Original Article

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ABSENTEEISM IN NURSING IN THE FACE OF COVID-19: A COMPARATIVE STUDY IN A HOSPITAL FROM SOUTHERN BRAZIL

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ABSTRACT

Objective: to compare absenteeism in Hospital Nursing before and during the COVID-19 pandemic.
Method: a cross-sectional study. It involved compilation of the records of absence from Nursing work at a university hospital in southern Brazil in March, April and May 2019 (n=622) and during the same period in 2020 (n=475). The data were analyzed by means of descriptive and analytical statistics.
Results: both periods presented the same absence frequencies in women (98.4%; 98.3%), aged between 40 and 49 years old (47.9%; 44.8%) and working in wards for adults (30.7%; 29.2%). Absenteeism-Disease was the most prevalent cause (48.4%; 48%). The absolute number of absence cases was higher in the pre-pandemic period; however, the time in days and hours lost, as well as the absenteeism rate (13.9; 18.6%), was significantly higher (p-value<0.001) in the current pandemic period.
Conclusion: the COVID-19 pandemic exerted an impact on the increase in Hospital Nursing absenteeism.

DESCRIPTORS: Absenteeism. Nursing team. Infections by coronavirus. Worker's health. Nursing human resources in the hospital.

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ABSENTEÍSMO NA ENFERMAGEM DIANTE DA COVID-19: ESTUDO COMPARATIVO EM HOSPITAL DO SUL DO BRASIL

RESUMO

Objetivo: comparar o absenteísmo da enfermagem hospitalar, antes e durante a pandemia da COVID-19.
Método: estudo transversal. Compilaram-se os registros de afastamento do trabalho da enfermagem de um hospital universitário sul-brasileiro nos meses de março, abril e maio de 2019 (n=622) e no mesmo período em 2020 (n=475). Os dados foram analisados por estatística descritiva e analítica.
Resultados: nos dois períodos, foram equânimes as frequências de afastamentos de mulheres (98,4%; 98,3%), com idade entre 40 e 49 anos (47,9%; 44,8%) e atuantes em enfermarias para adultos (30,7%; 29,2%). O absenteísmo-doença foi a causa prevalente (48,4%; 48%). O número absoluto de casos de afastamento foi maior no período pré-pandemia, contudo, o tempo em dias e horas perdidas, bem como a taxa de absenteísmo (13,9;18,6%), foram significativamente mais elevados (p-valor<0,001) no período de pandemia vigente.
Conclusão: a pandemia de COVID-19 impactou na elevação do absenteísmo da enfermagem hospitalar.

DESCRITORES: Absenteísmo. Equipe de enfermagem. Infecções por coronavírus. Saúde do trabalhador. Recursos humanos de enfermagem no hospital.

AUSENTISMO EN ENFERMERÍA FRENTE A LA PANDEMIA DE COVID-19: ESTUDIO COMPARATIVO EN UN HOSPITAL DEL SUR DE BRASIL

RESUMEN

Objetivo: comparar el ausentismo en el área de Enfermería hospitalaria, antes y durante la pandemia de COVID-19.
Método: estudio transversal. Se compilaron los registros de ausencias laborales en el área de Enfermería de un hospital universitario del sur de Brasil durante los meses de marzo, abril y mayo de 2019 (n=622) y en el mismo período del año 2020 (n=475). Los datos se analizaron por medio de estadística descriptiva y analítica.
Resultados: en ambos períodos, las frecuencias en términos de ausencias laborales fueron equivalentes en mujeres (98,4%; 98,3%), de entre 40 y 49 años (47,9%; 44,8%) y que desempeñaban sus funciones en salas para adultos (30,7%; 29,2%). Ausentismo/Enfermedad fue la causa prevalente (48,4%; 48%). La cantidad absoluta de casos de ausencias laborales fue mayor durante el período previo a la pandemia; sin embargo, el tiempo en días y horas perdidas, así como el índice de ausentismo (13,9;18,6%), fueron significativamente más elevados (valor-p<0,001) durante el período de pandemia actual.
Conclusión: la pandemia de COVID-19 repercutió en el aumento del ausentismo en el área de Enfermería hospitalaria.

DESCRIPTORES: Ausentismo. Equipo de Enfermería. Infecciones por coronavirus. Salud laboral. Recursos humanos de Enfermería en el hospital.

INTRODUCTION

The dynamics of institutional work involves the workday, snack and lunch breaks and the absences foreseen in the legislation (strikes, holidays and leaves). However, due to multiple factors, including workload[1], it is possible to observe recurrent and unforeseen absences in the organizations, a phenomenon called absenteeism[2].

Absenteeism is an important indicator of people management and of the workers' health strategies and policies[3]. The literature points out five types of absenteeism, namely: voluntary absenteeism, which is due to particular reasons, not justified by any pathology; absenteeism due to disease, which includes all pathologies, with the exception of those resulting from work; absenteeism motivated by a professional pathology, which is related to work accidents or occupational diseases; legal absenteeism, which is covered by law (maternity leave, blood donation and military service); and compulsory absenteeism, resulting from imprisonment or another reason that restricts workers from reaching the workplace[3].

In Nursing, absenteeism is a problematic phenomenon, as the profession is socially and historically marked by working conditions that permeate unhealthy, painful and devalued conditions, as well as because the team represents the direct and permanent link of human care in the health services, in addition to its numerical expressiveness[1–2]. This turns these workers' absence into a serious challenge for the leaders, in the sense of guaranteeing quality of care amidst a scenario of often deficient staffing and working conditions[1,4].

The factors related to the Nursing team's working conditions have become the spotlight in the face of the health crisis caused by the new coronavirus (SARS-CoV-2) pandemic due to lack of Personal Protective Equipment (PPE) for the health professionals, work overload, holiday cancellations and other work organization problems. This scenario exerted a negative impact on the workers' physical and emotional health[5–7].

Given precariousness of work, the high workload and, evidently, the enormous risk of contamination by SARS-CoV-2, it is plausible that an increase in the absenteeism rates of these workers is expected during the pandemic period[6]. This is because the long working hours, the Burnout syndrome, the social stigma and the emotional stress caused by the pandemic favor the distancing of Nursing workers[7].

Considering the premises presented linked to the social and scientific need for concrete studies on the issue in question, the following question was asked: Did the COVID-19 pandemic exert any impact on absenteeism in the Hospital Nursing team? To such an end, the objective of the study was to compare absenteeism in Hospital Nursing before and during the COVID-19 pandemic.

METHOD

A cross-sectional and correlational study that followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines. The research was carried out at a university hospital located in southern Brazil, with a capacity of approximately 250 beds, with care focused solely on the Unified Health System (*Sistema Único de Saúde*, SUS). The study locus includes hospitalization beds in medical and surgical clinics, Intensive Care Unit (ICU) for adults, Pediatric ICU, Neonatal ICU, Intermediate Care Unit (InCU), Emergency Care Unit (ECU), Surgical Center (SC), Obstetric Center (OC), specialty clinics and COVID-19 ICU, which was opened in March 2020.

The analysis included all (N=1,097) records of absence from work in the Nursing team (nurses and nursing technicians and assistants), regardless of the performance sector, in the months of March, April and May 2019 (pre-pandemic period; n=622) and in the same months of 2020 (pandemic period; n=475), in order to allow for a comparison of the variables of interest. A total of 48 records (22 from 2019 and 26 from 2020) of workers' absences were excluded because they did not contain the documented cause of absenteeism and/or other information relevant to the complete data analysis. In this study, absenteeism was considered to be absences generated by unexpected situations, not covered by law.

Data collection took place from June to July 2020, with the Nursing Director of the survey hospital, through direct verification of the printed records of nurses' absences during the periods evaluated. The variables extracted in relation to the professionals were the following: gender, age, allocation locus/unit in the hospital and professional category. In relation to the absences, the following information was extracted: absence type/reason and work days and hours lost.

The manually-collected data were entered into Microsoft Office Excel® spreadsheets and later exported to the *Statistical Package for the Social Science* (SPSS) software, version 23.0, in which descriptive and inferential/analytic statistical analyses were performed.

The absenteeism rate was obtained by dividing the number of hours/person absent by the number of hours/person worked and, subsequently, multiplying the result by 100, according to the methodology proposed by the Hospital Management Support Center (*Núcleo de Apoio à Gestão Hospitalar*, NAGEH)[8]. In the researched institution, the absence records were counted in days, with the need to convert these data to hours. Therefore, in order to calculate the absenteeism rate, for a greater proportion of the hospital's Nursing work contracts, a daily workload of 6 hours was considered, establishing that the months would have 30 days.

Data distribution normality was verified for all the quantitative variables using the Shapiro-Wilk test, rejecting the null hypothesis in all cases. In the descriptive analyses, the results were presented by means of absolute and relative frequencies, as well as by the mean, median and variability, according to the type of each variable. After the descriptive analyses, the 2019 results (pre-pandemic) were compared to those observed during the same period in 2020 (current pandemic). To such end, the chi-square and Wilcoxon tests were applied to the categorical and continuous variables, respectively. p-values ≤ 0.05 were considered significant.

For comparison purposes, the cutoff point adopted was an absenteeism rate of 6.7%, in accordance with the Brazilian standard that mentions this value as a parameter of unplanned absences among Nursing workers[9], in addition to the relevant literature.

This study is a clipping from a matrix project focused on the good practices in Health and Nursing. The project complies with the recommendations set forth in Resolution No. 466/2012 of the National Health Council and was approved by the Research Ethics Committee of *Universidade Estadual do Oeste do Paraná* (UNIOESTE).

RESULTS

In both periods (pre-pandemic and current pandemic), greater concentration of absences was verified in women, working in hospitalization units for adults and aged between 40 and 49 years old. In the pre-pandemic period, the professional category that was most absent from work was that of nursing assistants, while during COVID-19, the most absent category was that of nursing technicians (Table 1).

The time in terms of absence days and hours was significantly longer in 2020 than in 2019; therefore, the absenteeism rate in the current pandemic period was also significantly higher than in the pre-pandemic period (Table 2).

Table 1 - Sociodemographic and work characterization of the records corresponding to absences in the Nursing team, before and during the COVID-19 pandemic. Southern Brazil, 2020. (N=1,097)

Variables	2019 (n=622)				2020 (n= 475)				
	n (%)	Mean±SD*	Median	Range	n (%)	Mean±SD*	Median	Range	p-value‡‡
Gender									
Female	612(98,4)				467(98,3)				0,921**
Male	10 (1,6)				8(1,7)				
Age†		44,4±7,9	43	27 a 68		43,8±7,9	43	24 a 65	
≤ 30	18(3,0)				29(6,1)				
31 a 39	139(22,8)				108(22,7)				
40 a 49	292(47,9)				213(44,8)				0,009**
50 a 59	133(21,8)				115(24,2)				
≤ 60	27(4,4)				8(1,7)				
Professional category‡									
Nursing Assistant	250(43,2)				172(37,3)				
Nursing Technician	224(38,7)				210(45,6)				0,073**
Nurse	105(18,1)				79(17,1)				
Performance unit§									
Administrative Sector	93(15)				34(7,2)				
Outpatient service/Milk bank	43(6,9)				35(7,4)				
‖SC/ ¶OC/Hemodynamics	80(12,9)				78(16,5)				
**MSC	54(8,7)				30(6,4)				
Adults' Ward	191(30,7)				138(29,2)				0,002**
Pediatric Ward	-				01(0,2)				
Emergency Care Unit	40(6,4)				37(7,8)				
††ICU for Adults	47(7,6)				52(11,0)				
††Neonatal and Pediatric ICU	74(11,9)				66(14,0)				
††COVID ICU	-				01(0,2)				

*SD: Standard Deviation; †2019: n=609 and 2020: n=473; ‡2019: n=579 and 2020: n=461; §2020: n=472; ‖SC: Surgical Center; ¶OC: Obstetric Center; **MSC: Materials and Sterilization Center; ††ICU: Intensive Care Unit; ‡‡p-value obtained by the chi-square test.

Table 2 - Absence types, days and hours and absenteeism rates in the Nursing team, before and during the COVID-19 pandemic. Southern Brazil, 2020. (N=1,097)

Variables	2019 (n=622)				2020 (n= 475)				
	n (%)	Mean±SD*	Median	Range	n (%)	Mean±SD*	Median	Range	p-value†‡
Absence type									<0,001**
Disease	301(48,4)				228(48)				
Attendance at other appointments	182(29,3)				73(15,4)				
Medical leave (prolonged)	139(22,3)				124(26,1)				
Risk of viral transmission	-				50(10,5)				
Absence days		4,2±7,7	1	1 a 30		5,6±7,5	2	1 a 30	<0,001††
Absence hours		25,1±46,2	6	6 a 180		33,4±44,9	12	6 a 180	<0,001††
Absenteeism rate (%)		13,9±25,7	3,3	3 a 100		18,6±24,9	6,7	3 a 100	<0,001††

*SD: Standard Deviation; †p-value obtained by the chi-square test; ‡p-value obtained by the Wilcoxon's test.

DISCUSSION

Both in 2019 and 2020 there was more absenteeism among female Nursing professionals. As this is a profession that has mostly women in its workforce, the high absenteeism rate can be caused by the daily burden with other daily tasks (household activities and children's care), as well as by physical and emotional changes caused by menopause (between 40 and 65 years of age)[10]. These considerations do not exclude the need to (re)think the position of women in society, clearly and historically marked by sexism.

The difference in the median age of the professionals on leave in the periods evaluated was statistically significant (p-value=0.009), indicating that, in 2020, there were more absences in younger professionals. This finding can be partially explained by the compulsory distancing of the employees considered to be in the risk group for COVID-19 (people over 60 years of age and with chronic diseases, therefore, at greater risk of serious manifestations of COVID-19), which favored the increase in the number of absences in young employees who were active.

Nursing assistants presented the highest frequency regarding work absences in 2019 and, in 2020, absenteeism was higher among nursing technicians. This finding is probably related to the age variable previously discussed, as nursing assistants - whose training is no longer recommended - were possibly older.

Nursing technicians and assistants represent the largest contingent of the profession's workforce and absenteeism in these categories disrupts the work process, generates overload of activities for other workers and compromises quality of care[10]. In addition, it is important to highlight that the high absenteeism rate among nursing technicians and assistants can be related to the lower remuneration of these categories and to the greater need for physical effort in the execution of direct and uninterrupted care to hospitalized patients, generating demotivation, exhaustion and even illness[10].

Workload is another factor that can affect the increase in the absenteeism rates among the mid-level Nursing team members and in the profession as a whole. A bibliographic research study conducted by Canadian authors indicates that long shifts and uninterrupted working weeks increase absenteeism in Nursing by up to five times[11]. A systematic review by researchers also based in Canada stated that elements of employee retention such as satisfaction, professional engagement and organizational support, reduce Nursing absenteeism in hospitals and, on the other hand, work-related exhaustion and stress are predictors of increased short-term absences[12].

In Brazil, mid-level Nursing professionals who work in intensive care in the fight against COVID-19 were the focus of the research on the Burnout syndrome. Among the findings, the recent study reports that the syndrome had a 25.5% prevalence in the sample (n=94), considered high[7]. This assertion is in line with the increase in the number of absences during the current pandemic period verified in the study herein described, signaling that the problems regarding workers' health in periods of crisis are, in fact, acute.

The difference in the number of absences per sector across the years analyzed was statistically significant (p=0.002). There was a considerable reduction in absences in the administrative sector during 2020, when compared to 2019. The remote work regime adopted due to the pandemic imposed by the new coronavirus may have accounted for the reduction in the number of absences during 2020. In the context of the COVID-19 pandemic in the Brazilian scenario, remote work has a profile predominantly composed of white-skinned individuals, female, aged between 30 and 39 years old, living in the Southeast region, with complete higher education, and in the formal and service sector[13]. Despite the concentrated profile, it is known that the strategy was, and is, important as an addition to the measures to contain the pandemic.

The “Adults’ Wards” were the performance sectors that recorded the highest absenteeism rates in both the pre-pandemic and pandemic periods, with a significant difference in relation to the other sectors surveyed. There is a large flow of people in these units (health professionals, residents, support service employees, family members) due to the high number of hospitalized patients, which increases the employees’ exposure to pathogenic microorganisms[10]. Other aspects to be noted are that patients with multidrug-resistant germs are frequently hospitalized in these types of units and that such sectors add up to an important contingent of the human Nursing capital of the hospital researched.

The fact that the “COVID-19 ICU” presented one of the lowest numbers of records of absences among the employees (0.2%) deserves to be highlighted. This finding can be explained by the fact that the team was assembled voluntarily, with greater willingness and spontaneity on the part of the employees to make up the team that would work with the COVID-19 cases in that locus. It is prudent to consider that some absences are related to interpersonal relationships[1] and to the leaders-led dynamics, and not necessarily to diagnoses of organic diseases or mental distress.

Another possible explanation for the reduced proportion of absences in the COVID-19 exclusive sector is the workers’ greater adherence to the protective measures, including the use of Personal Protective Equipment (PPE), as the certainty of contact with patients infected by the virus can generate fear and apprehension. In favor of the above interpretation, such feelings were also recently verified among Nursing workers who cared for patients under suspicion of COVID-19[14].

Adequate adherence by the health professionals to the infection prevention and control measures may also be noteworthy, such as use of the PPE during contact with patients diagnosed with COVID-19. In the current pandemic context, the NR-6 regulatory standard highlights that PPE assists in the occupational protection of health workers and reduce the contamination risks, namely: helmet, hood, glasses, face shield, welding mask, hearing protector, air-purifying respirator, air adduction respirator, leakage respirator, gloves, protective cream, armband, finger cot, footwear, socks, leggings, pants, overalls, set and full body apparel[15]. In contrast to this, acquisition and supply of PPE in adequate amounts and quality has been a problem in coping with the SARS-CoV-2 virus[16], which can favor absenteeism in those who are in the front line of health care, emblematically represented by Nursing workers.

Due to the pandemic, in 2020, in addition to the usual absence due to medical appointments, attendance at other appointments and leaves, there was a new type of absence from work related to the risk of viral transmission by symptomatic workers. The professionals who fit into this modality were those who presented one or more symptoms suggestive of viral contamination by SARS-CoV-2, such as fever, coughing, dyspnea, myalgia, fatigue and loss of smell and taste[17]. Even though there was no laboratory confirmation of the disease, suspicion of potential contagion already implied the need to distance from work. Such guidelines gradually changed throughout the pandemic, being communicated to the workers through service instructions based on municipal, state and federal decrees.

There was a significant difference between the absenteeism rates in the periods analyzed (p-value=0.001). Even with a lower number of absences in 2020, their mean duration was longer (p-value=0.001), both in days and in hours, causing the absenteeism rate to be higher during the COVID-19 period. The prolonged time of the absences in 2020 may have been influenced by the fact that the worker’s return to work depended on whether they tested negative for COVID-19, which, at the beginning of the pandemic, was sent for analysis in large laboratory centers, delaying delivery of the results. In addition, confirmed contamination by the new coronavirus in the workers required longer and mandatory periods of distancing from the work activities.

A recent study compared the absenteeism rates between 2019 and 2020 among professionals working in pre-hospital care (firefighters) and identified an increase in the absenteeism rate due to respiratory infections since the beginning of the pandemic[18]. This reinforces the findings of this study and indicates the need for proactive and attentive consideration by the managers to workers' health in periods of crisis such as the pandemic, which includes actions to protect workers, in addition to possible additional hirings.

It is noteworthy that, although the absenteeism rates were significantly different and the rate was higher in the current pandemic period, in both periods the rates were above those estimated by the Federal Nursing Council (*Conselho Federal de Enfermagem*, COFEN)[9]. However, it is prudent to assume that the class council predicted an increase in the category's absenteeism rates in coping with the COVID-19 pandemic, including the recommendation of a minimum Technical Safety Index of 20%[6], instead of than the usual 15%[9], for the personnel sizing process. This denotes the professional class entity's commitment to the workers; however, in the real world, it is noticed that the role of the regulatory bodies does not necessarily guarantee the best working conditions in Nursing, as the desired scenario also depends on the profession itself regarding collective interests, political leaderships and society as a whole in the appreciation of Nursing[19].

In contrast to this interpretation, a recent study conducted in a Brazilian university hospital verified absenteeism rates of 12% and 9% for nurses and nursing technicians, respectively[20], that is, considering the nurses' absenteeism rate in the aforementioned research study, there are equivalent values (considering the pre-pandemic period) and lower values (in the current pandemic period) to the survey herein described. This discrepancy and even the interpretive difficulty possibly represent another reason to monitor this indicator, as this can make it easier for managers to make decisions and interpret the absence rates in the organizations.

In general, absenteeism burdens both the administrative and care spheres since, to meet the care demand, it is necessary to review work schedules, provide coverage with overtime and redistribute the work per employee, which can compromise patient safety and the quality of the care provided[2,4]. In view of COVID-19, this entire scenario seems to be aggravated both by the increase in the number of absences from work and by the fact that the team has contact with a "type" of care that is not well understood, which, in itself, can overload workers[19].

As study limitations, it is emphasized that it is not possible to generalize the research findings to the subsequent months and/or to other scenarios, requiring expansion of the research scope. It is also valid to assume that, despite having been rigorously delineated and the plausibility nexus being very strong in this research, due to the social and health context of intense worsening of the pandemic, it is not possible to assert that the pandemic context was the causal factor for the increase in absenteeism in Nursing.

Despite the limitations, it is considered that the study is unprecedented and relevant, as it points to the clear need to prepare hospital organizations in crisis situations, for example, an expected increase in overtime and the need to (re)plan additional hirings, due to the increase in absenteeism of the Nursing team.

In addition to the possible need to review the Nursing team's hiring and allocation dynamics, the study indirectly indicates that the delay in testing workers, as well as the processing for the diagnosis of infectious disease, can be a contributing factor to the increase in the absenteeism rates. It is also believed that the theme explained in this study can help as a historical record in face of the crisis moment, as well as a parameter for future analysis and benchmarking of absenteeism in the Nursing team.

CONCLUSION

It was concluded that, although the number of absences in the pre-pandemic period was higher, the time (in days and hours) of absences was longer during the COVID-19 period, leading the absenteeism rate to also being higher during this period. Therefore, the pandemic exerted an impact on the increase in the number of absences in the Nursing team.

The adoption of institutional policies for the promotion of workers' health, prevention of occupational health problems and professional development is an important strategy to reduce the absenteeism rate. New studies on this theme are recommended to enable the comparison of research findings in different scenarios, including those considered as a reference in fighting against COVID-19.

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NOTES

ORIGIN OF THE ARTICLE

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There is no conflict of interest.

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