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Sickness absence in a municipal public service of Goiânia, Brazil

Absenteísmo-doença no serviço público municipal de Goiânia

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ABSTRACT: *Background:* Sickness absence, as work absenteeism justified by medical certificate, is an important health status indicator of the employees and, overall, sociodemographic and occupational characteristics are among the main factors associated with sickness absence. Public administration accounts for 21.8% of the formal job positions in Brazil. This population allows the study of a wide range of professional categories. *Objective:* To assess the profile and indicators of sickness absence among public workers from the municipality of Goiania, in the State of Goiás, Brazil. *Methods:* A cross-sectional study on certified sick leaves, lasting longer than three days, of all civil servants from January 2005 to December 2010. Prevalence rates were calculated using as main criteria the number of individuals, episodes and sick days. *Results:* 40,578 certified sick leaves were granted for health treatment among 13,408 public workers, in an annual average population of 17,270 people, which resulted in 944,722 days of absenteeism. The cumulative prevalence of sick leave for the period was of 143.7%, with annual average of 39.2% and duration of 23 days per episode. The cumulative prevalence of sickness absence was higher among women (52.0%), older than 40 years old (55.9%), with a partner (49.9%), low schooling (54.4%), education professionals (54.7%), > 10 years of service (61.9%), and with multiple work contracts (53.7%). Diagnoses groups (ICD-10) with higher cumulative prevalence of sick leaves were those with mental disorders (26.5%), musculoskeletal diseases (25.1%), and injuries (23.6%). *Conclusions:* Indicators of sickness absence express the magnitude of this phenomenon in the public sector and can assist in planning health actions for the worker, prioritizing the most vulnerable occupational groups.

Keywords: Sick leave. Absenteeism. Mental disorders. Musculoskeletal diseases. Occupational health. Indicators.

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RESUMO: *Introdução:* O absenteísmo-doença, enquanto falta ao trabalho justificada por licença médica, é um importante indicador das condições de saúde dos trabalhadores. Em geral, características sociodemográficas e ocupacionais situam-se entre os principais fatores associados ao absenteísmo-doença. A administração pública é responsável por 21,8% dos empregos formais no Brasil. Esta população permite o estudo de uma grande variedade de categorias profissionais. *Objetivo:* Analisar o perfil e os indicadores de absenteísmo-doença entre servidores municipais de Goiânia, no Estado de Goiás, Brasil. *Métodos:* Estudo transversal das licenças certificadas para tratamento de saúde superiores a três dias, de todos os servidores, desde janeiro de 2005 a dezembro de 2010. Foram calculadas as prevalências, utilizando como critérios o número de indivíduos, os episódios e os dias de afastamento. *Resultados:* Foram concedidas 40.578 licenças certificadas para tratamento de saúde a 13.408 servidores numa população média anual de 17.270 pessoas, o que resultou em 944.722 dias de absenteísmo. A prevalência acumulada de licença no período foi de 143,7%, com média anual de 39,2% e duração de 23 dias por episódio. A prevalência acumulada de absenteísmo-doença foi maior entre mulheres (52,0%) com idade superior a 40 anos (55,9%), com companheiro (49,9%), de baixa escolaridade (54,4%), profissionais de educação (54,7%), > 10 anos de serviço (61,9%) e múltiplos vínculos profissionais (53,7%). Os grupos de diagnósticos (CID-10) com as maiores prevalências acumuladas de licenças foram os do capítulo de transtornos mentais (26,5%), doenças osteomusculares (25,1%) e lesões (23,6%). *Conclusões:* Os indicadores de absenteísmo-doença expressam a magnitude desse fenômeno no serviço público e podem auxiliar no planejamento das ações de saúde do trabalhador, priorizando os grupos ocupacionais mais vulneráveis.

Palavras-chave: Licença médica. Absenteísmo. Transtornos mentais. Doenças musculoesqueléticas. Saúde do trabalhador. Indicadores.

INTRODUCTION

Absenteeism, in terms of absence of the employee at work, is a complex phenomenon, whose etiology is multiple, including individual factors and those related to the environment and to the work organization. When the absence is a result of a disease or injury medically certified, it is usually called sickness absence¹, which is considered to be an important indicator of the health conditions of workers².

Indicators of sickness absence (SA) are internationally accepted parameters¹, whose goal is to measure absence from work due to diseases, which enable the follow-up of variations throughout certain period, as well as the comparison of results, intra and inter-group of workers. An analysis of the indicators, associated with the profile of sick leave, provides information not only about the epidemiological situation of the workers, but also about work conditions, providing important subsidies for the planning of actions of occupational health, as well as the assessment of its effectiveness.

Estimates about the magnitude of SA range between studies and countries. Generally, sociodemographic characteristics, aspects related to nature and work conditions, as well as the type and scope of security systems are among the main factors associated with the frequency and length of the SA in different populations³⁻⁶. Part of these differences between SA indicators can mostly be a result of the lack of uniformity in the terminologies involving assessment instruments than the very indicators used to measure these events⁷.

In Brazil, most studies about the disease profile of workers are based on data from National Social Security Institute⁸⁻¹⁰, which generally exclude public servants. In 2010, the country counted on 9.4 million servants in the three government spheres, corresponding to 21.8% of the total number of formal contracts, out of which approximately 50% were in the municipal sphere¹¹.

Most epidemiological studies about SA are restricted to specific occupational groups, such as servants from health and education institutions¹²⁻¹⁴. Little is known about the epidemiological profile and the prevalence of sick leave among servants in operational activities, such as urban cleaning, lunch ladies, gravediggers, doormen, machine operators, among others. Such a gap is also seen among servants who work in surveillance positions, policing and inspection, such as municipal guards, traffic agents, public health controllers, among others. Similarly, administrative servants and technicians who do not work in the core activity, but who provide support for the public system to work, and several other professional categories that are exposed to different occupational risks have not been targeted in studies and may be damaged by the lack of progress in public health policies.

The lack of consolidated data about the health of Brazilian servants in different occupations makes it difficult to understand their disease profile, thus limiting the formulation of health promotion public policies and the prevention of conditions that mostly affect this population¹⁵. In this sense, the objective was to analyze the SA profile and indicators in the Municipal Public Service of Goiânia, from January 2005 to December 2010.

METHODS

The study was conducted in the city of Goiânia, capital of the State of Goiás. Its population was estimated by the Brazilian Institute of Geography and Statistics (IBGE) in 1,393,579 residents in 2013.

This is a cross-sectional study which analyzed sick leave (SL) certified by the Municipal Medical Board, lasting than three days, from January 1st, 2005, to December 31st, 2010. Maternity leaves and accompanying leaves were excluded from the study.

SL is defined as the leave granted to the servants because of illness or injury, without impacting on their payment, since the granting criteria established by the Statute from the City of Goiânia¹⁶ are fulfilled. This legal instrument predicts the allowance of up to three days absences caused by disease. However, when this period is longer, the servant needs to go through medical analysis for the homologation, or not, of the leave. In this study, the word servant is used as a reference to the person who legally has a public occupation according to Law n. 8,112/90.

Data referring to SL were manually extracted from the record books of medical forensics, filed in the Municipal Medical Board of Goiânia. An electronic spreadsheet was created containing the records of SLs, from where it was possible to obtain enrollment, clinical diagnosis according to the International Classification of Diseases (ICD-10) and the duration (in days) of the servant's leave. This data base also included personal and occupational information of the Human Resources System (SRH), by using the enrollment number as an identifier. Also, from the SRH it was possible to get the number of municipal servants from December of each analyzed year, used as a denominator to calculate prevalence rates.

In the description of the profile of servants on sick leave, the sociodemographic and occupational characteristics presented in the first leave were considered, as follows: sex; age; marital status; schooling; salary; occupation; job tenure; institution of work and number of work contracts. More than 60 occupations were identified in the city, being grouped in five major categories: white collar (administrative assistant and auxiliary, receptionist, judicial attorney etc.); blue collar (general services auxiliary, helper/builder, lunch lady etc.); health (nursing technician, nurse, physician etc.); surveillance (municipal guards, traffic gents, public health controller etc.); and education (teachers of early childhood and elementary school). The references for all of the categories were the occupational groups of the career plans of the city, adjusted to the similarity of the nature of the work activity.

SA indicators were constituted based on the recommendations from the Subcommittee of Absenteeism at the International Society of Occupational Health¹ and scientific literature⁷. The main criteria were the number of individuals, episodes and days of medical leave, represented by the following formulas:

- Cumulative prevalence = number of episodes or servants on leave / number of servants x 100;
- Prevalence of SA = number of servants on leave / number of servants x 100;
- Prevalence of sick leave = number of episodes / number of servants x 100;
- Mean duration of SA = number of sick days / number of servants on leave;
- Mean duration of sick leave = number of sick days / number of leaves.

The cumulative prevalence from 2005 to 2010 was calculated by considering, in the denominator, the number of active servants in December of each year. In order to calculate the duration, according to diagnosis, the median of days was used with the

respective interquartile intervals (IQR) of 25 and 75%. Besides, the prevalence ratio between genders was calculated (female/male prevalence rates).

This study was approved by the Research Ethics Committee of Hospital das Clínicas, at Universidade Federal de Goiás, protocol n. 194/2010.

RESULTS

In six years, 40,578 SLs were registered and certified by the Municipal Medical Board of Goiânia, granted to 13,408 servants who were absent for 944,722 days. The population of active servants in the City Hall of Goiânia ranged from 12,805, in 2005, to 21,280, in 2010, with an effective total of 28,230 servants in the period, out of whom 47.5% had at least one medical leave in the period.

Table 1 presents the profile of servants on leave in relation to the first leave, which was characterized by the prevalence of women (52.0%); aged more than 40 years old (55.9%); with a partner (49.9%); with elementary school or less (54.4%); earning more than six minimum wages (55.0%); professional in the education field (54.7%); who have been in the public service for more than 10 years (61.9%) and more than one professional contract (53.7%).

The cumulative prevalence of sick leave, according to diagnostic group, indicates mental and behavioral disorders (mental diseases – 26.5%); diseases of the osteomuscular system and the conjunctive tissue (osteomuscular disease – 25.1%) and injuries, poisoning and other consequences of external causes (injuries – 23.6%) as the most important in the period. The ICD chapter “factors that influence health status and contact with health services” presented a 31.2% prevalence of sick leave, and the convalescence ICD was the most frequent one (95.0%). This category is used when there is no disease, trauma or external cause (Table 2).

Also in Table 2, with regard to prevalence ratio between genders, it was possible to observe the female prevalence in all of the diagnosed groups, except for those involving skin lesions and diseases. For the others, the ratio between genders ranged from 1.3 for circulatory diseases to 5.1 to blood conditions. The median of days of sick leave, according to diagnostic groups (ICD-10), ranged from 7 to 30. Mental disorders, neoplasm, metabolic and neurological disorders presented the highest values (30 days), while infectious and respiratory conditions had the lowest medians (seven days).

Considering the three chapters of the most prevalent ICD-10, the percentage analysis of the ICD groups in each of them indicated mood disorders (62.1% of mental disorders), back pain (41% of the osteomuscular diseases) and ankle and foot trauma (30% of the injuries) as the most important ones (Table 3).

As observed in Table 4, the city presented a mean annual staff of 17,270 servants, out of whom 23% were absent from work due to diseases, with mean duration of 40 missed work days in a year. The same worker may have had several episodes of absence in the period, which was verified

Table 1. Cumulative prevalence of sickness absence among public workers from the municipality of Goiânia, according to sociodemographic and occupational characteristics presented in the first episode of sick leave, Brazil, 2005 – 2010.

Characteristics	Servants		Servants on SL		
	n	%	n	%	Prevalence (95%CI)
Sex					
Female	19,616	69.5	10,206	76.1	52.0 (51.3 – 52.7)
Male	8,614	30.5	3,202	23.9	37.2 (36.2 – 38.2)
Total	28,230	100.0	13,408	100.0	47.5 (46.9 – 48.1)
Age group					
18 to 40 years old	17,804	63.1	7583	56.6	42.6 (41.9 – 43.3)
41 to 70 years old	10,426	36.9	5825	43.4	55.9 (54.9 – 56.8)
Marital status					
With a partner	14,378	50.9	7,175	53.5	49.9 (49.1 – 50.7)
Without a partner	13,852	49.1	6,233	46.5	45.0 (44.2 – 45.8)
Schooling					
≤ Elementary school	5,333	18.9	2,901	21.6	54.4 (53.1 – 55.7)
High school	11,228	39.8	4,949	36.9	44.1 (43.2 – 45.0)
Higher education	11,669	41.3	5,558	41.5	47.6 (46.7 – 48.5)
Wage scale (MW)					
< 3	15,722	55.7	6,883	51.3	43.8 (43.0 – 44.6)
3 to 6	6,207	22.0	3,060	22.8	49.3 (48.1 – 50.5)
> 6	6,301	22.3	3,465	25.8	55.0 (53.8 – 56.2)
Occupational class					
White collar	5,233	18.5	1,961	14.6	37.5 (36.2 – 38.8)
Blue collar	8,103	28.7	4,063	30.3	50.1 (49.1 – 51.2)
Health	5,182	18.4	2,491	18.6	48.1 (46.7 – 49.4)
Surveillance	2,844	10.1	1,138	8.5	40.0 (38.2 – 41.8)
Educational	6,868	24.3	3,755	28.0	54.7 (53.5 – 55.9)
Job tenure					
< 3 years	17,088	60.5	6,615	49.3	38.7 (38.0 – 39.4)
3 to 10 years	5,082	18.0	3,041	22.7	59.8 (58.5 – 61.2)
≥ 11 years	6,060	21.5	3,752	28.0	61.9 (60.7 – 63.1)
Number of work contracts					
One	14,634	51.8	6,110	45.6	41.8 (41.0 – 42.6)
Multiple	13,596	48.2	7,298	54.4	53.7 (52.8 – 54.5)

Cumulative prevalence of sickness absence = servants on leave / servants in the period x 100; MW: minimum wage; SL: sick leave.

Table 2. Cumulative prevalence of sick leave among public workers from the municipality of Goiânia, Brazil, according to diagnostic group (ICD-10) and sex, Brazil, 2005 – 2010.

ICD-10 chapters	Fem (%) n = 19,616	Male (%) n = 8,614	Total (%) n = 28,230	PR (Fem/Male)	Median of days (IQR 25;75%)
Mental and behavioral disorders	31.4	15.4	26.5	2.0	30 (15;30)
Diseases of the osteomuscular system and conjunctive tissue	29.1	16.2	25.1	1.8	15 (10;30)
Injuries, poisonings and other consequences of external causes	22.0	27.4	23.6	0.8	15 (10;30)
Diseases of the circulatory system	8.4	6.7	7.9	1.3	20 (12;30)
Infectious and parasitic diseases	11.8	7.4	10.5	1.6	7 (5;10)
Diseases of the genitourinary tract	7.1	4.3	6.2	1.7	15 (7;30)
Diseases of the digestive tract	8.8	3.9	7.3	2.2	15 (8;30)
Neoplasm (tumors)	7.2	3.4	6.1	2.1	30 (15;60)
Diseases of the respiratory system	8.3	2.3	6.5	3.6	7 (4;15)
Diseases of the nervous system	5.7	4.2	5.2	1.3	30 (15;60)
Diseases of eyes and surroundings	7.2	5.1	6.5	1.4	10 (7;15)
Abnormal symptoms and signs not classified in another part	3.2	1.6	2.7	2.1	10 (5;15)
Endocrine, nutritional and metabolic diseases	2.7	1.7	2.4	1.6	30 (15;30)
Diseases of the skin and subcutaneous tissue	1.3	1.6	1.4	0.8	10 (5;15)
Ear and mastoid apophysis diseases	1.1	0.4	0.9	2.8	10 (5;15)
Blood and hematopoietic organ diseases	0.4	0.1	0.3	5.1	15 (7;30)
External causes of morbidity and mortality	0.1	0.0	0.1	2.6	12 (5;30)
Factors that influence health status	36.7	18.5	31.2	2.0	30 (15;30)
Total	161.9	102.5	143.7	1.6	15 (10;30)

Cumulative presence of sick leave = episodes / servants in the period x 100; PR: prevalence ratio = female prevalence/male prevalence; median with interquartile intervals of 25 to 75%.

by the prevalence of 39.2% of sick leave, revealing that about 70% of servants on leave had more than one leave per year, with mean duration of 23 days lost per episode. After gender stratification, the percentage of women who were on leave in relation to all workers on leave (26.2%), as well as the number of their leaves (44.4%) was higher when compared to men in the analyzed years (15.9 and 27.4%, respectively). However, by observing indicators of duration, mean time of missed work days a year and the length of each episode, they were higher among the male gender (44 and 26 days, respectively).

Table 5 presents the SA indicators according to occupation. The prevalence of SA was higher among teachers (54.4%), with a ratio of 3.2 episodes per servant on leave, mean duration of 23 days per sick leave and 77 missed work days in the period. Among blue collar workers, the cumulative prevalence of sick leave was higher (181.1%), with an average of 3.6 episodes per servant, mean duration of 24 days per episode and 87 missed work days in the period.

Table 3. Cumulative prevalence of sick leave among public workers from the municipality of Goiania, according to details of the subgroups with most frequent ICD diagnoses, presenting ten out of the three most prevalent clinical cause, Brazil, 2005 – 2010.

ICD-10 subgroup and diagnosis	n (%)	Prevalence (n = 28,230)	Median of days (IQR 25; 75%)
Mental and behavioral disorders (F00-F99)			
F30-F39 – mood/depression disorders	4,642 (62.1)	16.4	30 (15;60)
F40-F48 – neurotic disorders/stress	1,579 (21.1)	5.6	16 (7;30)
F10-F19 – disorders caused by psychoactive drugs	389 (5.2)	1.4	30 (16;65)
Others	864 (11.6)	3.1	30 (15;30)
Total	7,474 (100.0)	26.5	30 (15;30)
Osteomuscular diseases (M00-M99)			
M40-M54 – back pain	2,910 (41.0)	10.3	15 (10;30)
M60-M79 – soft tissue disorders	1,939 (27.3)	6.9	15 (10;30)
M00-M25 – arthropathies	1,123 (15.8)	4.0	20 (15;60)
Others	1,124 (15.8)	4.0	15 (10;30)
Total	7,096 (100.0)	25.1	15 (10;30)
Injuries (S00-T98)			
S90-S99 – ankle and foot injury	2,000 (30.0)	7.1	15 (10;30)
S80-S89 – knee and leg injury	1,006 (15.1)	3.6	30 (15;65)
S60-S69 – fist and hand injury	677 (10.1)	2.4	15 (10;30)
S40-S59 –shoulder/ arm/elbow/forearm injury	862 (12.9)	3.1	30 (15;30)
Others	2,128 (31.9)	7.5	15 (10;30)
Total	6,673 (100.0)	23.6	15 (10;30)

Cumulative prevalence of sick leave = episodes / servants in the period x 100; Median with interquartile intervals of 25 to 75%.

Table 4. Indicators of sickness absence among public workers from the municipality of Goiânia, according to gender, Brazil, 2005 – 2010.

Year	Municipal servants	Servants on leave	Episodes of leave	Sick days	Prevalence of SA (%)	Prevalence of sick leave (%)	Mean duration of SA (days)	Mean duration of sick leave (days)
Mean values in the period	17,270	3,974	6,763	157,454	23.0	39.2	40	23
Female gender								
2005	9,326	2,335	3,926	86,073	25.0	42.1	37	22
2006	10,147	2,774	4,879	112,890	27.3	48.1	41	23
2007	10,107	2,632	4,474	105,537	26.0	44.3	40	24
2008	13,180	3,268	5,361	121,204	24.8	40.7	37	23
2009	14,146	3,737	6,164	136,014	26.4	43.6	36	22
2010	14,514	3,969	6,947	157,360	27.4	47.9	40	23
Mean	11,902	3,119	5,292	119,846	26.2	44.4	38	23
Male gender								
2005	3,479	488	784	19,167	14.0	22.5	39	24
2006	4,675	640	1,084	30,133	13.7	23.2	47	28
2007	4,545	751	1,289	34,283	16.5	28.4	46	27
2008	6,160	905	1,535	37,129	14.7	24.9	41	24
2009	6,585	1,148	1,981	51,555	17.4	30.1	45	26
2010	6,766	1,194	2,154	53,377	17.7	31.9	45	25
Mean	5,368	854	1,471	37,607	15.9	27.4	44	26

Prevalence of SA (sickness absence) = number of servants on leave / number of servants x 100; prevalence of sick leave = number of episodes / number of servants x 100; duration of sickness absence (SA) = number of sick days / number of servants on leave; mean duration of sick leave = number of sick days / number of leaves/year.

Table 5. Indicators of sickness absence among public workers from the municipality of Goiania, according to occupational class. Brazil, 2005 – 2010.

Occupational class	Municipal servants	Servants on leave	Episodes of leave	Sick days	Prevalence of SA (%)	**Prevalence of sick leave (%)	Mean duration of SA (days)	Mean duration of sick leave (days)
White collar	5,233	1,961	3,627	81,114	37.5	69.3	41	22
Operational	8,103	4,063	14,671	354,694	50.1	181.1	87	24
Health	5,182	2,491	7,124	156,246	48.1	137.5	63	22
Surveillance	2,844	1,138	2,875	65,358	40.0	101.1	57	23
Education	6,868	3,755	12,281	287,310	54.7	178.8	77	23

*Cumulative prevalence of sickness absence (SA) = servants on leave / servants in the period x 100; cumulative prevalence of sick leave = episodes / servants in the period x 100; duration of SA = number of sick days / number of servants on leave; mean duration of sick leave = number of sick days / number of leaves/year.

DISCUSSION

This study analyzed a set of official and widely representative data of municipal servants in the city of Goiânia in several professional categories, thus producing important SA indicators. It is worth to mention that the analysis of the SA profile enabled to identify subgroups of workers, who are potentially vulnerable in terms of absence due to diseases. These results provide important subsidies for the planning of preventive and health promotion actions, as well as for the optimized management of public resources that can prioritize more vulnerable groups.

Approximately half of the analyzed population presented at least one sick leave, certified by an auditor physician, in a six-year period, with an average of three episodes per servant. The present results confirm the magnitude of this phenomenon in the public service, as demonstrated in other analyses^{14,17-19}. The SA affects many workers at productive age, with a direct impact on their quality of life and labor power. International studies suggest that the history of SA increases with the risk of recurrence of episodes²⁰, invalidity retirement²¹ and mortality²².

The higher prevalence of sickness absence among women, workers aged more than 40 years old, who have been in the service for longest and with lower schooling is in accordance with other studies^{3,14,17,18}. With regard to sex, the higher prevalence among women seems to be influenced by a combination of biological, psychosocial and cultural factors, ranging from multiple roles, with work-family interfaces, to inter and intra-activity gender inequalities⁴. These factors become more prominent in activities that are prevalently performed by females, such as in the health, education and cleaning fields,

which are characterized by high emotional demands, low salaries, lack of autonomy, support and perspective in the career⁴. In general, the increasing schooling can contribute with better professional opportunities, better income and, consequently, better life conditions, as well as more access to health services⁵. The deeper knowledge about preventive measures and the adoption of safer practices in the work place are added to these factors, thus affecting health levels and, potentially, absenteeism²³.

The natural aging of organic structures associated with the longer time of exposure of the body to occupational risk factors can explain the higher prevalence of sickness absence among workers in older age groups and those who have been in service for a longer period^{6,8}. It is worth to mention, however, that approximately 50% of the leaves occurred in the three first years of their career, among servants who were still in the probationary period. It is possible that there is deficit in the medical evaluation at the time of admission, or even the presence of diseases with long latency period that manifested in the first years of service; there may be flaws in training programs and adaptation of newly hired employees to the new occupations²⁴. Besides, becoming a civil servant via a public selection process usually takes place in adulthood; therefore it is difficult to distinguish the effects of age from those resulting from time of service¹⁸. However, further analyses are necessary to understand what happens in the early stage of the career, so that efficient interventions can be proposed.

The higher prevalence of SA among servants with more than one work contract reinforces the relationship between workload and diseases. A study conducted in Denmark²⁵ with employees in municipal services showed the association between number and duration of leaves and the high workload. In general, those who have more than one job accumulates more work hours and, even though this was not the object of this study, it is known that long work hours have been associated with worse physical and mental health²⁶, which could contribute with absenteeism.

The identification of clinical causes resulting from mental diseases, osteomuscular disorders and injuries as the most prevalent ones is in accordance with several studies^{3,8,22}, in spite of the alternate positions of these conditions depending on gender, age and occupation. If mental disorders are prevalent in the public context^{17,19,27}, in the private one injuries stand out, as demonstrated in studies estimating the rates of sickness benefit in the Brazilian employed population⁸⁻¹⁰. Such authors suggest that the two first groups of diseases are more associated to chronic conditions, influenced by environmental conditions and work processes, while the latter (injuries), especially acute ones, would be partly related to the precariousness of safe labor measures and urban violence.

Still concerning the causes of SA, the high prevalence among women was observed in almost all of the diagnosed groups, except for injuries, which presented higher frequency of leaves among men, which corroborates other studies^{8,22}. In general, men and women are subject to the same risk factors, be it in the workplace or anywhere

else. However, behavioral characteristics may impose a specific morbidity pattern for both, especially when it comes to injuries, which, in the general population, are more prevalent among men, especially those related to traffic (4.3 male victims for one female victim)²⁸.

The longer absence time caused by mental disorders is in accordance with other studies^{9,29}. The duration of SA is considered to be an important indicator of the severity of the event, since the longer a person stays away from work, the fewer the chances of return, and the higher the risk of recurrence of sick leave and disability pension²⁹. On the other hand, infectious and respiratory diseases have been more associated with short-term leaves, less severe ones, and this result is also observed among servants from the Secretariat of Health of the State of São Paulo¹⁴.

With regard to subgroups of mental diseases, mood disorders were responsible for most leaves, which is in accordance with studies that point out depression problems as the main cause of absenteeism^{9,17-19,27}. Most of the analyzed population works by providing services to the population in the fields of education and health, and these occupations are characterized by high psychological demands, low social support and control over the work situation, being associated with the higher risk of leaves due to psychiatric morbidities^{13,30}.

Among osteomuscular diseases, the most frequent subgroups were those related to back pain, and similar findings have been observed among workers in private¹⁰ and public services¹⁹ in Brazil. Such a dysfunction, that is mostly mechanic, in general, can be prevented in the primary level by using simple resources, such as health-related education.

With regard to subgroups of injuries, lower limb traumas, usually associated with transportation accidents, were more frequent in leaves, corroborating the findings of a study with state servants of Santa Catarina¹⁷. In Brazil, traffic accidents cause strong impact on morbimortality²⁸, and it is known that workers have the same disease profile found in the general population, which was confirmed by our results.

Most SA indicators present similar forms of calculation, even if using different terminologies. The adopted criteria include the number of individuals on leave, episodes of leave and missed work days⁷. Some studies, however, do not clarify the inception point of the sick leave, which makes it difficult to make a direct comparison of their prevalence rates.

The SA prevalence (people on leave) in the city of Goiânia was close to that observed in the State Public Service of Santa Catarina¹⁷ (19.3%) and lower to that found among municipal servants from Vitória, Espírito Santo¹⁸ (75.2%). For the latter, a sample of 400 individuals was analyzed, and most of them were women and teachers. With regard to the prevalence and mean duration of leaves, it is similar to that found among municipal servers of Porto Alegre (44.4% and 21.1 days, respectively)¹⁹, and, if it were not for the point of insertion of the leaves (≥ 15 days), it would be the closest

one to this study, since all secretariats and professional categories were included in the analysis. The comparison of our results with other studies should be careful, due to the adopted methodological differences.

In all of the investigated years, women have been absent more often, however, men spent more days away from work, which is also observed in a historical series of SA among public servants of Santa Catarina¹⁷. One explanation for this difference would be that men are possibly absent from work due to more severe reasons or longer time of incapacity to perform their occupation than women¹⁴. However, further analyses would be necessary to confirm this hypothesis.

The results of this study reveal a tendency of stability for all SA indicators throughout the six analyzed years. Even though the city of Goiânia has presented, since 2004, a Occupational Health and Safety Program, which enabled important progress, especially concerning surveillance and control of environmental risks, it is possible to assume that changes are only detected after a while, or that the lack of an epidemiological profile that could identify more vulnerable groups has made it difficult to elaborate more assertive policies to promote health and prevent diseases in this population, thus contributing with the maintenance of rates throughout the period.

Approximately half of the teachers had at least one leave in the period, which is more than the frequency observed in the State Secretariat of Education of São Paulo³¹, in which absences caused by health reasons reached about 20% of the teachers. Some studies^{12,27,32} justify that the high prevalence of absence among teachers, especially due to mental disorders, may be a result of the high emotional demand and the low control towards the work situation, as well as the exhaustive workload, due to the multiple jobs and precarious work conditions to which they are exposed. These explanations also apply to health professionals¹³, who similarly presented high rates of SA.

Blue collar workers presented more frequency and duration of sick leave, and these results are similar to those in a Danish study⁶, which found clear differences in SA indicators between occupational groups, especially between manual workers (cleaning, among others). In this study⁶, the authors claimed that professional categories with higher schooling and better positions presented fewer episodes, shorter duration, and that SA is inversely proportional to the socioeconomic gradient.

The repercussions of the frequency and duration of SA, especially in the fields of education and health, impact the society, since it is not always possible to maintain the necessary workforce to cover for these absences, which can be unexpected, thus leading to reduced quality of the services provided for the population and to increasing costs coming from the need to immediately hire replacement workers and invest in the education of these professionals. This has a direct impact on public expenses³³.

This study presents several limitations, and some of them are characteristic of descriptive studies, therefore, it is not possible to establish relationships of causality. The analyzed data did not allow separating occupational morbidities from common diseases, therefore, it was not possible to analyze the impact of work on the morbidity profile of servants. Besides, the analyses did not include the difference between short and long-term sick leave, therefore, potentially different situations in terms of severity, social and economic repercussions were considered as having the same significance. Besides these limitations, there is also the fact that the universe of sickness absences can be underestimated, since episodes of up to three days/month were recorded in the work place, or simply allowed by the people I charge. Therefore, these non-quantified data could express much higher indicators, however, outside the scope of this study.

Further studies contemplating these matters are recommended, as well as a deeper analysis of the morbidity profile, according to professional category, of the factors associated with SA among servants in the probationary period and more than one work contract, as well as the specific characteristics involving the recurrence of sick leave, which often result in professional readaptation and disability pension.

Even with the presented limitations, the designed profile is an important step to understand the characteristics of sickness absence and to know which should be part of deeper discussions, since, based on epidemiological evidence, a debate can be encouraged in the city regarding the conditions and the management of the work environment, which, in the public service, has some specificities in terms of organization.

CONCLUSION

Sickness absence indicators express the magnitude of this phenomenon in the city of Goiânia, and prevention seems to be the best way to prevent or minimize this problem, since actions consider the work environment, the workers and social relations during planning. In general, the morbidity profile and the characteristics of servants on sick leave because in Goiânia are in accordance with other Brazilian studies. This shows that, in some aspects, the disease profile is similar in the public service, even in geographically distant regions and in different administrative spheres.

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