ABSTRACT | Background: Work-related disorders have considerable impact on the health of workers at a high cost for national budgets. Yet these conditions are globally underreported, less than 8% in Brazil. Shortcomings in health policies and records hinder attempts at establishing the health profile of civil servants in Brazil, who represent 8% of the local workforce. Objective: To establish the profile of federal civil servants with work-related disorders and relate it to diagnoses recorded in Civil Servant Work Accident Reports (CS/WAR) issued at a federal public university in southern Brazil. Methods: We analyzed 166 CS/WAR; 79.52% corresponded to women, average age 46.46 (SD=10.06), ≥21 years in the job (34.9%), workers at the university hospital (64.46%) and medium- or technical level health care workers (45.78%). Mean duration of sick leave spells was 11.89 (SD=21.33) days. About 41.57% of CS/WAR did not provide an ICD-10 code; 82.5% of the rest corresponded to work accidents, mainly lower extremity injury (31.5%) and 17.50% to occupational diseases, most commonly low back injury and infectious diseases (17.7% each). Conclusion: The results reinforce the need to improve the record system in public service facilities to enable strategies targeting the main health problems exhibited by this population of workers.

Keywords | occupational accidents; occupational diseases; occupational accident registry; public sector; occupational health.

RESUMO | Introdução: O regime estatutário, que representa 8% da força de trabalho do Brasil, enfrenta problemas quanto à implementação de políticas e registros de saúde, impactando no conhecimento do perfil de saúde dos servidores estatutários. Objetivos: Identificar o perfil do servidor público federal acometido por agravos ocupacionais e relacioná-lo com o diagnóstico registrado na Comunicação de Acidente de Trabalho do Servidor Público (CAT/SP) de uma universidade federal do sul do Brasil. Método: Estudo transversal, retrospectivo, realizado com dados secundários. Amostra censitária com a totalidade de CAT/SP emitida pela universidade. Para análise estatística, foi utilizado o programa Statistical Package for the Social Sciences (SPSS) versão 22. Fez-se apenas análise bivariada por teste χ² ou por análise de variância (ANOVA), com nível de significância de 95%. Resultados: Foram analisadas 166 CAT/SP, 79,52% corresponderam a mulheres, com idade média de 46,46 (desvio padrão — DP=10,06) anos, 21 anos ou mais de atuação no cargo (34,9%), lotadas no hospital universitário (64,46%) e média de tempo de afastamento do trabalho de 11,89 (DP=21,33) dias. Do total, 41,57% das CAT não apresentaram qualquer registro de enfermidades, codificadas ou não pela Classificação Estatística Internacional de Doenças e Problemas Relacionados com a Saúde (CID-10). Das CAT/SP com essa informação, 82,5% apresentaram CID-10 compatível com acidente de trabalho, sendo a ocorrência mais comum o trauma de membros inferiores (31,5%). As demais 17,5% CAT/SP foram compatíveis com doença ocupacional, sendo as ocorrências mais comuns lesão de coluna lombar, doença infecciosa e outros, com prevalência de 17,7% cada uma. Conclusão: Ratifica-se a importância de qualificar o sistema de registros de CAT/SP na administração pública, possibilitando a proposição de estratégias direcionadas e focadas nos principais agravos à saúde dessa população.

Palavras-chave | acidente de trabalho; doenças ocupacionais; notificação de acidentes de trabalho; setor público; saúde do trabalhador.
INTRODUCTION

As is established in the Brazilian Law no. 8,213/91, art. 19, work-related disorders (accidents or diseases) are defined as any injury that occurs while working for an employer and results in body or functional damage and causes death, permanent or temporary loss or reduction of the capacity for work. The International Labor Organization points to about 270 million occupational accidents and 160 million cases of occupational diseases per year worldwide. In Brazil, the Social Security Statistical Yearbooks describe more than 5 million work accidents in Brazil from 2007 through 2013, 45% of which led to death, permanent disability or retirement. However, it is believed that only 3.9% of global work accidents are reported; Brazil follows the Latin American trend, with a mean rate of 7%.

The annual cost of occupational accidents and diseases in Brazil is about BRL 71 billion, which corresponds to 9% of the national payroll. According to some studies, such cost is higher than that of acquired immunodeficiency syndrome (AIDS) and similar to the total cost of cancer. However, these rates are underestimated partly due to underreporting, partly because they exclusively concern workers in the formal labor market, with exclusion of informal and self-employed workers and civil servants — who are under a different employment regime.

The number of civil servants has considerably increased in Brazil starting in the 1930s together with the reorganization of the federal government. According to the Brazilian Institute of Geography and Statistics, civil servants were 2 million in 2016, representing 8.2% of the economically active population. Federal civil servants were 529,003 in 2008, with variable distribution among organs and agencies across the 26 Brazilian states and the Federal District. For instance, 183,033 civil servants were allocated to the Ministry of Education, 106,193 to the Ministry of Health and 237 to the Ministry of Sports. Ten years later the situation has not changed much, but unequal geographical distribution is the rule, together with variability in structure, conditions, regime, organization and work process. Shortly, the federal civil service is heterogeneous and encompasses a broad scope of services and actions, with equally variable degree of risk to the servants’ health and safety.

The Ministry of Labor strove to achieve more efficient surveillance of workplaces to protect employees under another employment regime, namely, the so-called Labor Consolidation Laws. In contrast, actions still have a narrow focus and lack interconnection within the civil service. While the Single Legal Regime, from 1990, represented a considerable step forward, lack of a national health policy led agencies to create independent services within the Federal Civil Servant System (Sistema de Pessoal Civil da Administração Pública Federal–SIPEC) which do not interact but exhibit very different characteristics in terms of resources, structure and medical legal criteria. Ever since the Federal Civil Servant Workplace Health and Safety Policy gave rise to the Civil Servant Health Care Integrated Subsystem (Subsistema Integrado de Atenção à Saúde do Servidor–SIASS) in 2010, the main challenge to overcome is posed by discrepancies among SIPEC agencies which hinder achieving positive impacts on health indicators relative to federal civil servants.

The efforts to improve civil servant health care notwithstanding, few studies surveyed health promotion or disease prevention experiences. Perhaps for lack of understanding, or for believing that this type of information cannot help improve workplaces, occupational accidents and diseases involving civil servants remain underreported. As concerns the substantial hindrances to the implementation of nationwide federal civil servant health care policies, there is still much doubt and room to investigate occupational diseases and accidents, as well as the profile of affected civil servants.

The aims of the present study were to establish the profile of federal civil servants affected by occupational diseases and/or accidents and to relate such profile to diagnoses reported in Civil Servant Work Accident Reports (CS/WAR) issued at the SIASS unit of a federal public university in southern Brazil.

METHODS

STUDY DESIGN, SETTING AND PERIOD

In the present cross-sectional retrospective study we analyzed data retrieved from CS/WAR issued in 2015, 2016 and 2017 at the SIASS unit at Federal University of
Santa Maria (UFSM), namely, a federal teaching, research and outreach institution.

DATA COLLECTION

Data were collected from CS/WAR issued at the analyzed SIASS unit and entered in an Excel spreadsheet with no indication of the identity of the involved employees. The SIASS unit management only agreed to release data for the period from 2015 to 2017.

VARIABLES

Data on civil servants included sex, age, occupation, UFSM unit and years in the job, and those on occupational accidents and/or diseases date of incident/diagnosis, time off work and International Classification of Diseases (ICD-10) code.

The number of different ICD-10 codes we found was too large, therefore we created a new variable named “CS/WAR diagnosis” that encompassed occupational accidents and diseases as per ICD-code. CS/WAR diagnosis (work accident, occupational disease or no ICD-10 code) was considered as outcome and all other variables as exposures.

Age was collected as numerical continuous variable; afterwards it was clustered into five categories (<30, 31–40, 41–50, 51–60 and >60 years old). The same was the case of years in the job, categorized as ≤5, 6–10, 11–20 and ≥21.

Duration of sick leave spells was analyzed as obtained, i.e. as a numerical continuous variable. Occupation, a nominal qualitative variable, exhibited a large number of different mentions with few records each. To improve statistical analysis it was recategorized according to the Federal Public Service Position and Career Plan, as follows: medium- or technical level administrative employees, comprising administration assistants and camera and television operators; high-level administrative employees: managers, archivists, economists and executive secretaries; medium- or technical level health care workers: office assistants, nursing assistants, health assistants, surgery assistants and nursing technicians; high-level health care workers: nurses, physicians and dentists; health technicians: laboratory assistants, laboratory technicians and radiologic technicians; basic support workers: waiters, cooks, seamstresses, drivers and cleaners; medium- or basic-level maintenance workers: mechanic assistants, foremen, carpenters, building supervisors and mechanic technicians; finally, category other high-level employees included veterinary doctors.

DATA ANALYSIS

Variables were first subjected to descriptive analysis according to their nature, numerical or categorical, and eventually recategorized and clustered as per need.

According to the legislation for federal civil servants in force and standard procedures at the analyzed SIASS, all cases of work accidents/diseases resulting in at least one day off work were categorized as sick leave spell; all other cases were recorded as work accident/disease.

Analysis was performed with software Statistical Package for the Social Sciences (SPSS) version 20 and included bivariate analysis between outcome (CS/WAR diagnosis) and exposure variables (all others). Associations were tested by means of the X² test, except for that between CS/WAR diagnosis and duration of sick leave spells, which was subjected to analysis of variance (ANOVA). Statistical power was 80% and the significance level 95% (p≤0.05).

ETHICAL ISSUES

As per the Resolution no 510, from 7 April 2016, and since we had resource to de-identified data, the present study was not submitted for ethical clearance. Nonetheless, we obtained authorization from the university administration to access data from to CS/WAR issued from 2015 through 2017.

RESULTS

As published in the federal government Transparency Portal, there were 4,708 employees at UFSM in 2015, 4,790 in 2016 and 4,747 in 2017 — 4,748/year, on average.

A total of CS/166 WAR were issued at the analyzed SIASS unit along the analyzed period and were considered for analysis. Annual distribution was as follows: 34.95% (n=58) from 2015, 34.94% (n=58) from 2016 and 30.12% (n=50) from 2017. About 41.57% (n=69) of CS/WAR did not report ICD-10 codes, resulting in loss of information...
for almost half of the cases. Of the remaining 97 reports with an ICD-10 code, 82.50% (n=80) corresponded to occupational accidents and 17.50% (n=17) to possible occupational diseases.

About 79.52% of SC/WAR corresponded to female civil servants, average age 46.46 (standard deviation–SD=10.06) and with ≥21 years in the job (34.90%). Most cases were of employees at the university hospital (64.46%) and among them, medium- or technical level health care workers (45.78%). The mean duration of sick leave spells was 11.89 (SD=21.33) days, ranging from zero to 119. The mean duration of sick leave spells following work accidents was 20.63 (SD=26.15) days, 15 (SD=21.63) days for occupational diseases, while the ones without indication of ICD-10 code were shorter, 1.46 (SD=2.30) days.

Table 1 summarizes the sample characteristics according to CS/WAR diagnosis, Graphic 1 depicts the rates of CS/WAR diagnoses, and Graphics 2 and 3 the distribution of specific diagnoses for occupational accidents and diseases, respectively.

Among CS/WAR for occupational accidents, the most frequent ICD-10 was that corresponding to lower extremity injury (31.25%, n=25) followed by upper extremity injury (28.75%, n=23) and other (25%, n=20). Work accidents involving exposure to biological materials represented 5% (n=4) of occupational accidents.

In turn, among the CS/WAR corresponding to occupational diseases, infections, low back injury and other (including acute abdomen) were the most frequent (17.65%, n=3, each). Contact dermatitis and joint wear represented 11.76% (n=2) of cases each. One single report (5.89% each) was identified for the following conditions: foreign body, gastrointestinal disorder, neck injury and rotator cuff tear.

Information was mainly lost for work accidents (91.3%); this result was statistically significant. Sick leave spells for which an ICD-10 was not provided were shorter (mean 1.46 days, SD=2.30) compared to those granted for occupational accidents (20.23 days, SD=26.15) and diseases (15 days, SD=21.63).

**DISCUSSION**

Creation of SIASS was followed by studies which contributed with information, albeit fragmentary, on the epidemiological profile of work-related disorders among civil servants. Among employees of the Ministry of Health, CS/WAR were predominantly issued in the period from 2010 to 216 to women (82.19%), workers aged 50 to 64 (64.39%) and with administrative jobs (36.99%). Most records (52.05%) corresponded to commuting accidents, and the most prevalent condition was ankle sprain (15.07%) followed by knee contusion (6.85%). Among occupational diseases, joint pain (2.47%) was the most prevalent, followed by depressive episodes (1.37%). A diagnosis (ICD-10 code) was not provided for 5.48% of cases.

In the present study, 41.57% of CS/WAR did not provide information on injury or diagnosis (ICD-10 code) — 91.3% (n=63) corresponded to work accidents and 8.7% (n=6) to sick leave spells due to work accidents. While this loss of information on diagnosis hinders analysis, it corroborates the hypothesis of underreporting and grounds our recommendations to improve information and communication procedures relating to occupational accidents and diseases at the analyzed university. Underreporting ICD-10 codes was more frequent in the case of work accidents, which typically did not lead to sick leave spells. Loss of information on diagnosis was less in the case of sick leave spells due to work accidents, which duration was significantly longer, and thus indicative of greater potential severity. This remarkable difference might indicate that the CS/WAR office paid more attention to the potentially more severe incidents (sick leave spells due to work accidents) compared to the milder ones (work accident records).

The average age of the involved workers (46.46, SD=10.06) agrees with that reported in other studies with federal civil servants. However, there is no consensus in the literature on the association between work accidents and workers’ age. A literature review of studies conducted in the United States, Sweden and Canada found that in 56% workers under age 25 were the most frequently involved in non-fatal accidents, while 17% evidenced the opposite situation, and 27% failed to find any significant difference as a function of age, as is also the case of the present study.

According to Brazilian and international studies, the less the experience of workers in their job, the higher
Table 1. Sample characterization according to Civil Servant Work Accident Report (CS/WAR) diagnosis — work accidents, occupational diseases, International Classification of Diseases (ICD)-10 code not provided (n=166). Santa Maria, Brazil, 2015-2017.

| Sample characteristics | Total % (N) | CS/WAR diagnosis |
|------------------------|-------------|------------------|
|                        |             | Work accidents - % (N) | Occupational diseases - % (N) | No ICD-10 code % (N) | p-value |
| Sex                    |             |                  |                             |                           |         |
| Male                   | 20.5 (34)   | 26.2 (21)        | 0.0 (0)                     | 18.8 (13)                 | 0.04     |
| Female                 | 79.5 (132)  | 73.8 (59)        | 1000 (17)                   | 81.2 (56)                 |          |
| Age (years)            |             |                  |                             |                           |         |
| ≤30                    | 5.4 (9)     | 5.0 (4)          | 176 (3)                     | 2.9 (2)                   | 0.05     |
| 31-40                  | 23.5 (39)   | 17.5 (14)        | 23.5 (4)                    | 30.4 (21)                 |          |
| 41-50                  | 33.7 (56)   | 33.8 (27)        | 176 (3)                     | 37.7 (26)                 | 0.06     |
| 51-60                  | 21.7 (36)   | 22.5 (18)        | 23.5 (4)                    | 20.3 (14)                 |          |
| ≥61                    | 15.7 (26)   | 21.2 (17)        | 176 (3)                     | 8.7 (6)                   |          |
| Occupation             |             |                  |                             |                           | 0.07     |
| Medium- or technical level administration | 6.0 (10) | 8.8 (7) | 5.9 (1) | 2.9 (2) |
| Higher-level administration | 3.0 (5) | 3.8 (3) | 0.0 (0) | 2.9 (2) |
| Medium- or technical level health care | 45.8 (76) | 38.8 (31) | 52.9 (9) | 52.2 (36) |
| Higher-level health care | 17.5 (29) | 17.5 (14) | 5.9 (1) | 20.3 (14) |
| Basic support          | 10.2 (17)   | 12.5 (10)        | 11.8 (2)                    | 7.2 (5)                   |          |
| Health technicians     | 6.6 (11)    | 3.8 (3)          | 11.8 (2)                    | 8.7 (6)                   | 0.07     |
| Low- or medium-level maintenance | 6.0 (10) | 11.2 (9) | 0.0 (0) | 1.4 (1) |
| Other higher-level occupation | 0.6 (1) | 0.0 (0) | 5.9 (1) | 0.0 (0) |
| Professor              | 4.2 (7)     | 3.8 (3)          | 5.9 (1)                     | 4.3 (3)                   |          |
| Unit                   |             |                  |                             |                           | 0.05     |
| University hospital    | 64.5 (107)  | 58.8 (47)        | 647 (11)                    | 710 (49)                  |          |
| Dean office            | 15.1 (25)   | 15.0 (12)        | 176 (3)                     | 14.5 (10)                 |          |
| Centralized higher education centers | 16.9 (28) | 200 (16) | 20.0 (16) | 130 (9) |
| Decentralized campuses | 2.4 (4)    | 5.0 (4)          | 0.0 (0)                     | 0.0 (0)                   |          |
| Secondary, technical and technological school | 1.2 (2) | 1.2 (1) | 0.0 (0) | 1.4 (1) |
| Year in the job        |             |                  |                             |                           | 0.02     |
| ≤5                     | 211 (35)    | 200 (16)         | 35.3 (6)                    | 18.8 (13)                 |          |
| 6-10                   | 139 (23)    | 6.2 (5)          | 176 (3)                     | 21.7 (15)                 |          |
| 11-20                  | 301 (50)    | 300 (24)         | 11.8 (2)                    | 34.8 (24)                 |          |
| ≥21                    | 349 (58)    | 43.8 (35)        | 35.3 (6)                    | 246 (17)                  |          |

Continue...
Diseases, lower rates of accidents among workers with longer time in the job are usually due to better working conditions. Having less job demands, by comparison to younger and unexperienced workers, may counteract the sensory and reflex decline that occurs with aging and is likely to predispose to work accidents. Aging also increases the susceptibility to chronic occupational injuries. Therefore, we may infer that the higher rate of CS/WAR among the more experienced workers was due to lack of investment and training in workplace safety and health, particularly within a context characterized by difficulty to consolidate health care and safety policies within the federal public service, in which actions are usually disconnected and lack indications of positive impacts.

Our findings, as well as those of other Brazilian authors, indicate that 90% of work accidents involve trauma. In agreement with epidemiological data specifically relative to the federal public service, the lower limbs are the most frequently involved (50.96%) followed by the upper limbs (28.86%). This is probably due to the fact that most incidents are commuting accidents, as was evident in a study with employees of the Brazilian Ministry of Health. In the analyzed CS/WAR, however, information was not provided on the type of accidents (typical or commuting).

Most CS/WAR corresponded to employees of the university hospital (64.5%) and were high- (17.5%), medium- or technical level (45.8%) health care workers. The low prevalence of accidents involving exposure to biological materials (AEBM) is noteworthy, especially since almost two-thirds of cases were of health care

**Table 1.** Continuation

| Sample characteristics | Total % (N) | CS/WAR diagnosis |
|------------------------|------------|-----------------|
|                        | Work accidents - % (N) | Occupational diseases - % (N) | No ICD-10 code - % (N) | p-value |
| CS/WAR type            | Work accident record | 45.8 (76) | 16.2 (13) | 0.0 (0) | 91.3 (63) | 0.000 |
|                        | Work accident leave  | 54.2 (90) | 83.8 (67) | 1000 (17) | 8.7 (6) | 0.000 |
| Sick leave spell duration (days) | 11.89 (21.34) | 20.23 (26.15) | 15.00 (21.63) | 146 (2.30) | 0.000 |

**Graphic 1.** Frequency of Civil Servant Work Accident Reports categorized as work accidents, occupational disease or without an International Classification of Diseases (ICD) code (n=166). Santa Maria, Brazil, 2015–2017.
Graphic 2. Frequency of work accidents (n=80). Santa Maria, Brazil, 2015-2017.

Graphic 3. Frequency of occupational diseases (n=17). Santa Maria, Brazil, 2015-2017.
workers at the university hospital. A study performed in Brasilia found that AEBM represented 83.9% of incidents among nursing professionals\textsuperscript{24}. That study further called attention to substantial underreporting of AEBM and its association with high workload and/or poor working conditions\textsuperscript{24}. Two reasons may account for the low prevalence we found: an institutional culture of underreporting and less attention to such cases, since as a rule they do not require sick leave and thus might have been part of those for which an ICD-10 code was not provided.

Almost half of CS/WAR relative to occupational diseases corresponded to orthopedic problems, which agrees with national data available in the 2017 Social Security Statistical Yearbook\textsuperscript{25} and other epidemiological studies performed with civil servants. One example is a study conducted with employees of the Ministry of Health, in which joint pain was the main non-traumatic health problem, 2.4%\textsuperscript{19}.

The reported causes of illness among civil servants vary among authors. In a study performed at Universidade Federal do Espírito Santo, Brazil, mental and behavioral disorders exhibited the second highest prevalence (29.5%) following external causes of morbidity (29.7%)\textsuperscript{26}. In another study with employees of a state bank in Minas Gerais, Brazil, the highest prevalence corresponded to musculoskeletal disorders (23.0%) followed by mental disorders (15.4%)\textsuperscript{27}. This alternation between musculoskeletal and mental disorders is ubiquitous in the literature\textsuperscript{28}. On these grounds, the fact we did not find any record of occupational psychiatric disorders is noteworthy. A reason might be the difficulties to establish a causal link between psychiatric diseases and work, which often leads WAR issuers to neglect these conditions and attribute them to non-occupational causes\textsuperscript{28,29}.

An additional relevant finding is the high prevalence of CS/WAR citing ICD-10 codes indicating acute abdomen (17.6%) which is not mentioned in similar studies\textsuperscript{19,26-28}. Since we only analyzed information on CS/WAR and did not review medical records, we are unable to provide an explanation for this finding.

The main limitation of the present study derives from the lack of a diagnosis in 41.6% of the analyzed CS/WAR, which hinders analysis, as well as attempts at establishing the employees’ profile. In addition, for having a cross-sectional design, all the results of the present study should be analyzed considering the possibility of reverse causality bias.

**CONCLUSION**

In the present study we analyzed 166 CS/WAR issued from 2015 to 2017 by the SIASS unit at UFSM to establish the profile of civil servants affected by work-related disorders and investigate its relationship with the reported diagnoses.

Most CS/WAR corresponded to women, workers aged 41 to 50, at the university hospital, health care workers, with ≥21 years in the job. The mean duration of sick leave spells was 11.89 days. The main cause of work accidents was lower extremity injury, while musculoskeletal disorders accounted for the largest proportion of occupational diseases. However, there was substantial loss of information, since more than half of CS/WAR did not provide ICD-10 codes; most corresponded to incidents followed by the shortest sick leave spells.

These flaws in reporting reflect the difficulties the public administration meets upon implement unified health policies for all organs and agencies, which hinders the attempts to establish the profile of illness and actual working conditions for federal civil servants. Therefore, we emphasize the need to improve the record system and insist on proper filling of CS/WAR to avoid loss of information or imprecise and conflicting data and thus enable reliable and trustworthy surveys.

The information we describe here is relevant not only to reinforce the need to improve the record system, but also to formulate novel orientations for workplace health and safety policies targeting federal civil servants, and more particularly strategies focusing on the most vulnerable among this population of workers and the main conditions which impair their health.

Additional epidemiological studies are needed to improve the knowledge on the health profile of federal civil servants to ground novel occupational health interventions for this group of workers.
REFERENCES

1. Brasil. Lei nº 8.213, de 24 de julho de 1991. Dispõe sobre os Planos de Benefícios da Previdência Social e dá outras providências. Diário Oficial [da] República Federativa do Brasil [Internet]. 1991 [cited 16 Dec 2018]. Available at: http://www.planalto.gov.br/ccivil_03/LEIS/L8213cons.htm

2. Dazini PO, Lima RCH, Goulart TP, Balbi GGM, Almeida VA. Doenças e agravos do trabalho em minas gerais de 2008 a 2012. Rev Baiana Saúde Pública. 2017;41(1):17-28. https://doi.org/10.22278/2318-2660.2017v41.n1a2195

3. Santana VS, Araújo-Filho JB, Oliveira PRA, Branco AB. Acidentes de trabalho: custos previdenciários e dias de trabalho perdidos. Rev Saúde Pública. 2006;40(6):1004-12. http://dx.doi.org/10.1590/S0034-89102006000700007

4. Ferreira MJM, Lima RKS, Silva AMC, Bezerra-Filho JG, Cavalcanti LGP. Vigilância dos acidentes do trabalho em unidades sentinelas em saúde do trabalhador no município de Fortaleza, nordeste do Brasil. Ciência Saúde Coletiva. 2017;22(10):3393-402. http://dx.doi.org/10.1590/1413-812017221017422017

5. Almeida PCA, Barbosa-Brano AC. Acidentes de trabalho no Brasil: prevalência, duração e despesa previdenciária do auxílios-doença. Rev Bras Saúde Ocup. 2011;36(124):195-207. http://dx.doi.org/10.1590/S0103-76572011000200003

6. Malta DC, Stopa SR, Silva MMA, Santos MS, Santos FV, et al. Acidentes de trabalho autorreferidos pela população adulta brasileira, segundo dados da Pesquisa Nacional de Saúde, 2013. Ciência Saúde Coletiva. 2017;22(1):169-78. http://dx.doi.org/10.1590/1413-81201722117862015

7. Gomes DC, Silva LB, Sória S. Condições e relações de trabalho no serviço público: o caso do governo Lula. Rev Sociol Polit. 2012;20(42):167-81. http://dx.doi.org/10.1590/S0104-44782012000200012

8. Instituto Brasileiro de Geografia e Estatística. Pesquisa Mensal do Emprego. Brasília: Ministério do Desenvolvimento, Planejamento e Gestão; 2016.

9. Brasil. Ministério do Planejamento, Orçamento e Gestão. Secretaria de Recursos Humanos. I Encontro Nacional de Atenção à Saúde do Servidor Público Federal: uma construção coletiva [Internet]. Brasília: Ministério do Planejamento, Orçamento e Gestão; 2008 [cited 16 Jul 2018]. Available at: http://www.portaltransparencia.gov.br/servidores/lista-consultas

10. Portal Transparência [Internet]. [cited 4 Aug 2018]. Available at: http://www.portaltransparencia.gov.br/servidores/lista-consultas

11. Decreto-Lei nº 5.452 de 1º de maio de 1943. Aprova a Consolidação das Leis do Trabalho. Diário Oficial [da] República Federativa do Brasil. 1943 mai 01 [cited 4 Dec 2018] Available at: http://www.planalto.gov.br/ccivil_03/decreto-lei/del5452.htm

12. Brasil. Ministério do Trabalho. Normas Regulamentadoras [Internet]. Ministério do Trabalho [cited 4 Aug 2018]. Available at: https://net.trabalho.gov.br/portal/index.php/seguranca-e-saude-no-trabalho/sst-menu/sst-normalizacao/sst-rr-portugues?view=default

13. Brasil. Lei nº 8.112, de 11 de dezembro de 1990. Dispõe sobre O Regime Jurídico dos Servidores Públicos Civis da União, das Autarquias e das Fundações Públicas Federais. Diário Oficial [da] República Federativa do Brasil [Internet]. 1990 [cited 16 Jul 2018]. Available at: http://www.planalto.gov.br/ccivil_03/LEIS/L8112cons.htm

14. Brasil. Ministério do Planejamento, Orçamento e Gestão. Secretaria de Recursos Humanos. Subsistema Integrado de Atenção à Saúde do Servidor [Internet]. Brasília; 2010 [cited 18 Jul 2018]. Available at: https://siassstocantins.files.wordpress.com/2014/11/pocol3dataica-de-atenca3a7c3a3o-c3a0-sac3bade-e-seguranc3a7a-do-trabalho-do-servidor-pc3b3blico-federal-uma-constra3ca7c3a3o-coletiva.pdf

15. Figueiredo RK, Camargos MCS. Acidentes de Trabalho em Servidores Públicos: uma análise do processo de notificação pela administração pública de Minas Gerais. In: Encontro da ANPAd. 37, 2013, Rio de Janeiro. Anais. 2013.

16. Cerneiro SAM. Saúde do trabalhador público: questão para a gestão de pessoas - a experiência na prefeitura de São Paulo. Rev Serviço Público. 2006;57(1):23-49. https://doi.org/10.21874/rsp/v57i188

17. Martins MC, Oliveira SS, Andrade ET, Strauzz MC, Castro LC, Azambuja A. A política de atenção à saúde do servidor público federal no Brasil: atores, trajetórias e desafios. Ciênc Saúde Coletiva. 2017;22(5):1429-40. http://dx.doi.org/10.1590/1413-81232017225.33542016

18. Brasil. Lei nº 11.091, de 12 de janeiro de 2005. Dispõe sobre a estruturação do Plano de Carreira dos Cargos Técnico-Administrativos em Educação, no âmbito das Instituições Federais de Ensino vinculadas ao Ministério da Educação, e dá outras providências. Diário Oficial [da] República Federativa do Brasil [Internet]. 2005 [cited 16 Dec 2018]. Available at: http://www.planalto.gov.br/ccivil_03/ato2004-2006/2005/lei/l11091.htm

19. Brasil. Ministério da Saúde. Levantamento de registros de acidente de serviço de servidores do Ministério da Saúde em Brasília/DF nos anos de 2010 a 2016 [Internet]. Brasília: Ministério da Saúde; 2018 [cited 2 Nov 2019]. Available at: http://bvms.saudes.gov.br/bvs/publicacoes/levantamento_registros_acidente_servico_servidores.pdf

20. Ribeiro FH, Hermosilla JLG, Achcar JA, Silva ECC. Acidentes de Trabalho e sua Associação com os Fatores Idade e Tempo de Experiência do Trabalhador: Uma Pesquisa Documental com Base no Cadastro do Sistema SINAN. In: Encontro Nacional de Engenharia de Produção, 35., 2015. Fortaleza. Anais. 2015.

21. Salminen S. Have young workers more injuries than older ones? An international literature review. J Safety Res. 2004;35(5):513-21. https://doi.org/10.1016/j.jsr.2004.08.005

22. Oliveira AD, Paiva MHRS. Análise dos acidentes ocupacionais com material biológico entre profissionais em serviços de atendimento pré-hospitalar. Rev Latino-Am Enfermagem. 2013;21(1). http://dx.doi.org/10.1590/S0104-11692013000100004

23. Al-Kathib IA, EI Ansari W, Areqat TA, Darkhawaja RA, Mansour SH, Tucktuck MA, et al. Occupational Safety Precautions among Nurses at Four Hospitals, Nablus District, Palestine. Int J Occup Environ Med. 2015;6(4):243-6. https://doi.org/10.15171/ijoem.2015.581

24. Ribeiro EJG, Shimizu HE. Acidentes de trabalho com trabalhadores de enfermagem. Rev Bras Enferm. 2007;60(5):535-40. http://dx.doi.org/10.1590/S0034-71672007000500010

25. Brasil. Ministério da Fazenda. Instituto Nacional do Seguro Social. Anuário Estatístico de Acidentes de Trabalho [Internet]. Brasília; 2010. Available at: http://sa.previdencia.gov.br/site/2018/09/AEAT-2017.pdf

26. Marques SV, Martins G de B, Cruz Sobrinho O. Saúde, trabalho e subjetividade: absenteísmo-doença de trabalhadores em uma universidade pública. Cad EBAPE.BR. 2011;9(Spec. No. 1):668-80. http://dx.doi.org/10.1590/S1679-39512011000600012
27. Silva LS, Pinheiro TMM, Sakurai E. Profile of absenteeism in a state bank in Minas Gerais: analysis in the period of 1998 to 2003. Ciência & Saúde Coletiva. 2008;13(Supl. 2):2049-58. http://dx.doi.org/10.1590/S1413-81232008000900009

28. Santi DB, Barbieri AR, Cheade MFM. Absenteeism-disease in the Brazilian public service: an integrative literature review. Rev Bras Med Trab. 2018;16(1):71-81. http://doi.org/10.5327/Z1679443520180084

29. Miranda FMD, Cruz EDA, Félix JCV, Kalinke LP, Mantovani MF, Sarquis LMM. Profile of Brazilian workers victims of occupational accidents involving biological fluids. Rev Bras Enferm. 2017;70(5):1061-8. http://dx.doi.org/10.1590/0034-7167-2016-0482

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