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## WORKER STRESS LEVEL WITH FUNCTIONAL REARRANGEMENT AND READAPTATION IN A PUBLIC STATE UNIVERSITY

*Pâmella Cacciari<sup>1</sup>, Maria do Carmo Lourenço Haddad<sup>2</sup>, José Carlos Dalmas<sup>3</sup>*

<sup>1</sup> M.Sc. in Nursing. Scholarship from *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*. Londrina, Paraná, Brazil. E-mail: [pamella\\_cacciari@hotmail.com](mailto:pamella_cacciari@hotmail.com)

<sup>2</sup> Ph.D. in Nursing. Professor, *Curso de Enfermagem, Universidade Estadual de Londrina (UEL)*. Londrina, Paraná, Brazil. E-mail: [carmohaddad@gmail.com](mailto:carmohaddad@gmail.com)

<sup>3</sup> Ph.D. in Production Engineering. Professor, *Departamento de Matemática Aplicada* at UEL. Londrina, Paraná, Brazil. E-mail: [jcdalmas@gmail.com](mailto:jcdalmas@gmail.com)

**ABSTRACT:** This study aimed to identify the stress level of functionally rearranged and readapted workers of a public state university. It was a cross-sectional study performed with 92 government employees. Data were collected through a characteristics questionnaire and the Perceived Stress Scale. The results showed that 73.9% of workers were female, 57.6% had secondary education, 71.7% were married, and 59.8% had repetitive strain injury/work-related musculoskeletal disorder. The overall mean stress level was 22.6 points; workers in technical functions (24.6 points) and workers who suffered falls (28.2 points) had higher stress levels. Based on these results, the highest level of stress were concluded to affect female workers who suffered falls.

**DESCRIPTORS:** Stress, psychological. Stress, physiological. Occupational health. Employment, supported. Workers.

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## NÍVEL DE ESTRESSE EM TRABALHADORES READEQUADOS E READAPTADOS EM UNIVERSIDADE ESTADUAL PÚBLICA

**RESUMO:** Objetivo de identificar o nível de estresse de trabalhadores readequados e readaptados de uma universidade estadual pública. Estudo transversal, com 92 servidores. Dados coletados por meio de questionário de caracterização da população e Escala de Estresse Percebido. Os resultados mostraram que 73,9% dos trabalhadores eram do sexo feminino, 57,6% possuíam ensino médio, 71,7% eram casados, 59,8% apresentavam lesões por esforços repetitivos/distúrbio osteomuscular relacionado ao trabalho. A média geral do nível de estresse foi de 22,6 pontos; trabalhadores na função laborativa de técnico apresentaram maior estresse (24,6 pontos) e os trabalhadores que sofreram quedas tiveram maior nível de estresse (28,2 pontos). Com base nos resultados encontrados, concluiu-se que o maior nível de estresse acometeu os trabalhadores do sexo feminino e que sofreram quedas.

**DESCRIPTORIOS:** Estresse psicológico. Estresse fisiológico. Saúde do trabalhador. Readaptação ao emprego. Trabalhadores.

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## NIVEL DE ESTRÉS EN TRABAJADORES REACOMODADOS Y READAPTADOS EN UNIVERSIDAD PÚBLICA

**RESUMEN:** El estudio tuvo como objetivo identificar el nivel de estrés de trabajadores reacomodados y readaptados de una universidad pública. Estudio transversal, realizado con 92 funcionarios públicos, donde los datos fueron colectados por medio de cuestionario de caracterización de la población y Escala de Estrés Percibido. Los resultados mostraron que el 73,9% de los trabajadores eran del sexo femenino, 57,6% poseía enseñanza secundaria, 71,7% era casado, 59,8% presentaba lesiones por esfuerzos repetitivos/trastorno musculoesquelético relacionado al trabajo. El promedio general del nivel de estrés fue de 22,6 puntos, trabajadores en la función laboral de técnico presentaron mayor estrés siendo 24,6 puntos y los trabajadores que sufrieron caídas tuvieron mayor nivel de estrés, 28,2 puntos. Con base en los resultados encontrados, se considera que el mayor nivel de estrés sucedió con trabajadores del sexo femenino y que sufrieron caídas.

**DESCRIPTORIOS:** Estrés psicológico. Estrés fisiológico. Salud del trabajador. Empleos subvencionados. Trabajadores.

## INTRODUCTION

The changes in recent decades in the work context have strongly impacted the health of individuals and the workers' collective. The increasing incorporation of microelectronics, informatics, telematics and robotics, plus a new and complex set of organizational innovations, profoundly changed the productive structure of capitalist countries, such as Brazil, causing changes in organization of work, work conditions, and relationships. It is therefore observed that labor intensification is characteristic of the current phase of capitalism which has allowed an excessive consumption of the workers' physical and mental energies.<sup>1-2</sup>

This context produces contradictory scenarios, because it can lead to (re)valuing of work and investment in worker training and quality of life, and at the same time the insurgency of negative aspects, such as: the intense pace of work; degradation of working conditions; disqualification of less skilled workers; interference in workers' quality of life; increasing uncertainty; and feelings of boredom, anguish and suffering.<sup>3-4</sup>

Because of this paradoxical situation of co-existence between positive and negative aspects, workplace-related stress has been a very common theme in studies of recent decades, in order to identify its contribution to the etiology of workers' health.<sup>5</sup>

The term, stress, was first used by the endocrinologist Hans Selye, who conceptualized it as a set of responses that the body develops when subjected to a situation that requires effort to adjust. The author has also found that stress causes biochemical or neuroendocrine responses, characterizing it as a non-specific physiological response, i.e., a syndrome consisting of all physiological changes that occur in the biological system when it is affected by a stimulus, or by an excessive or harmful load.<sup>6</sup>

Stress is the body's reaction involving psychological, physical, mental and hormonal factors, which happens before adaptation to an event that can be either negative or positive. Its negative aspect occurs when the person loses his ability to adapt to change, causing illness, affecting the social, emotional, vocational, spiritual life and the health of individuals.<sup>7</sup>

The intensity of stress is related to the aggressiveness of the stressor and the person's coping resources. When these factors are out of balance, there is an adaptation response within the body. In this sense, stress causes diseases that lead to absenteeism, sick leave, decreased productivity, demotiva-

tion, irritation, impatience, interpersonal difficulties, troubled emotional relationships, divorce, various physical diseases, depression, anxiety and unhappiness in the personal sphere.<sup>8-9</sup>

Worker illness can cause limitations in the work that lead to temporary or permanent medical leave, which aim to preserve the worker from occupational hazards, or are due to his inability to perform his activities.

Considering the aspects mentioned above, the institution where the study was performed implemented functional rearrangement and readaptation that were standardized by the resolution of the Board of Directors, in 2000. Functional readaptation consists of position change due to permanent disability of the worker for the performance of his original work; functional rearrangement is a procedure that allows for the reduction of the permanent list of activities that are inherent to the position held, as a result of definitive health restrictions of the worker, given that the basic core of the position is maintained.<sup>10</sup>

In a study performed in 2012, with nursing staff in the aforementioned institution, 6% of the Nursing Board staff were functionally rearranged or readapted, impacting the management of the nursing team.<sup>11</sup>

The motivation for the development of this research happened during the period when the researcher was a resident manager of nursing services. One of the internship sectors was the Specialized Service on Safety Engineering and Medicine (SESMT) of a public state university, where there were several workers with restrictions, which resulted in situations of functional rearrangement and readaptation.

Another aspect that prompted the author to perform the study was the conduct of a literature review, which retrieved a limited amount of publications related to this topic.

Thus, the importance of performing a study to investigate the level of stress in these workers was realized, given that it causes the onset of diseases and consequent managerial implications due to labor restrictions, and it causes worker illness and high rates of absenteeism. Therefore, the objective is to identify the stress level of rearranged and readapted workers of a public state university.

## METHODS

This was a quantitative, cross-sectional study, performed in a public state university in the north of Paraná.

The study population consisted of all workers functionally rearranged or readapted according to the institutional SESMT, this included 199 workers out of 5,717.

The inclusion criterion was to be legally placed in the functional rearrangement or readaptation process. All the workers with this condition were invited; only those workers who were actively performing their functions during the period of data collection were included. Employees who had been on a medical leave for more than 90 days, or were on special leave, were excluded.

The identification of participants and their respective work places were recorded in a SESMT spreadsheet, organized and updated by the researcher, with the nurse-in-charge of that service. However, the workplaces were not updated, and you must conduct an active search in some departments of the institution to identify the lines of work of these workers. This process, however, made it difficult to collect data. Because it was a small population, it was important to avoid losses. Therefore, the worker's unit had to be identified and the time for the collection of information was extended, from November of 2012 to May of 2013.

During the data collection period, of the 119 rearranged or readapted workers, 11 were already found to be retired, six were on sick leave, one died, and five were not actually rearranged or readapted, even though they were listed as such by SESMT. Therefore, 96 workers were invited to participate in the study; four refused, so the study population consisted of 92 people.

Data were collected in the workplace of each worker by the researcher and an undergraduate student, who was informed of the research objectives and qualified for the administration of the instruments. In this data collection period, there were difficulties with finding the workers. After several attempts, some instruments were left in a sealed envelope, containing a letter thanking him for participating in the research, providing the objectives, and instructions to leave the sealed envelope in the sector, which would be picked up within a week by the researcher. In addition to the letter, the consent form and the instruments were also provided in the envelope.

Two instruments were administered: the first related to the workers' characteristics, containing demographic data (age, sex, marital status, education, with the Brazil Economic Classification Criterion being adopted), occupational data (professional category, hours worked per week, reason and year

of functional rearrangement/readaptation, time working before functional rearrangement/readaptation, previous function, , and current function ).

The second instrument used was the Perceived Stress Scale (PSS-10), to identify the workers' stress. The PSS-10 consists of ten items related to events and situations in the last 30 days. Each item is evaluated by a Likert scale. The results ranged from 0-40 points, with a score above this threshold indicating a greater perception of stress.<sup>12</sup>

The PSS-10 scale was translated into Portuguese and validated in a study with 793 Brazilian university professors, with a Cronbach's alpha of 0.83, i.e., acceptable validation and reliability. Because it is a general scale, it can be used with different age groups. It does not contain specific contextual issues.<sup>12</sup>

In order to investigate the understanding, clarity, objectivity, readability, presentation and possible difficulties with completing the instrument by the participants, there was a pre-test with ten randomly selected employees. After return of ten completed questionnaires and their analyses, it was found that the instruments would not need adjustment in their language or format.

Data were entered twice in Microsoft Excel, and analyzed using the Statistical Package for the Social Sciences (SPSS 20.0). Descriptive statistics were performed for all variables.

Because of the diversity of positions and occupations of the workers, it was decided to group them according to their professional area, regardless of position, occupation and role in the sector in the variable work function, according to a study performed at the same institution with workers of different positions and occupations. They were classified as: administrative (typist, counter assistant, secretary, and examination report organizers), faculty role (professor, educator, educational counselor), general services function (cleaning, guard, seamstress, mason, kitchen assistant, janitor, maintenance assistant, warehouse worker, distribution of hospital supplies, and painter) and technical function (nursing technician, nursing assistant, laboratory technician, and X-ray technician).<sup>13</sup>

The diversity of workers' diseases was grouped in the variable health problem: work accident and car accident sequelae; mental disorders; circulatory problems; fall sequelae; work-related repetitive strain injuries/musculoskeletal disorder (RSI/MSDs) (bursitis, degenerative disc disease resulting from repetitive movements, tenosynovitis, carpal tunnel and tendonitis), and others, which included the diseases

that did not fit in the previous groups (Still's disease, allergies, and breast cancer sequelae).

This study was approved by the Ethics Committee on Human Research of the State University of Londrina, under CAAE 0160.0.268.268.10.

## RESULTS

Ninety-two functionally rearranged or readapted workers participated in the study, aged 28 to 67 years, with a mean age of 49 years and a median of 50 years. Regarding gender, 73.9% were women; 57.6% had secondary education, 71.7% were married, and 50% received up to three times the minimum wage (Table 1).

**Table 1 - Sociodemographic characteristics of the rearranged and readapted workers in a public state university, Brazil, 2013**

Variables	n=92	%
Gender		
Female	68	73.9
Male	23	25.0
Did not respond	1	1.1
Education		
Primary school	12	13.0
Secondary school	53	57.6
Education of the young and adults	7	7.6
Higher education	10	10.9
Specialist course	5	5.4
Master's degree	1	1.1
Doctorate	1	1.1
Did not respond	3	3.3
Marital status		
Single	7	7.6
Married	66	71.7
Divorced	8	8.7
Separate	3	3.3
Widow(er)	6	6.5
Did not respond	2	2.2
Family income		
3 x minimum wage	46	50.0
4 x minimum wage	22	23.9
5 x minimum wage	10	10.9
> 5 x minimum wage	8	8.7
Did not respond	6	6.5

The overall mean of the PSS-10 was 22.6 points (SD=5.8), ranging from 0 to 28 points. Table 2 shows that all workers in technical functions worked in the hospital, the function with the highest level of stress (24.6 points); followed by the administrative function (24.1 points). Although 48.9% of participants

in this study performed general services, it was the category with the lowest level of stress (21.2 points).

Regarding gender, women had a mean stress level of 23.2 points, higher than men, with 20.7 points.

**Table 2 - Distribution of the study variables and PSS-10 of the rearranged and readapted workers in a public state university, Brazil, 2013**

Variables	n=92	%	PSS-10 (mean)	Standard deviation
Work function				
Administrative	20	21.7	24.1	4.4
Faculty	6	6.6	21.3	2.8
General services	45	48.9	21.2	6.4
Technical	20	21.7	<b>24.6</b>	4.9
Did not respond	1	1.1	-	-
Gender				
Female	68	73.9	<b>23.2</b>	5.3
Male	23	25.0	20.7	6.4
Did not respond	1	1.1	-	-

Table 3 shows the relationship between the reported health problems and the PSS-10, showing that 59.8% of the subjects reported RSI/MSDs as a health problem that led to functional rearrangement/readaptation. It was also found that workers who experienced falls had higher stress levels (28.2 points); workers who had circulatory problems also had a high level of stress (28.0 points).

**Table 3 - Distribution of reported health problems and PSS-10 mean of the rearranged and readapted workers in a public state university, Brazil, 2013**

Variables	n=92	%	PSS-10 (mean)	Standard deviation
Health problems				
Sequelae from occupational accident	5	5.4	25.2	1.4
Sequelae from automobile accident	5	5.4	21.4	4.0
Mental dysfunctions	2	2.2	25.0	8.4
Circulatory problems	2	2.2	28.0	2.8
Sequelae from falls	4	4.3	<b>28.2</b>	5.3
Work-related repetitive strain injury/ Musculoskeletal Disorders	<b>55</b>	<b>59.8</b>	22.6	6.1
Others	14	15.3	21.5	1.4
Did not respond	5	5.4	-	-

Among the participants, 58.7% were re-adapted, 35.9% were rearranged, and 5.4% did not know. The reason for functional rearrangement/readaptation in 98.9% of participants was a physical health issue.

## DISCUSSION

Analyses of the results show that there was a mean age of 49 years and a median age of 50 years. According to the World Health Organization, beginning at 45 years of age, workers have a decline in their functional capacity due to the decrease in muscle mass and resistance strength, as well as increased fat which characterizes aging.<sup>14</sup>

The study participants were mainly female. The illness in this group can be aggravated by discrimination in labor relationships, overload delegated to women, since they are assigned several work roles, namely domestic work, paid work, caring for the children, the role of wife, among others, producing a different health-disease process.<sup>15</sup>

Regarding marital status, most workers were married, which was also found in other studies, because of various care responsibilities with household tasks, and support of the children and family.<sup>11,16-18</sup>

Those in the technical function had a higher stress level because they are professionals who perform their activities in a hospital. This can be understood because hospitals are complex systems consisting of several departments and professions, where people are exposed to intense emotional situations, such as life, illness and death, which cause anxiety and physical and mental tension. Thus, working in a hospital environment contributes not only to the occurrence of work accidents, but also to the triggering of frequent situations of stress, and physical and mental fatigue.<sup>19</sup>

Health professionals are subject to a higher level of stress due to organizational conditions such as work overload, conflicts within the team and with the leadership, unhealthy places of work, rigid and hierarchical formal structures, organizational climates, and the physical conditions of the worker. These factors can cause the professional both physical and mental strain.<sup>20</sup>

There were differences in the stress level regarding gender: women had a stress level greater than men, which was also identified in another study with 393 professors of a private university in Curitiba-PR, with the aim of analyzing the perception of stress, confirming that women have higher scores when compared to men.<sup>21</sup>

Some authors that discuss stress and gender confirm that women have higher levels of stress when compared to men because they are culturally stereotyped as emotional, solidary and dependent people. Another aspect that contributes to greater stress is that women play a multitude of roles: wife, mother, housewife and professional, causing a reduction in family life and the practice of good health habits.<sup>17,22</sup>

In this study, RSI/MSDs were the most frequently observed issue in workers. Another study, conducted with municipal employees of Belo Horizonte-MG, also showed that the more frequent comorbidities leading workers to absenteeism and illness were RSI/MSDs.<sup>23</sup>

The RSI/MSDs are an economic and public health problem in Brazil because of the high prevalence of affected individuals, wide range of affected economic sectors, the clinical complexity resulting in a high cost of treatment, and temporary or definitive sick leaves.<sup>24</sup>

As for the health problems reported by the workers, those with fall sequelae were more stressed. Several intrinsic and extrinsic stress factors can lead to this event, such as work overload, inadequate infrastructure and lighting. Therefore, stress can also lead to the symptoms of depression and anxiety, sleep disturbances, trouble maintaining attention. A study with 242 federal public workers identified lack of attention as the symptom of second greatest impact on stress. Authors claim that this lack of attention predisposes workers to a greater risk of falls.<sup>25</sup>

It was noticed that the major cause of functional rearrangement/readaptation was physical health issues. These results can be associated with the work environment, where the worker is exposed to ergonomic, physical and biological risks, characterized by repetitiveness of work, improper postures, loud noises, an unhealthy environment, and work overload.<sup>24</sup>

These results confirm that the high level of stress found in these workers can cause illnesses, being reflected in unforeseen absenteeism in organizations, impacting the management of human resources.

There is a need for managers to implement preventive measures to help minimize workers' stress, especially in functionally rearranged/re-adapted workers, such as proper staffing that has consequences on work overload, improvements in the environmental work infrastructure, changes in lifestyle, such as healthy eating and practice of

sports activities, adopting relaxation techniques, working out, and better working conditions. It is likewise important to create programs with preventive and therapeutic actions that give workers coping resources to minimize the aggressiveness of the stressors.

Occupational nurses have SESMT as one of their fields, which is linked to the population of this study, is of fundamental importance for the promotion, prevention and rehabilitation of occupational health, responsible for adopting precautionary measures regarding occupational risks that impact the health-disease process.

## CONCLUSIONS

This study shows that most rearranged and readapted workers were women and the highest level of stress was associated with that group. Among the prevalent self-reported diseases, work-related musculoskeletal disorders and repetitive strain injuries prevailed, affecting 59.8% of respondents.

The study identified the level of stress in rearranged and readapted workers, and the overall mean stress level of 22.6 points. Investigating the level of stress is essential for managers to know their employees and establish health promotion strategies in this group, reflecting the work-related quality of life and the enhancement of human resources.

As a study limitation, the data on rearranged and readapted workers were not updated because the institution does not have a trustworthy list, since some workers on the list were retired and others had died, making it difficult to collect data, and demonstrating the importance of monitoring these workers and rethinking actions developed for this population.

## REFERENCES

1. Aldenis SM, Cabral ACA, Santos SM, Pessoa MNM, Roldan VPS. Reestruturação produtiva no setor de saúde: estudo de caso em um hospital de Fortaleza-CE. *RAHIS*. 2012; 8(8):63-72.
2. Elias MA, Navarro VL. A relação entre o trabalho, a saúde e as condições de vida: negatividade e positividade no trabalho das profissionais de enfermagem de um hospital escola. *Rev Latino-Am Enferm* [Internet]. 2006 [cited 2015 Jul 5];14(4):517-25. Available from: <http://www.scielo.br/pdf/rlae/v14n4/v14n4a08.pdf>
3. Marques APP. Reestruturação produtiva e recomposições do trabalho e emprego: um périplo pelas "novas" formas de desigualdade social. *Ciênc Saúde Coletiva* [Internet]. 2013 [cited 2015 Jul 8]; 18(6):1545-54. Available from: <http://www.scielo.br/pdf/csc/v18n6/07.pdf>
4. Martins JT, Robazzi MLCC, Garanhani ML. Sentimentos de prazer entre enfermeiros de unidades de terapia intensiva. *Cienc Enferm* [Internet]. 2009 [cited 2015 Jul 8]; 15(3):45-53. Available from: [http://www.scielo.cl/pdf/cienf/v15n3/art\\_06.pdf](http://www.scielo.cl/pdf/cienf/v15n3/art_06.pdf)
5. Olivier M, Perez CS, Behr CF. Trabalhadores afastados por transtornos mentais e de comportamento: o retorno ao ambiente de trabalho e suas consequências na vida laboral e pessoal de alguns bancários. *Rev Adm Contemp* [Internet]. 2011 [cited 2015 Jun 10];15(6):993-1015. Available from: <http://www.scielo.br/pdf/rac/v15n6/03.pdf>
6. Selye H. *Stress: a tensão da vida*. 2ª ed. São Paulo (SP): IBRASA; 1965.
7. Lipp MEN. Estresse emocional: a contribuição de estressores internos e externos. *Rev Psiquiátr Clin*. 2001; 28(6):347-8.
8. Lipp MEN. *Stress e o turbilhão da raiva*. São Paulo (SP): Casa do Psicólogo; 2005.
9. Marques FRB, Botelho MR, Marcon SS, Pupulim JSL. Coping strategies used by family members of individuals receiving hemodialysis. *Texto Contexto Enferm* [Internet]. 2014 [cited 2015 Jul 6]; 23(4):915-24. Available from: [http://www.scielo.br/pdf/tce/v23n4/pt\\_0104-0707-tce-23-04-00915.pdf](http://www.scielo.br/pdf/tce/v23n4/pt_0104-0707-tce-23-04-00915.pdf)
10. Universidade Estadual de Londrina. Resolução CA n. 71/2000 de 10 agosto de 2000: Determina novas normas para o programa de readaptação funcional. Londrina (PR): UEL; 2000. p. 2-3.
11. Cacciari P, Haddad MCL, Vannuchi MTO, Marengo RA. Socio demographic and occupational characterization of readjusted and rehabilitated nursing staff. *Rev Enferm UERJ* [Internet]. 2013 [cited 2015 Jun 22]; 21(3):318-23. Available from: <http://www.epublicacoes.uerj.br/index.php/enfermagemuerj/article/view/7462>
12. Reis R, Hino A, Añez C. Perceived stress scale: reliability and validity study in Brazil. *J Health Psychol*. 2010; 15(1):107-14.
13. Karino ME. Identificação de risco para complicações em pés de trabalhadores com diabetes de uma instituição pública da cidade de Londrina-PR [dissertação]. Ribeirão Preto (SP): Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto; 2004.
14. Organización Mundial de la Salud. *Él envejecimiento y la capacidad de trabajo: informe de un grupo de estudio de la OMS*. Ginebra (CH): OMS;1993.
15. Cortes LF, Vieira LB, Maria Celeste Landerdah MC, Padoim SMMP. Compreensão de gênero e suas manifestações no cotidiano de um serviço de saúde. *Rev RENE* [Internet]. 2012 [cited 2015 Jun 30]; 11(4):143-53. Available from: <http://www.revistarene.ufc.br/revista/index.php/revista/article/view/440/pdf>

16. Conceição JCR, Mazo GZ, Benedetti TRB, Dias RG, Krug RR. Relação das características sociodemográficas com o estresse percebido em idosos praticantes de exercícios físicos. RBCEH [Internet]. 2013 [cited 2015 Jun 25]; 9(1):89-97. Available from: <http://www.upf.com.br/seer/index.php/rbceh/article/view/1843/pdf>
17. Sadir MA, Bignotto MM, Lipp MEN. Stress e qualidade de vida: influência de algumas variáveis pessoais. Paidéia (Ribeirão Preto). 2010; 20(45):73-81.
18. Lipp MEN, Nery MJGS, Curcio MAC, Pereira MRP. A relação entre stress, padrão tipo A de comportamento e crenças irracionais. *Psicol: Teor Pesq*. 2012 6(3):309-23.
19. Martins JT, Robazzi MLCC, Bobroff MCC. Pleasure and suffering in the nursing group: reflection to the light of Dejour psychodynamics. *Rev Esc Enferm USP* [Internet]. 2010 [cited 2015 Jul 4]; 44(4):1107-11. Available from: <http://www.scielo.br/pdf/reeusp/v44n4/36.pdf>
20. Borine B, Assis CL, Lopes MS, Santini TO. Estresse hospitalar em equipe multidisciplinar de hospital público do interior de Rondônia. *Rev SBPH* [Internet]. 2012 [cited 2015 Jul 4]; 15(1):22-40. Available from: <http://pepsic.bvsalud.org/pdf/rsbph/v15n1/v15n1a03.pdf>
21. Camargo EMC, Oliveira MP, Rodriguez-Añez CR, Hino AAF, Reis RS. Estresse percebido, comportamentos relacionados à saúde e condições de trabalho de professores universitários. *Psicol Argum* [Internet]. 2013 [cited 2015 Jul 4]; 31(75):589-97. Available from: <http://www2.pucpr.br/reol/pb/index.php/pa?dd1=12626&dd99=view&dd98=pb>
22. Stefano SR, Bonanato FM, Raifur L. Estresse em funcionários de uma instituição de ensino superior: Diferenças entre gênero. *Rev Econ Gest*. 2013; 13(31):73-92.
23. Rodrigues CS, Freitas RM, Assunção AA, Bassi IB, Medeiros AM. Absenteísmo-doença segundo autorrelato de servidores públicos municipais em Belo Horizonte. *Rev Bras Est Pop* [Internet]. 2013 [cited 2015 Jul 4]; 30(Supl):135-54. Available from: <http://www.scielo.br/pdf/rbepop/v30s0/09.pdf>
24. Hartwig T, Silva M, Reichert F, Rombaldi A. Condições de saúde de trabalhadores de academias da cidade de Pelotas-RS: um estudo de base populacional. *Rev Bras Ativ Fís Saúde*. 2013; 17(6):500-11.
25. Balassiano M, Tavares E, Pimenta R. Estresse ocupacional na administração pública brasileira: quais os fatores impactantes. *Rev Adm Pública*. 2011; 45(3):751-74.

Correspondence: Pâmella Cacciari  
6093 Presidente Prudente Av,  
19053-575 - Jardim Aeroporto, Presidente Prudente, SP, Brazil  
E-mail: pamella\_cacciari@hotmail.com.br

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