

Sickness absenteeism of Primary Health Care professionals before and during the COVID-19 pandemic

Absenteísmo-doença dos profissionais da Atenção Primária à Saúde antes e durante a pandemia de COVID-19
Ausentismo-enfermedad de los profesionales de Atención Primaria de Salud antes y durante la pandemia de COVID-19

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ABSTRACT

Objective: to identify the frequency of occurrence of sickness absenteeism, according to the profile of Primary Health Care (PHC) professionals, and verify if there was an impact of the pandemic on absence duration and reason. **Methods:** a cross-sectional study, from January/2019 to December/2020, with PHC professionals from a municipality in northeastern São Paulo. Descriptive statistics were performed, with frequency calculation. **Results:** of the 977 PHC professionals, 633 (64.79%) used a medical certificate to justify their absence from work in 2019, and 837 (85.67%) in 2020. The main reason for leave was diseases of the musculoskeletal system and connective tissue in the two years. The mean duration of leave was 7.33 days (SD=17.33) in 2019 and 9.88 days (SD=16.05) in 2020. Nursing assistants were the ones who took the most leave in both years. **Conclusions:** there was an impact of the pandemic on absence duration and reason.

Descriptors: Absenteeism; Occupational Health; Primary Health Care; Pandemics; COVID-19.

RESUMO

Objetivo: identificar a frequência de ocorrência do absenteísmo-doença, de acordo com o perfil dos profissionais da Atenção Primária à Saúde (APS), e verificar se houve impacto da pandemia na duração e motivos dos afastamentos. **Métodos:** estudo transversal, no período de janeiro/2019 a dezembro/2020, com os profissionais de APS de um município do nordeste do estado de São Paulo. Realizou-se estatística descritiva, com cálculo de frequências. **Resultados:** dos 977 profissionais da APS, 633 (64,79%) utilizaram o atestado médico para justificar sua ausência no trabalho em 2019, e 837 (85,67%), em 2020. O principal motivo dos afastamentos foi as doenças osteomusculares e do tecido conjuntivo nos dois anos. A duração média dos afastamentos foi de 7,33 dias (DP=17,33) em 2019 e de 9,88 dias (DP=16,05) em 2020. Os auxiliares de enfermagem foram os que mais se afastaram em ambos os anos. **Conclusões:** houve impacto da pandemia na duração e motivos dos afastamentos.

Descritores: Absenteísmo; Saúde do Trabalhador; Atenção Primária à Saúde; Pandemias; COVID-19.

RESUMEN

Objetivo: identificar la frecuencia de ocurrencia del ausentismo-enfermedad, según el perfil de los profesionales de la Atención Primaria de Salud (APS), y verificar si hubo impacto de la pandemia en la duración y motivos de las ausencias. **Métodos:** estudio transversal, de enero/2019 a diciembre/2020, con profesionales de la APS de un municipio del nordeste del estado de São Paulo. Se realizó estadística descriptiva, con cálculo de frecuencia. **Resultados:** de los 977 profesionales de APS, 633 (64,79%) utilizaron el certificado médico para justificar su ausencia al trabajo en 2019 y 837 (85,67%) en 2020. El principal motivo de baja fue por enfermedades musculoesqueléticas y del tejido conectivo en los dos años. La duración media de la licencia fue de 7,33 días (DE=17,33) en 2019 y de 9,88 días (DE=16,05) en 2020. Los auxiliares de enfermería fueron los que más disfrutaron de licencia en ambos años. **Conclusiones:** hubo un impacto de la pandemia en la duración y motivos de las ausencias.

Descriptorios: Absentismo; Salud Laboral; Atención Primaria de Salud; Pandemias; COVID-19.

INTRODUCTION

Absenteeism is a topic of great relevance for several social areas. It is defined as workers' no-show for a shift or period of one or more days. When absence from the service is due to a disease certified by medical leave, it is called sickness absenteeism⁽¹⁾.

In the world of work, absenteeism is a critical node, due to the absence of a professional, which disrupts the work process, which generates negative consequences in production, increasing costs and overloading other workers⁽²⁾. In the public sector, the occurrence of sickness absenteeism interferes with the provision of essential services to the population, burdening the coffers⁽³⁾. In the sphere of health, the absence of workers directly affects the quality of care offered to users⁽⁴⁾.

The uncontrolled increase in sickness absenteeism reflects the working and health conditions of professionals, and this fact can be aggravated in moments of a pandemic or any other disasters that involve contamination, since these phenomena have great potential to directly impact workers' health⁽⁵⁾. Research shows that the absenteeism of health professionals can further complicate the picture of health services, which already have a huge burden in these situations⁽⁶⁻⁹⁾.

It is known that the health workforce is essential not only for caring for patients, but also in preventing the spread of diseases⁽¹⁰⁾, especially at a time when the world is being impacted by a pandemic caused by the new coronavirus (SARS-CoV-2)⁽¹¹⁾. Studies conducted in pandemic periods already addressed the consequences of the absence of health workers^(6-8,10). However, despite the evidence of the negative effects of absenteeism in health services⁽⁹⁾, it is necessary to seek new knowledge about the subject, since COVID-19 and its real impacts have not yet been fully elucidated. With regard to worker health surveillance, in the context of this pandemic, the need for protection of health professionals deserves to be highlighted⁽¹²⁻¹³⁾; however, official databases or surveys that retract the impacts of COVID-19 on the health of these workers are still scarce⁽¹⁴⁾.

Understanding the reasons that drive workers away from disease is fundamental, especially in Primary Health Care (PHC), which, according to the guidelines of the Ministry of Health, was assigned to ensure screening, first care and monitoring of mild cases of the new disease⁽¹⁵⁾. The knowledge of sickness absenteeism, as a tool of health management, is imperative in a pandemic, so that there is planning of actions and implementation of public policies related to work and health⁽¹⁶⁾. Thus, conduct a study of indicators related to the reason and quantity of absences of professionals in PHC is of great relevance, since it can provide information on professionals' epidemiological situation, as well as their working conditions⁽¹⁷⁾, providing managers in planning health actions to cope with the COVID-19 pandemic.

OBJECTIVE

To identify the frequency of occurrence of sickness absenteeism, according to the profile of PHC professionals, in 2019 and 2020, and verify if there was an impact of the pandemic on absence duration and reason.

METHODS

Ethical aspects

The study was approved by the Research Ethics Committee, thus complying with Resolution 466/12 of the Brazilian National Research Ethics Council and other provisions.

Study design, period, and location

This is a cross-sectional study, conducted by the STROBE tool, developed from January 2019 to December 2020, in a municipality northeast São Paulo, Brazil. It has an area of 650 km², a population estimated at 711,825 inhabitants in 2020, urbanization rate of 99.72%, gross domestic product of 49,425 and a Municipal Human Development Index of 0.800, considered high for the rest of the country⁽¹⁸⁾.

In the health area, the municipality is divided into 5 districts (North, South, East, West and Central), and each district has a health unit that operates 24 hours with emergency service and several PHC units. The municipality has 51 Primary Care teams and 48 Family Health Teams, which correspond, respectively, to a coverage of 63.90% and 23.55%⁽¹⁹⁾.

Population; inclusion and exclusion criteria

The study population comprised health professionals linked to the Municipal Health Department who worked in PHC (family health doctors, general practitioners, pediatricians, gynecologists, nurse, dental surgeon, oral health assistant and technician, nursing technician and assistant and community health workers), from January 2019 to December 2020, totaling 977 individuals in the categories selected for the study. Participants who were absent for health care for at least one day during this period were included.

Study protocol

Data were obtained through documents and records of the Human Resources coordination of districts and the Municipal Health Department from 2019 to 2020. The variables raised by means of a previously formulated instrument were sex, age group, professional category, period of absence and the reasons for absenteeism.

The reasons for sickness absenteeism of PHC professionals were grouped according to the International Code of Diseases (ICD-10)⁽²⁰⁾ and according to Article 151 (when sick leave is granted on request or ex officio) and Article 156 (removal is granted through a detailed report, based on the conclusions of specialized medicine, when the official medical board does not conclude for the direct and immediate granting of retirement for active tuberculosis, mental alienation, malignant neoplasm, blindness, leprosy, irreversible and disabling paralysis, severe heart disease, Parkinson's disease, Alzheimer's disease, acquired immunodeficiency syndrome, ankylosing spondyloarthritis, severe nephropathy, advanced stages of Paget's disease) of municipal law 3181/1976⁽²¹⁾. The selected period (first fifteen days and from the sixteenth day onwards) was based on the criteria established by the organic law of municipal social security 1012/2000 for granting sick pay⁽²²⁾.

Analysis of results, and statistics

To analyze the data provided by the Municipal Health Department, the variables were coded, and a data dictionary was created with these coding. These data were entered into a spreadsheet using the Microsoft Excel 2017 program, using the double-entry technique in order to minimize random errors. Descriptive statistics were performed, with calculation of absolute and relative frequency of variables sex, age group, professional category, days of leave and reasons for sickness absenteeism.

RESULTS

Of the 977 PHC professionals, 633 (64.79%) used the medical certificate to justify their absence from work in 2019, and 837 (85.67%) in 2020. It is noteworthy that the population of active servers in PHC did not vary during this period.

The profile of professionals who have left work is found in Table 1, in which it is possible to verify that 518 (81.83%) were female; the age group with the highest number of professionals was 51 to 60 years (38.23%), with a mean of 50.45 and SD 9.59 years; and nursing assistants were the professional category that left the most in 2019. In 2020, 678 (81.00%) were female; the age group was also between 51 and 60, with a mean age of 49.51 and SD of 10.05 years; and similarly, there was greater sickness absenteeism among nursing assistants.

Table 1 - Distribution of Primary Health Care workers, by sex, age group and professional category, who were absent in 2019 (n=633) and 2020 (n=837), São Paulo, Brazil, 2020

Variables	2019		2020	
	n	%	n	%
Sex				
Female	518	81.8	678	81.0
Male	115	18.2	159	19.0
Age group				
From 21 to 30 years	02	00.3	21	02.5
From 31 to 40 years	89	14.1	161	19.2
From 41 to 50 years	199	31.4	272	32.5
From 51 to 60 years	242	38.2	275	32.9
From 61 years above	101	16.0	108	12.9
Professional category				
Community health worker	133	21.0	166	19.8
Nursing assistant	224	35.4	271	32.4
Oral health assistant	38	06.0	45	05.4
Dental surgeon	41	06.5	58	06.9
Nurse	32	05.1	73	08.7
Doctor	133	21.0	159	19.0
Nursing technician	30	04.7	62	07.4
Oral health technician	02	00.3	03	00.4

In 2019, the 633 licensed professionals accounted for 2,373 occurrences of sickness absenteeism, in a total of 17,404 days, regardless the reason, with a mean of 7.33 days (SD=17.33), a median of 2, minimum days of absence of 1 and maximum of 271. In 2020, the 837 licensed professionals generated 3,736 occurrences due to sickness absenteeism, totaling 36,906 days, regardless the reason, with a mean of 9.88 days (SD=16.05), median of 5, minimum days of absence of 1 and maximum of 184.

The results showed that the distribution of absences was concentrated in the first 15 days, with higher occurrence among

nursing assistants in both 2019 and 2020, and no occurrences were found by Article 156 in both years, as observed in Table 2.

Table 2 - Distribution of sickness absenteeism occurrences by professional category, according to Article 151, municipal law 3181/76, São Paulo, Brazil, 2020

Number of absences of Primary Health Care professionals	Article 151 (first 15 days) n (%)	Article 151 (from day 16) n (%)	Total
2019			
Community health worker	518 (85.0)	92 (15.0)	610
Nursing assistant	735 (86.0)	119 (14.0)	854
Nursing technician	131 (94.9)	07 (05.1)	138
Nurse	64 (83.1)	13 (16.9)	77
Doctor	385 (88.1)	52 (11.9)	437
Oral health assistant	111 (85.4)	19 (14.6)	130
Oral health technician	02 (100.0)	0 (00.0)	02
Dentist	109 (87.2)	16 (12.8)	125
Total	2055 (86.6)	318 (13.4)	2373
2020			
Community health worker	856 (77.1)	254 (22.9)	1110
Nursing assistant	931 (79.2)	245 (20.8)	1176
Nursing technician	221 (86.3)	35 (13.7)	256
Nurse	232 (83.7)	45 (16.3)	277
Doctor	479 (90.7)	49 (09.3)	528
Oral health assistant	130 (77.4)	38 (22.6)	168
Oral health technician	08 (100.0)	0 (00.0)	08
Dentist	177 (83.1)	36 (16.9)	213
Total	3034 (81.2)	702 (18.8)	3736

The reasons for sickness absenteeism, classified as ICD-10, which presented the highest frequency in 2019 were musculoskeletal and connective tissue diseases (n=451), with 19.01%, followed by factors that influence health status and contact with health services (when a patient comes to the health service for examinations, disease follow-up, medical assessment, and consultations for administrative purposes) (n=271), with 11.42%, parasitic and infectious diseases (n=237), with 9.99% and mental and behavioral disorders (n=194), with 8.18%. In 2020, were diseases of the musculoskeletal system and connective tissue (n=568), with 15.20%, followed by infectious and parasitic diseases (n=558), with 14.94%, diseases of the respiratory system (n=535), with 14.32% and factors that influence health status and contact with health services (n=417), with 11.16% (Table 3).

DISCUSSION

The present study analyzed a collection of data to verify the possible impact of the pandemic on sickness absenteeism in PHC professionals in a municipality in northeastern São Paulo, producing important information.

When analyzing the sickness absenteeism of PHC professionals in the pre-pandemic period and during the development of the pandemic, it was identified that female professionals, aged 51 to 60 years and technical level were configured in the group with the highest absenteeism.

There was a predominance in females of the total number of PHC professionals who moved away both in the pre-pandemic period and during the pandemic. This finding corroborates the fact that women constitute the largest contingent of state and municipal public servants, mainly in the spheres of health, social assistance and education⁽³⁾. In addition to the majority composition in the category, the fact that most women accumulate home chores and children is added together, which can affect the health of these professionals⁽²³⁾.

Table 3 - Reasons for sickness absenteeism of Primary Health Care professionals, grouped according to the International Code of Diseases in 2019 and 2020, São Paulo, Brazil

Disease grouping - International Code of Diseases	2019		2020	
	n	%	n	%
Certain infectious and parasitic diseases	237	10.0	558	14.9
Neoplasms	37	01.6	23	00.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1	00.0	2	00.1
Endocrine nutritional and metabolic diseases	23	01.0	68	01.8
Mental and behavioural disorders	194	08.2	363	09.7
Diseases of the nervous system	92	03.9	112	03.0
Diseases of the eye and adnexa	108	04.6	71	01.9
Diseases of the ear and mastoid process	27	01.1	27	00.7
Diseases of the circulatory system	108	04.6	167	04.5
Diseases of the respiratory system	190	08.0	535	14.3
Diseases of the digestive system	177	07.5	171	04.6
Diseases of the skin and subcutaneous tissue	30	01.3	33	00.9
Diseases of the musculoskeletal system and connective tissue	451	19.0	568	15.2
Diseases of the genitourinary system	111	04.7	105	02.8
Pregnancy, childbirth and the puerperium	12	00.5	46	01.2
Certain conditions originating in the perinatal period	0	00.0	0	00.0
Congenital malformations, deformations and chromosomal abnormalities	1	0.00	0	00.0
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	149	06.3	169	04.5
Injury, poisoning and certain other consequences of external causes	149	06.3	183	04.9
External causes of morbidity and mortality	4	00.2	5	00.1
Codes for special purposes (COVID-19)	0	00.0	97	02.6
Factors influencing health status and contact with health services	271	11.4	417	11.2
Without International Code of Disease	1	00.0	16	00.4
Total	2373	100	3736	100

COVID-19 - Coronavirus Disease 2019.

The age group from 51 to 60 years was predominant in this study, in the two years analyzed; however, other studies on sickness absenteeism of public servants^(3,16-17) and health professionals showed a smaller age group, between 40 and 50 years^(2,4).

The frequency of sickness absenteeism remained higher in nursing assistants in 2019 and 2020. This fact is alarming, as this category represents the largest contingent of the nursing workforce, and absenteeism in this professional category impairs the care provided and overloads the work of other professionals⁽²⁾. This situation can be based on the occupational risk intrinsic to nursing work⁽²⁾ and the low remuneration of mid-level and technical professionals⁽¹⁷⁾. In PHC, nursing work is of great breadth and comprises educational aspects, such as clinical practice inherent to the category, which performs predominantly physical work, with closer contact with direct care to users, and service management⁽²⁴⁾. This accumulation of functions generates a more intense physical and emotional overload in these professionals, with direct consequence on physical and mental illness⁽²⁾. In the pandemic, nursing professionals suffered from trauma, emotional exhaustion and post-traumatic stress⁽²⁵⁻²⁶⁾ and contaminations⁽²⁷⁾, which raised the number of absenteeism this category in health services.

It would be expected that, because of the risks that dentists may or could face with the spread of the pandemic, would have a greater number of absences from this category. This is due to the professional-patient proximity, the generation of aerosols inherent to care and the risks of contamination and cross-infection⁽²⁸⁻²⁹⁾. However, oral health team workers were not a group that presented a large number of absenteeism in the pandemic in this study. This situation can be explained by the restrictions used on the types of dental care, with the prioritization of emergency treatments to the detriment of electives, suggested by researchers⁽³⁰⁻³¹⁾ and international health agencies⁽³²⁾.

In the present study on the sickness absenteeism of PHC professionals showed that there was an increase in the frequency of absences in 2019 from 64.79% to 85.67% in 2020, since the population of active servers in PHC was not changed in this period. The mean length of each absence also increased from 7.33 days in 2019 to 9.88 in 2020. Similarly, other authors have identified an increase in sick leave in specific occupational groups, including health professionals, during the pandemic period⁽³³⁾.

Research simulating what-if scenarios showed that an influenza pandemic would have the potential to cause a high absenteeism of the health team^(5,10,34). The ability and willingness of health professionals to report to work in an influenza pandemic situation would be greater if antiviral treatment was available for themselves and their families^(5,10); sufficient supply of personal protective equipment (PPE)⁽⁵⁾; possibility of remote work; and offer day care to their children⁽¹⁰⁾. These facts did not occur in this COVID-19 pandemic, as there was a total closure of schools and daycare centers across the country. To some extent, there was the problem of international and national shortage of PPE⁽³⁵⁾, and until the time of collection, there was still no treatment available for the disease, which could justify the increase in the frequency of leaves in 2020.

The increase in absenteeism could be justified, among other factors, by mental disorders. Studies show that pandemic periods are related to stress, anxiety, insomnia and depressive symptomatology in health professionals⁽¹³⁾, and in the COVID-19 pandemic, it was no different^(13,36-37). However, although this research verified an increase in the frequency of mental and behavioral disorders in 2020, this type of absence was not among the most frequent.

In 2019 and 2020, the pathologies with the highest frequency in this research were diseases of the musculoskeletal system and connective tissue. This fact is not uncommon and has already been identified in other investigations on the subject in different

occupational categories^(2-3,17,38-40). These dysfunctions are mechanical in origin and preventable, and health education actions could improve this picture⁽¹⁷⁾.

In this research, diseases of the respiratory system had a significant increase in 2020. This increase can be justified, in addition to confirmed COVID-19, by suspected or unconfirmed symptomatic cases. In a period prior to the pandemic, professionals with flu-like symptoms did not used to leave work, and one of the reasons for this is that they feel able to perform tasks and do not feel bad enough to miss work⁽⁴¹⁾. However, it has always been important to encourage professionals who to present acute seasonal diseases, such as influenza, to stay at home, to avoid contamination of other workers⁽⁴²⁾.

Preventing the occurrence of sickness absenteeism is important in the search to mitigate the impact of these absences on health services. Aiming at the protection of health workers in coping with COVID-19, studies bring recommendations such as: adequacy measures in relation to the number of professionals⁽¹⁴⁾; improvement in organization and working conditions⁽¹²⁾; resizing working days⁽¹²⁾; occupational stress reduction⁽¹²⁾; PPE supply in adequate quantity and quality^(14,32,43); guidelines on infection control^(34,43); and implementation of measures that promote the strengthening of teams⁽¹⁴⁾.

Study limitations

This study is limited by the fact that it was developed in a single municipality, which may limit the generalization of data. A broader and more complete collection of occupational data from PHC workers is needed to better understand the occupational risks in the pandemic and plan intervention strategies and minimize sickness absenteeism of the health team. Another limiting factor was the fact that a historical series of sickness absenteeism

in recent years was not carried out, so it would be necessary to clarify whether the annual mean has been increasing significantly or whether this increase identified from 2019 to 2020 was one-off and possibly related to the pandemic.

Contributions to nursing

The study contributes to understanding the most frequent types of sickness absenteeism in the health team before and during the pandemic. Identifying the reasons for more prevalent absences in the nursing team can help managers in planning actions in order to improve professionals' working conditions and health. Moreover, it can serve as a tool to organize health actions, so that it does not compromise care, since nursing represents the largest contingent in health services, and absenteeism of this category directly impacts the quality of care offered to users, especially in this pandemic period.

CONCLUSIONS

The findings indicate that the professionals who, during the pandemic, were closer to direct care to PHC users were the ones with the highest percentage of sickness absenteeism.

It was concluded that there was an impact of the pandemic on the duration and reasons for the absences. Although diseases of the musculoskeletal system and connective tissue are the most prevalent in 2019 and 2020, there was an important increase in infectious and parasitic diseases and diseases of the respiratory system.

An increase was also identified in absence duration of these workers, emphasizing the importance of working conditions and health protection of PHC professionals, in order to mitigate sickness absenteeism.

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