

RISK FACTORS ASSOCIATED WITH STRESS IN THE WORK OF THE NURSING STAFF IN THE SURGICAL CENTER: INTEGRATIVE REVIEW

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Abstract: Nursing professionals who work in the surgical centers significantly have to resist the effects of stress, which can influence the working conditions in which they are submitted. Considering the importance of understanding and discussing issues related to the health of the nursing staff. The present study was based on the categorization of information collected from secondary sources, which were interpreted and grouped into the following categories for understanding: profile of workers; qualification and competitiveness; employment relationship and working conditions for the performance of the nursing professional activities. In which the results show that stress factors can have serious consequences for professionals such as Burnout Syndrome, musculoskeletal problems, hypertension, changes in the digestive system, immunological changes, among others. It is concluded through the knowledge of occupational stressors, both nursing professionals and management must obtain intervention mechanisms that minimize the sources that cause stress.

Keywords: Nursing Staff, Nursing Professionals, Stress Factors.

INTRODUCTION

The surgical center (SC) is one of the most complex sectors of the hospital and has a restricted area, considered by many as the “soul of the hospital” (DALCOL; GARANHANI, 2016, p.5). It is an environment marked for invasive, elective, urgent and emergency procedures, as well as for the use of material resources with high precision and diligence. However, both medical and nursing care are essential throughout the client’s perioperative period (GARCIA et al., 2015; MARTINS; DALL’AGNOLLB, 2016).

These professionals undergo continuous supervision, complying with strict rules and routines in this environment to provide safety

and quality in the service provided to the client and to the professionals themselves, sometimes subjecting themselves to stressful situations, as well as high psychological pressure (CARVALHO et al. al., 2018).

Thus, stress is both an emotional and occupational problem, which consists of a reaction of the body by psychological, physical, mental and hormonal components and has been studied for presenting risks to the balance of professionals, generating the need to adapt the load. service (POSONSKI; SELOW, 2016).

Furthermore, stress causes abnormal wear and tear on the body, causing a decrease in work capacity caused by the individual's prolonged inability to tolerate or adapt to the demands existing in their daily environment. It can be found in all age groups and is related to the individual's lifestyle (SOUZA et al., 2011). O estresse no trabalho causa impactos na saúde e na produtividade dos profissionais, sendo alocada como possíveis causas mais comuns: riscos psicossociais relacionados à organização, projetos e suas condições de trabalho, bem como fatores externos que podem influenciar o desempenho do trabalhador e a sua saúde, os quais são considerados como principais fatores desencadeadores do estresse presentes no âmbito de trabalho, podendo ter como consequência a baixa produtividade, baixa autoestima, alta rotatividade e aumento no absenteísmo. (OPAS/OMS, 2016; SOUZA et al., 2011; OLIVEIRA et al., 2018).

The main signs and symptoms seen in stressful events can be manifested on a physical level, such as sweating, muscle tension, tachycardia, hypertension, teeth grinding, hyperactivity, nausea, cold hands and feet; and at the psychological level, such as anxiety, tension, anguish, insomnia, interpersonal difficulties, excessive worry, inability to concentrate on other matters that are not related to the stressor, difficulty relaxing,

anger and emotional hypersensitivity (SILVA et al., 2015).

Nursing is one of the professions that works directly in health promotion, disease prevention and population rehabilitation actions, involving care, management, research and education actions. For this reason, they are at high risk of developing psychological and physical stress, regardless of where they work (SOUZA et al., 2018; GARCIA et al., 2015).

Some factors responsible for influencing these professionals are the working conditions in which they are submitted, double working hours, job overload, lack of hospital supplies, unsatisfactory salary remuneration, lack of recognition and appreciation of the activity performed; as well as social relationships, interactions with family, friends and housing itself, directly impacting productivity and motivation, negatively resulting in their proactivity (CARVALHO et al., 2018; SOUZA et al., 2018).

The hospital environment offers borderline situations between life and death, between health and disease, which can influence the well-being of the multiprofessional team, favoring the manifestation of stressor signs, sometimes leading to the illness of professionals, and consequently to an increase in the absenteeism. In addition, it is a place that requires constant attention from the professional, both in customer care and in the care itself, generating the need to prevent accidents and reduce the risk of contamination (MATURANA; VALLE, 2014).

The work of the nursing team is carried out in the health sector with different professionals, such as nurses, nursing technicians and in some nursing auxiliary hospitals, in addition to professionals from other health areas, bringing together different workers in the care process, instruments and specific purposes. of each area in favor of the specific objective: the

patient's health (CARVALHO et al., 2014).

Occupational stress can be defined as a psychophysiological reaction that is characterized as the imbalance between what is demanded of a person by the social environment and the ability to respond to such demand, which generates concern in the current health scenario consisting of one of the more serious risks to the impairment of psychosocial well-being among health professionals. In addition, hospital institutions are considered an unhealthy environment, contributing not only to the occurrence of work accidents, but also to frequent complaints of physical and mental stress (RIBEIRO et al., 2018; KESTENBERG et al., 2015; SOUZA et al., 2009).

Based on this context, it is considered important to discuss issues related to the health of professionals in the nursing team in the hospital environment. This study had as a guiding question: what are the factors associated with stress in the scope of work in the operating room, its causes and possible consequences? Therefore, with this study, we intend to verify in the literature the factors associated with stress in the work environment of the aforementioned sector, describe the causes and evaluate their possible consequences.

SURGICAL CENTER IN THE HOSPITAL ENVIRONMENT

In a hospital environment, its structure is divided into sectors, units or blocks, each with its own particularities. One of these sectors with greater complexity is the surgical center (SC), it is organized by a set of areas and facilities, with the aim of performing anesthetic-surgical, diagnostic and therapeutic procedures, in the best acceptable conditions of safety for the patient and comfort. for the team that performs the assistance, which involves a high degree of demand due to

the numerous demands of high complexity (MARTINS; DALLAGNOL, 2016; SOUZA et al., 2009; SOUZA et al., 2018; VARGAS et al., 2017; SALIMENA et al., 2019).

The SC environment is marked by invasive interventions, both elective and high-risk situations, such as urgencies and emergencies, with the use of highly accurate and effective material resources, in which multiprofessionals are enabled to accommodate different user needs in view of the high technological density and the variety of situations that give it a peculiar dynamics of health care, in which care is essential throughout the perioperative period, that is, preoperative, intraoperative and postoperative (GARCIA et al., 2015; MARTINS; DALLAGNOL, 2016; TOSTES et al., 2017; FONSECA et al., 2016; Fraga et al., 2019).

WORKING MULTIPROFESSIONAL TEAM

The surgical center's multidisciplinary team is composed of a surgeon, an auxiliary surgeon, anesthesiologists, an assistant nurse, nursing technicians and instrument technicians. This team must carry out a joint work, of great responsibility, aiming at the well-being and safety of patients who will be submitted to procedures that involve high risk. These professionals undergo continuous supervision, complying with strict standards and routines within the sector, to provide the quality of the service provided to the client (CARVALHO et al., 2018; SOUZA et al., 2009).

STRESS PHYSIOLOGY

Stress is one of the great current enigmas, which consists of the fact that it presents risks to the normal balance of the human being, a state in which there is an abnormal wear of the body, reducing the ability to work, caused by the prolonged inability of the

individual to tolerate or adapt to the psychic demands existing in their living environment, being observed in all age groups, and which influences the way the individual relates (SOUZA et al., 2011).

According to the Pan American Health Organization/World Health Organization (PAHO/WHO) (2016), about 90% of the world's population suffers from stress. the individuals. Therefore, stress at work impacts the health and productivity of professionals, as the most common possible causes are: psychosocial risks related to the organization of work, work projects, work and its conditions, as well as external conditions that can influence worker performance and health (OLIVEIRA et al., 2018; SOUZA et al., 2011).

Stress is conceptualized as an effort, or an adaptation of the organism to face situations that it considers threatening to its internal balance, being a natural physiological reaction of survival. These reactions are characterized as a psychophysiological process, which involves responses from the Autonomic Nervous System and the Endocrine System, causing hormonal irregularities that lead to the worsening of the individual's health (RATOCHINSKI et al., 2016).

OCCUPATIONAL STRESS

According to decree 3048/99 of the Brazilian social security legislation, stress is considered an occupational disease, due to the great demand of professionals affected, which could become a serious public health problem. Occupational stress consists of a psychophysiological reaction that is characterized as the imbalance between what is demanded of a person by their social environment and their ability to respond to such demand in the work environment. Being an adverse situation, where work must be a source of satisfaction, growth, development, both personal and professional fulfillment,

however, it can cause dissatisfaction, disinterest and frustration according to the way the work process is being performed (OLIVEIRA; CUNHA). , 2014; RIBEIRO et al., 2018)

This form of stress is defined as a set of phenomena that can manifest itself in the worker's body, causing damage to his health. In a survey carried out by the International Labor Organization in 2019, it was observed that 36% of workers are on excessively long working hours, of more than 48 hours a week, causing 374 million people to become sick or injured in their work. workplaces, and which contribute nearly 2.8 million worker deaths every year.

When stress is work-related, it puts the health of both individuals and members of the organization or work team at risk, and results in low self-esteem, high turnover, absenteeism, workplace violence, job dissatisfaction, accidents. work, decreased quality of life, Burnout Syndrome, cardiovascular problems, minor psychic disorders, occurrence of decline in worker performance, which impacts on the quality of care, metabolic syndrome, chronic fatigue syndrome, sleep disorders, diabetes (SCHMIDT et al., 2009; SCHOLZE et al., 2017).

NURSING TEAM

Among the professionals working in the SC, the nursing team must be highlighted, as it works in health promotion, disease prevention and population rehabilitation actions, involving actions of caring, managing, researching and educating (COFEN, 2018).

This professional needs to be prepared to act in a competent and humane manner, respecting the personality and individuality of each client with dignity, covering the quality of care provided to a degree of excellence. In what amounts to care provided both to the client, and to a broad view that encompasses

the needs of the same, family and others. As a result, this work activity has a high risk of developing psychological and physical stress, regardless of the place of professional activity (SOUZA et al., 2018; GARCIA et al., 2015; DIAS; ARAUJO, 2015; SCHMIDT et al., 2011).

In the execution of their practices and strategies during the provision of care, for this professional, it is important to coordinate the flow of patients, supplies and the health team in the SC, protection and recovery of health at the individual and collective level, performing activities with technical, humanistic, reflective and generalist agility, the use of the Nursing Interventions Classification as an identifier for such condition, cooperating for the allocation of professionals appropriate to the needs of patients in the SC, responsible for direct and uninterrupted care to the patient during the 24 hours of the day, seven days a week, leading to the maintenance of organic and emotional balance and prevention of complications (MARTINS; DALL'AGNOL, 2016; BARBOZA et al., 2013; FONSECA et al., 2016).

Since care is the essence of nursing, the nurse's managerial activities consist of actions aimed at ensuring the quality of nursing care and the proper functioning of the institution. Among the actions carried out in professional practice, the following stand out: dimensioning of the nursing team; exercise of leadership in the work environment; nursing care planning; team training; management of material resources; coordination of the care delivery process; team coordination; performing care; more complex procedures and evaluation of the result of nursing actions (BARBOZA et al., 2013; SILVA; FARIAS, 2018).

STRESS OF THE NURSING TEAM

Some triggering factors are responsible for influencing the personal, environmental and organizational working conditions to which

they are subjected. These various factors cause physical and mental stimuli that make them more susceptible to developing stress symptoms (CARVALHO et al., 2018).

The following stand out: multiple working hours, overload of the function, often the lack of material, unsatisfactory salary remuneration, recognition and appreciation of the activity performed, which often does not happen, the deficit of human resources, the speed in care and non-completion of care, noise caused by equipment, excessive sounds produced by health teams, inadequate lighting, improper ventilation and inadequate posture (AZEVEDO et al., 2017; BARBOZA et al., 2013; JACQUES et al., 2015).

There is also a lack of cooperation in teamwork, which can directly affect productivity and motivation, negatively impacting the quality of this professional (MIRANDA; AGUIAR, 2017).

In addition to other factors that can directly affect the professional are social relationships, interactions with family, friends and the environment itself (SOUZA et al., 2018).

Therefore, in the work environment, extreme situations are faced, which can influence the well-being of the multidisciplinary team, thus favoring stress, illness and, consequently, increased absenteeism. The higher the level of exhaustion, the greater the exposure of the nursing team to stress occurrences, such as the high biological risk related to the handling and procedure of patients, physical risk, with the use of heavy equipment that emit waves, the X-rays, for example; ergonomic risk related to work activity and work overload (MIRANDA; AGUIAR, 2017).

THE PROFILE OF WORKERS

It was evidenced in published articles that the predominance in the exercise of the nursing profession is women, with a smaller percentage of men, showing a predominance

of women in the exercise of the profession in all categories. This predominance comes from a historical origin, in which nursing was practiced exclusively by women in an empirical way. Therefore, for many years, the representation of nursing was associated with women, with the structuring as a science caused a new perspective of the profession, in which men also practice the exercise of the profession, since care is not only a female characteristic (MIRANDA; AGUIAR, 2017; RODRIGUES et al., 2017; CHIAVONE et al., 2019).

Studies claim that in both genders, reconciling the activities of head of the household and their professional role causes an accumulation of tasks and assignments, which can then cause physical and mental exhaustion and multiple working hours, consequently causing stress.

QUALIFICATION AND COMPETITIVENESS

Regarding the qualification of the nursing team, there is a number of professionals in each category, in which the majority are graduated nurses, followed by nursing technicians and, with a smaller percentage, are nursing assistants (MIRANDA; AGUIAR, 2017; SORATTO et al., 2016; SCHMIDT et al., 2009; CARVALHO et al., 2014; SOUZA et al., 2009; SOUZA et al., 2018).

The improvement of the profession cooperates to improve self-esteem and professional performance from the time that it expands its knowledge, ensuring that there is maximum security through the confrontation of stressful episodes in the work routine (MIRANDA; AGUIAR, 2017).

The same authors report that the requirement of professional qualification is a contemporary requirement of the job market, making it increasingly competitive, in which professional knowledge and the

vision of competences in the world of work have expanded the level of demand for the job market. Professional Profile. Recently, this view is directed towards the search for a professional profile that is appropriate to assume responsibilities and make decisions in a resolute format, however, qualification generates competitiveness, which can trigger the onset of stress (MIRANDA; AGUIAR, 2017; SORATTO et al., 2016; SCHMIDT et al., 2009; CARVALHO et al., 2014; SOUZA et al., 2009; SOUZA et al., 2018).

EMPLOYMENT RELATIONSHIP

The multiple working day is associated in parts with work activity. However, the family bond is also considered as a professional journey. The need for multiple employment relationships as a result of the improvement in salary income. The monthly income varies between the private or public institution and the region, in which the salary can vary from 01 to 10 minimum wages/month (RODRIGUES et al., 2017; SORATTO et al., 2016).

In the study carried out by Carvalho et al., (2014), which evaluated three hospitals in the state of São Paulo, it was possible to characterize the professionals according to salaries, nurses from 1-10 minimum wages, technicians and nursing assistants in 1-5 minimum wages. As for Miranda and Aguiar (2017), who analyzed a private hospital in the Federal District, it was possible to conclude that nursing professionals receive from 3 to 5 minimum wages.

Related to employment relationships, in the study by Miranda and Aguiar (2017) about 15% (n=1) of nursing professionals have more than two employment relationships, on the other hand, in the study by Rodrigues et al (2017) there were 67, 3% (n=124) of professionals with multiple employment contracts, and for Chiavone et al (2019) 64.91% (n=37) of professionals have dual

employment contracts and points out that this search occurs as a result of the need to obtain a better salary income. On the other hand, this occurrence can trigger physical and psychological stress factors.

Several authors point out that the double working day subjects the professional to a greater workload and reduced time devoted to leisure activities and social integration and, consequently, the occurrence of stress (CHIAVONE et al., 2019; SORATTO et al., 2016). ; SCHMIDT et al., 2009; SOUZA et al., 2011; RODRIGUES et al., 2017). Miranda and Aguiar (2017) point out that in addition to the double working day, 77% to 69% of n=57 people studied work overtime, evidencing as another potentiated factor of stress.

WORKING CONDITIONS FOR THE PERFORMANCE OF NURSING PROFESSIONAL ACTIVITIES

With regard to work, it is considered that it can provide effects such as independence, personal satisfaction, growth and professional improvement, on the other hand, they can generate personal dissatisfaction and discouragement at the same time, when exposed to psychosocial, physical, chemical and biological risks. Furthermore, the demands, which are not always combined with the available and sufficient resources for the development of activities, can cause the professional to have a negative view of work, becoming a source of suffering, reflecting directly on the health of the professional, in his quality of work. life, as well as the quality of care provided (MIRANDA; AGUIAR, 2017; VARGAS et al., 2017).

According to Soratto et al (2016) 63.04% (n=23) highlighted the lack of leisure time; 50% (n=18) with the ambivalence time working x time with the family; 19.56% to work in the care area with patients; 8.69% (n=3) with multiple working hours; 8.69%

(n=3) lack of working conditions/material resources. They show the main causes of the triggering factors of occupational stress and correlate the lack of time for self-care, food, in addition to sleep and rest habits.

Physical loads are a major problem in the performance of work, influencing the well-being of the professional. The CC activities cover complex tasks of high responsibility that must be performed in an environment characterized by agility, precision and excessive working hours, which are conditioning factors for the manifestation of occupational stress (VARGAS et al., 2017; MIRANDA; AGUIAR, 2017; ALVES; ARAUJO, 2015).

The loads that professionals face in their occupation are divided into: physical loads such as standing for a long time; transport materials and patients from one place to another; biological loads by contact with microorganisms, providing serious risks to the team; the technology used as a work component (ALVES; ARAUJO, 2015).

The conditions of installation and maintenance of the materials and equipment used can lead to the appearance of injuries and psychic burdens that help in the illness of the worker. The performance of these professionals in the sector, in carrying out activities with the client in operative transit, requires a particular direction, in addition to carrying out pre and postoperative guidelines, dressings of high complexity, anamnesis and accurate physical exams and directed to each case, evaluation of patients and prevention of complications (RODRIGUES et al., 2017).

All these specificities require constant attention, dexterity and readiness from the nursing team. The workload, the high level of demand regarding skills and abilities, the high responsibility and the pace of work, claiming to affect their lives physically and psychologically, these factors are considered by them as triggering means of stress in the

work environment (RODRIGUES et al. al., 2017; CARVALHO et al., 2014).

In the work environment, nursing professionals work in a daily or weekly workload and for a single or double shift, with the practice of double shifts being considered the most stressful in relation to those who had a single shift (ALVES; ARAUJO, 2015).

The presentation of signs and symptoms of stress are related to working hours of 12 hours or more, with a predominance of psychological signs such as anguish and daily anxiety, desire to run away from everything, accompanied by physical symptoms, mainly causing the phases of resistance and exhaustion, because it is excessive (SOUZA et al., 2011).

Stressing factors in the professional activity of nurses become increasingly worrying, as it is a triggering factor for serious pathologies. It is noteworthy that the reduction of the weekly workload, which is defended by the Bill PL 2295/2000, is a way of improving the quality of life among workers (ALVES; ARAUJO, 2015; SOUZA et al., 2011).

It can be observed that the problems in the physical structure of the sector cooperate for the development or not of stress and influence the way the professional performs his occupations. The CC is a closed environment, the quality of ventilation and its effectiveness can determine the level of stress caused by heat, this exposure to inadequate temperatures can directly interfere with the physical comfort of the worker, impairing the quality of life in the work environment (MIRANDA; AGUIAR, 2017; VARGAS et al., 2017).

The inadequacies of the CC environment can contribute to this situation as stressors. A good physical structure results in adequate material and human resources and consequently quality patient care (VARGAS et al., 2017; BARBOZA et al., 2013).

The ability of professionals to develop their work, in this context, the exercise of work in

shifts or shifts is related to the aspect of sleep/rest, in which it is considered a factor that generates stress, and can influence the health and quality of life of patients. professionals (SOUZA et al., 2018).

The aforementioned author adds that the lack of rest, in most cases, triggers a negative problem, of a perceptive nature, resulting from the inability to deal with sources of pressure at work, this factor to be considered in the pathological aspect of mental health, causes consequences, mainly in the form of problems in physical and mental health and job satisfaction.

It must be noticed, in this aspect, the importance of adequate rest and sleep periods is emphasized in order to minimize the consequences of stressors, typical of professional work, on the worker's state of body and mind. It is associated with shift work, indicating a worse quality of sleep at night and in the day shift, which showed symptoms such as poor digestion and irritability (CARVALHO et al., 2014).

A factor that can lead to work overload and stress generators is the lack of adequate time to carry out work activities, which requires the professional to perform them with maximum speed and in many occasions without the necessary care, in addition to the lack of trained professionals. in the sector, requiring the worker to be assigned successive times to the same activity, lack of support, conflicts with colleagues, mortality and pain of patients, distrust about treatment, conflicts with doctors and lack of knowledge adequate (JACQUES et al., 2015).

According to the same author, this work overload generates a state of overstimulation in the individual, because the demands extrapolate the worker's ability to process or fulfill them, preventing the best performance at work, in addition to being a preceptor of stress, inducing damage to your health.

According to the study carried out by Souza et al., (2009), in relation to working conditions, they obtained the following results that stood out: speed at work 95.65% (n=22), intense pace and volume 73.91% (n=17), intense concentration 73.91% (n=17), 65.22% (n=15) feel pressured by lack of time, due to the large amount of work, 34.78% (n=15) =08 report that these tasks are requested and 52.17% (n=12) report that there is a lot of interruption and disturbance at work. According to Vargas et al., (2017) this work overload can lead to absences due to occupational diseases, it is maximized as a result of these.

The recurring physical efforts can cause terrible pain, imposed by working conditions, provided by the growing demand of patients, which can cause, over the years, the manifestation of pathologies in the physical and psychic aspects such as: unpleasant emotional state, due to tension, frustration, anxiety, emotional exhaustion due to aspects of work (ALVES; ARAUJO, 2015; BARBOZA et al., 2013).

The symptoms described in relation to the triggering factors for the stress of professionals working in the surgical center are: physical symptoms such as: 69.56% (n=32) referring to muscle tension; 67.39% (n=31) headache; 65.21% (n=30) low back pain; 45.65% (n=21) hair loss; 32.60% (n=15) respiratory problems; 30.43% (n=14) skin rashes, poor digestion and heartburn; 28.26% (n=13) urinary tract problems and muscle pain; 26.08% (n=12) gas and bruxism; 23.91% (n=11) prolonged colds; 21.73% (n=10) work-related musculoskeletal disease (WRMD) and dental joint dysfunction; 19.56% (n=9) gastritis; 15.21% (n=7) nausea; 13.04% (n=6) susceptibility to infectious diseases; 8.69% (n=4) cold and damp extremities and arterial hypertension; and 2.17% (n=1) gastric reflux, asthma, hypothyroidism, duodenal inflammation.

Psychological symptoms such as: 67.39% (n=31) anxiety; 43.47% (n=20) general irritability; 41.30% (n=19) reduced libido and sexual drive; 30.43% (n=14) concentration difficulties; 23.91% (n=11) insomnia, feeling of oppression in the chest; 15.21% (n=7) palpitation; 6.52% (n=3) depression, difficulty swallowing and psychogenic diarrhea; 4.34% (n=2) bad mood; and 2.17% (n=1) lack of motivation. And sociological symptoms such as: 15.21% (n=7) social isolation; 10.86% (n=5) loss of interest in social appearance and low immune activity (SORATTO et al., 2016).

FINAL CONSIDERATIONS

In view of the studies already published, it is possible to know the occupational stressors that most trigger stress reported by professionals from the nursing team working in the surgical center. The factors that stand out are: work overload, lack of professional recognition, lack of materials and dissatisfaction with remuneration, multiple working hours, impaired sleep and lack of leisure as the most cited by professionals.

This chapter allowed the understanding of the importance of the professional who is providing care to the patient/client, both in their social and occupational relationships, in the environment that makes it possible to have the quality of the service provided, with the respect and deserved appreciation, reducing the incidence of the triggering factors of professional stress.

Hence, through knowledge of the stressors identified in the review, both nursing workers and management must seek intervention mechanisms that minimize the sources of stress, with the aim of improving occupational dynamics, as well as providing better work conditions.

REFERENCES

ALVES, Natali Barberino; ARAUJO, Giovana Fernandes. **PERCEPÇÃO DO ESTRESSE ENTRE OS PROFISSIONAIS DE ENFERMAGEM QUE ATUAM NO CENTRO CIRÚRGICO DE UM HOSPITAL PRIVADO EM VITÓRIA DA CONQUISTA – BA**. Cadernos de Ciência e Saúde / Faculdades Santo Agostinho. – Vol. 1, n. 1, -. - Montes Claros: Faculdades Santo Agostinho, 2011- v: il. 28 cm. Semestral Vol. 5, n. 1, 2015. Organizador (a): ISSN 2236-9503 1. Saúde. 2. Enfermagem. I. Faculdades Santo Agostinho. II. Título CDU: 61. Disponível em: [https://fasa.edu.br/assets/arquivos/files/0%20\(6\).pdf#page=77](https://fasa.edu.br/assets/arquivos/files/0%20(6).pdf#page=77). Acesso em: 29 set. 2019.

AZEVEDO, Bruno del Sarto; NERY, Adriana Alves; CARDOSO, Jefferson Paixão. OCCUPATIONAL STRESS AND DISSATISFACTION WITH QUALITY OF WORK LIFE IN NURSING. **Texto & Contexto - Enfermagem**, Florianópolis, v. 26, n. 1, p.1-11, 2017. FapUNIFESP (SciELO). <http://dx.doi.org/10.1590/0104-07072017003940015>. Disponível em: http://www.scielo.br/scielo.php?pid=S0104-07072017000100309&script=sci_arttext&lng=pt. Acesso em: 19 mar. 2019.

BARBOZA, Michele Cristiene Nachtigall; BRAGA, Luciana Lima; PERLEBERG, Luiane Tietz; BERNARDES, Lidiane Souza; ROCHA, Izabella Chrystina. Estresse ocupacional em enfermeiros atuantes em setores fechados de um hospital de Pelotas/RS. **Revista de Enfermagem da Ufsm**, Santa Maria, v. 3, n. 3, p.374-382, 27 dez. 2013. Universidad Federal de Santa Maria. <http://dx.doi.org/10.5902/217976927624>. Disponível em: <https://periodicos.ufsm.br/index.php/reufsm/article/view/7624>. Acesso em: 19 mar. 2019.

BRASIL. PRESIDÊNCIA DA REPÚBLICA. **DECRETO No 3.048, DE 6 DE MAIO DE 1999**: Aprova o Regulamento da Previdência Social, e dá outras providências. 1999. Disponível em: http://www.planalto.gov.br/ccivil_03/decreto/d3048.htm. Acesso em: 15 abr. 2020.

CARVALHO, Arethuza de Melo Brito; CARDOSO, Juliana Araújo; SILVA, Francisca Aline Amaral da; LIRA, Jefferson Abraão Caetano; CARVALHO, Samuel Moura. QUALIDADE DE VIDA NO TRABALHO DA EQUIPE DE ENFERMAGEM DO CENTRO CIRÚRGICO. **Enfermagem em Foco**, [s.l.], v. 9, n. 3, p.35-41, 26 nov. 2018. Conselho Federal de Enfermagem - Cofen. <http://dx.doi.org/10.21675/2357-707x.2018.v9.n3.1159>. Disponível em: <http://revista.cofen.gov.br/index.php/enfermagem/article/view/1159>. Acesso em: 19 mar. 2019.

CARVALHO, Márcia de; GATTI, Márcia Aparecida Nuevo; CONTI, Marta Helena Souza de; VITTA, Alberto de; MARTA, Sara Nader; MARTA, Sara Nader. QUALIDADE DE VIDA DA EQUIPE DE ENFERMAGEM DO CENTRO CIRÚRGICO. **Revista Catarse**, Campo Mourão, v. 2, n. 1, p. 71-84, 2014. Revista Catarse, Campo Mourão, v.2, n.01, jan-jun. 2014. Disponível em <http://faculdadeunicampo.edu.br/ojs/index.php/RevistaCatarse>. Disponível em: <https://pdfs.semanticscholar.org/cfe0/4bde3ac3680d79566dcd6696ac1ab5ec00eb.pdf>. Acesso em: 19 ago. 2019.

CHIAVONE, Flávia Barreto Tavares; GOMES, Andrea Tayse de Lima; RODRIGUES, Cláudia Cristiane Filgueira Martins; FERREIRA, Larissa de Lima; SALVADOR, Pétala Tuani Candido de Oliveira; SANTOS, Viviane Euzébia Pereira. Níveis de estresse da equipe de enfermagem do centro cirúrgico: estudo transversal. : estudo transversal. **Online Brazilian Journal Of Nursing**, Natal, v. 17, n. 1, p. 9, 2 abr. 2019. Escola de Enfermagem Aurora de Afonso Costa. <http://dx.doi.org/10.17665/1676-4285.20185902>. Disponível em: <http://www.objnursing.uff.br/index.php/nursing/article/view/5902>. Acesso em: 19 ago. 2019.

COFEN (Brasil). Conselho Federal de Enfermagem. **Resolução COFEN 572/2018**. 2018. **LEI N 7.498/86, DE 25 DE JUNHO DE 1986**. Disponível em: <http://www.cofen.gov.br/wp-content/uploads/2018/04/RESOLU%C3%87%C3%83O-COFEN-572-2018.pdf>. Disponível em: http://www.cofen.gov.br/lei-n-749886-de-25-de-junho-de-1986_4161.html. Acesso em: 29 mar. 2020.

DALCÓL, Camila; GARANHANI, Mara Lúcia. Papel gerencial do enfermeiro de centro cirúrgico: percepções por meio de imagens: percepções por meio de imagens. **Revista Eletrônica de Enfermagem**, Londrina, v. 18, p. 1-10, 30 jun. 2016. Universidade Federal de Goiás. <http://dx.doi.org/10.5216/ree.v18.34888>. Disponível em: <file:///C:/Users/Computador/Downloads/34888-Texto%20do%20artigo-182181-1-10-20160921.pdf>. Acesso em: 19 mar. 2020.

DIAS, Pâmella; ARAUJO, Giovana Fernandes. **FATORES RELACIONADOS AO ABSENTEÍSMO DE PROFISSIONAIS DE ENFERMAGEM EM UM HOSPITAL PRIVADO EM VITÓRIA DA CONQUISTA**. 2015. [https://fasa.edu.br/assets/arquivos/files/0%20\(6\).pdf](https://fasa.edu.br/assets/arquivos/files/0%20(6).pdf). Disponível em: [https://fasa.edu.br/assets/arquivos/files/0%20\(6\).pdf#page=77](https://fasa.edu.br/assets/arquivos/files/0%20(6).pdf#page=77). Acesso em: 15 mar. 2019.

FONSECA, Fabíola Moura; BESSA, Franciele de Moraes; NOVAIS, Natália Mascarenhas de. **A ATUAÇÃO DO ENFERMEIRO EM CENTRO CIRÚRGICO NO PERÍOPERATÓRIO**: uma revisão da literatura. 2016. 6 f. TCC (Graduação) - Curso de Enfermagem, Avm Faculdade Integrada, Rio de Janeiro, 2016. Disponível em: <http://www.hsan.com.br/wp-content/uploads/2019/11/Atua%C3%A7%C3%A3o-do-Enfermeiro-em-Centro-Cir%C3%BArgico-Autor-Franciele-Morais.pdf>. Acesso em: 15 out. 2019.

FRAGA, Maurício S. Roxkow; CALVETTI, Prisla Ücker; LAZZAROTTO, Alexandre Ramos. A qualidade de vida dos profissionais da enfermagem que atuam no centro cirúrgico. **Barbarói**, Santa Cruz do Sul, v. 1, n. 53, p. 251-260, 21 out. 2019. APESC - Associação Pro-Ensino em Santa Cruz do Sul. <http://dx.doi.org/10.17058/barbaroi.v1i53.12986>. Disponível em: <https://online.unisc.br/seer/index.php/barbaroi/article/view/12986>. Acesso em: 19 dez. 2019.

GARCIA, Carolina Pedroza de Carvalho et al. **DESAFIOS DO PROCESSO DE TRABALHO DO CENTRO CIRÚRGICO NA ENFERMAGEM**. 2015. 17 f. TCC (Graduação) - Curso de Enfermagem, Curso de Especialização de Enfermagem em Centro Cirúrgico, Escola Bahiana de Medicina e Saúde Pública, Salvador, 2015. Disponível em: <http://www7.bahiana.edu.br/jspui/handle/bahiana/345>. Acesso em: 29 set. 2019.

JACQUES, João Paulo Belini; RIBEIRO, Renata Perfeito; MARTINS, Julia Trevisan; RIZZI, Danilo Servilha; SCHMIDT, Denise Rodrigues Costa. Geradores de estresse para os trabalhadores de enfermagem de centro cirúrgico. **Semina: Ciências Biológicas e da Saúde**, Londrina, v. 36, n. 1, p.25-32, 9 mar. 2015. Universidade Estadual de Londrina. <http://dx.doi.org/10.5433/1679-0367.2015v36n1supl25>. Disponível em: <http://www.uel.br/seer/index.php/seminabio/article/view/18197>. Acesso em: 19 mar. 2019.

MARTINS, Fabiana Zerbieri; DALLAGNOL, Clarice Maria. Centro cirúrgico: desafios e estratégias do enfermeiro nas atividades gerenciais. **Revista Gaúcha de Enfermagem**, Porto Alegre, v. 37, n. 4, p.01-09, 2016. FapUNIFESP (SciELO). <http://dx.doi.org/10.1590/1983-1447.2016.04.56945>. Disponível em: <https://www.seer.ufrgs.br/RevistaGauchadeEnfermagem/article/view/56945>. Acesso em: 19 mar. 2019.

MIRANDA, Suna Moniz Marçal; AGUIAR, Valéria Cristina da Silva de. **O nível de estresse do profissional de enfermagem que atua no centro cirúrgico em um hospital privado do Distrito Federal**. 2017. 25 f. Monografia (Graduação) – Faculdade de Ciências da Educação e Saúde, Centro Universitário de Brasília, Brasília, 2017. Disponível em: <https://repositorio.uniceub.br/jspui/handle/235/11750>. Acesso em: 15 mar. 2019.

OLIVEIRA, Esther de Melo; SOUZA, Elizabeth Aparecida de; TONINI, Nelsi Salette; MARASCHIN, Maristela Salette. **Nível de estresse em enfermeiros de uma instituição hospitalar**. 2018. Nursing (São Paulo); 21(244): 2355-2359, set.2018.. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-947579>. Acesso em: 19 mar. 2019.

OLIVEIRA, Rosalvo de Jesus; CUNHA, Tarcísio. **ESTRESSE DO PROFISSIONAL DE SAÚDE NO AMBIENTE DE TRABALHO: CAUSAS E CONSEQUÊNCIAS**. 2014. Caderno Saúde e Desenvolvimento | vol.3n.2 |jul/dez 2014. Disponível em: <https://www.uninter.com/revistasaude/index.php/cadernosaudedesenvolvimento/article/view/302/238>. Acesso em: 29 set. 2019.

ORGANIZAÇÃO INTERNACIONAL DO TRABALHO (OIT) (Brasil). **Estresse, doenças e longas jornadas contribuem para 2,8 milhões de mortes por ano, indica OIT**. 2019. Disponível em: <https://nacoesunidas.org/estresse-doencas-e-longas-jornadas-contribuem-para-28-milhoes-de-mortes-por-ano-indica-oit/>. Acesso em: 29 set. 2019.

ORGANIZAÇÃO PAN-AMERICANA DE SAÚDE/ORGANIZAÇÃO MUNDIAL DE SAÚDE - BRASIL. OPAS/OMS no Brasil (org.). **Estresse no ambiente de trabalho cobra preço alto de indivíduos, empregadores e sociedade**. 2016. Disponível em: https://www.paho.org/bra/index.php?option=com_content&view=article&id=5087:estresse-no-ambiente-de-trabalho-cobra-preco-alto-de-individuos-empregadores-e-sociedade&Itemid=839. Acesso em: 2 mar. 2019.

PL 2295/2000 - Ementa Dispõe sobre a jornada de trabalho dos Enfermeiros, Técnicos e Auxiliares de Enfermagem.: altera a lei nº 7.498, de 1986, fixa a jornada de trabalho em seis horas diárias e trinta horas semanais. Altera a Lei nº 7.498, de 1986, fixa a jornada de trabalho em seis horas diárias e trinta horas semanais. Disponível em: <https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=17915>. Acesso em: 15 mar. 2020.

RATOCHINSKI, Cláudia Mara Witt; POWLOWYTSCH, Pollyana Weber da Maia; GRZELCZAK, Marcos Tadeu; SOUZA, William Cordeiro de; MASCARENHAS, Luis Paulo Gomes. O Estresse em Profissionais de Enfermagem: Uma Revisão Sistemática. **Revista Brasileira de Ciências da Saúde**, [s.l.], v. 20, n. 4, p.341-346, 2016. Portal de Periodicos UFPB. <http://dx.doi.org/10.4034/rbcs.2016.20.04.12>. Disponível em: <https://periodicos.ufpb.br/ojs/index.php/rbcs/article/view/23891>. Acesso em: 19 mar. 2019.

RIBEIRO, Antônio César; ROCHA, Roseany Patrícia Silva; ROCHA, Rosemara Andressa da Silva. FATORES DO ESTRESSE OCUPACIONAL NA EQUIPE DE ENFERMAGEM: uma revisão integrativa: UMA REVISÃO INTEGRATIVA. **Connection Line - Revista Eletrônica do Univag**, Cuiabá, n. 19, p. 98-105, 1 dez. 2018. UNIVAG Centro Universitario. <http://dx.doi.org/10.18312/1980-7341.n19.2018.1198>. Disponível em: <http://periodicos.univag.com.br/index.php/CONNECTIONLINE/article/view/1198>. Acesso em: 19 ago. 2019.

RODRIGUES, Cláudia Cristiane Filgueira Martins; SALVADOR, Péta Tuani Cândido de Oliveira; ASSIS, Yole Matias Silveira de; GOMES, Andréa Tayse de Lima; BEZERRIL, Manaces dos Santos; SANTOS, Viviane Euzébia Pereira. ESTRESSE ENTRE OS MEMBROS DA EQUIPE DE ENFERMAGEM. **Revista de Enfermagem da Ufpe On-line**, Recife, v. 2, n. 11, p. 601-608, 2017. ISSN: 1981-8963 DOI: 10.5205/reuol.10263-91568-1-RV.1102201715 Rev enferm UFPE on line., Recife, 11(2):601-8, fev., 2017. Disponível em: <https://pdfs.semanticscholar.org/982a/ef22b1cc21c4594b62d2d19c1718e5c05c8e.pdf>. Acesso em: 19 ago. 2019.

SALIMENA, Anna Maria Oliveira; PEIXOTO, Raquel Santos Rosa; ARAÏJO, Silvia Teresa Carvalho; ALVES, Marcelo Silva. Relações interpessoais no centro cirúrgico: equipe de enfermagem e equipe médica: equipe de enfermagem e equipe médica. **Revista de Enfermagem do Centro-oeste Mineiro**, [s.l.], v. 9, p. 1-6, 20 dez. 2019. RECOM (Revista de Enfermagem do Centro Oeste Mineiro). <http://dx.doi.org/10.19175/recom.v9i0.3328>. Disponível em: <http://www.seer.ufsj.edu.br/index.php/recom/article/view/3328>. Acesso em: 23 dez. 2019.

SCHMIDT, Denise Rodrigues Costa; DANTAS, Rosana Aparecida Spadoti; MARZIALE, Maria Helena Palucci. Ansiedade e depressão entre profissionais de enfermagem que atuam em blocos cirúrgicos. **Revista da Escola de Enfermagem da Usp**, São Paulo, v. 45, n. 2, p.487-493, abr. 2011. PapUNIFESP (SciELO). <http://dx.doi.org/10.1590/s0080-62342011000200026>. Disponível em: <http://www.scielo.br/pdf/reeusp/v45n2/v45n2a25.pdf>. Acesso em: 19 mar. 2019.

SCHMIDT, Denise Rodrigues Costa; DANTAS, Rosana Aparecida Spadoti; MARZIALE, Maria Helena Palucci; LAUS, Ana Maria. Estresse ocupacional entre profissionais de enfermagem do bloco cirúrgico. **Texto & Contexto - Enfermagem**, Florianópolis, v. 18, n. 2, p.330-337, jun. 2009. PapUNIFESP (SciELO). <http://dx.doi.org/10.1590/s0104-07072009000200017>. Disponível em: <http://www.scielo.br/pdf/tce/v18n2/17.pdf>. Acesso em: 19 mar. 2019.

SCHOLZE, Alessandro Rolim; MARTINS, Julia Trevisan; ROBAZZI, Maria Lucia do Carmo Cruz; HADDAD, Maria do Carmo Fernandez Lourenço; GALDINO, Maria José Quina; RIBEIRO, Renata Perfeito. ESTRESSE OCUPACIONAL E FATORES ASSOCIADOS ENTRE ENFERMEIROS DE HOSPITAIS PÚBLICOS. **Cogitare Enfermagem**, Bandeirantes, v. 22, n. 3, 29 ago. 2017. Universidade Federal do Parana. <http://dx.doi.org/10.5380/ce.v22i3.50238>. Disponível em: <https://revistas.ufpr.br/cogitare/article/view/50238>. Acesso em: 19 mar. 2019.

SILVA, Karla Gualberto; FARIAS, Sheila Nascimento Pereira de. Qualidade de vida e estresse dos enfermeiros. **Revista de Enfermagem Ufpe On Line**, Recife, v. 12, n. 12, p.3378-3385, 2 dez. 2018. Revista de Enfermagem, UFPE Online. <http://dx.doi.org/10.5205/1981-8963-v12i12a236158p3378-3385-2018>. Disponível em: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/236158>. Acesso em: 19 mar. 2019.

SORATTO, Maria Tereza; SOUZA, Máira Pereira de; MATTOS, Silvia Barbosa; CERETTA, Luciane Bisognin; GOMES, Karin Martins; CORREA, Sonia Maria. O ESTRESSE DA EQUIPE DE ENFERMAGEM NO CENTRO CIRÚRGICO. **Revista Interdisciplinar de Estudos em Saúde**, Caçador, v. 5, n. 1, p. 179-192, 17 jul. 2016. DOI: <https://doi.org/10.33362/ries.v5i1.717> RIES, ISSN2238-832X, Caçador,v.5,nº 1,p.179-192,2016.. Disponível em: <http://periodicos.uniarp.edu.br/index.php/ries/article/view/717>. Acesso em: 19 ago. 2019.

SOUZA, Nilzemar Ribeiro de; BERNARDES, Elexandra Helena; FONSECA, Regis Paulo; GONÇALVES, Heberth de Oliveira; LOPES3, Thayla Francieli Silvério. Identificando o nível de estresse e suas causas nos profissionais de enfermagem em um hospital geral de Passos (MG). **Ciência Et Praxis**, Passos, v. 2, n. 4, p. 27-32, 2009. *Ciência et Praxis* v. 2, n. 4, (2009). Disponível em: <http://revista.uemg.br/index.php/praxys/article/view/2096>. Acesso em: 19 ago. 2019.

SOUZA, Luís Paulo Souza e; PAULA, André Pereira de; FONSECA, Manoel Bento Costa da; MOTA, Écila Campos; SILVEIRA, Beatriz Rezende Marinho da; DIAS, Orlene Veloso; FIGUEIREDO, Maria Fernanda Santos. **Estresse ocupacional envolvendo a equipe de enfermagem atuante em um centro cirúrgico**. 2011. REVISTA UNINGÁ, Maringá, v. 29, n. 1, set. 2011. ISSN 2318-0579. Disponível em: <http://revista.uninga.br/index.php/uninga/article/view/963>. Acesso em: 15 mar. 2019.

SOUZA, Mara Cristina Bicudo de; SANTOS, Teresa Celia de Mattos Moraes dos; PINHEIRO, Mariana Frozino; FREITAS, Natália Auxiliadora de; MENDES, Roberta Gizzi; PIRES, Thaís Prado Aguiar. Estresse ocupacional da equipe de enfermagem do centro cirúrgico. **Revista de Enfermagem Ufpe On Line**, [s.l.], v. 3, n. 3, p.524-533, 3 jul. 2009. Revista de Enfermagem, UFPE Online. <http://dx.doi.org/10.5205/reuol.149-181-1-rv.0303200912>. Disponível em: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/5632>. Acesso em: 19 mar. 2019.

SOUZA, Verusca Soares de; SILVA, Daniela Siqueira da; LIMA, Liziane Viana; TESTON, Elen Ferraz; BENEDETTI, Gabriella Michel dos Santos; COSTA, Maria Antônia Ramos; MENDONÇA, Renata Rodrigues. Qualidade de vida dos profissionais de enfermagem atuantes em setores críticos. **Revista Cuidarte**, Paraná, v. 9, n. 2, p. 2177-86, 4 maio 2018. Universidad de Santander - UDES. <http://dx.doi.org/10.15649/cuidarte.v9i2.506>. Disponível em: <https://revistacuidarte.udes.edu.co/index.php/cuidarte/article/view/506>. Acesso em: 19 ago. 2019.

TOSTES, Maria Fernanda do Prado; SILVA, Andréia Queiroz da; GARÇON, Talita Lopes; MARAN, Edilaine; TESTON, Elen Ferraz. Dualidade entre satisfação e sofrimento no trabalho da equipe de enfermagem em centro cirúrgico. **Revista Sobecc**, São Paulo, v. 22, n. 1, p.3-9, 4 abr. 2017. Zeppelini Editorial e Comunicacao. <http://dx.doi.org/10.5327/z1414-4425201700010002>. Disponível em: https://www.researchgate.net/profile/Edilaine_Maran/publication/315970154_Dualidade_entre_satisfacao_e_sofrimento_no_trabalho_da_equipe_de_enfermagem_em_centro_cirurgico/links/5c75c9a8299bf1268d283a2d/Dualidade-entre-satisfacao-e-sofrimento-no-trabalho-da-equipe-de-enfermagem-em-centro-cirurgico.pdf. Acesso em: 19 mar. 2019.

VARGAS, Elisa de; AZAMBUJA, Eliana Pinho de; KERBER, Nalú Pereira da Costa; SANTOS, Cristiano Pinto dos; SILVA, Ivanete da. **QUALIDADE DE VIDA NO TRABALHO DA ENFERMAGEM: INFLUÊNCIA DE CARGAS FÍSICAS NO TRABALHO EM CENTRO CIRÚRGICO**. 2017. Issn 2526-4397. 1 4ª Jornada de Pós-Graduação e Pesquisa. Disponível em: <https://site.urcamp.edu.br/pesquisa-e-extensao/ediurcamp/eventos-cientificos/congrega/congrega-2017>. Acesso em: 15 mar. 2019.