

Nursing team's perception of stress in the intensive care unit

Percepção da equipe de enfermagem sobre o estresse na unidade de terapia intensiva

Percepción del estrés del equipo de enfermería en la unidad de cuidados intensivos

RESUMO

Objetivo: conhecer na percepção da equipe de Enfermagem a presença dos fatores estressores no ambiente da Unidade de Terapia Intensiva da UTI-A. Método: Estudo de caso, com a realização de uma entrevista com roteiro, sendo 6 (seis) questões para 16 (dezesesseis) profissionais da equipe de enfermagem da Unidade de Terapia Intensiva adulto do Hospital de Clínica Gaspar Viana, em Belém/PA. Resultados: Possibilitou a compreensão acerca do estresse ocupacional, sobre o trabalho da equipe de Enfermagem em UTI, bem como sinalizou os possíveis fatores estressores no referido setor hospitalar. Discussões: A Unidade de Terapia Intensiva é um ambiente com inúmeros estressores, tais como ruídos, falta de materiais, desconhecimento do uso de tecnologias e procedimentos rápidos. Conclusão: Conclui-se que é um local de trabalho insalubre, atendimento de pacientes graves e assistência às suas famílias, com número reduzido de funcionários e sobrecarga de trabalho.

DESCRITORES: Equipe de Enfermagem. Estresse ocupacional. Unidades de Terapia Intensiva.

ABSTRACT

Objective: to understand the Nursing team's perception of the presence of stressors in the ICU-A Intensive Care Unit environment. Method: Case study, carrying out a scripted interview, with 6 (six) questions for 16 (sixteen) professionals from the nursing team of the adult Intensive Care Unit at Hospital de Clínica Gaspar Viana, in Belém/PA. Results: It made it possible to understand occupational stress and the work of the Nursing team in the ICU, as well as highlighting possible stressors in the aforementioned hospital sector. Discussions: The Intensive Care Unit is an environment with numerous stressors, such as noise, lack of materials, lack of knowledge about the use of technologies and quick procedures. Conclusion: It is concluded that it is an unhealthy place to work, care for seriously ill patients and assist their families, with a reduced number of employees and work overload.

DESCRIPTORS: Nursing team. Occupational stress. Intensive Care Units.

RESUMEN

Objetivo: Conocer la percepción del personal de enfermería sobre la presencia de factores de estrés en el ambiente de la Unidad de Terapia Intensiva. Método: Se trató de un estudio de caso en el que se formularon seis (6) preguntas a 16 (dieciséis) miembros del personal de enfermería de la Unidad de Cuidados Intensivos de adultos del Hospital Clínico Gaspar Viana de Belém/PA. Resultados: Proporcionó una comprensión del estrés laboral y del trabajo del equipo de enfermería de la UCI, además de señalar los posibles factores de estrés en este sector hospitalario. Discusión: La Unidad de Cuidados Intensivos es un ambiente con numerosos factores estresantes, como el ruido, la falta de material, el desconocimiento del uso de la tecnología y la rapidez de los procedimientos. Conclusión: Es un lugar insalubre para trabajar, atendiendo a pacientes en estado crítico y a sus familiares, con un número reducido de personal y una gran carga de trabajo.

DESCRIPTORES: Personal de enfermería. Estrés laboral. Unidades de Cuidados Intensivos.

RECEBIDO EM: 06/09/2023 APROVADO EM: 28/11/2024

How cited: Silva APS, Tannús SF, Gonçalves AM, Santos RC, Jesus MR, Medeiros FS, Ferreira FF, Silva Bento CM. Nursing team's perception of stress in the intensive care unit. *Saúde Coletiva* (Edição Brasileira) [Internet]. 2024 [acesso ano mês dia];14(89):13224-13237. Disponível em:

DOI: 10.36489/saudecoletiva.2024v14i89p13224-13237

- ID Ana Paula Santos e Silva**
Enfermeira. Pós Graduação em Auditoria em Saúde Pública, FAESB-SP. Pós Graduanda em Urgência e Emergência, UFPA.
ORCID: 0000-0002-8075-3840
- ID Sérgio Ferreira Tannús**
Enfermeiro. Mestre em Saúde Ambiental e Saúde do trabalhador PPGAT pelo programa de pós-graduação da Universidade Federal de Uberlândia.
ORCID: 0000-0003-3504-1737
- ID Albertina Martins Gonçalves**
Enfermeira. Doutorado em biotecnologia e inovação pela Anhanguera. Mestre em Unidade de Terapia Intensiva pela SOBRATI. Especialista em Unidade de Terapia Intensiva e Saúde da Família.
ORCID: 0009-0008-7757-3209
- ID Rafael de Carvalho dos Santos**
Enfermeiro. Mestre em desenvolvimento Local pela Universidade Augusto Motta. Especialista em Docência em enfermagem pela universidade Candido Mendes, Especialista em Urgência e emergência pela Uninter, Especialista em terapia intensiva pela Uninter, Especialista em Cardiologia e Hemodinâmica pela Unyleya, Docente pela Faculdade Bezerra de Araújo – FABA.
ORCID: 0000-0002-4219-0151
- ID Maristela Rodrigues de Jesus**
Enfermeira. Especialista em: Preceptoría em Saúde/ES/UFRN/202; Centro Cirúrgico e CME/CBPEX/FAPEX/2019; Urgência e Emergência / Uninter/2013; Saúde da Família na Atenção Primária Uninter/2012. Enfermeira Assistencial do HULW.
ORCID: 0009-0006-5856-1849
- ID Fransueide Sales de Medeiros**
Assistente Social. Especialização em Políticas de Proteção Social e Serviço Social pela Faculdade São Francisco da Paraíba (2013).
ORCID: 0009-0003-8985-7624
- ID Fernanda de Freitas Ferreira**
Enfermeira. Especialista: Enfermagem em Nefrologia, Enfermagem do trabalho e Auditoria em serviços de saúde. Mestranda da Universidade Federal Fluminense.
ORCID: 0009-0009-4812-5068
- ID Cássia Maria da Silva Bento**
Enfermeira. Graduação em Enfermagem. Vinculada ao Hospital Universitário Lauro Wanderley como técnica de Enfermagem.
ORCID: 0009-0002-1005-9594

INTRODUCTION

Nursing is on the list of the most exhausting professions due to the contact with diseases to which these professionals are exposed. From an etiological point of view, there are risk factors of a physical, chemical, biological and psychological nature.¹ This condition occurs because the activities legally conferred on nurses require a lot of attention, discernment and responsibility, meaning that the psychosocial factors triggered by this

professional's work activities lead to the appearance of stress at work.²

Nursing as a profession has been recognized for over 50 years and considered, until then, as one of the most stressful. Particularly in Intensive Care Units (ICU), studies have shown that nursing professionals who work in this environment face high levels of stress.³

In the ICU there are hospitalized patients who require direct and intensive care, as their clinical health condition can easily lead to death, in addition to being considered a closed sector whe-

re communication with other sectors is quite restricted.⁴ The intensive care nurse is responsible for managing crises, providing assistance to family members, predicting complications related to the technological environment, establishing and controlling various stages of the nursing team's group work, command the management of the teams, manage the unit and all resources essential to the recovery of patients, pronounce the multiple perspectives that permeate understanding, negotiation and reproduction, maintaining

Relato de Literatura EN

Ana P.S. e Silva, Sérgio F. Tannús, Albertina M. Gonçalves, Rafael de C. dos Santos, Maristela R. de Jesus, Fransueide S. de Medeiros, Fernanda de F. Ferreira, Cássia M.S. Bento
Nursing team's perception of stress in the intensive care unit

institutional norms.⁵

From this perspective, it is understood that, with a greater number of hospitalized users, with greater severity, the volume of work will also increase. However, the concern revolves around empirical findings, since it is the nurse's responsibility to correlate nursing care needs with the number of available personnel, emphasizing the importance of treating the quality of care positively in favor of patient safety, protection of the integrity of the nursing team and visualization of results, in the face of efforts that may be applied.⁶ Thus, the general objective of this research is to understand how the work routine in Adult Intensive Care Units (ICU-A) can generate stressful factors for the nursing team.

METHOD

This is a qualitative case study research, which was based on the analysis of stressors in the work environment in the ICU-A for the nursing team. This

work was submitted to the Research Ethics Committee of the Hospital de Clínicas Gaspar Viana, in Belém/PA, obtaining approval from CEP nº 50/18 to carry out this research at the hospital institution. Furthermore, research participants were informed about the study and signed the Free and Informed Consent Form.

To better substantiate and analyze the data collected during the research, a scripted interview was used and voice recording was authorized to collect the statements of the research participants during the interview.

The research was carried out with 16 professionals from the Nursing team at Hospital de Clínicas Gaspar Viana, with 8 participants in the morning shift survey and 8 afternoon shift survey participants. The inclusion criterion for research participants was: working in the hospital's adult ICU. Gender and socioeconomic status were not relevant variables for the research. For the exclusion criteria of research participants:

Those who were on vacation, sick leave or time off during the data collection period, professionals hired temporarily.

RESULTS

16 professionals from the Nursing team at Hospital de Clínicas Gaspar Viana, from the adult ICU, participated in the research, at 8 in the morning and 8 in the afternoon. It was not possible to carry out the research with night shift research participants due to the researchers' lack of time availability to carry out a night shift study. The research participants are made up of 15 females and 1 male, in the age group between 30 and 54 years old, it is possible to find 4 specialist nurses, 0 nursing assistants and 12 nursing technicians, with lengths of service in the institution's ICU ranging from 1 year and 2 months to 26 years. Regarding weekly working hours, 12 research participants worked 30 hours, 1 worked 36 hours and 3 worked 40 hours. It is possible to check, in ta-

Table 1 - Characterization of the Sociodemographic and professional Profile of research participants:

	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP
PS	AGSS	MD	MMBP	ICA	-	K	-	E	Net e	-	N	B	Nec o	POS	VEIA	JPS
S	F	F	F	M	F	F	F	F	F	F	F	F	F	F	F	F
I	34	50	42	49	54	32	40	42	49	EE	38	48	37	30	41	40
SP	EE	TE	EE	TE	TE	TE	TE	TE	TE	TE	TE	TE	TE	TE	TE	TE
TS UTI	1a2 m	15a	14a	-	12a	3a	20a	26a	22a	17a	10a	14a	1a	2a	12a	10a
TE UTI	9 ^a	15a	15a	11a	14a	3a	15a	26a	22a	20a	10a	14a	1a	2a	20a	10a
CH S	30h	30h	30h	30h	40h	30h	30h	30h	40h	36h	40h	30h	30h	30h	30h	30h
AF P	09	90	01	93	00	11	96	92	87	95	05	04	04	11	97	02
T	M	M	M	M	M	M	40	M	T	T	T	T	T	T	T	T

Source: Created by the authors based on interviews with research participants.
PS = Pseudonym; WW = Weekly Workload; M = Male; F = Female; S = Sex; YPT = Year of Professional Training; SN = Specialist Nurse; I = Age; S = Shift; NT = Nursing Technician; Mo = Morning; Af = afternoon; CP = Category; P = Participant; ICU st = ICU service time; a = years; m = months; h = hour.

ble 1 below, the sociodemographic and professional profile of the research professionals.

An interview was carried out with the research participants, using an interview guide and a voice recorder. The interview guide consisted of six questions that investigated the perception of nursing team professionals. The results of the interviews are categorized below, according to the perceptions of the research participants.

NURSING TEAM'S PERCEPTION OF STRESSFUL FACTORS IN THE ICU ENVIRONMENT

From the interview about the questions regarding the stressors that affect the ICU environment, 4 research participants stated their lack of knowledge in handling technological devices, 10 reported the noise, 11 indicated the lack of materials, 9 attributed it to the quick procedures, 5 argued that working in an unhealthy environment, 4 pointed to providing care to family members of critically ill patients and 4 indicated providing assistance to critically ill patients. Furthermore, 1 participant listed that work overload is also a stressor in the ICU, as well as 1 (one) participant pointed out the relationship in the nursing and multidisciplinary team.

PERCEPTIONS ABOUT EXPERIENCE IN OTHER ICU'S, COMPARISON BETWEEN PAST EXPERIENCE IN ICU'S AND THE CURRENT EXPERIENCE IN THE SPECIALIZED ICU AND MORE STRESSFUL ICU

The results on experiences in other ICUs showed that 15 research participants stated they had experience in other ICUs, with 13 participants in the specialized ICU, 5 in the pediatric ICU and 1 in the neonatal ICU. 1 participant did not claim to have experience in other ICUs.

The results regarding the comparison of whether stress in the environment is the same in other ICUs and the

one in which they currently work show that 7 people said it was the same, justifying it due to the intense workload, the demands for quick procedures, the continuous effort to save the lives of seriously ill patients, the noise, the quick procedures, the reduced number of employees, the lack of materials.

Among the participants, 9 did not state that the stressful environment is the same, arguing that the experience in private hospital ICUs is different, as there are more beds available, there are more services and families charge more; due to the short stay of patients in pediatric ICUs and because they are quieter due to the patients' profile; on the other hand, some participants indicate that the pediatric ICU is more complex due to the fact that children cry a lot and because of the invasive procedures that are difficult for the nursing team; yet some argued not to think about any of the stressful environments.

Regarding the perception of research participants about which ICU is the most stressful, the results show 2 participants who pointed out the pediatric ICU as the most stressful, justifying that parents demand a "miracle" from the team, that the family never thinks that the work of the nursing team is enough, due to the difficulty in dealing with child deaths.

Among the participants, 9 pointed out the adult ICU as the most stressful, arguing that the work is more tiring due to the weight of the patients, the care for chronic patients, the teaching hospital, many procedures at the same time, some professionals end up bringing personal problems into the work environment, lack of compliance with the law for the nursing team to rest, the reception of patients from other hospitals who enter the ICU in poor conditions and the team needs to stabilize these patients, due to the extensive care associated with various pathologies requiring appropriate technologies and attention.

There was also 1 participant who highlighted the neonatal ICU as the

most stressful due to the patients being newborns in a serious state of health, requiring extremely detailed care when handling the patient and during the procedures. Because they had no experience in ICUs other than adults, 4 participants indicated that they were unable to make a comparison with another specialty.

PERCEPTION ABOUT THE ANALYSIS OF YOUR WORK ENVIRONMENT AS A CAUSE OF STRESSFUL

In analyzing whether their work environment causes stress, 14 research participants stated, arguing about the ineffectiveness of communication between the nursing team and multidisciplinary teams, due to the bond built between professional and patient, the difficulty in dealing with pain and death, the work overload, excessive demands, due to the lack of materials, needing to reuse some such as the cape, the relationships between the team professionals, due to the fact that it is a teaching hospital, but without staff training, due to several procedures that need to be carried out at the same time and very quickly, in addition to the lack of recognition and respect for professionals, disrespect for the team's rest and meal times, exhaustive and long shifts, noise, reduced number of employees, imposition of rules without the team's consent.

However, 2 participants did not state their work environment as causing stress, they showed that they liked their work environment, arguing that stress already comes from outside the professional for different reasons, highlighting that they feel privileged in their work environment, because the role of Nursing is to help save lives, recover, care for other people's love, and it is rewarding to be able to help and welcome.

DISCUSSION

The results of the study prove that

there are several stressors in the Intensive Care Unit in the perception of the nursing team, confirming what Piedade *et al.*⁵ highlights when he states that the ICU represents one of the most worrying hospital environments in terms of occupational stress and as highlighted by Cabral *et al.*⁷ which is considered one of the most offensive and traumatizing places for patients and professionals, considering as one of the research participants points out who reports in his speech during the interview “that the entire functioning of the ICU to be perfect requires Nursing, needing to be aware of everything that happens to patients, vital signs, blood pressure, if a patient runs out of medication, if a pressure ulcer opens on the patient, the responsibility falls on the nurse. Bathing for patients is now the norm, but the institution does not provide a bath chair, and nurses need to monitor the patient’s bath.”

In this way, it is in line with Piedade *et al.*⁵ which cites the ICU as a complex system that demands quick decision-making, an alert stance when monitoring patients and the expectation of complications, admissions and deaths, taking into account what Guerrer and Bianchi⁴ signal when they characterize patients admitted to the ICU as individuals who require direct and intensive care, since their clinical health condition can easily lead to death.

Nursing team professionals point out numerous stressors, including lack of knowledge about the use of technology, noise, lack of materials, quick procedures, working in an unhealthy environment, caring for family members after serious accidents, providing assistance to seriously ill patients, and they also add elements such as work overload, lack of professional recognition within the multidisciplinary team, problems in interpersonal relationships within the team and insufficient number of employees.

Thus, these factors converge with the idea of Batista and Bianchi⁸ which

list the following aspects as main stressors: reduced number of employees making up the nursing team, lack of institutional and professional support; work load; need to carry out tasks in a reduced time; lack of definition of the professional’s role; dissatisfaction with work; lack of experience on the part of supervisors; lack of communication and understanding on the part of service supervision; relationships with family members; physical environment of the unit; equipment technology; patient care and relationships with family members.

The presence of constant noise in the ICU, already highlighted by Cabral *et al.*⁷, the lack of materials, which is reported by some research participants that some materials, such as the coat, need to be reused, which is very harmful, in addition to the work overload and reduced number of employees, bearing in mind that, as Rodrigues *et al.*⁹ on the guidance of Ordinance GM/MS nº 1,071, of July 4, 2005, which provides for the National Critical Patient Care Policy, nurses need to pay attention to the quality of the materials they use in patient care, and, also, establishes that the minimum composition of the ICU nursing team requires a coordinating nurse, responsible for the nursing area; one clinical nurse per shift, exclusive to the unit, for every 10 beds/fraction; one nursing technician for up to two patients, and employees need to be calculated based on some aspects such as physical plant, number of beds, hospital characteristics, degree of patient dependence, worker qualifications, quantity and quality of equipment.

This work overload is often highlighted by research participants as a very significant stressor, where they reveal that they end up doing, often 12-hour shifts without a rest break, with one of the research participants pointing out that, during his interview, he had already been on duty for 24 hours, as there was no employee to replace him, claiming that, in addition to patient

care and procedures, they still need to perform administrative functions such as answering phones, filling out reports, talking to day doctors.

Thus, it is in line with the conception of Silva *et al.*¹⁰ when he points out that the work routine for most professionals in the ICU is unsatisfactory and even frustrating, since they need to perform numerous roles within the Unit, generating an overload, which, as Garcia states⁶ It varies depending on the degree of dependence of users, the severity of the disease, working time, the complexity of activities and activities not related to care.

Furthermore, as Rocha and Martino conceive¹¹, The fast-paced functions, excessive working hours and shift work are factors that can develop occupational stress, illustrated by the constant demands for quick procedures that the nursing team professionals interviewed reveal as a stressor.

“

Of the 16 professionals interviewed, 9 point to the adult ICU as the most stressful, justifying that many procedures are required at the same time, the pathologies are more severe and the demands are greater.

”

In this way, we agree with Oliveira 12 when he points out that the environments with the greatest demand for patient care are the most stressful and require the most workload.

The excessive workload intensifies, as pointed out by research participants, due to the reduced number of employees and the constant change of employees, as in some cases, due to the absence of a professional from the nursing team, the institution relocates a professional from another sector to make up for this shortage. However, this becomes harmful when an individual who does not have experience in the ICU needs to be guided and monitored by the team who still need to manage their workload.

This confirms what Perão 13 highlights the need for specific training in high complexity for professionals who work in the ICU,

in order to enable you to assess the evolution of critically ill patients and intervene in critical situations, know and know how to handle the equipment installed in the ICU, practice nursing care safely and record all data and information about the patients treated. Therefore, according to Preto 14, the professional must be qualified to carry out complex activities, in addition to having qualities such as leadership, discernment, responsibility and practice.

The nursing worker, in this context, is seen as the professional who is in contact with the patient the longest, 24 hours a day, and continually performs health actions with this public, which exposes this worker, in greater proportions, to these risks, visible or not. 1

From this perspective, another aspect highlighted as a stressful factor in the ICU in the perception of the nursing team was the bond that is built between patient and nursing professional, due to the large amount of time they spend with patients, bearing in mind what Hanzelmann and Passos 1 highlight that the professional spends 24 hours a day with patients, having direct contact with patients, understanding

that recovery is uncertain and will not always be complete, as warned by Silva *et al.* 1

In this sense, research participants insistently emphasize during the interview that, due to the specificity of the ICU, nursing professionals need to deal with death on a daily basis, which proves the statement made by Cabral *et al.* 7 when stating that nurses need to deal with emergency situations, deal with suffering and death. Thus, considering the bonds built with patients, this becomes a stressor within the environment, in agreement with Guerrer and Bianchi 4 when they point out that the care provided to patients in the ICU is made up of a mix of emotions and feelings that are expressed in a very intense way, which is illustrated when the research participants point out as stressors the care of seriously ill patients and the reception of their families.

Furthermore, some research participants point out the illness of many professionals, which, due to the fact of direct contact with the patient at numerous times in the ICU, generates consequences for these professionals, revealed by Aversari 15 such as exposure to infections through wounds, contact of membranes, mucous membranes or skin with blood or other potentially infected body fluids.

Furthermore, work overload and long shifts without due breaks for rest and food, as indicated by participants in this research as daily stressors in ICUs, can also contribute to the illness of nursing team professionals, taking into account what Ferreira and Martino 16 state that stressed workers in the team are more susceptible to the occurrence of accidents and occupational diseases, as they agree with Guerrer and Bianchi 4, when they mention that excessive work and the accumulation of functions can cause physical and psychological exhaustion in professionals.

The results also reveal that occupational stress, as perceived by the nursing team, is very subjective, since, although

the majority of participants interviewed confessed that the ICU is an environment with numerous stressors, some research participants claimed not to consider the ICU a stressful environment and still claims to really enjoy working in this hospital sector. Thus, it is clear what Grazziano and Ferraz 17 conceive about the subjectivity of evaluating occupational stress, concluding that one professional may interpret it as a threat to their leisure, family life, among others, while another may interpret it as a challenge.

Therefore, it is necessary what Oliveira 12 highlights: the guarantee of quality in the care of nursing professionals in ICUs, it is necessary to ensure dignified and favorable working conditions, respecting the minimum number of professionals, providing adequate and sufficient materials for a good and safe development of work, promoting a lower incidence of health problems for workers, with the reduction of work overload, which also contributes to reducing risks to patients' health. Therefore, we agree with Garcia6 in stating that it is essential to prioritize the quality of care positively in favor of patient safety, protection of the integrity of the nursing team, with a view to building a more humanizing environment.

The researchers observed that research participants demonstrated exhaustion, worry and a lot of anxiety during the research. Many were frustrated with the work environment that creates a lot of pressure on nursing team professionals.

Furthermore, it was possible for the researchers to detect a lot of noise in the ICU, coming from many devices or during procedures carried out by professionals, which made it difficult when analyzing the recordings as some speeches were compromised due to the noise. Furthermore, even though they explained that they were participating in a study, participants were pressured by other team members to complete their interviews quickly, as they had to return

to their duties immediately.

The researchers analyzed many statements from the nursing team participants as outbursts, showing that they were dissatisfied with their work environment due to various stressors as revealed above.

It can be seen that the flow of people in the ICU is intense and, during the research, we observed that the number of beds is very large, but the number of employees is reduced, generating a climate of stress, confirmed in the statements of many professionals who participated in the research.

Therefore, it was possible to prove that the Intensive Care Unit is an environment that has numerous stressors, which was evidenced by the interviews and observation of the researchers.

CONCLUSION

This research found that the Intensive Care Unit is an environment

with numerous stressors, such as noise, lack of materials, lack of knowledge in handling the use of technologies, fast procedures, an unhealthy workplace, care for critically ill patients and assistance to their families, reduced number of employees, work overload, long working hours without quality breaks for food and rest.

This reality contributes to some consequences such as the illness of professionals who are exposed daily in daily contact with patients suffering from serious clinical conditions. Furthermore, the emotional aspect of these professionals is greatly affected considering that they deal with death daily and build bonds with their patients.

From this perspective, it is essential that hospital institutions adapt to the legislation that guides the development of work in ICUs, prioritizing the physical and mental integrity of nursing team professionals, in order to respect their emotions, enable them to quali-

fy for work, equip them correctly and with quality materials, value the work of this professional within intensive care units.

Therefore, it is extremely important that a humanizing space is built, in which the dignity of the human person, of life and also of death, is a priority, since the patient-nurse relationship must be considered and respected as an integral part of the nursing process within the ICU. Thus, this space can be consolidated as a place in which patients, their families and professionals feel safe, welcomed and valued.

REFERENCES

1. Hanzelmann RDS, Passos JP. Imagens e representações da enfermagem acerca do stress e sua influência na atividade laboral. *Rev. Esc. Enferm. USP* 2010; 44(3): 694-701.
2. Inoue P. et al. Estresse ocupacional em enfermeiros intensivistas que prestam cuidados diretos ao paciente crítico. *Rev. brasil de enferm* 2013; 66(5).
3. Andolhes L. et al. Estresse, coping e burnout da Equipe de Enfermagem de Unidades de Terapia Intensiva: fatores associados. *Rev da Escola de Enferm da USP* 2015; 49(1): 58-64.
4. Guerrer FJL, Bianchi ERF. Caracterização do estresse nos enfermeiros de unidades de terapia intensiva. *Rev da Escola de Enferm da USP*, 2008; 42(2).
5. Piedade MIG, Santos Q, Conceição CS. Estresse Ocupacional na Unidade de Terapia Intensiva. *Caderno Saúde e Desenvolvimento*, 2012 jul- dez.
6. Garcia BR. Carga de trabalho e dimensionamento de enfermagem em Unidade de Terapia Intensiva [dissertação]. Santa Catarina: Universidade Federal de Santa Catarina; 2013.
7. Cabral JVB et al. Estresse dos profissionais de enfermagem em unidade de terapia intensiva (UTI). *Revista Eletrônica "Diálogos Acadêmicos"*, jul-dez 2016; 11(2): 33-42.
8. Batista KDM, Bianchi ERF. Estresse do enfermeiro em Unidade de Emergência. *Rev Latino-am Enferm* 2006; 14(4):534-9.
9. Rodrigues IL et al. Facilidades e dificuldades do trabalho em terapia intensiva: um olhar da equipe de enfermagem. *Care Online*. 2016 jul/set; 8(3): 4757-4765.
10. Silva O. et al. Refletindo sobre o cuidado de enfermagem em unidade de terapia intensiva. *REME – Rev. Min. Enf.* 2007; 11(1): 94-98.
11. Rocha MCP, Martino MMF. O estresse e qualidade de sono do enfermeiro nos diferentes turnos hospitalares. *Rev da Escola de Enferm da USP* 2010; 44(2): 280-286.
12. Oliveira RP. Carga de trabalho e absenteísmo da equipe de enfermagem em unidade de terapia intensiva [dissertação]. São Paulo: Universidade de São Paulo; 2015.
13. Perão OF. Características sociodemográficas e epidemiológicas dos pacientes internados em uma unidade de terapia intensiva adulto e carga de trabalho de enfermagem segundo other apeutic intervention scoring system – 28 [dissertação]. Santa Catarina: Universidade de Santa Catarina; 2013.
14. Preto VA. O Estresse entre enfermeiros que atuam na Unidade de Terapia Intensiva [dissertação]. São Paulo: Universidade de São Paulo; 2008.
15. Aversari REOC. Implicações de fatores ambientais e organização na capacidade do trabalho dos enfermeiros em unidade de terapia intensiva (UTIs) [tese] João Pessoa: Universidade Federal da Paraíba; 2010.
16. Ferreira LRC, Martino MMF. O estresse do enfermeiro: análise das publicações sobre o tema. *Revista Ciência Médica* 2006; 15(3): 241-248.
17. Grazziano ES, Ferraz BER. Impacto do stress ocupacional e burnout para enfermeiros. *Revista Enfemeira Global*; 2010 Fev.