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The authors declare that this study is associated with a scholarship from the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)*, and there are no conflicts of interest.

The authors declare that this work was not presented at a scientific event.

Work based on the Master's dissertation by Bruna Ferreira Melo, entitled "Absenteeismo por transtornos mentais em trabalhadores do setor judiciário" [Absenteeism due to mental disorders in workers of the judicial sector], presented in 2019 to the *Programa de Pós-graduação em Saúde, Ambiente e Trabalho, Faculdade de Medicina da Bahia, Universidade Federal da Bahia*.

Received: September 20, 2019

Reviewed: May 19, 2020

Approved: June 19, 2020

Absenteeism indicators due to mental disorders in the Judiciary Branch: descriptive approach of a retrospective cohort

Indicadores de absenteísmo por doença mental no setor judiciário: abordagem descritiva de uma coorte retrospectiva

Abstract

Objective: to describe the indicators of sick leave due to mental disorders among civil servants of the Judiciary Branch in Bahia, Brazil. **Methods:** descriptive study conducted with data from a retrospective cohort on the casuistry of illness-related absenteeism from 2011 to 2016. We collected data on the participants' sociodemographic and occupational profile, and estimated their epidemiological indicators. The event was characterized based on the frequency and duration of absences, as well as the clinical diagnoses. **Results:** 1,023 absence events were recorded, most of which among civil servants in service for more than 10 years. Women were the most affected group, with higher prevalence than men in the entire period (76.50/1000 workers in 2016). In 2016, the cumulative incidence was 12.72 new cases/1000 workers among women and 5.58 new cases/1000 workers among men. Mood, neurotic, and stress-related disorders were the most prevalent clinical diagnoses associated with absenteeism. **Conclusion:** the profile and dynamics of the illness-related absenteeism among civil servants of the Judiciary Branch in Bahia are similar to those verified in other services, validating the externality of such events and posing challenges for health services, especially regarding early detection of sick leave risk, as well as working conditions monitoring.

Keywords: absenteeism; mental disorders; epidemiology, descriptive; occupational health.

Resumo

Objetivo: descrever os indicadores de afastamento por transtornos mentais de servidores públicos do setor judiciário da Bahia. **Métodos:** estudo descritivo com dados de uma coorte retrospectiva sobre a casuística de absenteísmo-doença no período de 2011 a 2016. Foi traçado o perfil sociodemográfico e ocupacional, assim como foram estimados os indicadores epidemiológicos. O evento foi caracterizado a partir da frequência e duração dos afastamentos e dos diagnósticos clínicos. **Resultados:** registraram-se 1.023 eventos, com maior quantidade de episódios entre servidores com mais de 10 anos de serviço. As mulheres constituíram o grupo mais afetado, com prevalências superiores a dos homens em todo o período (76,50/1.000 trabalhadores em 2016). Em 2016, a incidência cumulativa foi de 12,72 casos novos/1.000 trabalhadores entre as mulheres e 5,58 casos novos/1.000 trabalhadores entre os homens. Os transtornos do humor, neuróticos e relacionados ao estresse foram os diagnósticos clínicos mais prevalentes associados ao absenteísmo-doença. **Conclusão:** o perfil e a dinâmica das ocorrências de absenteísmo-doença entre servidores públicos do setor judiciário da Bahia mostram semelhanças com outros serviços, validando sua externalidade e suscitando desafios para os serviços de saúde, principalmente quanto à detecção precoce do risco de afastamento e da monitorização das condições de trabalho.

Palavras-chave: absenteísmo; transtornos mentais; epidemiologia descritiva; saúde do trabalhador.

Introduction

Sickness absence is configured as the absence of the individual from work for reasons stemming from health problems, and may indicate existing problems concerning the work context. It also entails consequences and damages not only for the worker, but also for the organization and the society^{1,2}.

Inserted in a setting of different interrelated dimensions, which involve from socioeconomic aspects to the work environment itself, sickness absence has a complex origin, and cannot be explained exclusively by health problems. Nonetheless, it represents an important marker for the increase in work missing recurrence, mortality, and early retirement^{1,3}.

A work context that is characterized by increased demand and the presence of stress, which exposes workers to psychological overload, tension, and permanent alerts, may lead them to live sickening experiences and develop psychophysiological disorders related to the occupational environment^{4,5}.

In Brazil, mental disorders (MD) are among the main causes of absenteeism, accounting for the longest leaves, as well as representing an indicator of risk for work disability⁵⁻⁷. Moreover, they point to a little explored work interface that has stress, moral harassment, conflicts with leadership, among other factors, as psychological issues that may predict events of absence^{2,8}.

The technological, economic, and cultural transformations that have occurred in the operational context of work have led to significant changes in organizations' labor division, which can influence environmental conditions related to mental diseasing⁹. In the Judiciary Branch, for example, increased workload and mental effort in recent years, resulting from new demands imposed by goals established, technological innovations, and activities updating, have made it an environment conducive to the development of conflicts¹⁰⁻¹².

Despite the disability-related severity assigned to these disorders, the invisibility of this grievance impact points out the need to investigate events such as sickness absence¹³. The importance of investigating chronic diseases such as MD is mainly supported by the social cost involved, resulting from the exclusion of individuals from work¹⁴. In this sense, the analysis of work-related absenteeism contributes to dimensioning the problem, and to the search for potentially stressful work-related factors, besides favoring the identification of possible scenarios of exposure to MD diseasing to which workers may be submitted^{2,15}.

Moreover, investigations on this subject are still incipient and heterogeneous regarding indicators used to measure this event in several countries. This is due to differences in the ways of measuring and classifying the absence, which reinforces the need for studies on sickness absence due to MD¹⁶.

This study, thus, aimed to describe the indicators of civil servants' absences due to MD in the Judiciary Branch in Bahia.

Methods

This is a descriptive study with data from a retrospective cohort on the casuistry of sickness absence due to MD among civil servants in the Judiciary Branch. It is grounded in occupational records stored in the Information and Communication Technology Sector (Setic) of a branch of the judicial sector in Salvador, Bahia, Brazil. The on-job activities performed in the service mentioned are of the judicial and administrative type in work courts, offices, secretariats, sections, security posts and support centers. These are distributed among municipalities in the metropolitan region of Salvador (4), and in the interior of the state of Bahia (28 municipalities).

The research period was from January 1, 2011 to December 31, 2016, comprising a census of effective federal public civil servants in office, and active in the study database. Since this was a fixed cohort, no new subjects were admitted after the beginning of the follow-up.

The clinical certification of the presence of diseases was mostly performed by professionals external to the institution, being approved by the internal service, and possibly been identified by the organization's medical service. Workers on leave due to MD were excluded from the study database.

Variables of interest were defined and divided into three types. The first concerns sociodemographic characteristics: gender (male and female); age (up to 30 years, > 30 years – cutoff point adopted for better description of the variable frequency); and education (complete elementary school, complete high school, complete higher education). The second, occupational characteristics: area (administrative, judicial); position (analyst, magistrate, technician); and length of service (up to 10 years, > 10 years). Finally, epidemiological characteristics: leaves identified by group F codes, according to the International Classification of Diseases and Related Health Problems, 10th edition (ICD-10); number of leaves (1 to 4, 5 to 8, 9 or more); and total time off (1 to 15, 16 to 30, 31 to 60, 61 to 90, 91 days or more).

For the percentage distribution of MD diagnoses, the following categories were considered: mental disorders due to use of substance (F10-F19), mood disorders (F30-F39), neurotic and stress-related disorders (F40-F48), and other. The last category grouped the following diagnoses: organic mental disorders, including symptomatic ones (F00-F09); schizophrenia, schizotypal disorders, and delusional disorders (F20-F29); behavioral syndromes associated with physiological dysfunctions and physical factors (F50-F59); adult personality and behavior disorders (F60-F69); hyperkinetic disorders (F90); and problems related to the organization of their way of life (Z73).

Annual prevalence calculation was made by dividing the total number of sickness absence due to MD by the population exposed in each year. Cumulative incidences (CI) were calculated by dividing the total number of incident cases of sick leave due to MD in each year by the population exposed at the beginning of the period, and constant over time.

The steps of data tabulation and production were performed assisted by the Statistical Package for the Social Science (SPSS 21) and Microsoft Excel 2013 software.

The study was approved by the Research Ethics Committee of the *Faculdade de Medicina da Bahia* under protocol n° CAAE 6309.2916.3.0000.5577, on December 19, 2016, and followed the norms of Resolution No. 466/2012 by the *Conselho Nacional de Saúde* (National Health Council).

Results

During the study period, 1,023 events of sickness absence due to MD were observed. For all variables, the highest proportions accounted for workers who did not take a leave. However, the absence proportions observed were 12.4% among females, 10.7% among those over 30 years old, 10.2% in the judicial area, 17.2% among magistrates, and 11.6% among workers with over 10 years of service (**Table 1**).

Table 1 Frequency of sociodemographic and occupational variables studied among workers without and with absence due to mental disorders (DM) in the judicial sector of Bahia, Brazil, 2011 to 2016

Variable	Without absence		With absence		Total n
	n	(%)	n	(%)	
Sex					
Male	1,163	93.0	88	7.0	1,251
Female	1,235	87.6	174	12.4	1,409
Age					
≤ 30 years	410	94.5	24	5.5	434
> 30 years	1,988	89.3	238	10.7	2,226
Education					
Complete primary education	43	89.6	5	10.4	48
Complete secondary education	361	89.6	42	10.4	403
University degree	1,994	90.3	215	9.7	2,209
Total					
Administrative	1,010	90.6	104	9.4	1,114
Judiciary	1,388	89.8	158	10.2	1,546
Office					
Analyst	746	91.4	70	8.6	816
Magistrate	180	82.2	39	17.8	219
Technician	1,472	90.6	153	9.4	1,625
Length of Service					
≤ 10 years	846	93.5	59	6.5	905
> 10 years	1,552	88.4	203	11.6	1,755

Among absences, it is worth noting that most of the leaves for MD were observed among workers in the judicial rather than the administrative area. There was no significant variation of absences regarding the category of education; however, the highest percentages were among workers with complete elementary school, and complete high school education: 10.5% (**Table 1**).

Regarding the frequency of absences (**Table 2**), most workers had 1 to 4 leaves during the analyzed period (76.7%). For the total length of absence (**Table 2**), which corresponds to the sum of days in sickness absence of all MD leaves per individual, it is observed that most workers were 1 to 15 days away due to sickness absence (48.1%), followed by those who totaled more than 90 days in the entire analyzed period (23.7%).

Based on the reviewed demand of absences, and considering the possibility of existing cases due to mental illness prior to the beginning of the cohort,

there was a reduction in the prevalence of workers on leave during the analyzed period, with emphasis on males, which showed a variation from 51.83 cases/1,000 workers in 2011 to 31.97 cases/1,000 workers in 2016. However, throughout the period, high epidemiological indicators for sickness absence due to MD were observed. For all years women were the most affected group, with higher number of leaves of absence than men, ranging from 114.16 cases/1,000 workers to 76.50 cases/1,000 workers, between 2012 and 2016, respectively (**Figure 1**).

Moreover, the CI analysis, based on the observation of cases of sickness absence due to MD recorded as of 2011 showed, in that year, the indicator of 41.87 new cases/1,000 female workers, and 24.72 new cases/each 1,000 male workers. In 2016, 12.72 new cases/1,000 workers were recorded among women and 5.58 new cases per 1,000 workers among men (**Figure 2**).

Table 2 Frequency and duration of workers' sickness absence due to mental disorders (MD) in the judicial sector of Bahia, Brazil, 2011 to 2016

<i>Variable</i>	<i>(n = 262)</i>	<i>(%)</i>
Frequency of absence due to MD		
1 to 4 absences	201	76.7
5 to 8 absences	30	11.5
9 or more absences	31	11.8
<i>Median: 2</i>		
<i>Maximum value: 35</i>		
<i>Minimum value: 1</i>		
Total length of absence due to MD*		
1 to 15 days	126	48.1
16 to 30 days	33	12.6
31 to 60 days	25	9.5
61 to 90 days	16	6.1
90 days or more	62	23.7
<i>Median: 20.5</i>		
<i>Maximum value: 975</i>		
<i>Minimum value: 1</i>		

*sum of days in sickness absence from all MD leaves, per individual.

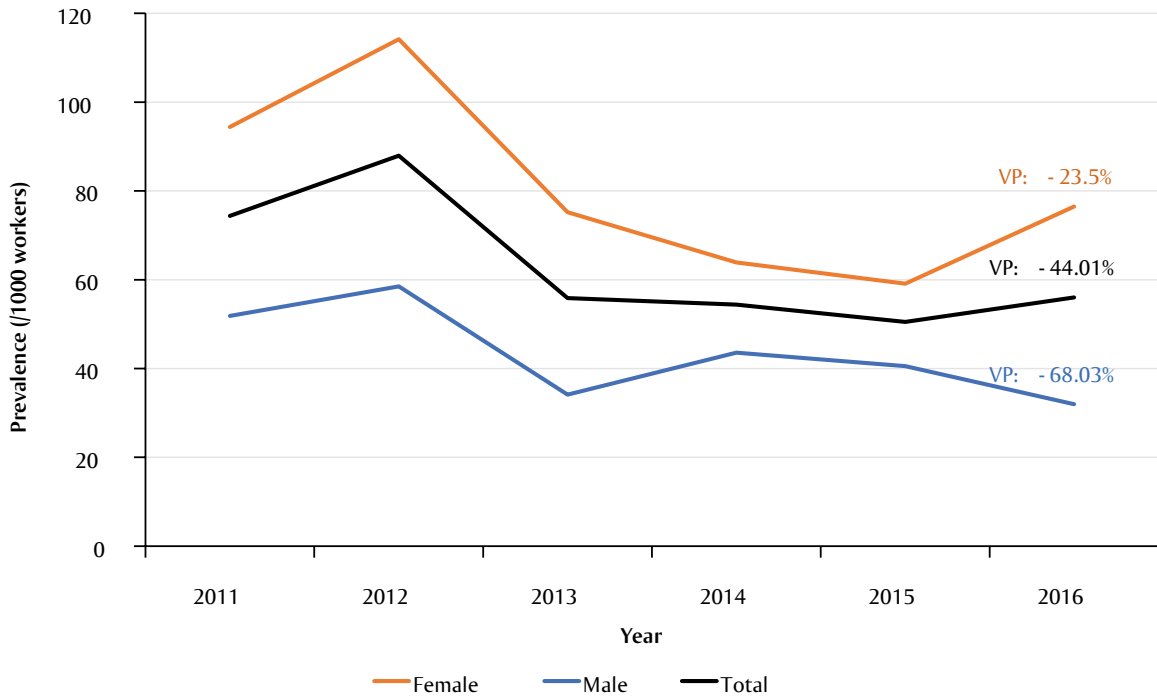


Figure 1 Annual prevalence of sickness absence due to mental disorders (MD) among workers in the judicial sector of Bahia, 2011 to 2016

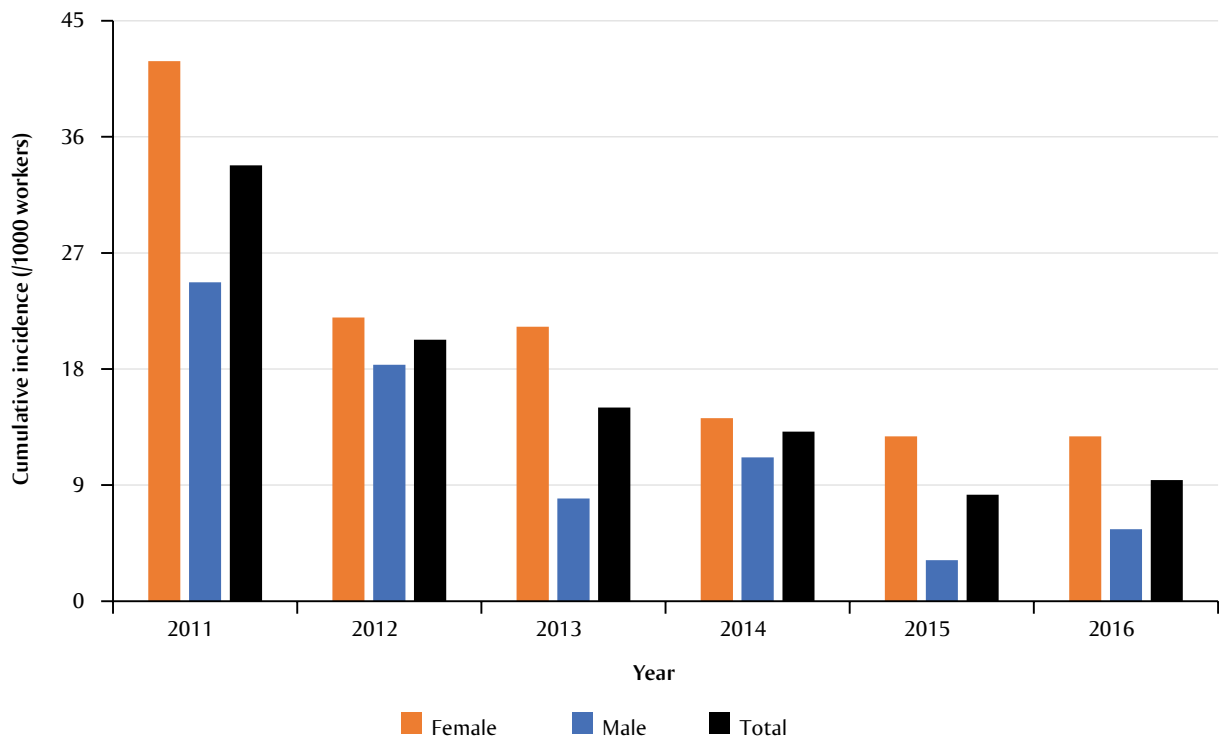


Figure 2 Annual cumulative incidence of sickness absence due to mental disorders (MD) among workers in the judicial sector of Bahia, 2011 to 2016.

The distribution of MD diagnoses referring to the totality of events over time revealed a predominance of mood disorders and neurotic and stress-related disorders as the most frequent causes for sickness absence. Per year, about 45.4% of the total absences were attributed to mood disorders, while neurotic and stress-related disorders accounted for 46.5%. Besides these, we also identified the presence of MD diagnoses due to the use of psychoactive substance over time, and even if discretely, corresponding to less than 5% of the events in all years, with an increasing trend. Other categories of

group F (ICD-10) were also verified, but in lower frequencies (**Figure 3**).

With regard to the duration of absences, however, it was found that the diagnoses of schizophrenia, schizotypal disorders and delusional disorders (F20-F29), behavioral disorders and emotional disorders of childhood or adolescence (F90-F99) and behavioral syndromes associated with physiological dysfunctions and physical factors (F50-F59) had the highest average days of absence, when compared to the other clinical conditions: 56.69 days, 51.75 days, and 46.43 days, respectively.

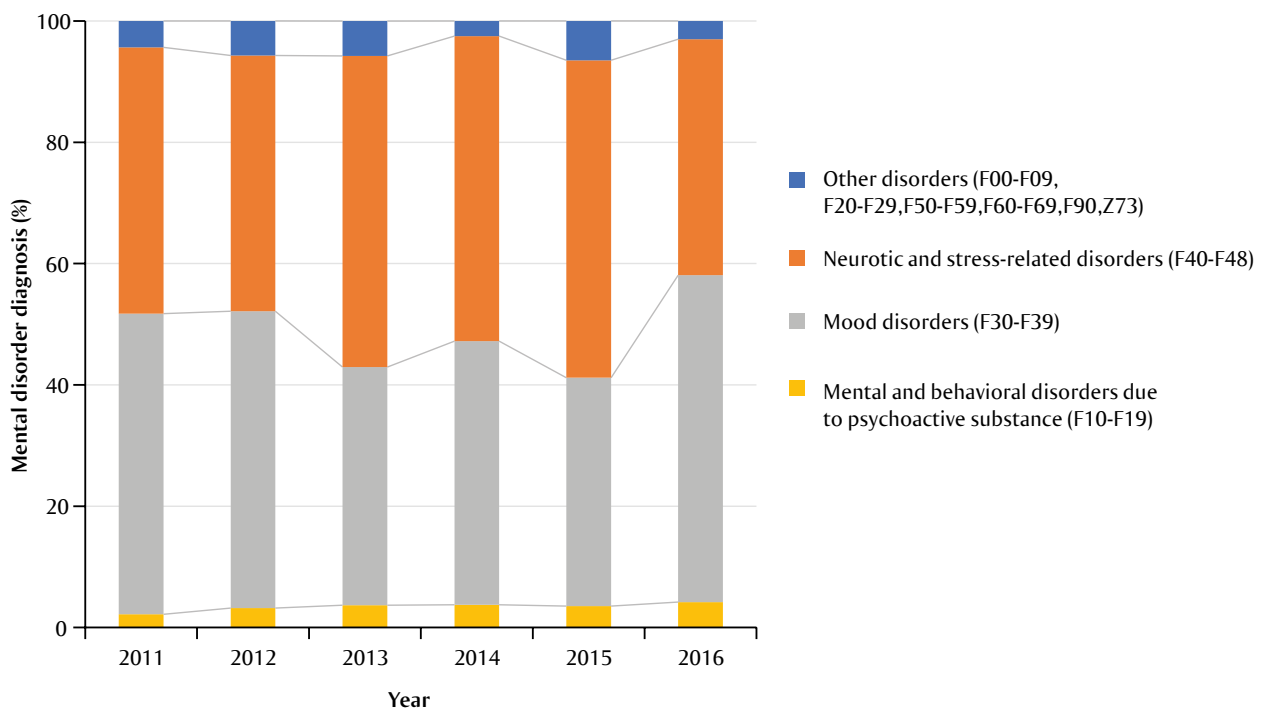


Figure 3 Annual distribution of the main clinical diagnoses – Group F/ICD-10, for all cases of sickness absence among civil servants of the judiciary in Bahia, 2011 to 2016

Discussion

This study estimated the magnitude of sickness absence due to MD in the judiciary workers from 2011 to 2016, observing the dynamics of the event incidence over time, and verifying the most present clinical entities in the diagnoses. In general, the population did not report high frequency of sickness absence due to mental illness in that period, when compared to other studies on the same event¹⁷⁻¹⁹. The highest proportions of absence occurred among female workers, over 30 years of age, with complete elementary and high school education, belonging to the judicial area, with a magistrate position and more than 10 years of service.

The higher prevalence of sickness absence due to MD in women found in this study corroborates other findings in the literature regarding investigations on psychological distress^{2,5,6,20,21}. The prevalence of these disorders among women is evidenced in developed and underdeveloped countries, in which depressive disorders are among the main causes of illness and serve as predictors of sickness absence when there are stressful factors in the work organization^{5,22}.

The women's propensity to psychological stress can be explained from a contextual point of view. Some authors state that, due to the double role of work, inside and outside home that they play in society, women are already in a state of mental fatigue²³.

However, it is noteworthy that sickness absence from work due to MD is a medical attestation event, i.e., the higher proportion of leaves from female workers reflects the fact that the process of recognizing the disease and seeking medical services is culturally more characteristic of women. This helps to explain the results found²⁴.

Despite the causal complexity of sickness absence, the high annual prevalence of absence due to MD in the general population can lead to questions about the impact of how work processes are organized on workers' health. In an attempt to meet the imposed demands, workers who are already sick are induced to remain in activity until temporary incapacity is perceived – a situation that characterizes presenteeism, as mentioned by several authors. This may be reflected in the lower magnitude of sickness absence due to mental illness found here^{25,26}.

In the light of position, the magistrate stood out in relation to the analyst and technician categories, presenting the highest proportion of absences due to MD. Studies that address the health of judges and the complexity of their office are still scarce; however, some have already identified the presence of stressors and diagnoses of anxiety and depression among workers in this category, and point to the need for prevention strategies related to mental health²⁷⁻²⁹.

The social costs of presenteeism related to mental illness make it a challenge to be faced, as well as a factor that points to the complexity of absenteeism from the recognition of adverse issues – including medical and pharmaceutical expenses for long periods and the loss of functionality for work –, which surround the context of absenteeism from work, and may trigger the social exclusion of the affected individuals^{30,31}.

This study identified a higher proportion of workers over 30 years of age, including among them those on leave. Although the cutoff point adopted for age did not discriminate between more advanced strata, most of the workers on leave were concentrated in the age range of 40 to 50 years. The greater presence of older ages has been described as a consequence of the demographic evolution in most countries and, consequently, of government policies, which allow workers to spend most of their lives actively, even in a single job, as is the case of civil servants, subject of this study³². In the study, we observed a trend towards an increase in the absence of older workers compared to those up to 30 years old, which may be explained by the chronic disability process, as well as the need

for longer recovery time before returning to work, associated with aging³².

Regarding education, sickness absence showed particularities; among individuals with complete elementary and high school education, the frequency of absences was 10.4%, while among workers with higher education, it was only 9.7%. Thus, the result supports other studies that indicate an inverse relationship between education and propensity to sickness absence, depressive complaints, and low psychosocial status at work^{25,32-34}, i.e., the higher the level of education, the lower the inclination to leave and to mental problems. However, some of these studies reveal the need to better clarify the relationship between this variable and the outcome^{5,24,33}. It is worth mentioning that when only workers on leave were observed, we noticed a predominance of workers with a university degree, which reflects the situation of this population.

The study had some gaps regarding the information of work context characterization, usual when dealing with secondary data sources. Even so, it is necessary to consider that MD are chronic diseases, suggesting that although MD diseaseing is not exclusively associated with the context, unfavorable working conditions may indicate factors that influence the decision to leave³⁵.

The analysis of the working conditions effect on sickness absence will only be possible considering the characteristics of work organization in public sector as the gateway to the population demands. Despite the specific characteristics of the public sector, such as stability, dynamic activities and broad interpersonal relationships, factors such as lack of control over tasks, excessive bureaucratization of activities, insufficient favorable conditions to produce work that is compatible with the social demands, impossibility of professional advancement, and loss of meaning in work, may act as psychological stressors, composing work organization models that deteriorate the general state of self-perceived health and increase the mental fatigue of workers, who start diseaseing^{9,24}.

We observed higher annual frequencies of MD diagnoses from group F (ICD-10), concerning mood and neurotic, stress-related, and somatoform disorders. The predominance of these diagnoses was also observed in other studies on the same event in similar populations³⁶⁻³⁸. These conditions refer to disorders triggered by symptomatologic elements of depression, anxiety, and stress which, despite being difficult to identify, especially when in a comorbid state, affect the emotional, cognitive, and social functioning of the individual, and are possibly associated with incident episodes of sickness absence^{39,40}.

Finally, this study was concerned with the inclusion of data on sickness absence from the institution's official records, rather than self-reported information, in addition to the cases diagnoses coming from clinical certificates. This ensures the presence of the aggravations, rather than momentary state conditions, reducing the possibility of information bias. Moreover, the use of cumulative incidence (CI) puts the study in line with the literature regarding the use of this indicator as a measure of risk of sickness absence during a specific period⁴⁰. As limitations, it is worth highlighting the fact that most of the leaves were attested by services external to the workers' institutions. This may have led to an underestimation of the indicators that dimensioned the event, as well as the lack of information on the organization of work, a difficulty found in studies dependent on administrative information, which hinders a possible evaluation of the occupational context.

Authors' contributions

Melo BF, Santos KOB and Fernandes RCP substantially contributed to the study conception, to the data survey, analysis and interpretation, to the manuscript drafting and critical reviews, to the approval of the final version, and assume full responsibility for the study and the content published.

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Conclusion

This research contributed with empirical information that characterized the occurrence of sickness absence due to MD in workers in the judicial sector of Bahia, from 2011 to 2016, in addition to tracing the sociodemographic and occupational profile of the population affected and not affected by the event. The functioning pattern of the public service allowed glimpsing similarities with other services, which makes the approach and considerations valid and with externality. Finally, the study also identified challenges for the institutions' health services, regarding initiatives to be developed for the protection of workers' health, with a view to early detection of absence risk, to the monitoring of working conditions, and to tackling the incapacitating problems already installed.

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