

Health conditions and Nurses' work characteristics at a university hospital*

Condições de saúde e características do trabalho de enfermeiros de um hospital universitário

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ABSTRACT

Objective: to analyze the sociodemographic profile, health conditions, and nurses' work characteristics. **Methods:** a cross-sectional study conducted with 152 nurses from a university hospital. We used a structured instrument analyzed using descriptive statistics. **Results:** nurses considered their health good (50.7%), performed physical activity (53.3%), did not smoke (92.8%), did not consume alcohol (56.6%), had some health problems (63.2%) and used medication daily (54.6%). There was a higher number of professionals working in the outpatient clinic (17.8%) and emergency medicine (15.8%), who worked in the studied hospital for up to five years (61.2%), were employees subject to the Consolidation of Labor Laws (74.3%), without another employment relationship (54.6%), day shift (56.6%), had a six-hour schedule (36.2%), reported absence from work for up to five days (38.2%), due to health problems (41.4%). **Conclusion:** we noticed the presence of illness processes among professionals, which can interfere in the quality and safety of care. **Descriptors:** Health Status; Occupational Health; Practice Patterns, Nurses'.

RESUMO

Objetivo: analisar o perfil sociodemográfico, as condições de saúde e as características do trabalho de enfermeiros. **Métodos:** estudo transversal, realizado com 152 enfermeiros de um hospital universitário. Utilizou-se de instrumento estruturado, o qual foi analisado por estatística descritiva. **Resultados:** os enfermeiros consideraram a saúde como boa (50,7%), realizavam atividade física (53,3%), não fumavam (92,8%), não consumiam álcool (56,6%), apresentavam algum problema de saúde (63,2%) e utilizam medicamentos diariamente (54,6%). Observou-se maior quantitativo de profissionais do ambulatório (17,8%) e clínica médica (15,8%), que atuavam no hospital estudado por até cinco anos (61,2%), celetistas (74,3%), sem outro vínculo empregatício (54,6%), do turno diurno (56,6%), com escala de seis horas (36,2%), que referiram ausência do trabalho por até cinco dias (38,2%), devido a problemas de saúde (41,4%). **Conclusão:** percebeu-se presença de processos de adoecimento entre os profissionais, os quais podem interferir na qualidade e segurança do cuidado prestado. **Descritores:** Nível de Saúde; Saúde do Trabalhador; Padrões de Prática em Enfermagem.

Introduction

During human history, work has always emerged as an essential element of social construction, allowing reflection and restructuring of people's identity and subjectivity⁽¹⁾. Due to the multiple meanings attributed to this activity, its relevance transcends the individual sphere, in which it acts as a source of income, self-esteem, and personal growth to represent a fundamental component to the growth and development of society⁽²⁾.

The dynamics of the work process directly reflect the sociocultural context experienced by society, adapting according to the changes that have occurred in each economic sector, which interfere uniquely on the supply and demand of products and services, and the insertion, absorption, and reduction of the numbers of workers⁽³⁾. Concerning nursing work, assistance is provided by a team, with different technical and hierarchical levels, in which the nurse, a higher education professional, is responsible for the management, supervision, and care actions of greater complexity⁽⁴⁾.

The work environment has a potential influence on workers' health and the quality and safety of the care provided to the patient⁽⁵⁾. Thus, the precariousness of working conditions in nursing, although frequent, especially in the hospital environment, causes damage to the professionals' health and quality of life, generating intense suffering, increased occupational risks, and an increase in the number of adverse reactions and accidents at work⁽²⁾.

The very characteristics of nursing work in hospitals can trigger disease processes, given that this practice is permeated by constant coexistence with human suffering and death, in which such situations can negatively interfere with work and generate psychological problems for the individual⁽⁶⁻⁷⁾.

In this sense, nurses' health problems develop in a multicausal way, in which several factors can be interrelated and raise the experiences of suffering during work practice, which requires the realization of studies that provide a broader understanding about

the problem and the determinants involved in this interaction⁽⁸⁾.

Thus, the study aimed at analyzing the sociodemographic profile, health conditions, and characteristics of nurses' work.

Methods

A cross-sectional and quantitative study carried out between October and November 2017 at a university hospital located in the city of João Pessoa, Paraíba, Brazil. This health service is presented as a teaching hospital, founded in 1980, which has 220 beds, 80 offices, and a staff of approximately 1,100 employees, in addition to the capacity to carry out 20 thousand consultations, 250 surgeries, 50 thousand laboratory exams, and 700 admissions.

The population of this study was composed of nurses working at this hospital. The sample calculation was based on the number of professionals with a nursing diploma, registered in the National Registry of Health Establishments, of the Single Health System, referring to the institution's staff, totaling 252 nurses.

The sample size was defined using the calculation for finite populations with known proportions, based on a margin of error of 5% (Error = 0.05), with a degree of reliability of 95% ($\alpha=0,05$, which provides $Z_{0,05 / 2} = 1.96$) and a 50% proportion of participants ($p=0,5$), since this value is used as a general rule for cases in which there is no established specific outcome variable for analysis. Thus, the study sample consisted of 152 nurses.

Inclusion criteria were having an ongoing employment relationship with the hospital and having been a nurse professional at the health service for at least six months. Exclusion criteria were being on vacation, on leave, or maternity leave during the period of data collection.

For data collection, initially, we contacted the nurse at the hospital, during shifts or when professionals started and left work, in order to guide them on the research objectives, request participation in

the study and schedule the best time and place for the meeting, respecting each one's availability. On the scheduled day, we requested the signing of the Free and Informed Consent Form, and distributed the self-administered instruments to nurses, establishing a maximum period of up to seven days for their return.

An instrument was applied to obtain data referring to the sociodemographic profile, health conditions, and work-related aspects. For the elaboration of this instrument, we based it on the Psychodynamics of Work approach, which addresses the health-disease processes in the workplace⁽⁹⁾. Thus, the variables analyzed were: gender, age, marital relationships, personal income, self-perceived health, physical activity, smoking, alcohol consumption, presence of illness or health problem, daily use of medicines, working health unit/sector, length of work in the hospital, type of employment relationship, presence of another job, shift, work schedule, absenteeism, period of absence and reason for absence.

The data were stored in an electronic spreadsheet, structured in the Program *Microsoft Excel*, with double typing, aiming to guarantee the reliability in the data compilation. Then, they were organized, coded, imported, and processed by the application *Statistical Package for the Social Science for Windows*, version 22.0. Data analysis was performed using absolute and relative frequency, lower and upper limits of the 95% Confidence Interval (CI) and use of the Chi-Square Test for k-proportions between qualitative variables within each group. The level of significance used for the statistical analysis was 5% ($p < 0.05$).

We developed the study following the recommendation of Resolution 466/2012 of the National Health Council and its complementarities. The research was approved by the Research Ethics Committee of the Hospital Universitário Lauro Wanderley, of the Universidade Federal da Paraíba (Federal University of Paraíba), under opinion 2,259,018/17 and Certificate of Presentation for Ethical Consideration No. 69841417.8.0000.5183, conducted according to ethical standards required.

Results

In this study, there was a greater number of female nurses (91.4%), having an average age of 39.3 ± 0.96 years old, married or in a common-law marriage (62.5%), and personal income between R\$ 5,000 and R\$ 7,999 (65.1%). The study evidenced that most of the nurses investigated perceived their health as good (50.7%; $p < 0.001$), performed regular physical activity (53.3%; $p = 0.417$), did not smoke (92.8%; $p < 0.001$) and do not drink alcoholic (56.6%; $p = 0.105$), had some disease or health problem (63.2%; $p = 0.001$), mainly diseases of the musculoskeletal system and connective tissue (31, 6%) and used some type of medication daily (54.6%), with emphasis on analgesics (32.2%) and anti-inflammatory drugs (28.3%) (Table 1).

Table 1 - Health status of nurses surveyed. João Pessoa, PB, Brazil, 2018

Variables	n(%)	95% CI	p-value [†]
Health status			
Excellent	29 (19.1)	13.3 - 26.0	<0.001
Good	77 (50.7)	42.7 - 59.3	
Fair	37 (24.3)	16.7 - 31.3	
Poor	9 (5.9)	2.7 - 10.0	
Physical activity			
Yes	81 (53.3)	46.7 - 62.0	0.417
No	71 (46.7)	38.0 - 53.3	
Smoking			
No	141 (92.8)	89.3 - 96.7	<0.001
Yes	11 (7.2)	3.3 - 10.7	
Alcohol consumption			
No	86 (56.6)	48.0 - 64.7	0.105
Yes	66 (43.4)	35.3 - 52.0	
Illness or health problem			
Yes	96 (63.2)	54.7 - 71.3	0.001
No	56 (36.8)	28.7 - 45.3	
Daily use of medicines			
Yes	83 (54.6)	45.4 - 62.0	<0.001
No	69 (45.4)	38.0 - 54.6	

*CI: Confidence Interval; [†]Chi-square test

The sectors that had the most significant number of participants were the outpatient (17.8%) and emergency medicine (15.8%; $p < 0.001$). We observed

that the majority of nurses worked in this hospital for a period of one to five years (61.2%; $p < 0.001$) were employees subject to the Consolidation of Labor Laws (74.3%; $p < 0.001$), had no other employment relationship (54, 6%; $p = 0.194$) and performed the activities on a day shift (56.6%; $p = 0.006$), having a six-hour work schedule (36.2%; $p < 0.001$) (Table 2).

Table 2 - Aspects related to the work of the surveyed nurses. João Pessoa, PB, Brazil, 2018

Variables	n(%)	95% CI*	p-value [†]
Unit/Sector			
Outpatient	27 (17.8)	12.0 – 24.7	<0.001
emergency medicine	24 (15.8)	10.0 – 22.7	
Intensive Care Unit	16 (10.5)	6.0 – 16.0	
Operating Theater	15 (9.9)	4.7 – 14.0	
Administrative	13 (8.6)	4.0 – 12.7	
Surgical Clinic	12 (7.9)	3.3 – 13.3	
Internal Regulation Committee	11 (7.2)	3.3 – 12.0	
Pediatrics	10 (6.6)	2.7 – 10.7	
Obstetrics	8 (5.3)	2.0 – 9.3	
Parasitic Infectious Diseases Department	8 (5.3)	2.0 – 9.3	
Material and Sterilization Center	6 (3.9)	1.3 – 7.3	
Hospital Infection Control Commission/Patient Health and Safety Surveillance Commission	2 (1.3)	0.0 – 3.3	
Length of work in the hospital (years)			
< 1	19 (12.5)	7.3 – 18.7	<0.001
1 – 5	93 (61.2)	54.0 – 70.0	
6 – 10	7 (4.6)	2.0 – 8.7	
≥ 11	30 (21.7)	16.7 – 29.1	
Employment relationship			
Consolidation of Labor Laws	113 (74.3)	66.7 – 81.3	<0.001
Statutory	39 (25.7)	18.7 – 33.3	
Presence of another job			
No	83 (54.6)	46.7 – 63.3	0.194
Yes	69 (45.4)	36.7 – 53.3	
Work shift			
Daytime (morning and afternoon)	86 (56.6)	48.7 – 64.7	0.006
Night	34 (22.4)	16.0 – 30.0	
Morning	19 (12.5)	6.7 – 17.3	
Afternoon	13 (8.6)	4.7 – 13.3	
Working schedule (hours)			
6	55 (36.2)	28.0 – 43.3	<0.001
8	18 (11.8)	6.7 – 16.7	
12	46 (30.3)	23.3 – 38.0	
Rotating between 6, 8 or 12	33 (21.7)	16.0 – 28.7	

*CI: Confidence Interval; [†]Chi-square test

Regarding absenteeism among the investigated professionals, most reported having been absent from work (61.8%; $p = 0.004$) for one to five days (38.2%; $p < 0.001$), during the three months before collection of data, and the presence of health problems (41.4%; $p < 0.001$) was the main reason for absence, as shown in Table 3.

Table 3 - Characteristics of absenteeism in the work of nurses participating in the research. João Pessoa, PB, Brazil, 2018

Variables	n(%)	95% CI*	p-value [†]
Absence from work			
Yes	94 (61.8)	54.0 – 69.3	0.004
No	58 (38.2)	30.7 – 46.0	
Period of absence from work (days)			
None	58 (38.2)	30.7 – 46.0	<0.001
1 and 5	58 (38.2)	30.0 – 46.0	
6 and 10	23 (15.1)	8.7 – 20.7	
≥ 11	13 (8.5)	9.0 – 10.3	
Reasons for absence			
Health problems	63 (41.4)	32.7 – 48.0	<0.001
Personal reasons	25 (16.5)	10.7 – 23.3	
Leave	6 (3.9)	1.3 – 7.3	
Does not apply	58 (38.2)	30.7 – 46.0	

*CI: Confidence Interval; [†]Chi-square test

Discussion

The limitations of the study were incomplete fulfillment of some variables and the fact that some professionals did not return the instruments. However, this research contributed to data that allow nurses to know the health conditions of their professional colleagues and to develop collective strategies for health promotion and disease prevention. Also, it allows managers to identify the reality of the work nurses develop in the hospital environment, which favors the creation and improvement of workers' health care programs, focusing on reducing occupational risks and early investigation of wear processes.

One hundred fifty-two nurses participated in this study. The majority evaluated their health situa-

tion as good and had healthy lifestyle habits, practiced physical activity, absence of smoking, or consumption of alcohol. These findings refer to the presence of professionals who are more concerned with personal health condition, especially with the performance of self-care activities that promote health and prevent the onset of diseases or the worsening of pre-existing problems⁽¹⁰⁾.

However, the study evidenced that a high number of nurses had some disease, with emphasis on musculoskeletal problems. Nurses are likely to develop musculoskeletal system problems, due to the maintenance of inadequate and prolonged posture, during the performance of some procedures, due to the frequency of repetition of certain actions and because they remain standing for prolonged periods⁽¹¹⁾. Thus, the intense work routine prevents adequate rest necessary to muscle relaxation, resulting in frequent complaints of pain in the feet and back, neck stiffness, joint problems, rheumatic diseases, and difficulty sleeping⁽¹²⁻¹³⁾.

As a result of the health problems presented, many nurses make daily use of medications, mainly analgesics, and anti-inflammatory drugs. The use of such drugs is associated with the chronic pain suffered by professionals, resulting from physical exhaustion, the high pace of work, and the exhausting loads present in the work environment, which can cause the appearance of anxiety and stress⁽¹¹⁾.

In the present study, there was a high number of nurses working in the outpatient clinic and the Emergency medicine, corresponding, proportionally, to the sectors with the highest demands for assistance in the health institution surveyed.

The outpatient clinic is an environment that demands a large number of professionals, especially nurses, given that it serves multiple clinical and surgical specialties, performs dressings, minor surgeries, and exams, in addition to providing multiprofessional assistance for the health care of the population⁽¹⁴⁾. The environmental relationship also favors a higher number of professionals due to the transfer of hemo-

dynamically unstable patients between the different sectors of the hospital, which causes nurses to experience physical, psychological, and emotional exhaustion with other workers.

In contrast, the Emergency medicine is characterized as a highly complex environment, in which patients are at high risk of death, requiring invasive procedures, the administration of potentially dangerous drugs and constant monitoring by professionals, which requires a high number of workers, mainly nursing, to meet the legislation on the staff dimensioning⁽¹²⁾.

Most professionals worked in the hospital for a period between one to five years, being prevalent the Consolidation of Labor Laws regime, justified by the recent change in the management of the researched institution, which became the responsibility of the Brazilian Hospital Services Company, in 2014, which generated the initial hiring of 172 nurses from different specialties, under the Consolidation of Labor Laws.

Among the investigated professionals, the majority did not have another job. However, it is worth mentioning the fact that more than 45.0% of nurses had a double shift, being performed in the provision of direct assistance to the population. Although the main justification for the accumulation of employment relationships is the low salary the professional category receives⁽¹⁵⁾, nurses who worked in the studied hospital received high remuneration, which differs from the reality of most health institutions in the country.

In this sense, the nurses surveyed may have joined a new employment relationship due to the flexibility presented by working in shifts or on-call scheduling, which allows dedication to other productive activities and the maintenance of a high standard of living^(1,15). However, the overload generated by the presence of multiple jobs can represent a risk to the professionals' health and patient safety, given that, due to the high number of weekly hours of work, these individuals become more tired and are vulnerable to the development of intense physical and mental strain⁽¹⁶⁻¹⁷⁾.

Most nurses worked on a day shift, had a six-hour daily schedule, corresponding to a workload of 30 to 36 hours a week. In hospitals, the division of labor is standard in the form of shifts, which allows the provision of comprehensive assistance and the provision of continuous care, 24 hours a day⁽¹⁶⁾. Thus, most of the nursing work is performed during the day, since it is necessary to avoid interruption of sleep and patient's rest at night, which provides a higher number of professionals in the day shift⁽²⁾.

When investigating absenteeism in nurses, we observed that a high number of professionals reported having missed work in the last three months before data collection, this absence being for a period of one to five days, due to health problems.

Absenteeism represents a significant obstacle to the organization of the work process, as it interferes in the dynamics of activities, causes the commitment of financial resources, and influences the quality and safety of the assistance provided⁽¹⁸⁻¹⁹⁾. Besides, it corresponds to an indicator of the health profile of professionals, given that, because it is often the result of workers' illness, it allows the analysis of exposure to workloads in each hospital sector and the implementation of early interventions for improving nurses' working conditions^(18,20).

Conclusion

In this study, the profile of the nurses surveyed corroborated with the national characteristics of the profession; however, the salary presented differed from that offered in most health institutions, especially hospitals. Although the professionals showed healthy lifestyle habits, most of them had some health problems and used medication daily. Regarding the characteristics of the work, there was a predominance of the outpatient and Emergency medicine sector, work length of a maximum of five years, working only in the institution studied, in the morning and afternoon, corresponding to six hours a day, in addition to absence from work for up to five

days due to health problems.

From the results, it is possible to identify indirect relationships between the work of nurses in the hospital environment and the presence of illness processes, which have a negative impact on the professionals' quality of life and the safety of the care provided to the patient, considering that a high number of nurses were absent from activities due to health problems.

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Collaborations

Pimenta CJL, Vicente MC, Ferreira GRS, and Frazão MCLO contributed to the conception, design, analysis, and interpretation of data and writing of the article. Costa TF and Costa KNFM collaborated with a relevant critical review of the intellectual content and approval of the final version to be published.

References

1. Gonçalves FGA, Souza NVDO, Zeitoune RCG, Adame GFPL, Nascimento SMP. Impacts of neoliberalism on hospital nursing work. *Texto Contexto Enferm.* 2015; 24(3):646-53. doi: <http://dx.doi.org/10.1590/0104-07072015000420014>
2. Alilu L, Zamanzadeh V, Valizadeh L, Habibzadeh H, Gillespie M. A grounded theory study of the intention of nurses to leave the profession. *Rev Latino-Am Enfermagem.* 2017; 25:e2894. doi: <http://dx.doi.org/10.1590/1518-8345.1638.2894>
3. Biallas B, Froböse I, Zöller M, Wilke C. Analysis of workplace health promotion and its effect on work ability and health-related quality of life in a medium-sized business. *Gesundheitswesen.* 2015; 77(5):357-61. doi: <http://dx.doi.org/10.1055/s-0034-1372625>

4. Bowden MJ, Mukherjee S, Williams LK, DeGraves S, Jackson M, McCarthy MC. Work-related stress and reward: an Australian study of multidisciplinary pediatric oncology healthcare providers. *Psychooncology*. 2015; 24(11):1432-8. doi: <http://dx.doi.org/10.1002/pon.3810>
5. Maissiat GS, Monteiro MI, Mai S, Martins MFSV, Rech CRA, Trindade LL. Work context, job satisfaction and suffering in primary health care. *Rev Gaúcha Enferm*. 2015; 36(2):42-9. doi: <http://dx.doi.org/10.1590/1983-1447.2015.02.51128>
6. Fereidouni Z, Dehghan A, Kalyani MN. The prevalence of depression among nurses in Iran: a systematic review and meta-analysis. *Int J Med Rev*. 2018; 5(4):163-7. doi: <http://dx.doi.org/10.29252/IJMR-050407>
7. Marques DO, Pereira MS, Souza ACS, Vila VSC, Almeida CCOF, Oliveira EC. Absenteeism – illness of the nursing staff of a university hospital. *Rev Bras Enferm*. 2015; 68(5):876-82. doi: <http://dx.doi.org/10.1590/0034-7167.2015680516i>
8. Suliman M, Aljezawi M. Nurses' work environment: indicators of satisfaction. *J Nurs Manag*. 2018; 26(5):1-6. doi: <http://dx.doi.org/10.1111/jonm.12577>
9. Giongo CR, Monteiro JK, Sobrosa GMR. Psicodinâmica do trabalho no Brasil: revisão sistemática da literatura. *Temas Psicol*. 2015; 23(4):803-14. doi: <http://dx.doi.org/10.9788/TP2015.4-01>
10. Yao Y, Zhao S, An Z, Wang S, Li H, Lu L, et al. The associations of work style and physical exercise with the risk of work-related musculoskeletal disorders in nurses. *Int J Occup Med Environ Health*. 2019; 32(1):15-24. doi: <http://dx.doi.org/10.13075/ijomeh.1896.01331>
11. Waters TR, Dick RB. Evidence of health risks associated with prolonged standing at work and intervention effectiveness. *Rehabil Nurs*. 2015; 40(3):148-65. doi: dx.doi.org/10.1002/rnj.166
12. Gasparino RC, Guirardello EB. Professional practice environment and burnout among nurses. *Rev Rene*. 2015; 16(1):90-6. doi: <https://doi.org/10.15253/2175-6783.2015000100012>
13. Guimarães ALO, Felli VEA. Notification of health problems among nursing workers in university hospitals. *Rev Bras Enferm*. 2016; 69(3):507-14. doi: dx.doi.org/10.1590/0034-7167.2016690313i
14. Dias ICCM, Torres RS, Gordon ASA, Santana EAS, Serra MAAO. Factors associated with work accidents in the nursing team. *Rev Enferm UFPE on line [Internet]*. 2017 [cited Feb 6, 2020]; 11(Suppl. 7):2850-5. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/10943/19186>
15. Souza AMN, Teixeira ER. Sociodemographic profile of nursing team at the outpatient clinic of a university hospital. *Rev Enferm UFPE on line [Internet]*. 2015 [cited Feb 6, 2020]; 9(suppl. 3):7547-55. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/10493/11353>
16. Silva RM, Zeitoun RCG, Beck CLC, Martino MMF, Prestes FC, Loro MM. Chronotype and work shift in nursing workers of university hospitals. *Rev Bras Enferm*. 2017; 70(5):1009-15. doi: <http://dx.doi.org/10.1590/0034-7167-2016-0542>
17. Souza NVD, Gonçalves FGA, Pires AS, David HMS. Neoliberalist influences on nursing hospital work process and organization. *Rev Bras Enferm*. 2017; 70(5):961-9. doi: <http://dx.doi.org/10.1590/0034-7167-2016-0092>
18. Duclay E, Hardouin JB, Sébille V, Anthoine E, Moret L. Exploring the impact of staff absenteeism on patient satisfaction using routine databases in a university hospital. *J Nurs Manag*. 2015; 23(7):833-41. doi: dx.doi.org/10.1111/jonm.12219
19. Baptista PCP, Pustiglione M, Almeida MCS, Felli VEA, Garzin ACA, Melleiro MM. Nursing workers health and patient safety: the look of nurses managers. *Rev Esc Enferm USP*. 2015; 49(Spe 2):122-8. doi: <http://dx.doi.org/10.1590/S0080-623420150000800017>
20. Jones GAL, Colville GA, Ramnarayan P, Woolfall K, Heward Y, Morrison R, et al. Psychological impact of working in paediatric intensive care. AUK-wide prevalence study. *Arch Dis Child*. 2019; 1-6. doi: dx.doi.org/10.1136/archdischild-2019-317439



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