

# Sick leaves by mental disorders: case study with public servants at an educational institution in Ceará, Brazil

Afastamentos do trabalho por transtornos mentais: um estudo de caso com servidores públicos em uma instituição de ensino no Ceará, Brasil

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**ABSTRACT | Background:** Mental disorders are one of the main causes of absenteeism in Brazil. The aim of the present study was to describe the occurrence of mental and behavioral disorders (MBD) among federal civil servants, present the data to managers and suggest measures to reduce absenteeism in this population. **Methods:** In the present cross-sectional study performed from January through December 2016 we analyzed medical records of employees at a public institution in the state of Ceará, Northeastern Brazil, who were granted sick leaves for MBD. The data were obtained from the Integrated Subsystem of Workers' Health Care (Subsistema Integrado de Atenção à Saúde do Servidor — SIASS) platform and the Federal Government's Transparency Portal. **Results:** Mental disorders were the main cause of sick leaves along the analyzed period. Ninety-two employees were away from work for this reason, corresponding to 3% of the institution's employees and accounting for 5,081 working days lost. Mood and stress-related disorders were the most frequent causes of sick leaves. Mental disorders due to psychoactive substance use and physiological disturbances accounted for longest average number of sick leave days per employee. **Conclusion:** The results reinforce the notion that mental health and work are indissociable in regard to productivity and efficiency within federal public service. The institution's management backed the creation of a multidisciplinary service of psychological support for employees on sick leave.

**Keywords |** mental disorders; occupational health; public sector.

**RESUMO | Contexto:** Os objetivos desse estudo foram descrever os afastamentos do trabalho por transtornos mentais entre servidores públicos para apresentá-los à gestão, pretendendo adotar medidas que colaborassem com a diminuição do absenteísmo. **Métodos:** Foram avaliados os registros de afastamento por transtornos mentais no período de janeiro a dezembro de 2016, em uma instituição pública de ensino do Estado do Ceará. Os dados foram obtidos por meio da plataforma SIASS (Subsistema Integrado de Atenção à Saúde do Servidor) e de informações do Portal da Transparência do Governo Federal. Foram estratificadas as licenças para tratamento de saúde por transtornos mentais e comportamentais, classificadas no CID 10 "F", independente de gênero ou cargo funcional. **Resultados:** Os transtornos mentais foram a principal causa de afastamento no trabalho durante o ano de estudo, um total de 92 servidores afastados por este motivo, representando 3% dos servidores do órgão, com 5.081 dias perdidos de trabalho no período do estudo. Os transtornos do humor e os relacionados ao estresse foram os mais frequentes. Os transtornos mentais por uso de substâncias psicoativas e os diagnósticos de disfunções fisiológicas representaram a maior média de dias de afastamento por servidor. **Conclusão:** Os resultados reforçam que a concepção de saúde mental e o trabalho são indissociáveis no aspecto de produtividade e eficiência no serviço público federal. Sob esta ótica, a gestão da instituição apoiou a criação de serviço multidisciplinar para apoio psicológico aos servidores afastados.

**Palavras-chave |** transtornos mentais; saúde do trabalhador; setor público.

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## INTRODUCTION

Sick leaves due to mental disorders have increased in visibility in recent years and affect an increasing number of workers. This condition ranks third among sick pays granted in 2013, 2014 and 2015, losing only to external causes and musculoskeletal disorders<sup>1</sup>.

In 2016, several newspapers and posts shared in social networks called the attention to the considerable number of sick leaves due to depression. Newspaper *O Globo* reported there were 75,000 workers on sick leave due to depression<sup>2</sup>. According to World Health Organization estimates, depression will be the main global cause of sick leaves for mental disorders by 2020<sup>3</sup>.

Studies on occupational psychodynamics showed that work might have negative impact on health, has peculiar relevance on the lives of workers, promotes identity formation, personal satisfaction, independence and social status. Among the negative aspects of work we might mention pressure to achieve goals, institutional norms and regulations and production results<sup>4</sup>. Work relations develop within this dynamic context<sup>5</sup>, and their psychodynamics does not spare efforts to find a relationship between mental disease and production processes. In consequence, mental diseases are considered a response to pressures within the organizational environment<sup>6</sup>. The attempt at drawing an illness profile relating work and mental suffering poses a challenge, and thus the causal relationship between both is usually not considered.

Some studies on workers' health evidenced high rates of suicide and mental disorders among some professional categories, as e.g., health care providers, teachers and policemen, in association with high rates of burnout syndrome<sup>7-9</sup>.

Some significant aspects should be considered within this context, such as psychosocial risk factors at work. These factors should be analyzed as major stressors, which contribute to the origin of mental suffering and illness. Some valid theories didactically explain the perception of illness. Karasek<sup>10</sup> developed the job demand-control model, which elucidates in an academic manner the possible roots of occupational stress. According to Karasek, work has two psychosocial dimensions: control of work and demands posed by work. The combination of these

two dimensions might result in situations favorable to occurrence of mental illness. These dimensions encompass specific aspects; "control" has two components: use of skills (creativity, execution, repetition) and decision making. In turn, "demand" corresponds to the mental requirements associated with the performance of tasks<sup>11</sup>.

Combination of "control" and "demand" brings nuances into the work psychodynamics that might account for the dimensions and complexity of the work process. It is believed that mental disorders might represent reflections or consequences of high job demands and low control, in addition to poor relationships with and support from peers<sup>10</sup>.

Within the context of occupational health management and health promotion, judicious analysis of information is needed to establish strategies for improvement<sup>12</sup>. Epidemiology is a relevant science for organization of health surveillance data and actions. Organization of epidemiological data is one of the first tasks in programs for workers' health management. It allows establishing situational diagnoses and formulating intervention measures. The International Labor Organization (ILO) acknowledges that sick leave records contribute to the knowledge on the dimension of this problem<sup>13</sup>, investigation possible causes and development of measures to reduce the sick leave rates<sup>11</sup>.

Federal Institute of Education, Science and Technology of Ceará (Instituto Federal de Educação, Ciência e Tecnologia do Ceará — IFCE) is an educational institution with status similar to the one of Brazilian federal universities. It includes 3,346 active employees distributed across the teaching and educational technical-administrative careers. Employees are hired under the single juridical regime for federal civil servants and allocated to the Dean Office and 32 campuses all across the state of Ceará<sup>14,15</sup>. IFCE has its own medical legal examination service, which was created in 2010 on the basis of policies set by the Ministry of Planning, Budget and Management, and established the Integrated Subsystem of Workers' Health Care (Subsistema Integrado de Atenção à Saúde do Servidor — SIASS)<sup>16</sup>. Currently SIASS reports to the Vice-Provost for People Management Office, and performs medical legal examinations and workers' health promotion actions. There three medical legal experts and

one nurse allocated to SIASS, and further seven medical legal experts are distributed across campuses. SIASS, i.e., where medical legal examinations are performed, is located at the IFCE Dean Office building, and includes two consultation rooms, a room for medical legal examinations and a reception area. All sick leaves are recorded in SIASS database; employees on sick leave for more than five consecutive days should undergo medical legal examination, and cases requiring more than 120 days of leave must pass through a medical panel composed of three physicians, in compliance with the policy of medical legal examinations for federal civil servants<sup>15</sup>.

Some epidemiological studies evidenced the relevance of recording the reasons for absenteeism as a health management tool, as they inform on disability among civil servants<sup>17-20</sup> relative to whom the Social Security statistical yearbook provide few data<sup>1</sup>.

The aim of the present study was to describe sick leaves due to mental disorders among IFCE employees and present the data to the institute's management to implement measures to reduce absenteeism for this motive.

## METHODS

The present cross-sectional observational study sought to describe absenteeism recorded in SIASS database through the data on sick leaves for IFCE employees from January through December 2016. Therefore, all the individuals included in the sample were federal civil servants with an employment relationship to IFCE. We did not access any individual medical record nor contacted any employee. The search on SIASS was conducted based on the following parameters: consultations, sick leaves and period. As a function of the system architecture, searches can be conducted for a maximum of 12 months, therefore we choose to limit the search to 2016.

SIASS platform provides information on working days lost due to sick and work accident leaves and relatives' sickness without the corresponding identification data.

We performed measurements of morbidity by mental and behavioral disorders for the target population and described sick leaves during 2016 stratified according to the 10<sup>th</sup> edition of the International Classification

of Diseases (ICD-10). Number of sick leave days per CID-10 category, prevalence of sick leaves, number of working days lost due to mental and behavioral disorders and mean duration of sick leaves were analyzed per disease categories.

On stratifying the diagnoses per code, we found similarities and thus chose to apply ICD's own categorization for F codes. As a results, the diagnoses established on medical legal examinations were categorized as follows: mental and behavioral disorders due to psychoactive substance use (ICD F10 to F19); psychotic disorders (ICD F20 to F29); mood disorders (ICD F30 to F39); stress-related disorders (ICD F40 to F48); and sleep-wake disorders (ICD F50 to F59).

We analyzed secondary data obtained from SIASS platform without any individualization whatsoever of cases and quantitative information on active employees available at the Federal Government's Transparency Portal. The study was requested by SIASS managers, who also provided authorization for divulgation of the results and preparation of this study. As the study used secondary data, informed consent was waived.

## RESULTADOS

We identified 119 reports of sick leaves due to mental disorders along the analyzed period, which corresponded to more than 5,000 working days lost. Mental and behavioral disorders were the main cause of sick leaves among IFCE employees along the analyzed period, 23%. The sick leaves concerned 92 employees; the prevalence of sick leaves among the population of employees was 3.12%.

Musculoskeletal disorders accounted for 15% of sick leaves; 21% of cases were attributed ICD codes which do not fit with any of the major categories:

- A: certain infectious and parasitic disorders;
- B: viral infections;
- C: neoplasms;
- F: mental and behavioral disorders;
- J: diseases of the respiratory system;
- K: diseases of the digestive system;
- M: diseases of the musculoskeletal system and connective tissue;

- N: diseases of the genitourinary system;
- S: external causes.

Also the longest sick leaves corresponded to ICD codes F, representing 36% of the total number of sick leave days along the analyzed period. Next came sick leaves due to musculoskeletal disorders, followed by neoplasms.

Fifty-nine sick leaves were due to mood disorders and 26 to stress-related conditions; their mean duration was 60.78 and 32.92 days, respectively.

Five employees were granted sick leaves for disorders related with psychoactive substance use, who in total were 299 days away from work, 80 (79.8) days per employee, on average.

Psychotic disorders also accounted for a considerable proportion of absenteeism, however, only two employees were granted leaves for this reason, which lasted 75 days per employee, on average. One single employee was granted a sick leave for sleep-wake disorders, who remained 90 days away from work.

All the results are tabulated in Table 1 and described in Figure 1.

We calculated the annual severity rate related with mental disorders (747.31); more than 700 working days were lost along the analyzed period. This rate is used within the work safety and health context in compliance with Brazilian Standard (Norma Brasileira — NBR) No. 14,289, and reference parameters are available to make objective evaluations of measures applied<sup>21</sup>. According to the reference parameters described in this standard, the values we found are within the acceptable range; nevertheless, they were a reason of alarm for IFCE management as to the need of preventive measures.

## DISCUSSION

The results of the present study show that mental and behavioral disorders were the main causes of sick leaves among IFCE employees. The most frequent reason was mood disorders, and depression was the most relevant single condition.

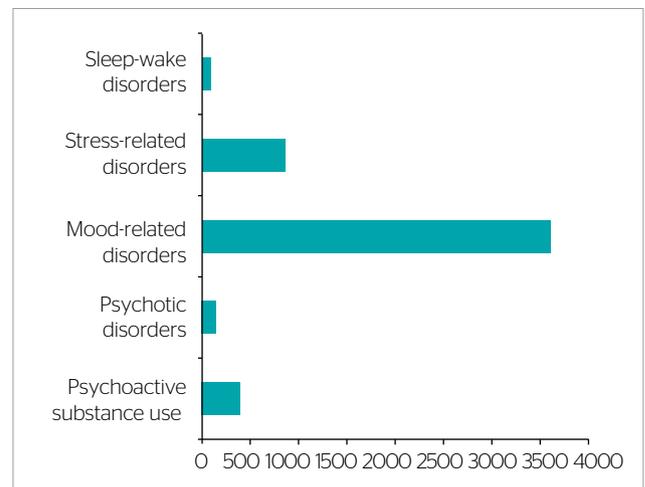
Studies conducted abroad describe mood disorders, depression and anxiety in particular, as the main cause of absenteeism, in addition to posing the higher cost

to health care services by comparison to other mental diseases<sup>22-26</sup>. It is worth stressing that depressive conditions have significant impact on absenteeism, for being associated with long periods of disability<sup>24</sup>, as also we found in the present study.

We were not able to locate any similar study conducted in the Brazilian Northeastern area. Previous studies analyzed the magnitude of the problem of interest in

**Table 1.** Most frequent diagnoses, mean sick leave length per employee, IFCE, Ceará, 2016.

Sick leave motives	Lost days	Mean sick leave length
Psychoactive substance use F10-19	399	79.8
Psychotic disorders F20-29	150	75
Mood disorders F30-39	3586	60.78
Stress-related disorders F40-48	856	32.92
Sleep-wake disorders F50-59	90	90
Total	5081	



**Figure 1.** Total lost days per diagnosis, IFCE, Ceará, 2016 (n=2,950).

other Brazilian regions and found a significant prevalence of sick leaves due to mental disorders<sup>16-19</sup>.

One study with civil servants from the state of São Paulo for the period from 2003 to 2006 reported prevalence rates similar to the ones we found in the present study. The rates of sick leaves for mental disorders was 30.7, 30.0, 32.6 and 29.9% for 2003, 2004, 2005 and 2006, respectively. The Secretariat of Education accounted for the largest number of sick leaves for this reason<sup>27</sup>.

The present study derived from IFPE's management need to know exactly the main motives for sick leaves, so as to establish strategies to improve the quality of life and working conditions of employees to reduce absenteeism.

Once the problem is quantified and the number of sick leave days is established, a method must be found to protect the mental health of civil servants as preventive measure against relapse or to reduce the incidence of occurrences. Consequently, IFPE managers made a psychologist available to provide care to employees granted sick leaves by the medical legal examiners. This was the origin of a pilot project of psychological support, for which a consultation room was made available at the workers' health care unit, in addition to household visits to employees who could not visit the service. Previous studies showed that individual interventions were able to improve the quality of life and mental health of individuals<sup>22</sup>. Therefore, we place our bet on this perspective as approach to change the current mental health situation of workers.

In some specific cases, such as alcohol and psychoactive substance abuse, we chose to reinforce the need for specialized care, but without depriving the health care staff from developing initiatives for training in this topic.

The present study described the magnitude of sick leaves by mental disorders among civil servants in 2016. This population of workers already has a poor public image, often associated with apathy and ineffectiveness<sup>17,18</sup>. It is worth noting that the data were extracted from a management platform. We could not categorize sick leaves per sex, age, job position or personality characteristics, which we consider to be a significant limitation of the present study. Such information might contribute

to discussions on workers' health aiming at identifying the areas with more demands and the more vulnerable age ranges and professional categories.

On these grounds, we restricted our focus to the more prevalent sick leaves and their motives. While at no point we approached causality issues, we believe the evaluation we performed is highly relevant, as no survey to elucidate the most frequent motives of absenteeism was previously performed at the investigated institution.

## CONCLUSIONS

The analyzed indicators revealed the magnitude of sick leaves due to mental disorders at the analyzed public institution and awakened our interest on subject mental health at work. Following analysis, we presented the results to the institution's managers, and a multi-professional health care staff contributed by developing a project of psychological support for employees on sick leave due to mental disorders. The aim of that project is to obtain more thorough knowledge on motives that can be subjected to interventions to reduce the absenteeism rates. In addition, we sought to contribute to develop in the institution a culture of receptivity toward employees on sick leave, particularly when the motive of leaves are mental disorders. The present study sensitized SIASS representatives and institutional managers vis-à-vis the role of epidemiology in pointing out different health situations among the analyzed population thus contributing to the formulation of strategies for improvement.

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## REFERENCES

1. Brasil. Ministério da Previdência Social. Anuário Estatístico da Previdência Social [Internet]. 2015 [cited on Feb 12, 2017]. Brasília: Ministério da Fazenda; 2015. Available at: [www.previdencia.gov.br/wp-content/uploads/2015/08/AEPS-2015-FINAL.pdf](http://www.previdencia.gov.br/wp-content/uploads/2015/08/AEPS-2015-FINAL.pdf)
2. Nascimento B. Mais de 75 mil pessoas foram afastadas do trabalho por depressão em 2016. O Globo [Internet]. 2017 [cited on Feb 13, 2017]. Available at: <http://m.oglobo.globo.com/economia/mais-de-75-mil-pessoas-foram-afastadas-do-trabalho-por-depressao-em-2016-20913028>
3. Federação Nacional dos Médicos. RS: Dia Mundial da Saúde Mental: transtornos psíquicos estão entre as três principais causas de afastamento do trabalho no Brasil. Fenam [Internet]. 2017 [cited on Oct 11, 2017]. Available at: [http://www.fenam.org.br/site/noticias\\_exibir.php?noticia=947](http://www.fenam.org.br/site/noticias_exibir.php?noticia=947)
4. Martinez MC, Paraguay AIBB, Latorre MRDO. Relação entre satisfação com aspectos psicossociais e saúde do trabalhador. Rev Saúde Pública [Internet]. 2004 [cited on Oct 11, 2017];38:55-61. Available at: <http://dx.doi.org/10.1590/S0034-89102004000100008>
5. Merlo ARC, Bottega CG, Perez KV. Atenção à saúde mental do trabalhador: sofrimento e transtornos psíquicos relacionados ao trabalho. Porto Alegre: Evangraf; 2014.
6. Dejours C. Uma nova visão do sofrimento humano nas organizações. In: Chanlat JF, editor. O indivíduo na organização. 3ª ed. São Paulo: Atlas; 2010. p. 149-74.
7. Almeida LA, Medeiros DS, Barros AG, Martins CCF, Santos VEP. Generators factors of Burnout Syndrome in health professional. Rev Fund Care Online. 2016. <http://dx.doi.org/10.9789/2175-5361.2016.v8i3.4623-4628>
8. Schooley B, Hikmet N, Tarcan M, Yorgancioglu G. Comparing Burnout Across Emergency Physicians, Nurses, Technicians, and Health Information Technicians Working for the Same Organization. Med 2016;95(10):1-6. DOI: 10.1097/MD.0000000000002856
9. Metzger JL, Maueri S, Benedetto-Meyer M. Predomínio da gestão e violência simbólica. Rev Bras Saúde Ocup. 2012;37(126):225-42. <http://dx.doi.org/10.1590/S0303-76572012000200005>
10. Karasek RA Jr. Job demand, job decision latitude, and mental strain: implications for job redesign. Adm Sci Q. 1979;24(2):285-308. <https://doi.org/10.2307/2392498>
11. Mattos AIS, Araújo TM, Almeida MMG. Interação entre demanda-controle e apoio social na ocorrência de transtornos mentais comuns. Rev Saúde Pública. 2017;51:48. <https://doi.org/10.1590/S1518-8787.2017051006446>
12. Mendes R. Patologia do Trabalho. 3ª ed. São Paulo: Atheneu; 2013. p. 1725-50.
13. Organização Internacional do Trabalho. Convenção 161. Serviços de Saúde no Trabalho [Internet]. 2017 [cited on Dec, 2017]. Available at: [http://www.trabalhoseguro.com/OIT/OIT\\_161\\_servicos\\_saude.htm](http://www.trabalhoseguro.com/OIT/OIT_161_servicos_saude.htm)
14. Brasil. Portal da Transparência. Governo Federal. Servidores civis e militares do poder executivo federal: por órgão de exercício do servidor [Internet]. 2017 [cited on Dec, 2017]. Available at: [www.portaltransparencia.gov.br/servidores/OrgaoExercicio-ListaOrgaos.asp?CodOS=15000&Pagina=4](http://www.portaltransparencia.gov.br/servidores/OrgaoExercicio-ListaOrgaos.asp?CodOS=15000&Pagina=4)
15. Instituto Federal do Ceará. Institucional [Internet]. 2017 [cited on Dec, 2017]. Available at: [ifce.edu.br/aceeso-a-informacao/Institucional](http://ifce.edu.br/aceeso-a-informacao/Institucional)
16. Subsistema Integrado de Atenção a Saúde do Servidor. Diretrizes Gerais para Promoção da Educação para Aposentadoria do Servidor Público Federal [Internet]. 2017 [cited on Dec, 2017]. Available at: <https://www2.siapenet.gov.br/saude/portal/public/consultaPublica/loginCidadao.xhtml?sessionId=496FF1B2088AF83CF7C26D3FE097D988.saude2>
17. Leão ALM, Barbosa-Branco A, Rassi Neto E, Ribeiro CAN, Turchi MD. Absenteísmo doença no serviço público municipal de Goiânia. Rev Bras Epidem. 2015;18(1):262-77. <http://dx.doi.org/10.1590/1980-5497201500010020>
18. Almeida LJC. Afastamentos por transtorno psiquiátricos em servidores públicos estaduais do Tocantins entre 2006 e 2008 [dissertation]. Brasília: Universidade de Brasília; 2010.
19. Campos ICM. Diagnósticos de transtornos mentais e comportamentais e relação com o trabalho de servidores públicos estaduais [dissertation]. Florianópolis: Universidade Federal de Santa Catarina; 2006.
20. Daniel E, Koerich CRC, Lang A. O perfil do absenteísmo dos servidores da prefeitura municipal de Curitiba, de 2010 a 2015. Rev Bras Med Trab. 2017;15(2):142-9. DOI: 10.5327/Z1679443520176021
21. Associação Brasileira de Normas Técnicas. NBR 140280: Cadastro de acidente do trabalho - Procedimento e classificação [Internet]. Rio de Janeiro: ABNT; 2000 [cited on Dec 12, 2017]. Available at: <http://www.alternativorg.com.br/wdframe/index.php?&type=arq&id=MTE2Nw>
22. Kessler RC. The costs of depression. Psychiatr Clin North Am [Internet]. 2012 [cited on Dec, 2017];35(1):1-14. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/22370487>. DOI: 10.1016/j.psc.2011.11.005.
23. Bhui KS, Dinos S, Stansfeld SA, White PD. A synthesis of the evidence for managing stress at work: a review of the reviews reporting on anxiety, depression, and absenteeism. J Environ Public Health [Internet]. 2012 [cited on Dec, 2017];2012:515874. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/22496705>. DOI: 10.1155/2012/515874.
24. Cocker F, Nicholson JM, Graves N, Oldenburg B, Palmer AJ, Martin A, et al. Depression in working adults: comparing the costs and health outcomes of working when ill. PLoS One [Internet]. 2014 [cited Dec, 2017];9(9):e105430. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25181469>. DOI: 10.1371/journal.pone.0105430
25. Hendriks SM, Spijker J, Licht CM, Hardeveld F, de Graaf R, Batelaan NM, et al. Long-term work disability and absenteeism in anxiety and depressive disorders. J Affect Disord [Internet]. 2015 [cited on Dec, 2017];178:121-30. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25805404>. DOI: 10.1016/j.jad.2015.03.004

26. Rost KM, Meng H, Xu S. Work productivity loss from depression: evidence from an employer survey. *BMC Health Serv Res* [Internet]. 2014[cited on Dec, 2017];14:597. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25519705>. DOI: 10.1186/s12913-014-0597-y
27. Cruz CRB, Shirassu MM, Barbosa PLQ, de Santana AMR. Transtornos mentais como causa de absenteísmo entre servidores públicos em São Paulo. *Rev Psiq Clin* [Internet]. 2011[cited on

Dec, 2017];38(6):265-6. Available at: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0101-60832011000600010&lng=en&nrm=iso](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0101-60832011000600010&lng=en&nrm=iso). <http://dx.doi.org/10.1590/S0101-60832011000600010>

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