

Prevalence of burnout syndrome in nursing professionals during the covid-19 pandemic

Prevalência da síndrome de burnout nos profissionais de enfermagem durante a pandemia de covid-19
Prevalencia del síndrome de burnout en profesionales de enfermería durante la pandemia del covid-19

RESUMO

Objetivo: Verificar a prevalência da Síndrome de Burnout em profissionais de enfermagem de um hospital público do Distrito Federal em cenário pandêmico de Covid-19. Método: Estudo epidemiológico transversal que se propõe a analisar a frequência de profissionais acometidos com Síndrome de Burnout na equipe de Enfermagem, os dados necessários para edificação do presente estudo foram adquiridos a partir de um instrumento validado para avaliar o desenvolvimento da Síndrome de Burnout - Maslach Burnout Inventory e de um instrumento auto-aplicado desenvolvido pelos autores, composto de quatro blocos de questões que analisaram dados demográficos, profissionais e variáveis psicossociais como fatores de estresse percebidos pela equipe de enfermagem. Resultado: A pesquisa aponta que mais de 50% dos profissionais se enquadram na fase inicial da síndrome. Conclusão: De acordo com os dados coletados nesta unidade, concluiu-se que durante a pandemia a maioria dos profissionais de enfermagem apresentavam indícios ou a fase inicial do esgotamento.

DESCRITORES: Burnout; Esgotamento profissional; Enfermagem.

ABSTRACT

Objective: To verify the prevalence of Burnout Syndrome in nursing professionals at a public hospital in the Federal District in a Covid-19 pandemic scenario. Method: Cross-sectional epidemiological study carried out between April and June 2022, which proposes to analyze the frequency of professionals affected by Burnout Syndrome in the Nursing team, the necessary data for the construction of the present study were acquired from a validated instrument to evaluate the development of the Burnout Syndrome - Maslach Burnout Inventory and from a self-applied instrument developed by the authors, composed of four blocks of questions that analyzed demographic data, professionals and psychosocial variables as stress factors perceived by the nursing team. Result: The survey indicates that more than 50% of professionals are in the initial phase of the syndrome. Conclusion: According to the data collected in this unit, it was concluded that during the pandemic most nursing professionals showed signs or the initial phase of exhaustion

DESCRIPTORS: Burnout; Professional burnout; Nursing.

RESUMEN

Objetivo: Verificar la prevalencia del Síndrome de Burnout en profesionales de enfermería de un hospital público del Distrito Federal en un escenario de pandemia de Covid-19. Método: Estudio epidemiológico transversal que pretende analizar la frecuencia de profesionales afectados por el Síndrome de Burnout en el equipo de Enfermería, los datos necesarios para la construcción del presente estudio fueron adquiridos a partir de un instrumento validado para evaluar el desarrollo del Síndrome de Burnout - Maslach Burnout Inventory y de un instrumento autoaplicado desarrollado por los autores, compuesto por cuatro bloques de preguntas que analizaron variables demográficas, profesionales y psicosociales como factores de estrés percibidos por el equipo de enfermería. Resultados: La investigación indica que más del 50% de los profesionales se encuentran en la fase inicial del síndrome. Conclusión: De acuerdo con los datos recogidos en esta unidad, se concluye que durante la pandemia la mayoría de los profesionales de enfermería presentaron signos o la fase inicial de burnout.

DESCRIPTORES: Burnout; Agotamiento profesional; Enfermería.

RECEBIDO EM: 04/04/2023 APROVADO EM: 11/05/2023

Amanda Beatriz Rocha Nogueira Félix

Nurse graduated from the University Center of Brasília (CEUB). Specialist in Urgency and Trauma by the Multidisciplinary Residency Program in Urgency and Trauma at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: 0000-0003-4151-2048

Débora Layanne Nunes Domiense

Nurse graduated from the Federal District University Center (UDF). Resident in the Multiprofessional Emergency and Trauma Residency Program at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: 0009-0000-6248-5945

Raquel do Nascimento Dias

- Nurse graduated from the University Center of Planalto Central Aparecido dos Santos (UNICEPLAC). Resident in the Multiprofessional Emergency and Trauma Residency Program at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: 0009-0008-7609-5970

Veida Bastulhar Dourado Freitas

Nurse graduated from the Evangelical University of Goiás. Specialist in Urgency and Trauma by the Multidisciplinary Residency Program in Urgency and Trauma at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: 0000-0001-6182-2532

Nayara da Silva Lisboa

- Nurse graduated from the University of Brasilia. Specialist in Urgency and Emergency is in Attention to the Critical Patient. Master in Nursing from the University of Brasilia. Preceptor of the Multiprofessional Residency Program in Urgency and Trauma at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: <https://orcid.org/0000-0001-5855-7651>

Thaís Fernandes de Oliveira

Nurse graduated from the Higher School of Health Sciences. Specialist in Intensive Care Unit and Adult and Elderly Health. Master in Nursing from the University of Brasilia. Preceptor of the Multiprofessional Residency Program in Urgency and Trauma at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: 0000-0001-9128-7796

Letícia Lopes Dorneles

Nurse linked to the State Department of Health of the Federal District. Master in Sciences from USP Ribeirão Preto. Doctoral Student in Public Health Nursing at USP Ribeirão Preto. Professor at the Higher School of Health Sciences (ESCS). Brasilia DF.
ORCID: 0000-0002-7643-5006

Moisés Wesley

Nurse linked to the State Department of Health of the Federal District. Master in Medical Sciences from the University of Brasília (UnB). Preceptor for the Multidisciplinary Urgency and Trauma Residency Program at the Higher School of Health Sciences (ESCS). Brasília, DF, Brazil.
ORCID: 0000-0002-8666-5702

INTRODUCTION

According to Maslach and Jackson, Burnout is a set of symptoms characterized by emotional exhaustion (tiredness and the feeling of not being able to offer more to others), depersonalization (impersonal feelings towards their patients, treating them as objects) and deficiency in the feeling of personal accomplishments. This psychological syndrome mainly affects professionals who work with people in difficult circumstances, such as health professionals.^[1]

The nursing profession provides care for a large part of the workload, having direct contact with patients and families. Factors such as the lack of definition of the professional role, the work overload often justi-

fied by a lack of personnel and stimulated by the payment of overtime, the lack of autonomy and authority in decision-making generates a state of chronic stress, identifying itself as one of the professions with the highest incidence of burnout.^[3]

Among the recent events that increase the incidence of burnout, we can mention the pandemic of the new coronavirus, in 2020. With the increase in the number of infected people, the COVID-19 pandemic caused a major hospital collapse worldwide, generating immense concern and stress among health professionals and government authorities.^[4]

Thus, considering that burnout is a psychosocial phenomenon directly related to the work situation and that productive activi-

ty is a constitutive element of individual and collective mental health, This study aimed to evaluate the Burnout Syndrome (BS) in nurses and nursing technicians at a public hospital in the southern region of the Federal District, in coping with the Covid-19 pandemic, verifying possible associations with demographic variables, work and stress factors perceived at work.

METHOD

This is a cross-sectional study carried out between April and June 2022 in a public hospital located in the southern region of the Federal District, consisting of 85 beds in the Emergency Room, 55 in the Adult Emergency Room (AER), including 4 beds

in the medical clinic emergency box and another 32 beds in the Surgery and Orthopedics Emergency Room (PSC), including 2 beds in the surgery emergency box. A validated instrument was used to assess the development of Burnout Syndrome - Maslach Burnout Inventory (MBI) in its translated and adapted Human Services Survey (HSS) version. This instrument assesses how the worker characterizes his work according to the three previously established dimensions: emotional exhaustion, professional achievement and depersonalization.

The following cutoff points were used: 0 to 20 points: No evidence of BS; 21 to 40 points: Possibility of developing BS; 41 to 60 points: Initial phase of BS; 61 to 80 points: BS installation; 81 to 100 points: BS critical phase. The Likert scale was used to score the responses, ranging from zero to five, as follows: (1) never, (2) annually, (3) monthly, (4) weekly, (5) daily.

The data collection instruments were applied to the professionals who consented to participate in the research, namely nurses, nursing technicians and assistants, and all of them signed the Informed Consent Form.

The studied hospital has 238 nursing professionals in the Emergency Room, 40 nurses, 67 nursing technicians and 131 nursing assistants. Only professionals who work a minimum of 20 hours at the studied institution were included in the research. The exclusion criteria adopted were: being away due to illness or any type of work leave; not being found after three attempts; and questionnaires answered incompletely.

To carry out data collection, approval by the Research Ethics Committee was required (opinion number: 5.206.412 and CAAE: 53307821.8.0000.5553).

RESULTS

The final sample consisted of 92 professionals. As for the sociodemographic profile (table 1), it was identified that the female gender corresponded to 77.2% (n=71). The age group with the highest prevalence was between 40 and 50 years (n=46), corresponding to 50%. The most prevalent marital status was married, corresponding to 59.8% (n=55). As

for the number of children, 33.7% (n=31) have 3 or more.

Table 2 indicates that 45.7% (n=42) of the participants have higher education, 50% (n=46) work 12-hour day shifts, 25% (n=27) have between 15 and 20 years of professional experience and 84.8% (n=78) work 40 hours a week at the institution.

As for the psychosocial variables, the participants should mark "yes" or "no" for the frequent occurrence of stressors, according to the caption of graph 1.

With the exception of items 8 and 9, all stressors were mentioned by more than 65% (n=60) of the participants.

In this research, 54.3% (n=50) of professionals fit between scores 41 and 60 on the MBI, indicating the initial phase of BS development (graph 2).

In the analysis of the association between Burnout Syndrome through MBI (dependent variables) and sociodemographic data (independent variables) it was identified that most participants were in the initial phase of

BS scoring between 41 and 60 points. This group has 41.3% (n=38) women, 30.43% (n=28) between 40 and 50 years old, 39.13% (n=36) are married, 19.57% (n=18) have 2 children, coinciding with those who have 3 or more children, 27.17% (n=25) work 12 hours a day, 16.3% (n=15) work between 10 and 15 years in nursing, 17.39% (n=16) work between 10 and 15 years in the Emergency Room, 45.65% (n=42) work 40 hours a week and 50% (n=46) of professionals agree that the number of patients treated during the period was high.

DISCUSSION

The results of this study showed that 83.7% of the women had some relationship with the development of BS and only 16.3% did not show any evidence.

In the study by Chen (2021) on the determination of stress levels, depression and burnout of frontline nurses during the COVID-19 pandemic it was identified that

Table 1. Sociodemographic characteristics of research participants, Brasília, Federal District, Brazil, 2023

Sociodemographic	Absolute frequency (N)	Relative frequency (%)
Gender	92	100
Female	71	77,2
Male	21	22,8
Age	92	100
< 30 years	2	2,2
from 30 to 40 years old	19	20,7
from 40 to 50 years old	46	50
from 50 to 60 years old	23	25
> 60 years old	2	2,2
Marital Status	92	100
Single	14	15,2
Married	55	59,8
Divorced	23	25
Children	92	100
None	13	14,1
1 child	19	20,7
2 children	29	31,5
3 or more	31	33,7

Source: Authors

Artigo Original EN

Amanda B. R. N. Félix, Débora L. N. Domiense, Raquel N. Dias, Veida B. D. Freitas, Nayara S. Lisboa, Thaís F. de Oliveira, Letícia L. Dorneles, Moisés Wesley
prevalence of burnout syndrome in nursing professionals during the covid-19 pandemic

being a woman and working in a hospital designated for coronavirus care are two of the four influential factors related to burnout in terms of emotional exhaustion. In addition, physiological factors such as hormonal changes, which in association with the workload, working conditions and often domestic chores, lead to compromising moments of leisure and rest, resulting in exhausting emotional stress, leading to chronic fatigue more prevalent in women.^{[5][6][7]}

A Brazilian study demonstrated that Burnout affects older individuals, since with the aging process people tend to develop mental disorders due to the difficulty of adapting to working conditions, corroborating the data found in the present research, which identified 28 professionals, between 40 and 50 years old, with signs of BS and 13 are in the onset phase of the syndrome.^{[7][8]}

Regarding marital status, 59.78% of the sample is married and of these, 39.13% show signs of developing exhaustion and 10.87% in the initial phase of the syndrome. Regarding the number of children, 64.92% have at least two children. Twenty-nine participants have 2 children, and 18 of them have signs of BS, the proportion is repeated in relation to those who have 3 or more children. A study carried out by Maglallang (2021) on work and family demands and the relationship of BS among health professionals, identified that married people without children can develop a more flexible relationship and take on heavier workloads than their colleagues with children, but this group had the highest proportion of highly overloaded workers. In this same study, he describes that having children is perhaps a protective factor against burnout.^[9]

In the present study, the highest level of education is related to the development of BS. Participants who have completed higher education had a higher level of burnout when compared to professionals with a primary or secondary level. Professionals with specialization also showed significant signs of developing the syndrome. Another study corroborates this result, indicating that the level of education can influence the perceptions of health professionals about the responsibility

Table 2. Professional characteristics of research participants, Brasilia, Federal District, Brazil, 2023

Sociodemographic	Absolute frequency (N)	Relative frequency (%)
Level of education	92	100
Elementary School	1	1,1
High School	20	21,7
Superior Education	42	45,7
Specialization	27	29,3
Master degree	2	2,2
Work shift	92	100
07 AM- 07 PM	46	50
07 PM - 07 AM	45	48,9
01 PM - 7 PM	1	1,1
Professional experience	92	100
< 5 years	3	3,3
among 5 and 10 years	18	19,6
among 10 and 15 years	24	26,1
among 15 and 20 years	25	27,2
> 20 years	22	23,9
Hospital experience	92	100
< 5 years	13	14,1
among 5 and 10 years	21	22,8
among 10 and 15 years	24	26,1
among 15 and 20 years	17	18,5
> 20 years	17	18,5
Workload	92	100
20 hours	14	15,2
40 hours	78	84,8UY
No. of patients/day	92	100
up to 5	8	8,7
among 5 and 10	38	41,3
> 10	46	50
Exclusive Link	92	100
Yes	69	75
No	23	25

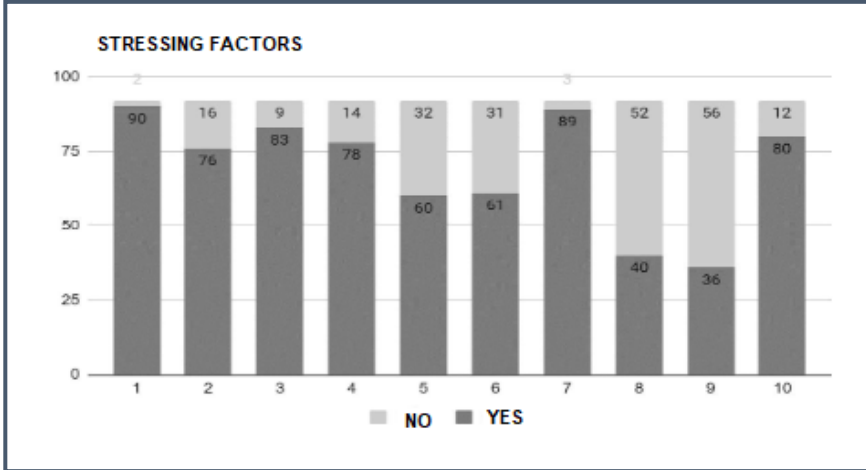
Source: Authors

and duty of care.^[10]

This sample obtained results similar to previously published articles with regard to stressors in the workday, more than half of the research participants identified eight of the ten factors exposed in the questionnaire, they are: the high demand of patients, the overlo-

ad of activities, the high number of patients on duty, the need for professional updating, the execution of many bureaucratic activities to the detriment of care, the multiplicity of roles to be played, the lack of material resources for the work and the little participation in institutional decisions.^[11]

Graph 1. Psychosocial variables related to work stressors, Brasília, Federal District, Brazil, 2023



Subtitle:

1. Patients who require a lot of care and attention
 2. activity overload
 3. High number of patients on duty
 4. Need for professional updating
 5. Execution of bureaucratic activities
 6. Multiplicity of roles to play
 7. Lack of material resources for work
 8. Stressful relationship between the team
 9. Lack of support from superiors and colleagues
 10. Little participation in institutional decisions
- Source: Authors

CONCLUSION

During the pandemic, the nursing team was exposed not only to infection by the virus, but also to professional exhaustion due to the excessive demand of patients who evolved with severity, in addition, there was a lack of inputs in hospital networks nationally and internationally, all these factors exposed in the study contributed to the development of signs of Burnout Syndrome. In this health unit, the number of professionals with the critical phase of BS was not significant, most of them showed signs of the syndrome or the initial phase of exhaustion.

It was expected to find a significant prevalence of Burnout Syndrome in its critical state, since the pandemic context favored a greater impact on work exhaustion caused due to increased physical and mental exhaustion in nursing professionals. However, the result obtained was different from what was expected, as the research participants had a higher prevalence in the category of the initial phase of the development of Burnout Syndrome. This outcome can be explained by a factor observed during data collection, where the researchers could observe the nursing team's fear of retaliation by the leadership after the research result, some professionals expressed the fear of reprisal if the result became public, even though the questionnaires were anonymous, the responses to the instruments may not have been faithful to the context.

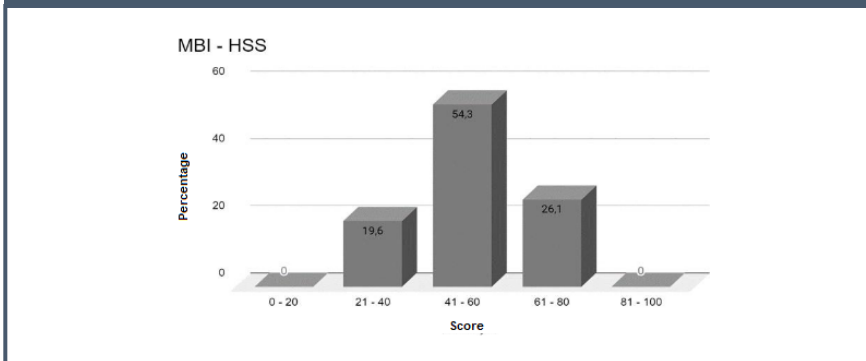
Stress-generating factors in the work environment must be known and identified by managers and professionals who work in the urgent and emergency setting, for the effective search for actions and solutions that reduce the risk of illness due to Burnout syndrome.

The relationship with BS is similar in workers who work 12 hours on duty, day or night. In this regard, the majority, 27.17% and 26.09% respectively, showed signs of developing professional exhaustion. The workload of 40 hours a week also showed a greater relationship with SB when compared to those who work 20 hours a week, 45.65% showed signs of exhaustion. Sousa (2020) showed that 72.4% of nursing professionals feel overwhelmed in their work environment, because in addition to low pay and the consequent increase in working hours, other factors such as unhealthy working conditions, excessive demand, among others, lead to emotional exhaustion, which harms the professional during the performance of

their activities and directly contributes to the emergence of BS.^{[13][14]}

This study had limitations, and it is possible to highlight some items of the questions that constituted the data collection instrument, which may have been misunderstood or answered distortedly, since the collection was based on self-administered questionnaires. Furthermore, the MBI-HSS has no diagnostic power to confirm BS, requiring evaluation by an experienced psychiatrist. However, this is a relevant study that contributed to identifying possible behaviors and factors associated with BS in the nursing team that worked during the COVID-19 pandemic.

Graph 2. Prevalence of Burnout Syndrome identified by the MBI-HSS, Brasília, Federal District, Brazil, 2023

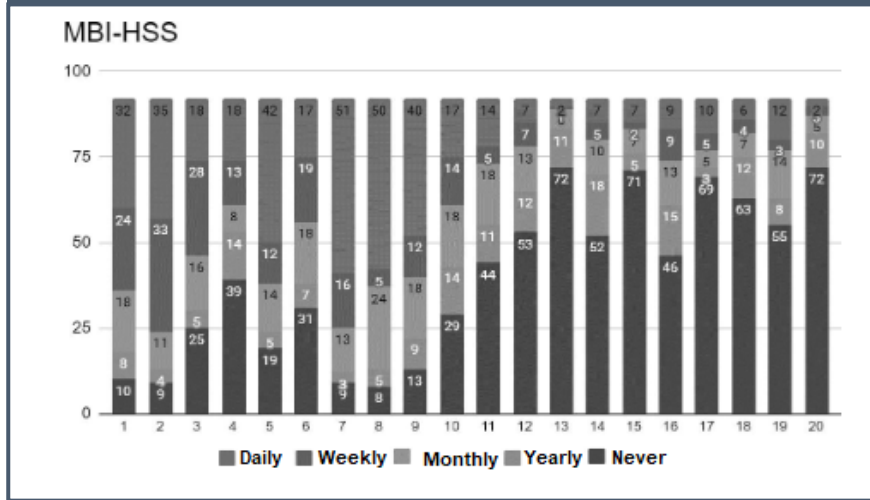


Source: Authors

Artigo Original EN

Amanda B. R. N. Félix, Débora L. N. Domiense, Raquel N. Dias, Veida B. D. Freitas, Nayara S. Lisboa, Thaís F. de Oliveira, Letícia L. Dorneles, Moisés Wesley
prevalence of burnout syndrome in nursing professionals during the covid-19 pandemic

Graph 3. Response to the MBI-HSS questionnaire, Brasília, Federal District, Brazil, 2023



5. I treat some patients as if they were my family.
 6. I have to put in a lot of effort to accomplish my tasks at work.
 7. I believe I could do more for the patients I care for.
 8. I feel that my salary is disproportionate to the functions I perform.
 9. I feel like I'm a reference for the people I deal with on a daily basis.
 10. I feel low in vitality and very discouraged.
 11. I don't feel fulfilled with my work.
 12. I no longer feel love for my work as I used to.
 13. I no longer believe in what I do professionally.
 14. I feel powerless to achieve any significant result at work.
 15. I feel like I'm at the job just for the pay.
 16. I have been feeling more stressed with the people I work with.
 17. I feel responsible for the problems of the people I serve.
 18. I feel that people blame me for their problems.
 19. I think that no matter what I do, nothing is going to change my work.
 20. I feel like I no longer believe in the profession I practice.
- Source: Authors

REFERENCES

- [1] Alkamees AA, Assiri H, Alharbi HY, Nasser A, Alkamees MA. Burnout and depression among psychiatry residents during COVID-19 pandemic. *Hum Resour Health* [Internet]. 6 abr 2021 [citado 11 mar 2023];19(1). Disponível em: <https://doi.org/10.1186/s12960-021-00584-1>
- [2] Carlotto MS, Palazzo LD. Síndrome de burnout e fatores associados: um estudo epidemiológico com professores. *Cad Saude Publica* [Internet]. Maio 2006 [citado 11 mar 2023];22(5):1017-26. Disponível em: <https://doi.org/10.1590/s0102-311x2006000500014>
- [3] Moreira DD, Magnago RF, Sakae TM, Magajewski FR. Prevalência da síndrome de burnout em trabalhadores de enfermagem de um hospital de grande porte da Região Sul do Brasil. *Cad Saude Publica* [Internet]. Jul 2009 [citado 11 mar 2023];25(7):1559-68. Disponível em: <https://doi.org/10.1590/s0102-311x2009000700014>
- [4] Mendonça TGL, Pereira EH de S, Valladolid HLRR, de Oliveira R de CV, da Silva MNA, Lemos EO de S, Maia AKHL, de Arruda ITS. Análise da saúde psíquica nos profissionais da saúde em tempos de Covid-19 / Analysis of psychic health in health professionals in times of Covid-19. *Braz. J. Hea. Rev.* [Internet]. 2021 Jul. 6 [cited 2023 Mar. 11];4(4):14652-65. Available from: <https://ojs.brazilianjournals.com.br/ojs/index.php/BJHR/article/view/32452>
- [5] Chen R, Sun C, Chen J, Jen H, Kang XL, Kao C, Chou K. A Large-Scale Survey on Trauma, Burnout, and Posttraumatic Growth among Nurses during the COVID-19 Pandemic. *Int J Ment Health Nurs* [Internet]. 27 out 2020 [citado 11 mar 2023]. Disponível em: <https://doi.org/10.1111/inm.12796>
- [6] Bezerra CM, Silva KK, Costa JW, Farias JD, Martino MM, Medeiros SM. Prevalence of Stress and Burnout Syndrome in Hospital Nurses Working in Shifts. *Reme Rev Min Enferm* [Internet]. 2019 [citado 11 mar 2023];23. Disponível em: <https://doi.org/10.5935/1415-2762.20190080>
- [7] Ferreira LB, Ribeiro RD, Pompeu DA, Contrin LM, Werneck AL, Ribeiro RM, Sousa CN. Nível de estresse e avaliação preliminar da síndrome de Burnout em Enfermeiro da UTI na COVID-19 - Estudo de caso. *Res Soc Dev* [Internet]. 26 jan 2022 [citado 11 mar 2023];11(2):e31111225658. Disponível em: <https://doi.org/10.33448/rsd-v11i2.25658>
- [8] Freitas RF, Barros IM, Miranda MA, Freitas TF, Rocha JS, Lessa AD. Preditores da síndrome de Burnout em técnicos de enfermagem de unidade de terapia intensiva durante a pandemia da COVID-19. *J Bras Psiquiatr* [Internet]. Mar 2021 [citado 11 mar 2023];70(1):12-20. Disponível em: <https://doi.org/10.1590/0047-2085000000313>
- [9] Maglalang DD, Sorensen G, Hopcia K, Hashimoto DM, Katigbak C, Pandey S, Takeuchi D, Sabbath EL. Job and family demands and burnout among healthcare workers: The moderating role of workplace flexibility. *SSM Popul Health* [Internet]. Jun 2021 [citado 11 mar 2023];14:100802. Disponível em: <https://doi.org/10.1016/j.ssmph.2021.100802>
- [10] Ruiz-Fernández MD, Pérez-García E, Ortega-Galán ÁM. Quality of Life in Nursing Professionals: Burnout, Fatigue, and Compassion Satisfaction. *International Journal of Environmental Research and Public Health*. [Internet] 2020 Feb 15 [citado 11 mar 2023];17(4):1253. Disponível em: <https://www.mdpi.com/1660-4601/17/4/1253>
- [11] Dantas HL, De Almeida LM, Oliveira CP, Maciel MD. Determinantes da Síndrome de Burnout em enfermeiros que trabalham em unidade de terapia intensiva: revisão integrativa. *Rev Enferm Atual Derme* [Internet]. 29 jun 2020 [citado 11 mar 2023];92(30). Disponível em: <https://doi.org/10.31011/reaid-2020-v.92-n.30-art.645>
- [12] Freitas RF, Barros IM, Miranda MA, Freitas TF, Rocha JS, Lessa AD. Preditores da síndrome de Burnout em técnicos de enfermagem de unidade de terapia intensiva durante a pandemia da COVID-19. *J Bras Psiquiatr* [Internet]. Mar 2021 [citado 11 mar 2023];70(1):12-20. Disponível em: <https://doi.org/10.1590/0047-2085000000313>
- [13] Marcelo TS, Farah BF, Bustamante-Teixeira MT, Ribeiro LC. Prevalência da síndrome de Burnout em enfermeiros de um hospital público. *Rev Enferm UERJ* [Internet]. 21 set 2022 [citado 11 mar 2023];30(1):e66860. Disponível em: <https://doi.org/10.12957/rev-uerj.2022.66860>
- [14] Sousa KH, Zeitoune RC, Portela LF, Tracera GM, Moraes KG, Figueiró RF. Factors related to the risk of illness of nursing staff at work in a psychiatric institution. *Rev Lat Am Enferm* [Internet]. 2020 [citado 11 mar 2023];28. Disponível em: <https://doi.org/10.1590/1518-8345.3454.3235>

