

# Occupational stress and engagement in primary health care workers

*Estresse ocupacional e engagement em trabalhadores da atenção primária à saúde*

*Estrés ocupacional y engagement en trabajadores de atención primaria a la salud*

**Dezolina Franciele Cardin Cordioli<sup>I</sup>**

ORCID: 0000-0002-8268-122X

**João Roberto Cordioli Junior<sup>I</sup>**

ORCID: 0000-0002-9938-8687

**Claudia Eli Gazetta<sup>I</sup>**

ORCID: 0000-0002-2603-8803

**Albertina Gomes da Silva<sup>I</sup>**

ORCID: 0000-0002-4813-7845

**Luciano Garcia Lourenção<sup>II</sup>**

ORCID: 0000-0002-1240-4702

<sup>I</sup> Faculdade de Medicina de São José do Rio Preto.  
São José do Rio Preto, São Paulo, Brazil.

<sup>II</sup> Universidade Federal do Rio Grande. Rio Grande,  
Rio Grande do Sul, Brazil.

## How to cite this article:

Cordioli DFC, Cordioli Jr JR, Gazzeta CE, Silva AG, Lourenção LG. Occupational stress and work engagement in primary health care workers. Rev Bras Enferm. 2019;72(6):1580-7. doi: <http://dx.doi.org/10.1590/0034-7167-2018-0681>

## Corresponding Author:

Luciano Garcia Lourenção  
E-mail: [luciano.famerp@gmail.com](mailto:luciano.famerp@gmail.com)



**Submission:** 08-29-2018    **Approval:** 03-09-2019

## ABSTRACT

**Objective:** To evaluate levels of occupational stress and work engagement among primary health care workers. **Method:** A descriptive, correlational and transversal study was carried out in a small municipality in the countryside of São Paulo, with a non-probabilistic sample of convenience, with 85 workers. Three self-applied instruments were used: one developed by researchers, containing sociodemographic variables; Work Stress Scale (WSS) and Utrecht Work Engagement Scale (UWES). **Results:** Prevalence of women (72.6%), 40 years old or more (45.9%), 4 years and 4 months of mean working time in primary care. Thirty-one workers (36.5%) presented significant stress (scores  $\geq 2.5$ ). Work engagement showed a mean of 4.1 ( $\pm 1.2$ ) to 4.4 ( $\pm 1.4$ ), classified as high in all dimensions. Occupational stress and work engagement correlated negatively. **Conclusion:** Workers presented high levels of work engagement; more than one-third had significant occupational stress. Workers with high levels of occupational stress tend to have lower work engagement.

**Descriptors:** Primary Health Care; Family Health Strategy; Health Personnel; Occupational Stress; Work Engagement.

## RESUMO

**Objetivo:** Avaliar níveis de estresse ocupacional e *engagement* em trabalhadores da atenção primária à saúde. **Método:** Estudo descritivo, correlacional e transversal, em município de pequeno porte do interior paulista, com amostra não probabilística, de conveniência, com 85 trabalhadores. Foram utilizados três instrumentos autoaplicáveis: um elaborado pelos pesquisadores, contendo variáveis sociodemográficas; Escala de Estresse no Trabalho (EET); e *Utrecht Work Engagement Scale* (UWES). **Resultados:** Prevalência do sexo feminino (72,6%), 40 anos ou mais (45,9%), tempo mediano de atuação na atenção primária de 4 anos e 4 meses. Trinta e um trabalhadores (36,5%) apresentaram estresse importante (escores  $\geq 2,5$ ). *Engagement* apresentou médias de 4,1 ( $\pm 1,2$ ) a 4,4 ( $\pm 1,4$ ), classificado como alto em todas as dimensões. Estresse ocupacional e *engagement* se correlacionaram negativamente. **Conclusão:** Os trabalhadores apresentaram altos níveis de *engagement*; mais de um terço apresentou estresse ocupacional importante. Trabalhadores com elevados níveis de estresse ocupacional tendem a ter *engagement* mais baixo.

**Descritores:** Atenção Primária à Saúde; Estratégia Saúde da Família; Pessoal de Saúde; Estresse Ocupacional; Engajamento no Trabalho.

## RESUMEN

**Objetivo:** Evaluar niveles de estrés ocupacional y *engagement* en trabajadores de la atención primaria de salud. **Método:** Estudio descriptivo, correlacional y transversal, en municipio de pequeño porte del interior paulista, con muestra no probabilística, de conveniencia, con 85 trabajadores. Se utilizaron tres instrumentos auto aplicables: uno elaborado por los investigadores, conteniendo variables sociodemográficas; Escala de Estrés en el trabajo (EET) y *Utrecht Work Engagement Scale* (UWES). **Resultados:** Prevalencia del sexo femenino (72,6%), 40 años o más (45,9%), tiempo mediano de actuación en la atención primaria de 4 años y 4 meses. Treinta y un trabajadores (36,5%) presentaron estrés importante (puntuaciones  $\geq 2,5$ ). *Engagement* presentó promedios de 4,1 ( $\pm 1,2$ ) a 4,4 ( $\pm 1,4$ ), clasificado como alto en todas las dimensiones. El estrés ocupacional y el *engagement* se correlacionaron negativamente. **Conclusión:** Los trabajadores presentaron altos niveles de *engagement*; más de un tercio presentó estrés ocupacional importante. Los trabajadores con altos niveles de estrés ocupacional tienden a tener *engagement* más bajo.

**Descriptorios:** Atención Primaria de Salud; Estrategia de Salud Familiar; Personal de Salud; Estrés Laboral; Compromiso Laboral.

## INTRODUCTION

The Family Health Strategy (FHS) is the model of Primary Health Care (PHC) in Brazil. It works with clients' ascription, home visit, integrality of practices, health promotion and multiprofessional team<sup>(1)</sup>. The assignment of the professionals follow specific regulations of the Ministry of Health, as well as definitions of the scope of practices, protocols, clinical and therapeutic guidelines, as well as other technical norms established by federal, state, municipal or Federal District managers<sup>(2)</sup>.

However, in spite of the progress made with the publication of the National Occupational Health Policy (NOHP), the management of health care actions for PHC workers is still weak, besides the lack of awareness among these professionals about the importance of their occupational health<sup>(3-5)</sup>.

In the PHC services, the worker's close link with the user's territory can mean a greater vulnerability of the professional to suffering, by experiencing with greater intensity the feeling of impotence in the face of the magnitude of the health problems to be treated; to fear, by threats to the moral and physical integrity of the professional who works in open environments or in the users' own residence; and the non-recognition of efforts for the work done<sup>(6)</sup>.

In this context, professionals are liable to occupational stress, due to physical, psychological and social risks at work<sup>(7)</sup>. Stress is conceptualized from the interactionist model that considers the relationship between the environment and the person or group as responsible for the attrition. It is defined as any stimulus emanating from the external or internal environment that exceeds the adaptation sources of an individual or social system<sup>(8)</sup>.

Among the factors triggering the process of mental illness among PHC workers, the most important are those associated with work, such as overload, precarious employment and working conditions, pressure for meeting goals and results, and lack of autonomy<sup>(9)</sup>.

On the other hand, *engagement* makes the professional linked to his work, with high feelings of inspiration, well-being and authentic pleasure for what he performs professionally. It comprises a mental state, dispositional and positive of intense pleasure and deep connection with labor action, being an indicator of workers' health<sup>(10)</sup>, composed of three dimensions: vigor, dedication and absorption<sup>(11-12)</sup>.

Vigor is a behavioral-energy component, characterized by high levels of energy and mental endurance at work, willingness to invest with effort and persistence, even in the face of difficulties; the dedication, related to an element of emotional charisma, characterized by a strong involvement in the work and experimentation of a sense of meaning, enthusiasm, inspiration, pride and challenge; and absorption related to a cognitive component, characterized by full concentration at work, task-focused attention, mental clarity, and enjoyment in the performance of their work<sup>(11-12)</sup>, as well as a general score that measures the positive mental state of the worker.

*Engagement* is an always positive and intense state, more strongly related to the way professionals perform their work than to organizational goals, work tasks or the types of organization in which they are inserted<sup>(13)</sup>. However, it comprises a dynamic process that, although stable over time, can be altered by working conditions and, when this is detected in a negative way, it

is observed that several aspects that harm the workers' health are in evidence<sup>(13)</sup>.

In the case of PHC, for the development of *engagement* among the team, it is recommended to implement activities considered significant for professionals, which will result in positive working relationships, better job performance and greater job satisfaction<sup>(14)</sup>. Therefore, the *engagement* focus benefits the professionals, offering a competitive advantage to the organizations where they are inserted<sup>(15)</sup>.

Besides the personal resources that support *engagement*, such as self-efficacy, self-esteem, beliefs and *coping* strategies, the construct also has relation with specific characteristics of the workplace, such as quality and quantity of available resources, teamwork, autonomy at work, content of work activity, relationship with managers, *feedback*, performance evaluation, *coaching* and training<sup>(15-16)</sup>. Other authors also argue that factors such as social support, job performance, positive psychological capital, optimism, organizational needs, customer satisfaction and resilience are associated with *engagement*<sup>(11,17)</sup>.

Given the above, the relevance of studying *engagement* levels, as well as the presence of occupational stress and more present stressors, in the perception of PHC workers as a way of improvement, is justified because of the strengthening of positive aspects of the worker's relationship with the work environment, favoring the prevention of aggravations to the physical and psychological health of these professionals, and directing of restructuring strategies that improve working conditions, with repercussion in increasing productivity and quality of care.

## OBJECTIVE

To evaluate the levels of occupational stress and *engagement* among primary health care workers in a small municipality in the countryside of São Paulo.

## METHOD

### Ethical aspects

Before the data collection, the study was approved by the Committee of Ethics in Research in Human Beings of the Faculty of Medicine of São José do Rio Preto, with Opinion No. 1.890.199, dated 01.11.2017 (CAAE: 63455516.3.0000.5415). The ethical precepts of voluntary and consensual participation of each study subject were respected.

### Design, location of the study and study period

A quantitative, descriptive, correlational and cross-sectional study was carried out in the municipality of Adamantina, São Paulo, in 2017, with a non-probabilistic convenience sample, which included 85 workers from the PHC units.

### Population or sample; inclusion and exclusion criteria

The study population consisted of all workers (21 physicians, 24 nurses, 30 nursing assistants/technicians, 44 community

health agents (CHA), 11 dentists and 20 vector control agents) of the city's seven PHC units. Professionals on vacation during the period of data collection and/or removed from professional activities for any other reason were excluded.

The study sample was defined by convenience and was composed by the professionals who participated in the study, responding to the instruments.

### Study protocol

The data collection was performed with three self-applied instruments. It was elaborated by the researchers, containing closed questions about training, age group, gender, marital status, income, schooling, if you are satisfied and/or if you have already thought about giving up the profession/function.

The Work Stress Scale (WSS), validated by Tamayo and Paschoal<sup>(18)</sup>, composed of 23 negative affirmations, with a scale of 5 points, ranging from "1 – totally disagree" to "5 – totally agree", being that, the higher the score, the greater the stress. The WSS is a general measure of stress, whose items address several stressors and emotional reactions constantly associated with them<sup>(18)</sup>.

The Brazilian version of the *Utrecht Work Engagement Scale* (UWES), validated by Vazques et al.<sup>(19)</sup>, was composed of 17 three-dimensional self-assessment items (Vigor, Dedication and Absorption) and a general Score<sup>(20-21)</sup>. Vigor refers to high levels of energy and resilience, the willingness to invest efforts, not to become easily fatigued, and persist in the face of difficulties. Dedication refers to a sense of meaning for work, feeling enthusiastic and proud about the work, feeling inspired and challenged by it. Absorption refers to being totally immersed in the work and having difficulty letting go of it, time goes by quickly and forgetting everything around<sup>(19-20)</sup>.

The data collection was scheduled with the nurses of the health units and performed during the team meeting. After the researchers explained study objectives, the signatures of the Informed Consent Term were collected from the workers who agreed to participate in the study, and soon after, the questionnaires were delivered to all professionals who answered and deposited them in a brown envelope, without identification, to preserve the identity of the respondents.

### Analysis of results and statistics

Sociodemographic data were used to characterize the study population. Occupational stress was evaluated based on the calculation of a mean score obtained by the workers and among the professional categories, for all items of the scale and for each item of the scale, identifying the most present stressors according to the workers' perception. Significant levels of stress are considered as mean values equal to or greater than 2.5.

The calculations of the scores of *engagement* dimensions were performed according to the statistical model proposed in the *Utrecht Work Engagement Scale* (UWES)<sup>(20)</sup>, presenting mean and standard deviation for each UWES dimension. The interpretation of the values obtained was then performed, from the decoding of the Preliminary Manual UWES, being: 0 to 0.99 = Very low; 1 to 1.99 = Low; 2 to 3.99 = Medium; 4 to 4.99 = High; 5 to 6 = Very high.

The comparison of the sociodemographic characteristics of the professionals distribution was performed by the chi-square test and, for the mean scores comparisons of the UWES dimensions, the F-test was used in the analysis of variance (ANOVA), considering a level of significance of 95% ( $p < 0,05$ ).

Finally, the correlation analysis between the occupational stress and the dimensions of the UWES (Dedication, Absorption, Vigor and General Score) was performed using the Pearson correlation test, with significance level of 5% ( $p < 0,05$ ). The correlation between the variables was considered weak for  $r$  values up to 0.30, moderate for values between 0.40 and 0.60, and strong for values greater than 0.70.

## RESULTS

A total of 85 workers, including physicians (10.6%), nurses (17.6%), dentists (5.9%), nursing assistants/technicians (14.1%) and community health agents (34.1%) and vector control agents (17.6%). There was no participation of oral health auxiliary/technicians because there was no position in the municipality. There was a prevalence of female workers (71.8%), with 40 years old or older (45.9%). The age of the workers ranged from 22 to 59 years old, with a median of 39 years old (mean = 41.5;  $\pm 9.9$  years old). The work time of the workers in the PHC ranged from 4 months to 33 years, with a median of 4 years and 4 months.

Regarding occupational stress, the sample mean was 2.3 ( $sd = \pm 0.8$ ; minimum = 1.0 and maximum = 4.4). The general evaluation of study participants showed that 31 (36.5%) workers presented scores compatible with significant stress ( $\geq 2.5$ ). There were considerable levels of stress among vector control agents (2.9;  $\pm 1.0$ ), professionals with incomplete higher education (2.6;  $\pm 0.8$ ), family income up to a minimum wage (2.5;  $\pm 0.8$ ), up to two years of professional performance in the PHC (2.5;  $\pm 0.8$ ), who were unsatisfied with the profession/occupation (3.0;  $\pm 0.8$ ) and who already thought about giving up of the profession/occupation (2.6;  $\pm 0.8$ ).

**Table 1** – Evaluation of occupational stress, according to the sociodemographic variables of Primary Health Care Workers, São José do Rio Preto, São Paulo, Brazil, 2017-2018

Variables	Mean ( $\pm sd$ )	$p$ value
Professional Category		
Physician	1.5 ( $\pm 0.4$ )	<b>&lt;0.001</b>
Dentist	2.4 ( $\pm 0.6$ )	
Nurse	1.9 ( $\pm 0.7$ )	
Auxiliary/Nursing Technician	2.1 ( $\pm 0.7$ )	
Community Health Agent	2.4 ( $\pm 0.5$ )	
Vector control agent	2.9 ( $\pm 1.0$ )	
Age Group		
From 18 to 28 years old	2.3 ( $\pm 0.4$ )	0.917
From 29 to 39 years old	2.3 ( $\pm 0.7$ )	
40 years old or more	2.3 ( $\pm 0.9$ )	
Level of education		
High school	2.3 ( $\pm 0.7$ )	0.311
Incomplete Higher Education	2.6 ( $\pm 0.8$ )	
Complete higher education	2.4 ( $\pm 0.9$ )	
Graduation (Specialization)	2.1 ( $\pm 0.7$ )	
Master's Degree	1.9 (**)	

To be continued

Table 1 (concluded)

Variables	Mean (±sd)	p value
Marital Status		
Married	2.3 (±0.8)	0.879
Single	2.4 (±0.7)	
Divorced	2.1 (±1.1)	
Widowed	2.4 (±0.6)	
Family Income*		
Up to 1 Minimum Wage	2.5 (±0.8)	0.506
From 2 to 5 Minimum Wages	2.3 (±0.86)	
From 6 to 10 Minimum Wages	2.0 (±0.3)	
More than 10 minimum wages	2.3 (±1.0)	
Time of experience PHC		
Up to 2 years	2.5 (±0.8)	0.363
From 3 to 10 years	2.3 (±0.8)	
Above 10 years	2.2 (±0.8)	
Satisfied with the Profession/Occupation		
Yes	2.2 (±0.7)	<0.001
No	3.0 (±0.8)	
Thought about giving up the Profession/Occupation		
Yes	2.6 (±0.8)	0.024
No	2.2 (±0.7)	

Note: PHC - Primary Health Care; \*Minimum Wage Value: R\$ 937.00; \*\*Variable with only one worker; standard deviation absent.

The most present stressors according to the workers' perception studied were: [Q13] deficiency in professional training (3.0; ±1.5); [Q5] deficiency in the disclosure of information about organizational decisions (2.9; ±1.2); [Q16] lack of perspective for career growth (2.9; ±1.5); [Q12] presence of discrimination/favoritism in the work environment (2.7; ±1.4); [Q15] low valuation by the superiors (2.7; ±1.4); [Q1] form of task distribution (2.7; ±1.3); [Q2] type of control (2.6; ±1.1); [Q19] lack of understanding of responsibilities (2.5; ±1.5); [Q22] insufficient time to perform work (2.5; ±1.3).

In the reliability analysis, Cronbach's alpha coefficient values ranged from 0.754 to 0.924, indicating reliability of the results. The average *engagement* size ranged from 4.1 (±1.2) to 4.4 (±1.4), classified as high.

In the analysis of the *engagement*, based on the sociodemographic characteristics of the workers, it was observed that the vector control agents presented mean scores for all dimensions of the UWES [Dedication: 3.3 (±1.3); Absorption: 3.4 (±1.3); Vigor: 3.7 (±1.4); Overall score: 3.5 (±1.4)], showing that the ratio of these workers to the work environment is less positive than the others. Mean scores were also found in all UWES dimensions for professionals aged 18 to 28 years [Dedication: 3.9 (±1.5); Absorption: 3.4 (±1.0);

Table 2 – Assessment of the *engagement*, according to Primary Care Workers, São José do Rio Preto, São Paulo, Brazil, 2017-2018

UWES Dimensions	Cronbach's Alpha	Min	Max	Md	Mean±sd	CI (95%)	Interpretation
Vigor	0.808	0.4	6.0	4.0	4.4±1.4	4.0 – 4.5	High
Dedication	0.857	0.8	6.0	4.6	4.1±1.2	4.1 – 4.7	High
Absorption	0.754	1.0	6.0	4.2	4.3±1.1	3.8 – 4.3	High
Overall Score	0.924	0.8	6.0	4.2	4.3±1.1	4.0 – 4.5	High

Note: Min: minimum; Max: maximum; Md: median; sd: standard deviation; 95% CI: 95% confidence interval; UWES: Utrecht Work Engagement Scale.

Table 3 – Levels of *engagement*, according to sociodemographic characteristics of primary health care workers. São José do Rio Preto, São Paulo, Brazil, 2017-2018

Variables	Dedication Mean (±sd)	Absorption Mean (±sd)	Vigor Mean (±sd)	Overall score Mean (±sd)
Professional Category				
Physician	5.4 (±0.5) <sup>c</sup>	4.5 (±0.7) <sup>b</sup>	4.5 (±0.9) <sup>b</sup>	4.8 (±0.6) <sup>b</sup>
Dentist	4.6 (±1.1) <sup>b</sup>	4.4 (±1.2) <sup>b</sup>	4.8 (±0.9) <sup>b</sup>	4.6 (±1.1) <sup>b</sup>
Nurse	5.1 (±0.9) <sup>c</sup>	4.8 (±1.1) <sup>b</sup>	4.7 (±1.2) <sup>b</sup>	4.8 (±1.0) <sup>b</sup>
Auxiliary/Nursing Technician	4.7 (±1.2) <sup>b</sup>	4.2 (±1.4) <sup>b</sup>	4.6 (±1.2) <sup>b</sup>	4.5 (±1.2) <sup>b</sup>
Community Health Agent	4.1 (±1.2) <sup>b</sup>	3.8 (±1.0) <sup>a</sup>	4.1 (±0.9) <sup>b</sup>	4.0 (±0.9) <sup>b</sup>
Vector control agent	3.3 (±1.3) <sup>a</sup>	3.4 (±1.3) <sup>a</sup>	3.7 (±1.4) <sup>a</sup>	3.5 (±1.4) <sup>a</sup>
	p value	0.001	0.025	0.102
Age Group				
From 18 to 28 years old	3.9 (±1.5) <sup>a</sup>	3.4 (±1.0) <sup>a</sup>	3.9 (±1.1) <sup>a</sup>	3.7 (±1.2) <sup>a</sup>
From 29 to 39 years old	4.3 (±1.5) <sup>b</sup>	4.0 (±1.3) <sup>b</sup>	4.2 (±1.1) <sup>b</sup>	4.2 (±1.2) <sup>b</sup>
40 years old or more	4.5 (±1.3) <sup>b</sup>	4.2 (±1.1) <sup>b</sup>	4.3 (±1.2) <sup>b</sup>	4.3 (±1.1) <sup>b</sup>
	p value	0.541	0.291	0.736
Level of education				
High school	4.5 (±1.2) <sup>b</sup>	4.1 (±1.2) <sup>b</sup>	4.5 (±1.1) <sup>b</sup>	4.4 (±1.0) <sup>b</sup>
Incomplete Higher Education	4.2 (±1.2) <sup>b</sup>	3.9 (±0.8) <sup>a</sup>	4.0 (±0.8) <sup>b</sup>	4.0 (±0.8) <sup>b</sup>
Complete higher education	3.7 (±2.0) <sup>a</sup>	3.6 (±1.5) <sup>a</sup>	4.0 (±1.4) <sup>b</sup>	3.8 (±1.5) <sup>a</sup>
Graduation (Specialization)	5.1 (±0.8) <sup>c</sup>	4.8 (±0.9) <sup>b</sup>	4.6 (±1.1) <sup>b</sup>	4.8 (±0.9) <sup>b</sup>
Master's Degree	3.0 (**) <sup>a</sup>	2.3 (**) <sup>a</sup>	3.3 (**) <sup>a</sup>	2.9 (**) <sup>a</sup>
	p value	0.024	0.009	0.206
Marital Status				
Married	4.6 (±1.2) <sup>b</sup>	4.3 (±1.2) <sup>b</sup>	4.6 (±1.1) <sup>b</sup>	4.5 (±1.1) <sup>b</sup>
Single	3.8 (±1.5) <sup>a</sup>	3.6 (±1.2) <sup>a</sup>	3.8 (±1.0) <sup>a</sup>	3.7 (±1.1) <sup>a</sup>
Divorced	5.7 (±0.3) <sup>c</sup>	4.6 (±0.6) <sup>b</sup>	4.2 (±0.8) <sup>b</sup>	4.8 (±0.2) <sup>b</sup>
Widowed	4.5 (±1.6) <sup>b</sup>	4.4 (±1.1) <sup>b</sup>	3.6 (±2.0)	4.2 (±1.5) <sup>b</sup>
	p value	0.031	0.054	0.045

To be continued

Table 3 (concluded)

Variables	Dedication Mean (±sd)	Absorption Mean (±sd)	Vigor Mean (±sd)	Overall score Mean (±sd)
Family income*				
Up to 1 Minimum Wage	4.1 (±1.2) <sup>b</sup>	3.9 (±0.8) <sup>a</sup>	4.3 (±0.9) <sup>b</sup>	4.1 (±0.9) <sup>b</sup>
From 2 to 5 Minimum Wages	4.4 (±1.4) <sup>b</sup>	4.1 (±1.2) <sup>b</sup>	4.3 (±1.2) <sup>b</sup>	4.3 (±1.2) <sup>b</sup>
From 6 to 10 Minimum Wages	4.3 (±1.8) <sup>b</sup>	3.8 (±1.5) <sup>a</sup>	4.3 (±1.3) <sup>b</sup>	4.1 (±1.5) <sup>b</sup>
More than 10 minimum wages	5.0 (±0.9) <sup>c</sup>	4.7 (±0.8) <sup>b</sup>	4.6 (±1.3) <sup>b</sup>	4.7 (±1.0) <sup>b</sup>
<i>p</i> value	0.626	0.523	0.953	0.706
Time of experience PHC				
Up to 2 years	4.3 (±1.7) <sup>b</sup>	3.9 (±1.2) <sup>a</sup>	4.3 (±1.1) <sup>b</sup>	4.2 (±1.2) <sup>b</sup>
From 3 to 10 years	4.3 (±1.4) <sup>b</sup>	4.0 (±1.2) <sup>b</sup>	4.1 (±1.1) <sup>b</sup>	4.1 (±1.2) <sup>b</sup>
Above 10 years	4.7 (±1.0) <sup>b</sup>	4.4 (±1.1) <sup>b</sup>	4.6 (±1.0) <sup>b</sup>	4.5 (±1.0) <sup>b</sup>
<i>p</i> value	0.553	0.458	0.271	0.401
Satisfied with the Profession/Occupation				
Yes	4.8 (±1.0) <sup>b</sup>	4.4 (±1.0) <sup>b</sup>	4.5 (±1.0) <sup>b</sup>	4.5 (±0.9) <sup>b</sup>
No	2.3 (±1.4) <sup>a</sup>	2.8 (±1.3) <sup>a</sup>	3.3 (±1.2) <sup>a</sup>	2.9 (±1.2) <sup>a</sup>
<i>p</i> value	<0.001	<0.001	<0.001	<0.001
Thought about giving up the Profession/Occupation				
Yes	3.6 (±1.6) <sup>a</sup>	3.4 (±1.2) <sup>a</sup>	3.7 (±1.1) <sup>a</sup>	3.6 (±1.2) <sup>a</sup>
No	5.0 (±0.9) <sup>c</sup>	4.5 (±1.0) <sup>b</sup>	4.7 (±1.0) <sup>b</sup>	4.7 (±0.8) <sup>b</sup>
<i>p</i> value	<0.001	<0.001	<0.001	<0.001

Note: PHC - Primary Health Care; \*Minimum Wage Value: R\$ 937.00; \*\* Variable with only one worker; standard deviation absent. <sup>a</sup> Mean score; <sup>b</sup> High score; <sup>c</sup> Very high score.

**Table 4** – Correlations between the Work Stress Scale (WSS) and Utrecht Work Engagement (UWES), São José do Rio Preto, São Paulo, Brazil, 2017-2018

	EET	<i>p</i> value
Dedication	-0.416**	<0.001
Absorption	-0.292**	0.008
Vigor	-0.224*	0.042
Overall score	-0.333**	0.002

Note: WSS: Work Stress Scale; \*: *p* <0.05; \*\*: *p* <0.01.

Vigor: 3.9 (±1.1); Overall score: 3.7 (±1.2), unmarried [Dedication: 3.8 (±1.5); Absorption: 3.6 (±1.2); Vigor: 3.8 (±1.0); Overall score: 3.7 (±1.1)], who reported being unsatisfied with the profession/occupation [Dedication: 2.3 (±1.4); Absorption: 2.8 (±1.3); Vigor: 3.3 (±1.2); Overall score: 2.9 (±1.2)] and who have already thought about giving up the profession/occupation [Dedication: 4.8 (±1.0); Absorption: 4.4 (±1.0); Vigor: 4.5 (±1.0); Overall score: 4.5 (±0.9)].

Occupational stress and engagement correlate negatively. There was a weak correlation between occupational stress with Absorption (*r*: -0.292, *p* = 0.008) and Vigor (*r*: -0.224, *p* = 0.042), and moderate with Dedication (*r*: -0.416, *p* <0.001), and general Score (*r*: -0.333, *p* = 0.002).

## DISCUSSION

The profile of the workers in this study – women with 40 years old and over, duration of work in the PHC from 3 to 10 years – corroborates the profile of PHC workers in Brazilian municipalities<sup>(21-23)</sup>. We highlight the prevalence of female professionals, as a result of the process of feminization of health professions, in Brazil and in other countries<sup>(24-25)</sup>.

The percentage of workers with significant levels of stress found in this study is consistent with other studies, which indicate high levels of stress among PHC workers, confirming that workers are affected by problems or damages to their physical and mental health<sup>(21,26-30)</sup>.

The variation of stress levels, according to the sociodemographic variables of the workers, observed in this study, corroborates the literature that states that, although there are variations, psychic

suffering affects all professional categories<sup>(30)</sup> and its perception is related to individual, professional and work environment aspects, especially: gender, marital status, professional category, team composition and time spent in the same team<sup>(28)</sup>.

This study identified important stressors, such as deficits in professional training and dissemination of information on organizational decisions, lack of perspective for professional growth, discrimination/favoritism in the work environment, low valorization by superiors, distribution of tasks, lack of understanding of responsibilities and insufficient time to perform the work, allowing a general measure of stress<sup>(18)</sup>.

A study with professionals from Santa Maria, Rio Grande do Sul, found situations that CHA, because they reside in the same community where they work, are more exposed to physical risks for working directly in the households of the community in which they live and, because of the link with the families enrolled, people expect more from them, showing thus a greater tendency to psychological exhaustion<sup>(21)</sup>. According to the authors, the main causes of stress of the professionals are: lack of material resources, labor conflicts, lack of professional preparation, external pressure, party politics, lack of professional recognition, irresponsibility, power struggle, competition, authoritarianism, work overload, involvement of personal life in the work, financial problems and education of the children, accomplishment of the team work, interpersonal relationship with the headship, corroborating the results of this study.

Likewise, the CHA of the municipality of Taquari, also in Rio Grande do Sul, reported that the inadequate conditions for carrying out the work, such as a lack of material resources and ergonomically inadequate equipment, cause physical exhaustion, as well as the feeling of insecurity experienced during home visits, proximity to the residents and emotional involvement, which cause a psychic load that leads to professional exhaustion<sup>(31)</sup>.

In the case of the municipality studied, these conditions also apply to vector control agents, which perform a similar function to CHA and, therefore, work under the same conditions as the CHA.

These results contribute to the orientation of promoting actions and protection of workers' health, such as reorganization of

the work process, listening and stress management techniques, and moments of reflection and support for workers<sup>(26,29)</sup>, seeking to reduce suffering and damages that may compromise their health and ensure compliance with the guidelines of the new National Basic Care Policy (PNAB), especially the longitudinality of care – guaranteeing the “continuity of the care relationship, building bond and accountability between professionals and users over time, in a permanent and consistent way” (page 70)<sup>(2)</sup>.

The levels of *engagement* found in PHC workers in this study are superior to those reported in studies with Brazilian health professionals<sup>(30,32-33)</sup> and similar to those found in studies with Irish<sup>(34)</sup> and Saudi<sup>(35)</sup> nurses, showing that PHC workers have a strong positive relation with their job (General score), are involved and enthusiastic (Dedication), concentrated (Absorption) and with high levels of energy and resilience (Vigor). These results are positive and show the potential of professionals to fulfill their duties, as established by the PNAB<sup>(2)</sup>.

According to the literature, *engagement* is a phenomenon that is related to the group that the worker belongs to and is influenced by individual, organizational and work-specific characteristics<sup>(36-37)</sup>. This study evidences these affirmations when it finds differences between the levels of *engagement* according to sociodemographic and professional characteristics, such as the lower scores between the control agents of endemics, younger and single professionals.

Finally, it was observed that occupational stress correlates negatively with *engagement*, being an important factor for the commitment of work activities in PHC, and can directly compromise the care quality provided to users of the health system. As *engagement* is directly related to work performance, stimulating individual and collective *engagement* can reduce occupational stress and increase the involvement of professionals in the work, providing well-being of the teams, improving the quality of the service provided to the users and increasing the resoluteness. However, this is not an easy task, since the work environment is surrounded by positive and negative forces, which influence the *engagement* levels of professionals<sup>(37)</sup>.

As already discussed, there are a number of factors that compromise the physical and mental health of PHC workers, interfering with work performance. In this context, it is essential that managers and employees of the PHC services know in depth their attributions, defined by the new PNAB<sup>(2)</sup>, discuss and identify the factors that cause physical and psychological exhaustion, which may compromise professional performance, quality and of health services. This diagnosis will allow the planning of interventions, as well as the implementation of public policies that ensure adequate staffing and a work environment that promotes the health and well-being of workers.

## Study limitations

The main limitation of the study was the performance in a single municipality, limiting the analysis of the results. Thus, it is suggested to carry out other studies, with a greater number of workers and inclusion of municipalities from different regions, allowing to compare and discuss differences and similarities, contributing to the knowledge about occupational stress and *engagement* among PHC workers.

## Contributions to the field of nursing and public health

The study contributes to the reflection on the importance of a healthy working environment for PHC workers, including nursing workers. The identification of stressors and levels of *engagement* are useful indicators for the reflection on the structuring of the teams and the planning of the work process, from which the new PNAB is established; they also contribute to the direction of the health care policies of the workers, in order to create an environment conducive to the labor practice of all the workers involved in the assistance to the population, guaranteeing the provision of services with safety and quality.

## CONCLUSION

The profile of PHC workers studied is predominantly of women, with 40 years old or older, with a duration of 3 to 10 years in PHC. More than a third of the workers presented scores compatible with important occupational stress.

The major stressors of the workers were: lack of professional training and dissemination of information about organizational decisions, lack of perspective for professional growth, discrimination/favoritism in the work environment, low valorization by superiors, distribution of tasks, lack of understanding of responsibilities and insufficient time to do the job. Workers with higher levels of stress were: vector control agents, workers with incomplete higher education, family income up to a minimum wage, up to two years of professional work in the PHC, who were unsatisfied with the profession/occupation and who already thought about giving up their profession.

In a general analysis, the workers presented high levels of *engagement*, surpassing the indices presented by other groups of Brazilian professionals. However, some groups had lower indexes, such as vector control agents, younger and single workers, showing a compromise of the relationship between these workers and the work environment.

Occupational stress and *engagement* correlate negatively, so workers with high levels of occupational stress tend to have lower *engagement*.

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