well-being at work, and the protection of workers' mental health, thereby contributing to more humanized and inclusive work settings.

In summary, burnout prevention is not restricted to the domain of mental health and individual well-being alone; it is also linked to broader issues involving workers' relationship with the environment, organizational well-being policies, and collective forms of protection.

Finally, although studies on burnout prevention strategies do exist, the Brazilian literature on the subject remains limited in the last five years. No Brazilian studies explicitly relating Work Ecology theory to burnout were identified in this review, although this does not mean that they do not exist. Another important finding is the recurrent role of social support in burnout prevention. A strong social network within the organization appears to function as a healthy resource that alleviates or prevents organizational stress.

Further studies are needed because burnout is a relevant occupational health problem and requires a deeper understanding of the factors that may prevent it. It is hoped that this review will stimulate the curiosity and interest of interdisciplinary researchers in the topic.

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