ISSN-e [2763-8847]

Global Clinical Research Journal

REVIEW ARTICLE

Stress among healthcare professionals in the surgical center sector

Estrés entre los profesionales sanitarios del sector de centros quirúrgicos

Estresse do profissional de saúde no setor de centro cirúrgico

Aline Voltarelli[1*]
ORCID: 0000-0002-3491-616X
Renato Philipe de Sousa[2]
ORCID: 0000-0002-6586-2205
Cássia Marques da Rocha Hoelz[3]
ORCID: 0000-0001-8721-9969

Christiano Miranda[4]
ORCID: 0000-0003-2616-8744
Anelvira de Oliveira Florentino[5]
ORCID: 0000-0001-8628-0565
Elda Garbo Pinto[5]
ORCID: 0000-0003-0443-7501

Camilla Cristovão de França[6]
ORCID: 0000-0003-3226-8709
André Luiz de Arruda[7]
ORCID: 0000-0002-6811-0957
Rosangela Sakman[8]
ORCID: 0000-0003-1738-9490

[1]Universidad de Ciencias Empresariales y Sociales. Buenos Aires, Argentina.
[2]Universidade Federal do Estado do Rio de Janeiro. Rio de Janeiro, Brazil.
[3]Secretaria Municipal de Saúde da Prefeitura de Bauru. São Paulo, Brazil.
[4]Universidade Cruzeiro do Sul. São Paulo, Brazil.
[5]Universidade Estadual Paulista. São Paulo, Brazil.
[6]Faculdade Anhanguera. São Paulo, Brazil.
[7]Secretaria Municipal da Saúde. São Paulo, Brazil.
[8]Faculdade Sequencial. São Paulo, Brazil.
[*]**Corresponding author**: E-mail: alivolter@yahoo.com.br

Abstract

This study aimed to describe the factors that cause stress among health professionals in the surgical center sector. The research was descriptive, conducted through a survey of articles published within the last five years in the databases of the Ministry of Health, the Virtual Health Library, SciELO, and LILACS. Eight studies were selected for analysis. This study indicates that nursing professionals are overloaded with multiple roles and activities within the team, facing high responsibilities and demands, which expose them to psychosocial risks and stress, as well as long working hours and insufficient material resources, among other risk factors. There is a need for actions to prevent occupational stress among health professionals. There is a need to value the services of surgeons, nurses, nursing technicians, and assistants, given the workload in the surgical center sector, considering the salary issue, quality of life of health professionals, in addition to work shifts, greater protection against chemical, biological, viral agents, and radiation.

Descriptors: Surgery Center; Stress; Nursing; Mental Health; Medicine.

How to cite this article:
Voltarelli A, Sousa RP, Hoelz CMR, Miranda C, Florentino AO, Pinto EG, França CC, Arruda AL, Sakman R. Stress among healthcare professionals in the surgical center sector. Glob Clin Res. 2024;4(1):e61. https://doi.org/10.5935/2763-8847.20210061

Submission: 10-07-2022
Approval: 04-20-2023

Resumén

El objetivo de este estudio fue describir los factores que generan estrés en los profesionales de la salud del sector de centros quirúrgicos. La investigación fue descriptiva, mediante un análisis de artículos publicados hace menos de cinco años en las bases de datos del Ministerio de Salud, la Biblioteca Virtual en Salud, SciELO y LILACS. Se seleccionaron ocho estudios para su análisis. Este estudio indicó que los profesionales de enfermería están sobrecargados con múltiples roles y actividades en el equipo, con responsabilidades y altas exigencias, lo que los expone a riesgos psicosociales y estrés, así como a largas jornadas laborales y recursos materiales insuficientes, entre otros, que también constituyen factores de riesgo. Es necesario implementar acciones para prevenir el estrés laboral en los profesionales de la salud. Es necesario valorar los servicios de cirujanos, enfermeros, técnicos y auxiliares de enfermería en vista de la carga de trabajo en el sector de centros quirúrgicos, considerando la cuestión salarial, la calidad de vida de los profesionales de la salud, además de los turnos de trabajo, una mayor protección contra agentes químicos, biológicos, virales y radiaciones.

Descriptores: Centro de Cirugía; Estrés; Enfermería; Salud Mental; Medicina.

Resumo

Objetivou-se descrever quais os fatores que causam estresse dos profissionais de saúde no setor do centro centro cirúrgico. A pesquisa teve um caráter descritivo por meio de levantamento de artigos com datas menores de cinco anos de publicados nas bases do Ministério da Saúde, Biblioteca Virtual em Saúde e SciELO e LILACS. Foram selecionados oito estudos para análise. Esse estudo apontou que a enfermagem se sobrecarrega com vários papéis e atuações na equipe, de responsabilidade e altas exigências se expondo a riscos psicossociais e estresse, assim como a longas horas de trabalho e a recursos materiais insuficientes, entre outros, também são fatores de risco. Observa-se a necessidade de ações para evitar o estresse ocupacional dos profissionais de saúde. Há necessidade de valorização do serviço do cirurgião, enfermeiro, técnicos e auxiliares em enfermagem diante da carga horária exercida no setor do centro cirúrgico, considerando a questão salarial, qualidade de vida dos profissionais de saúde, além das escalas de trabalho, maior proteção contra agentes químicos, biológicos, virais e radiações.

Descritores: Centro Cirúrgico; Estresse; Enfermagem; Saúde Mental; Medicina.

Introduction

The surgical center (SC) is a specialized hospital unit located in the operating room where anesthetic-surgical, diagnostic, and therapeutic procedures are performed, both electively and in emergencies. This environment requires multidisciplinary coordination to ensure the safety and effectiveness of intraoperative care[1].

The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being. In this context, the mental health of healthcare professionals is essential for the quality of care provided. However, factors such as emotional overload, conflicting interpersonal relationships, and excessive involvement with patients contribute to the psychological illness of these workers[2,3].

Nursing staff are particularly exposed to physical and psychological risks due to the critical nature of their duties, especially in emergency units. Work-related stress results from exposure to situations such as overcrowding, shortage of human resources, sleep deprivation, and long working hours, negatively impacting the productivity and health of professionals[4,5].

In addition, symptoms such as anxiety, abdominal discomfort, nausea, and dyspepsia can compromise the quality of life and nutrition of these workers. Work-related mental disorders, such as stress, depression, and burnout syndrome, result in emotional imbalance, frustration and professional dissatisfaction[6,7].

Given this scenario, the question is: How does stress influence the health of nursing professionals in the surgical center? This study aims to describe the main factors that cause stress in these professionals, aiming to support strategies for promoting occupational health.

Methodology

This study is characterized as an integrative literature review, with a descriptive approach and qualitative analysis, whose objective was to synthesize the scientific evidence on stress factors in health professionals working in the surgical center. The search was carried out in indexed databases, including the Ministry of Health, the Virtual Health Library (BVS), SciELO and LILACS, using combinations of the following descriptors: "Surgical Center", "Occupational Stress", "Nursing", "Mental Health" and "Medicine", associated by Boolean operators (AND/OR).

Articles published between 2018 and 2023, in Portuguese, English, or Spanish, that directly addressed the topic of stress in surgical center professionals were included. Duplicate studies, those without full access or outside the defined time frame, were excluded. The search strategy initially resulted in 152 articles, of which 126 were excluded after reading the titles and abstracts because they did not

meet the eligibility criteria. After thorough analysis, eight studies were selected to compose the review.

The data were extracted and organized into an analytical matrix, and the following axes were analyzed: Stress triggers, such as work overload, insufficient resources, and interpersonal conflicts; Impacts on health, including mental and physical disorders; and Coping strategies, such as organizational interventions and psychological support. The analysis followed the thematic content method, allowing the identification of patterns and divergences in literature. As this is an integrative review, it was not submitted to an ethics committee, since it uses publicly available secondary data.

Results and Discussion

The surgical center is a unique work environment in the hospital context, characterized by high technical and organizational complexity. As demonstrated by a study[8], this specialized sector requires specific operational conditions for carrying out anesthetic-surgical, therapeutic, and diagnostic procedures, both on an elective and emergency basis. This peculiar nature of work in the surgical center imposes challenges on professionals, particularly the nursing team, that are different from those faced in other hospital units.

Analysis of the studies reveals that the nurse's role in the surgical center involves a complex combination of technical and managerial skills. As highlighted in the study[9], the Brazilian Association of Surgical Center Nurses recommends that these professionals have specific specialization, given the need for leadership based on technical and scientific knowledge to coordinate multidisciplinary teams in a high-pressure environment. This requirement for specialized qualifications reflects the critical nature of decisions made in this environment, where errors can have serious consequences for patients.

Alarming data from the Federal Nursing Council[10] reveal the psychosocial impact of this work environment: only 29% of nursing professionals report feeling safe at work, while 19.7% have already suffered some type of violence in the hospital environment - 66.5% psychological, 26.3% verbal, and 15.6% physical. These numbers highlight the surgical center as a space where emotional tension often exceeds healthy limits, creating a scenario conducive to the development of work-related mental disorders.

The nature of work in the surgical center, marked by the execution of invasive procedures and the use of highly complex technologies[11], requires professionals not only technical competence, but also considerable psychological resilience. Paradoxically, as observed, this same environment that can be a source of stress also offers significant opportunities for professional fulfillment, through the development of specific skills and the perception of contribution to concrete results in the health of patients[12].

Epidemiological data from the Ministry of Health corroborates the seriousness of the situation: mental and behavioral disorders accounted for approximately 9% of sickness benefits granted in the last five years, with particular emphasis on reactions to severe stress (31.05%) and depressive episodes (27.11%). Particularly worrying is the fact that hospital activities are the fourth economic activity most economically associated activity with absences due to work-related mental disorders[13].

Nursing staff, because of their position on the frontline of care, face unique psychosocial challenges. Authors[6] highlight that constant exposure to situations of pain, suffering, and death imposes an emotional burden that often exceeds individual coping mechanisms. Researchers[5] add that when work demands exceed the professional's adaptive capacity, feelings of frustration and uselessness arise that can develop into mental illness.

The context of the COVID-19 pandemic has significantly exacerbated these challenges. Study[7] documented how increased workloads, combined with fear of contamination and inadequate personal protective equipment, created an unprecedented scenario of occupational stress. These studies reveal that health care workers faced not only the biological risks of the pandemic, but also profound ethical dilemmas as they balanced patient care with protecting their health.

From a pathophysiological point of view, stress in the surgical center environment manifests itself through complex psychoneuroendocrine mechanisms. As described[3], chronic stress responses can trigger significant metabolic changes, increasing the risk for several pathological conditions, including type 2 diabetes mellitus, arterial hypertension, and cardiovascular diseases. These findings highlight the importance of addressing occupational stress not only as a mental health issue, but as a risk factor for physical illnesses among surgical center professionals.[14].

The analysis of the studies revealed that the manifestations of occupational stress in the surgical center present a broad clinical spectrum, with both physical and psychological repercussions. As demonstrated[15], gastrointestinal symptoms - including abdominal discomfort, nausea, xerostomia, and dyspepsia - emerge as frequent manifestations among professionals, significantly affecting their eating habits and, consequently, their nutritional status. These physiological changes represent the somatic materialization of chronic stress, as highlighted in the theoretical model[3], which understands stress as an adaptive response of the organism to demands that exceed its usual resources.

The investigation of etiological factors reveals a complex interaction between individual and organizational aspects. The studies analyzed suggest that sources of stress can be categorized into: (a) internal factors, related to the individual's personal characteristics and coping mechanisms; and (b) external factors, linked to the environmental and organizational conditions of work[3]. This duality highlights the need for multifactorial approaches to intervention that consider both individual vulnerabilities and the structural determinants of the work environment.

The General Adaptation Syndrome model has proven particularly relevant for understanding the progression of occupational stress in this context. The data indicate that many surgical center professionals remain chronically in the resistance phase, characterized by

persistent activation of the hypothalamic-pituitary-adrenal and sympathetic-adrenal-medullary axes[16,17]. Authors[5] argue that the implementation of humanization policies at work could act as a protective factor, interrupting this cycle and preventing progression to the exhaustion phase - a stage associated with professional burnout and serious health impairment.

The organizational consequences of this process are significant. Authors[18] documented that absenteeism related to mental health issues results in overload for the remaining staff, compromised quality of care, and financial losses for institutions. These findings are corroborated by a study[19], which highlights the strategic importance of worker health promotion programs as an organizational investment, both from a human and economic point of view.

The interventions identified as most effective include training and professional development programs[20], strengthening interpersonal bonds within the team[21], implementing strategic breaks during the workday[22], improving institutional communication channels[8], and training leaders.[22].

As highlighted, building healthier work environments requires an approach that goes beyond individual interventions, incorporating profound organizational changes. This perspective is reinforced when it is suggested that effective communication between multidisciplinary teams acts as a protective factor against occupational stress[8,20].

Analysis of the studies also reveals the crucial role of leadership style in modulating stress in the surgical center. Study[22] demonstrated that leaders with developed communication skills, who promote constructive feedback and participatory decision-making, are associated with lower levels of stress in the team. On the other hand, authoritarian or inconsistent management styles emerged as aggravating factors of work tension.

Additionally, researchers[22] highlight the importance of professional recognition and the quality of relationships between colleagues as fundamental elements for job satisfaction. The creation of spaces for democratic discussion of problems, as proposed in the study[22], has proven to be particularly effective in reducing conflicts and strengthening teamwork.

There is a need for an integrated intervention model that combines individual actions (self-care, resilience building), group interventions (strengthening bonds, peer support), and institutional policies (humanized management, adjustment of schedules). As concluded by a study[9], building a healthy work environment in the surgical center requires not only structural changes but also a cultural transformation that values care for those who provide care, recognizing the interdependence between the well-being of professionals and the quality of care provided.

Conclusion

This integrative review showed that occupational stress in the surgical center is a complex and multifaceted phenomenon, resulting from the convergence of organizational, psychosocial and physiological factors. The findings demonstrate that professionals in this highly specialized environment face unique challenges, characterized by constant pressure to make critical decisions under conditions of high technical and emotional complexity. Prolonged exposure to physical risks - including chemical, biological and radiation agents - combined with daily contact with situations of human suffering and death, creates a work environment that is potentially harmful to mental health.

The data analyzed reveal worrying consequences for the well-being of professionals, with manifestations ranging from initial psychosomatic symptoms, such as gastrointestinal disorders and sleep disorders, to established mental disorders, including anxiety, depression and burnout syndrome. The situation became particularly critical during the COVID-19 pandemic, when additional factors such as fear of contamination, ethical dilemmas and prolonged emotional overload intensified the already existing challenges.

The analysis of the studies points to the urgent need for comprehensive interventions that simultaneously address different dimensions of the problem. In the organizational sphere, the importance of restructuring work schedules, adapting material resources, and implementing effective occupational health programs stands out. In the management sphere, the crucial role of training leaders in nonviolent communication and creating democratic spaces for discussing problems is evident. At the individual and collective level, the development of specialized psychological support strategies and the strengthening of interpersonal bonds within the team are essential.

The results obtained reinforce the premise that promoting mental health in the surgical center goes beyond a mere question of individual well-being, constituting a fundamental element for the quality of care provided and patient safety. The construction of a healthy work environment in this context, therefore, requires not only structural and organizational changes but, above all, a profound cultural transformation that recognizes and adequately values the work of those who dedicate themselves to caring for life in the most vulnerable conditions.

References

1. Silva TL da, Gomes JR de AA, Corgozinho MM. Nível de estresse entre profissionais de enfermagem em um centro cirúrgico. Rev SOBECC. 2021;26(2):71-6. https://doi.org/10.5327/Z1414-4425202100020002
2. Organização Mundial da Saúde (OMS). Constituição da OMS. Genebra: OMS; 1948.

3. Meireles VC, Silva RMC, Oliveira EB, Souza SR, Pereira LA. Saúde mental e trabalho: desafios para a enfermagem. Rev Enferm UFPE. 2018;12(5):1456-64.
4. Teixeira APSS, Chomen P, Muzeka ALP, Motter AA. Riscos ocupacionais e trabalho em centro cirúrgico. Divers@. 2022;15(1):76-89. http://dx.doi.org/10.5380/diver.v15i1.83113
5. Souza WF. Transtornos mentais em profissionais de saúde: uma análise psicodinâmica. Rev Psicol Saúde. 2013;25(1). https://doi.org/10.1590/S1984-02922013000100007
6. Fernandes MA, Soares LMD, Silva JS. Transtornos mentais associados ao trabalho em profissionais de enfermagem: uma revisão integrativa brasileira. Rev Bras Med Trab. 2018;16(2):218-24. DOI: 10.5327/Z1679443520180228
7. Dal'Bosco EB, Floriano LSM, Skupien SV, Arcaro G, Martins AR, Anselmo ACC. A saúde mental da enfermagem no enfrentamento da COVID-19 em um hospital universitário regional. Rev Bras Enferm. 2020;73(Suppl 2):e20200434. http://dx.doi.org/10.1590/0034-7167-2020-0434
8. Lucena MS, Lima TNB, Souza JLM, Carvalho MEL, Taurino IJM, Ferreira DRA, et al. Qualidade de vida no trabalho do enfermeiro atuante no bloco cirúrgico. Rev Eletr Acervo Saúde. 2022;23(47):e2303. https://doi.org/10.25248/reas.e2303.2020
9. Barros ACL, Menegaz JC, Santos JLG, Polaro SHI, Trindade LL, Meschial WC. Nursing care management concepts: scoping review. Rev Bras Enferm. 2023;76(1):e20220020. https://doi.org/10.1590/0034-7167-2022-0020pt
10. Conselho Federal de Enfermagem (COFEN). Perfil da Enfermagem no Brasil: relatório final [Internet]. Rio de Janeiro: FIOCRUZ/COFEN; 2019 [acesso em 2023 Jan 15]. Disponível em: http://www.cofen.gov.br/perfilenfermagem
11. Martins JRT. Gestão de riscos no centro cirúrgico: desafios contemporâneos. São Paulo: Atheneu; 2020.
12. Carvalho AMB, Cardoso JA, Silva FAA, Lira JAC, Carvalho SM. Qualidade de vida no trabalho da equipe de enfermagem do centro cirúrgico. Rev Enferm Foco [Internet]. 2018 [acesso em 2023 Jan 15];9(3):1-8. Disponível em: https://enfermfoco.org/wp-content/uploads/articles_xml/2357-707X-enfoco-09-03-0035/2357-707X-enfoco-09-03-0035.pdf
13. Ministério da Saúde (BR). Boletim Epidemiológico de Saúde Mental. Brasília: MS; 2019.
14. Barbosa DJ, Gomes MP, Souza FBA, Gomes AMT. Fatores de estresse nos profissionais de enfermagem no combate à pandemia da COVID-19. Comun. ciênc. Saúde [Internet]. 2020 [acesso em 2023 Jan 15];31(Suppl 1):31-47. Disponível em: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1097300
15. Jarruche LT, Mucci S. Síndrome de burnout em profissionais da saúde: revisão integrativa. Rev. Bioét. 2021;29(1). https://doi.org/10.1590/1983-80422021291456
16. Selye H. The Stress of Life. New York: McGraw-Hill; 1976.
17. Damiani B, Carvalho M. O adoecimento de trabalhadores de enfermagem: uma revisão de literatura. Rev Bras Med Trab. 2021;19(2). DOI: 10.47626/1679-4435-2020-592
18. Furlan JAS, Pillon SC, Silva EB, Lourenço LM. O profissional de enfermagem e sua percepção sobre absenteísmo. Rev Eletrônica Enferm. 2018;20(2):e46532. https://doi.org/10.5216/ree.v20.46321
19. Resende MC, Alves M, Penna CMM. Estratégias organizacionais para saúde do trabalhador em unidades cirúrgicas. Rev Adm Saúde. 2019;21(82):45-59.
20. Peserico A, Colomé Beck CL, Marion da Silva R, Flores Coelho AP, Silva Jacobi C da. Saúde do trabalhador de centro cirúrgico: análise das tendências em teses e dissertações. Revista Recien [Internet]. 2021 [acesso em 2023 Jan 15];11(36):434-50. https://doi.org/10.24276/rrecien2021.11.36.434-450
21. Souza RC, Silva SM, Costa MLAS. Occupational stress in hospital settings: review of coping strategies of nursing professionals. Rev Bras Med Trab.2018;16(4) DOI:10.5327/Z1679443520180279:493-502
22. Carrara GLR, Bernardes A, Balsanelli AP, Camelo SHH, Gabriel CS, Zanetti ACB. A utilização de instrumentos para avaliação da liderança nos serviços de saúde e enfermagem. Rev. Gaúcha Enferm. (Online). 2017;38(3). https://doi.org/10.1590/1983-1447.2017.03.2016-0060