



Association between absentism and work environment of nursing technicians^a

Associação entre absenteísmo e ambiente de trabalho dos técnicos de enfermagem

Asociación entre absentismo y entorno de trabajo de técnicos de enfermería

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ABSTRACT

Objective: to analyze whether the work environment and socio-demographic and work characteristics influence the absenteeism of nursing technicians. **Method:** a cross-sectional and correlational study, conducted in an urgency and emergency unit with nursing technicians. Instrument applied with sociodemographic and work data, referred absenteeism and validated Brazilian version for nursing technicians of the Nursing Work Index Revised (B-NWI-R). **Results:** a total of 62 nursing technicians participated, predominantly female, young, working from 36 to 40 hours a week and day shift. Absenteeism was reported by 33.87% of the participants and the work environment was considered favorable to the practice, with a mean of 2.47. At each point on the B-NWI-R scale, the chance of absenteeism increases by 2.63 times, that is, the more unfavorable the professional practice is to the work environment, the greater the chance of absenteeism. **Conclusion:** a work environment unfavorable for the professional practice increases the chance of absenteeism among nursing technicians. **Implications for the practice:** an analysis of absenteeism associated with the work environment of nursing technicians helps nursing managers to create strategies to improve the work environment.

Keywords: Absenteeism; Environment of Health Institutions; Nursing team; Nursing; Emergency.

RESUMO

Objetivo: analisar se o ambiente de trabalho e as características sociodemográficas e laborais influenciam o absenteísmo de técnicos de enfermagem. **Método:** estudo transversal e correlacional, em unidade de urgência e emergência com técnicos de enfermagem. Aplicado instrumento com dados sociodemográficos e laborais, absenteísmo referido e versão brasileira validada para técnicos de enfermagem do *Nursing Work Index Revised* (B-NWI-R). **Resultados:** participaram 62 técnicos de enfermagem, predominância do sexo feminino, jovens, trabalho de 36 a 40 horas semanais e turno diurno. Absenteísmo foi referido por 33,87% dos participantes e o ambiente de trabalho foi considerado favorável à prática, com média 2,47. A cada ponto na escala B-NWI-R a chance de absenteísmo aumenta em 2,63 vezes, ou seja, quanto mais desfavorável à prática profissional é o ambiente de trabalho maior é a chance de absenteísmo. **Conclusão:** um ambiente de trabalho desfavorável à prática profissional aumenta a chance de absenteísmo entre os técnicos de enfermagem. **Implicações para a prática:** uma análise do absenteísmo associada ao ambiente de trabalho dos técnicos de enfermagem contribui para que os gerentes de enfermagem criem estratégias para melhorar o ambiente de trabalho.

Palavras-Chave: Absenteísmo; Ambiente de Instituições de Saúde; Equipe de Enfermagem; Enfermagem; Emergência.

RESUMEN

Objetivo: analizar si el entorno laboral y las características sociodemográficas y laborales influyen en el absentismo de los técnicos de enfermería. **Método:** estudio transversal y correlacional, en una unidad de urgencias y emergencias con técnicos de enfermería. Instrumento aplicado con datos sociodemográficos y laborales, absentismo referido y versión brasileña validada para técnicos de enfermería del *Nursing Work Index Revised* (B-NWI-R). **Resultados:** participaron 62 técnicos de enfermería, predominantemente mujeres, jóvenes, trabajando de 36 a 40 horas a la semana y turno de día. El absentismo fue reportado por el 33,87% de los participantes y el ambiente de trabajo se consideró favorable a la práctica, con un promedio de 2,47. En cada punto de la escala B-NWI-R, la posibilidad de absentismo aumenta en 2,63 veces, es decir, cuanto más desfavorable sea la práctica profesional en el entorno laboral, mayores serán las posibilidades de absentismo. **Conclusión:** un ambiente de trabajo desfavorable para la práctica profesional aumenta las posibilidades de absentismo entre los técnicos de enfermería. **Implicaciones para la práctica:** un análisis del absentismo asociado con el ambiente de trabajo de los técnicos de enfermería ayuda a los gerentes de enfermería a crear estrategias para mejorar el ambiente de trabajo.

Palabras Claves: Ausentismo; Entorno de Instituciones de Salud; Equipo de Enfermería; Enfermería; Emergencia.

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INTRODUCTION

Nursing is inserted as a complex job in the health context, being necessary for its performance a properly dimensioned and qualified team inserted in the environment of health institutions.

Absenteeism is the term used to indicate the act of a worker not showing up for work in a period assigned to him/her.^{1,2} It has a multi-factorial etiology and can be divided into three areas: personal factors, such as age, family characteristics and quality of life; organizational factors, such as job satisfaction and leadership; and factors related to the workplace, such as overload of activities and quality of the work environment.^{3,4}

Identifying the direct influence of the quality of the work environment on absenteeism is essential, since this knowledge provides subsidies for the management of health institutions to promote actions that result in improving the quality of the environment, whether with improvements in infrastructure, dimensioning of human resources and organizational culture; so that the worker's health is not affected, increasing job satisfaction, reducing absenteeism and, consequently, improving quality of care.

The work environment is an inherent factor in the satisfaction of the nursing team and the adequate performance of the professional practice. Work overload, limited autonomy, ambiguity of functions, presence of conflicting relationships, and lack of professional expectations characterize an unfavorable work environment.⁵⁻⁷

Care focused on quality, support for professional development, collaboration among different health professionals, and the promotion of nursing leadership and autonomy favor the establishment of a favorable environment for the practice, which allows for the achievement of better results not only for the patient, but also for the team and the institution, since a positive work environment impacts on work effectiveness.^{5,7,8}

Thus, it is essential that this work environment has nursing professionals involved with the care process to ensure safe care.

Urgency and emergency hospital services represent an environment of high patient turnover, which requires efficiency and speed in carrying out procedures, in order to maintain the lives of the individuals who present unpredictable signs and symptoms, in addition to a high risk of death.^{9,10}

The performance of the nursing team in this specific environment can contribute to exposure to occupational risks, due to its dynamism, heterogeneity, physical proximity to the patient, and handling of materials and equipment; which can lead to an increase in professional absenteeism and to a decrease in quality of care.^{10,11}

Nursing technicians represent 77% of the nursing professionals in Brazil.¹² This professional, according to the Professional Exercise Law (No. 7,498/86), performs mid-level activities, such as assistance, guidance and supervision actions of the nursing work in an auxiliary way and can perform their functions only under the guidance and supervision of the Nurse.¹³

A study¹⁴ demonstrated that the lower the hierarchical level of the worker, the greater the number of sick leaves, thus standing out that nursing technicians miss more days of work than nurses.

Considering that nursing technicians work in all health scenarios in the development of care, and that they are at the front line to assist users of these settings, it is essential to know how this performance occurs in the scenario of urgencies and emergencies.

Thus, it is inferred that absenteeism is influenced by the work environment of the nursing professionals; however, although there is abundant literature of studies on absenteeism, there is scarcity about how it is articulated with the work environment, especially on how this occurs in relation to nursing technicians, thus justifying the present study. Therefore, the purpose of the study is to know this relation and contribute to improving the work environment and to reducing absenteeism.

Considering the question: "What are the factors associated with absenteeism among nursing technicians in an urgency and emergency unit?", the aim of the study was to analyze whether the characteristics of the work environment and the sociodemographic and work characteristics influence the absenteeism of nursing technicians in an urgency and emergency unit.

METHOD

A cross-sectional and correlational study, carried out in the urgency and emergency unit of a public tertiary hospital in the state of São Paulo, reference of the Health Care Network 9.

The sample, non-probabilistic and for convenience, consisted of 62 nursing technicians, which corresponded to the totality of the workers of the unit, who agreed to participate in the research after the corresponding clarifications and guarantee of anonymity.

The following inclusion criterion was used: being a nursing technician working in the urgency and emergency unit. The exclusion criteria were as follows: professionals who were on long-term sick leave, maternity leave or giving up participation during data collection.

The instrument for analyzing the work environment was the *Nursing Work Index Revised* in its Brazilian version (B-NWI-R). It is a Likert-type measurement scale, whose score ranges from one to four points. The B-NWI-R for nursing technicians is a scale with 15 items with the same subscales as those validated for nurses: autonomy; environment control; relationship among physicians and nursing staff, and organizational support.¹⁵

The participants who were included in the study's inclusion criterion were invited to answer the B-NWI-R scale, whether or not they agreed with the statement "this factor is present in my daily work" with the options: I totally agree (one point); I partially agree (two points); I partially disagree (three points) and I totally disagree (four points), that is, the lower the score, the greater the presence of favorable attributes. Values below 2.5 represent favorable environments for the professional practice; and those above 2.5 points, unfavorable environments.¹⁶

Sociodemographic and work data consisted of the following variables: gender, age, ethnicity, marital status, number of children, professional category, weekly working hours, work in units whose patient's stay is longer than five days, promotion in the last year, evaluation of professional performance, work shift,

work at the administrative time (eight hours a day from Monday to Friday), presence of another formal job, time of employment at the institution, and satisfaction with the salary.

The referred absenteeism was obtained from a question in the sociodemographic and work questionnaire where the participants described whether or not they were absent from work, whether the absence was justified or not, for what reason, and how many days they were absent.

The B-NWI-R scale and the questionnaire were applied in January 2018, in order to obtain data from 2017. Data collection took place in the aforementioned urgency and emergency unit, in a quiet environment, a room without external noise. The mean duration of data filling was 15 minutes per participant. It should be noted that the researcher was present throughout the application of the questionnaire and clarified doubts regarding the instrument when requested.

The analysis of the chance of absenteeism as a function of the work environment measured by the B-NWI-R scale was performed using a multiple logistic regression model including sociodemographic and work data as potential confounders. Associations were considered statistically significant if $p < 0.05$.

The analysis of the chance of absenteeism and the calculation of the Cronbach's alpha coefficient to obtain the reliability of the B-NWI-R scale were performed using the *Statistical Package for the Social Sciences - SPSS 21*.

The project was submitted and approved by the Research Ethics Committee (Opinion No. 2,076,259).

Nursing technicians and nurses from the Urgency and Emergency Unit were invited to participate in the study ensuring anonymity and clarification of all stages of the research. Those who agreed to participate were asked to sign the Free and Informed Consent Form.

RESULTS

The study participants had the following characteristics: mostly women, aged between 31 and 40 years old, who considered themselves white-skinned, and married.

Regarding the labor data, they worked 30 to 40 hours a week, during the day shift, from one to five years at the institution, not satisfied with their salary, and most had only technical level (Table 1).

Table 1. Demographic and work data of the Nursing Technicians of the Urgency and Emergency Unit (n=62). Botucatu, 2018.

Variable	N(%)
Gender	
Female gender	55(88.7)
Male gender	7(11.3)
Age	
20 to 30 years old	13(29.9)
31 to 40 years old	23(37.1)
41 to 50 years old	17(27.5)
Over 50 years old	9(14.5)
Ethnicity	
White	43(69.4)
Brown	13(20.9)
Black	06(9.7)
Marital Status	
Single	15(24.2)
Married	37(59.6)
Divorced	10(16.2)
Widow/Widower	-
Workday	
30h	29(46.8)
36	2(3.2)
40h	27(43.5)
Double shift	4(6.5)

Table 1. Continued...

Variable	N(%)
Work in unit with patients hospitalized for more than 5 days	
Yes	47(75.8)
No	15(24.2)
Promotion in the last 12 months	
Yes	1(1.6)
No	61(98.4)
Negative evaluation of professional performance	
Yes	9(14.5)
No	53(85.5)
Work Shift	
Day	36(58)
Night	25(40.4)
Day and night	1(1.6)
Another formal job	
Yes	9(14.5)
No	52(83.9)
Not informed	1(1.6)
Time of Employment	
<1 year	4(6.5)
1 to 5 years	33(53.3)
6 to 10 years	12(19.3)
11 to 15 years	2(3.2)
16 to 20 years	9(14.5)
> 20 years	1(1.6)
Not informed	1(1.6)
Satisfaction with salary	
Yes	18(29)
No	43(69.4)
Not informed	1(1.6)
Level of education	
Technical	60(96.8)
College degree	2(3.2)

Absence from work in 2017 was reported by the professionals: 21 (33.87%) missed work; of these, 13 (62%) justified due to having had a disease that disabled their work, five (23.9%) received sick leave, one (4.7%) suffered an accident at work, one (4.7%) suffered an accident that resulted in polytrauma, and one (4.7%) reported illness in a family member.

The referred absenteeism had a mean of 42 days due to illness, 111 days due to sick leave, 25 days due to work accidents,

150 days due to accidents resulting in polytrauma, and one day due to illness in the family.

The B-NWI-R scale applied to the nursing technicians showed an overall mean below 2.5; however, the Environment Control subscale showed a mean above this value, as shown in Table 2.

The reliability of the B-NWI-R scale was analyzed using Cronbach's alpha coefficient for the total items of the instrument and for each of the subscales, resulting in 0.86 for the general

scale, 0.68 for the Environment Control subscale, 0.69 for Autonomy, 0.71 for the Physician-Nurse Relationship, and 0.80 for the Organizational Support subscale.

Table 2. B-NWI-R scale and the subscales: environment control, autonomy, physician-nurse relationship, and organizational support of nursing technicians (n=62). Botucatu, 2018.

Work Environment Instrument	Mean	SD
B-NWI-R- General	2.47	0.52
B-NWI-R- Environment Control	2.68	0.56
B-NWI-R- Autonomy	2.26	0.62
B-NWI-R- Physician-Nurse Relationship	2.31	0.65
B-NWI-R- Organizational Support	2.46	0.54

B-NWI-R: *Nursing Work Index – Revised* - Brazilian version.

The analysis of the chance of absenteeism as a function of the work environment, measured by the B-NWI-R scale, including sociodemographic and work data as potential confounders, did not result in statistical significance ($p < 0.05$) in relation to any factor. For the B-NWI-R scale, the p-value was 0.077, while the Odds Ratio (OR), which indicates the chance or possibility ratio, resulted in 2.63. (Table 3)

DISCUSSION

The study enabled the association between sociodemographic data at work, absenteeism and the working environment of nursing technicians in an urgency and emergency unit.

The participants' sociodemographic profile was made up of female professionals, under the age of 35 years old, married and of white ethnicity, which is corroborated by a study carried out by

Table 3. Maximum model for the chance of absenteeism among Nursing Technicians (n=62). Botucatu, 2018.

Variable	OR	95% CI	p
Men	0.76	0.13 - 4.28	0.754
Age			
20 to 30 years old			0.628
31 to 40 years old	2.56	0.55 - 11.85	0.228
41 to 50 years old	1.39	0.26 - 7.30	0.698
Over 50 years old	1.67	0.25 - 11.07	0.597
Ethnicity			
White			0.117
Black	0.34	0.07 - 1.74	0.194
Brown	3.73	0.61 - 22.80	0.154
Marital status			
No partner	1.58	0.54 - 4.58	0.403
Has children	1.20	0.32 - 4.46	.0791
Workday			
40 hours a week or double shift	0.35	0.12 - 1.06	0.064
Work in units with patient hospitalized + 5 days	1.03	0.30 - 3.54	0.960
Received some promotion	3.E+09	0.00	1.000
Night shift (Ref: Daytime)	1.17	0.40 - 3.41	0.771
Administrative Time			
Yes (Ref: No)	2.00	0.12 - 33.66	0.630
Has another job	0.50	0.09 - 2.64	0.411
Time of employment (Ref: < 1 year)			0.752
1 to 5 years	1.E+09	0.00	0.999
6 to 10 years	8.E+08	0.00	0.999
Over 10 years	5.E+08	0.00	0.999
Satisfied with salary	0.93	0.29 - 2.99	0.907
General B-NWI-R	2.63	0.90 - 7.69	0.077

B-NWI-R: *Nursing Work Index – Revised* - Brazilian version.

the Federal Nursing Council (*Conselho Federal de Enfermagem*, Cofen), which demonstrated that 86% of the nursing professionals are female, 52% in the age group of up to 35 years old, 43.6% married and 57.9% considering themselves of white ethnicity.¹⁷

The 36-to-40-hour workday a week, the single work shift, and less than five years of professional activity predominated in the population, agreeing with the national profile, in which 41.5% have a weekly workload of 31 to 40 hours, 71% work during the day and 36.5% have less than five years of work in the area.¹⁷

The reason for the absences among the professionals was mainly due to illnesses, which was verified in a study carried out in southern Brazil, which identified the high prevalence of absenteeism due to illness in nursing; among the sample addressed, 36% of the nursing technicians were away from work due to some health problem.¹⁸

Although the diseases that triggered the absences were not mentioned, the literature states that problems related to the musculoskeletal system predominate, since work overload, long standing time, and incorrect body posture trigger harms to health.^{18,19}

In addition, diseases such as depression, stress, anxiety and burnout also have a high incidence among the nursing workers who are absent from work.^{3,20} These disorders are triggered due to the nature of the work, mainly in urgency and emergency services, an area in which the professional has to maintain full control of situations of extreme vulnerability, which contributes to the physical and mental exhaustion of this professional.⁹

A study carried out in a public university hospital in the state of São Paulo related the work environment to the quality of life of the nursing professional and verified that different factors of the work environment, such as limited resources, demotivation and overcrowding of patients, influence the quality of life of the worker in the physical, psychological and also social domains.⁷

The means of the B-NWI-R scale demonstrated that the nursing technicians considered the work environment of the urgency and emergency unit as favorable. However, when the subscales were analyzed in isolation, the Environment Control subscale was the only one in which the mean was greater than 2.5, therefore being unfavorable. This result is corroborated by a study carried out in an urgency and emergency unit in southern Brazil.²¹

A study carried out in two public hospitals, one of them accredited, revealed that the nursing professionals of both hospitals consider the environment to be favorable. Another study that adapted and validated the B-NWI-R scale showed similar results with the mean of the subscales below 2.5, emphasizing that it is a favorable environment.^{5,15}

The scale proved to be reliable, with a Cronbach's alpha of 0.86 for general B-NWI-R, that is, it was verified that the items are homogeneous and that the scale measures the characteristic for which it was created consistently. Other studies confirm these findings.^{5,8}

From the data analysis, it was possible to establish a relation between the work environment and the chance of absenteeism

in a quantitative manner. The Odds Ratio (OR), which consists of the chance and possibility ratio for the scale, allows us to state that the more unfavorable the environment, the greater the chance that a nursing technician will not come to work during the period assigned to him/her. In addition, it quantifies that, at each point on the B-NWI-R scale, the chance of absenteeism increases by 2.63 times.

The relation between the quality of the work environment and absenteeism was identified in a South African study, which stated that professionals who work in more favorable environments for the practice tend to be less absent from work than individuals who work in physically and psychologically exhaustive environments.²²

Among the study limitations, there is the absenteeism mentioned by the nursing technicians themselves and the data collection instrument being self-applied; thus, in both cases, honesty in the answers was the sole responsibility of the research participants. In addition, the study was carried out in a specific sector of a single hospital.

Thus, it is essential that health organizations invest in improving the work environment. A study reveals that managers are essential to establish conditions that ensure growth to the nursing professionals, the possibility of job satisfaction, and the commitment to quality of care.²³

CONCLUSION

The elaboration of this research allowed establishing a relation between the quality of the work environment and the absenteeism reported by the nursing technicians. At each point on the BNWI-R scale, the chance of absenteeism increases by 2.63 times, that is, the more unfavorable the work environment for the professional practice, the greater the chance of absenteeism. Identifying the direct relation between the quality of the work environment and absenteeism, in addition to its main causes, provides subsidies to the management of health institutions so that they invest in strategies to improve infrastructure, dimensioning human resources and organizational culture so that the environment becomes more favorable for the practice, reducing the incidence of absences and increasing the quality of the assistance provided.

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REFERENCES

1. Lima SRR, Cortez EA, Carmo TG, Soares GRS, Gama LN. Absenteeism with focus on the health of the nursing team worker acting in intensive care: integrative review. *J Nurs UFPE* on line. 2016;10(9):3426-37. <https://doi.org/10.5205/1981-8963-v10i9a11425p3426-3437-2016>.
2. Dhaini S, Zúñiga F, Ausserhofer D, Simon M, Kunz R, De Geest S et al. Absenteeism and presenteeism among care workers in swiss nursing homes and their association with psychosocial work environment: a multi-site cross-sectional study. *Gerontology*. 2016;62(4):386-95. <http://dx.doi.org/10.1159/000442088>. PMID:26618789.
3. Ticharwa M, Cope V, Murray M. Nurse absenteeism: an analysis of trends and perceptions of nurse unit managers. *J Nurs Manag*. 2019 jan;27(1):109-16. <http://dx.doi.org/10.1111/jonm.12654>. PMID:30084198.
4. Silva Jr FF, Merino EA. Proposal for management of absenteeism among hospital nurses: a systematic review. *Acta Paul Enferm*. 2017;30(5):546-53. <http://dx.doi.org/10.1590/1982-0194201700079>.
5. Oliveira PB, Spiri WC, Dell'Acqua MCQ, Mondini CCSD. Comparação entre ambiente de trabalho de hospitais públicos acreditado e não acreditado. *Acta Paul Enferm*. 2016 fev;29(1):53-9. <http://dx.doi.org/10.1590/1982-0194201600008>.
6. Santos JLG, Erdmann AL, Peiter CC, Alves MP, Lima SBS, Backes VMS. Comparison between the working environment of nurse managers and nursing assistants in the hospital context. *Rev Esc Enferm USP*. 2017;51:e03300. <http://dx.doi.org/10.1590/s1980-220x2017017103300>. PMID:29562043.
7. Santos RR, Paiva MCMS, Spiri WC. Associação entre qualidade de vida e ambiente de trabalho de enfermeiros. *Acta Paul Enferm*. 2018;31(5):472-9. <http://dx.doi.org/10.1590/1982-0194201800067>.
8. Dorigan GH, Guirardello EB. Ambiente da prática, satisfação e clima de segurança: percepção dos enfermeiros. *Acta Paul Enferm*. 2017 abr;30(2):129-35. <http://dx.doi.org/10.1590/1982-0194201700021>.
9. Freitas RJM, Lima ECA, Vieira ÉS, Feitosa RMM, Oliveira GYM, Andrade LV. Stress of nurses in the urgency and emergency room. *J Nurs UFPE* on line. 2015;9(Suppl 10):1476-83. <https://doi.org/10.5205/1981-8963-v9i10a10861p1476-1483-2015>.
10. Loro MM, Zeitoune RCG, Guido LA, Silveira CR, Silva RM. Revealing risk situations in the context of nursing work At urgency and emergency services. *Esc Anna Nery*. 2016;20(4):e20160086. <http://dx.doi.org/10.5935/1414-8145.20160086>.
11. Santos JLG, Lima MADS, Pestana AL, Colomé ICS, Erdmann AL. Strategies used by nurses to promote teamwork in an emergency room. *Rev Gaúcha Enferm*. 2016;37(1):e50178. <http://dx.doi.org/10.1590/1983-1447.2016.01.50178>. PMID:26934508.
12. Machado MH, Aguiar Fo W, Lacerda WF, Oliveira E, Lemos W, Wermelinger M et al. Características gerais da enfermagem: o perfil sócio demográfico. *Enferm. Foco*. 2016;6(1/4):11-7. <http://dx.doi.org/10.21675/2357-707X.2016.v7.nESP.686>.
13. Lei nº 7.498, de 25 de junho de 1986 (BR). Dispõe sobre a regulamentação do exercício da Enfermagem e dá outras providências. *Diário Oficial da União* [periódico na internet], Brasília (DF), 1986 [citado 10 fev 2019]. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/17498.htm
14. Mantovani VM, Nazareth JK, Keretzky KB, Maciel DNP, Biasibetti C, Lucena AF et al. Research absenteeism due to illness among nursing professionals. *Rev Min Enferm*. 2015;19(3):641-6. <http://dx.doi.org/10.5935/1415-2762.20150049>.
15. Marcelino CF, Alves DFS, Gasparino RC, Guirardello EB. Validação do *Nursing Work Index-Revised* entre auxiliares e técnicos de enfermagem. *Acta Paul Enferm*. 2014 ago;27(4):305-10. <http://dx.doi.org/10.1590/1982-0194201400052>.
16. Panunto MR, Guirardello EB. Professional nursing practice: environment and emotional exhaustion among intensive care nurses. *Rev Lat Am Enfermagem*. 2013;21(3):765-72. <http://dx.doi.org/10.1590/S0104-11692013000300016>. PMID:23918023.
17. Conselho Federal de Enfermagem. Pesquisa do Perfil dos Profissionais de Enfermagem no Brasil [Internet]. Brasília: COFEN; 2015 [citado 2019 mar 2]. Disponível em: <http://www.cofen.gov.br/perfilenfermagem/index.html>
18. Mantovani VM, Nazareth JK, Keretzky KB, Maciel DNP, Biasibetti C, Lucena AF et al. Research absenteeism due to illness among nursing professionals. *Rev Min Enferm*. 2015;19(3):641-6. <http://dx.doi.org/10.5935/1415-2762.20150049>.
19. Brey C, Miranda FMD, Haeffner R, Castro IRS, Sarquis LMM, Felli VE. The absenteeism among health workers in a public hospital at south region of brazil. *Revista de Enfermagem do Centro-Oeste Mineiro*. 2017;7:e1135. <http://dx.doi.org/10.19175/recom.v7i0.1135>.
20. Santana LL, Sarquis LM, Brey C, Miranda FM, Felli VE. Absenteísmo por transtornos mentais em trabalhadores de saúde em um hospital no sul do Brasil. *Rev Gaúcha Enferm*. 2016;37(1):e53485. <http://dx.doi.org/10.1590/1983-1447.2016.01.53485>. PMID:27074306.
21. Santos JLG, Menegon FHA, De Pin SB, Erdmann AL, Oliveira RJT, Costa IAP. The nurse's work environment in a hospital emergency servisse. *Rev Rene*. 2017;18(2):195-203. <http://dx.doi.org/10.15253/2175-6783.2017000200008>.
22. Mudaly P, Nkosi ZZ. Factors influencing nurse absenteeism in a general hospital in Durban, South Africa. *J Nurs Manag*. 2015;23(5):623-31. <http://dx.doi.org/10.1111/jonm.12189>. PMID:24372737.
23. Ferro D, Zacharias FCM, Fabriz LA, Schonholzer TE, Valente SH, Barbosa SM et al. Absenteísmo na equipe de enfermagem em serviços de emergência: implicações na assistência. *Acta Paul Enferm*. 2018 jul;31(4):399-408. <http://dx.doi.org/10.1590/1982-0194201800056>.

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