e-ISSN:1806-1230

DOI: 10.5020/18061230.2019.9157

# OCCUPATIONAL STRESS AND ENGAGEMENT IN ORAL HEALTH PROFESSIONALS Estresse ocupacional e engajamento em profissionais de saúde bucal Estrés laboral y compromiso de profesionales de la salud bucal

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#### **ABSTRACT**

Objective: To evaluate the levels of occupational stress and engagement in oral health professionals from Primary Health Care units. Methods: It is a quantitative, descriptive, correlational and cross-sectional study conducted with oral health professionals from Primary Health Care units in the city of São José do Rio Preto, São Paulo, in 2017. We used three self-applied instruments: one developed by the researchers, containing sociodemographic and professional variables, the Stress at Work Scale, and the Utrecht Work Engagement Scale. Occupational stress and engagement levels were calculated according to the statistical model proposed by the instruments and, for the analysis, Pearson's correlation test was used, considering the significance of 95%. Results: 31 professionals participated, being 20 (64.5%) dental surgeons and 11 (35.5%) oral health auxiliaries. There was a prevalence of females (n = 21; 67.7%), aged 40 years or older (n = 14; 45.2%), married (n = 26; 83.9%), hired / statutory (n = 16; 51.6%), with a weekly workload of 40 hours (n = 23; 74.2%), without any other paid activity (n = 19; 61.3%), three to ten years of experience in the Primary Health Care (n = 13; 41.9%) and satisfied with the profession (n = 28; 90.3%). The sample did not show significant stress levels, but nine (29.0%) professionals obtained scores compatible with significant stress (> 2.5). Professionals had high levels of engagement in all dimensions. Occupational stress and engagement correlate negatively. Conclusion: Workers had high levels of engagement. Occupational stress and engagement tend to be inversely proportional.

Descriptors: Occupational Stress; Work engagement; Dentists; Dental Auxiliaries; Primary Health Care.

# **RESUMO**

Objetivo: Avaliar os níveis de estresse ocupacional e engajamento em profissionais de saúde bucal de unidades da Atenção Primária à Saúde. Métodos: Estudo quantitativo, descritivo, correlacional e transversal, realizado com profissionais da saúde bucal das unidades de Atenção Primária à Saúde do município de São José do Rio Preto, São Paulo, em 2017. Utilizaram-se três instrumentos autoaplicáveis: um elaborado pelos pesquisadores, contendo variáveis sociodemográficas e profissionais, a Escala de Estresse no Trabalho e a Utrecht Work Engagement Scale. Os níveis de estresse ocupacional e engajamento foram calculados segundo modelo estatístico proposto pelos instrumentos e, para a análise, utilizou-se teste de correlação de Pearson, considerando significância de 95%. Resultados: Participaram 31 profissionais, sendo 20 (64,5%) cirurgiões-dentistas e 11 (35,5%) auxiliares de saúde bucal. Houve prevalência do sexo feminino (n=21; 67,7%), faixa etária de 40 anos ou mais (n=14; 45,2%), casados (n=26; 83,9%), concursados/estatutários (n=16; 51,6%), com carga horária semanal de 40 horas (n=23; 74,2%), sem outra atividade remunerada (n=19; 61,3%), três a dez anos de atuação na Atenção Primária à Saúde (n=13; 41,9%) e satisfeitos com a profissão (n=28; 90,3%). A amostra não apresentou níveis importantes de estresse, mas nove (29,0%) profissionais obtiveram escores compatíveis com estresse importante (≥2,5). Os profissionais apresentaram níveis altos de engajamento em todas as



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Received on: 03/18/2019

Accepted on: 11/01/2019

dimensões. Estresse ocupacional e engajamento se correlacionam negativamente. Conclusão: Os trabalhadores apresentaram altos níveis de engajamento. Estresse ocupacional e engajamento tendem a ser inversamente proporcionais.

Descritores: Estresse Ocupacional; Engajamento no Trabalho; Odontólogos; Auxiliares de Odontologia; Atenção Primária à Saúde.

#### RESUMEN

Objetivo: Evaluar los niveles de estrés laboral y compromiso de profesionales de salud bucal de unidades de la Atención Primaria de Salud. Métodos: Estudio cuantitativo, descriptivo, de correlación y transversal realizado con profesionales de salud bucal de las unidades de Atención Primaria de Salud del municipio de São José do Rio Preto, São Paulo, en 2017. Se ha utilizado tres instrumentos auto aplicables: uno de ellos ha sido elaborado por los investigadores con variables sociodemográficas y profesionales, la Escala de Estrés en el Trabajo y la Utrecht Work Engagement Scale. Los niveles del estrés laboral y del compromiso han sido calculados según el modelo estadístico propuesto por los instrumentos y para el análisis se utilizó la prueba de correlación de Pearson con significancia del 95%. Resultados: Participaron 31 profesionales siendo 20 (64,5%) cirujanos-dentistas y 11 (35,5%) auxiliares de salud bucal. Hubo prevalencia para el sexo femenino (n=21; 67,7%), la franja de edad de 40 años o más (n=14; 45,2%), casados (n=26; 83,9%), concursantes/estatutarios (n=16; 51,6%), con 40 horas semanales de trabajo (n=23; 74,2%), sin otra actividad remunerada (n=19; 61,3%), entre tres y diez años de actuación en la Atención Primaria de Salud (n=13; 41,9%) y satisfechos con la profesión (n=28; 90,3%). La muestra no ha presentado niveles importantes de estrés pero nueve (29,0%) profesionales tuvieron puntuaciones compatibles con el estrés importante (≥2,5). Los profesionales presentaron niveles altos de compromiso para todas las dimensiones investigadas. El estrés laboral y el compromiso se han correlacionado de manera negativa. Conclusión: Los trabajadores presentaron altos niveles de compromiso. El estrés laboral y el compromiso tienden a ser inversamente proporcionales.

Descriptores: Estrés Laboral; Compromiso Laboral; Odontólogos; Auxiliares Dentales; Atención Primaria de Salud.

## INTRODUCTION

The Family Health Strategy (*Estratégia de Saúde da Família - ESF*), implemented in Brazil in the 1990s, as a model for reorienting health practices, emerged intending to replace the old hospital valuation practices with proposals focused on health promotion, having the family as the main point of care, and not the sick individual, so as not to wait for users to arrive to be cared for, but to act preventively on them based on a new model of care<sup>(1)</sup>.

Although the participation of oral health professionals in ESF activities has been proposed since its implementation, the official incorporation of these professionals occurred only in the 2000s, when the Ministry of Health established a financial incentive for the inclusion of oral health teams (*equipes de saúde buccal - eSB*) in the ESF<sup>(2)</sup>.

Under the (*Política Nacional de Atenção Básica - PNAB*) in force, the eSB must consist of a dental surgeon and oral health technician (*técnico em saúde buccal - TSB*) and/or an oral health assistant (*auxiliar de saúde bucal - ASB*), allocated in a Basic Health Unit (*unidade básica de saúde - UBS*), or Mobile Dental Unit, and linked to a Primary Care team (*equipe de atenção básica - eAB*), or Family Health team (*equipe de saúde da família - eSF*). ESBs are classified into two modalities: modality I, composed of a dental surgeon and an ASB or TSB; and modality II, composed of a dental surgeon, a TSB and an ASB, or two TSB<sup>(3)</sup>.

Some characteristics inherent to the work activity of oral health professionals, such as inadequate posture positions, poorly lit operating field, work under pressure, in addition to the need to deal with the patient's anguish and pain, make the profession one of the most stressful in the Health area<sup>(4)</sup>.

In this context, the understanding of stressful factors that can compromise the health of Dentistry professionals, consequently, of the eSB of the ESF, can be a way for improvements, because the knowledge of the situation allows the reorganization of the system, preventing health problems. It is also possible to create strategies for restructuring that favor the improvement of working conditions, with repercussions on increased productivity and quality of care<sup>(5)</sup>.

On the other hand, the positive aspects of the relationship between health professionals and the work environment can strengthen the bond between workers and professional practice, improving the quality of services and resolving users' problems. In this context, engagement represents a positive mental state related to work, characterized by vigor, dedication and absorption<sup>(6,7)</sup>. It was conceptualized, in the 1990s, as a positive affective-emotional mental state about work and indicates persistence, encompasses energy, emotional involvement, dedication to work and immersion in work activities<sup>(6,8)</sup>.

Reinforcing this argument, some studies emphasize higher rates of professional engagement related to academic degrees, such as a survey of Indian dentists with a master's degree who had higher engagement rates than other

professionals<sup>(9)</sup>. Another study, carried out in the Netherlands, to assess the engagement levels of dental surgeons and related dental resources, showed relatively high engagement scores<sup>(10)</sup>.

In this context, knowing the levels of engagement and occupational stress, as well as identifying the most important stressors in the perception of the professionals of oral health teams can contribute to directing actions to improve the work and health conditions of these professionals, reducing risks and vulnerabilities inherent to the environment and the work process, as established by the (*Política Nacional de Promoção da Saúde - PNPS*)<sup>(11)</sup>. Besides, the results may contribute to the improvement of public health care policies for workers in the municipality, based on the strengthening of actions to promote health and quality of life at work.

Given the above, this study aimed to evaluate occupational stress levels and engagement in oral health professionals in Primary Health Care units (*Atenção Primária à Saúde - APS*).

## **METHODS**

A quantitative, descriptive, correlational and cross-sectional study carried out with oral health professionals from primary health care units in the city of São José do Rio Preto, located in the Northwest region of the state of São Paulo, 452 km from the capital. It has an estimated population of 450,657 inhabitants<sup>(12)</sup>.

The Municipal Health System is structured in five Health Districts. It has 27 Primary Care Units, 10 Basic Health Units (UBS) and 17 Basic Family Health Units (UBSF), with 20 oral health teams<sup>(13)</sup>.

The study population consisted of professionals from eSB (dental surgeons and oral health assistants) from primary health care units (10 UBS and 17 UBSF) in the city of São José do Rio Preto, São Paulo, with an estimated of 40 professionals. Professionals who were on vacation and / or away from professional activities at the time of data collection were excluded.

Three instruments were used to collect the data: one developed by the authors to collect information on the socio-demographic and professional profile of APS workers; the Stress at Work Scale (EET), validated in a study (14) carried out in public and private organizations in the Federal District and São Paulo; and the Utrecht Work Engagement Scale (UWES), validated in a study (15) carried out in the five Brazilian regions.

The EET is composed of 23 negative statements, with a 5-point scale, ranging from "1 - strongly disagree" to "5 - strongly agree", and the higher the score, the greater the stress. EET indicators were developed based on the analysis of the literature on organizational stressors of a psychosocial nature and on psychological reactions to occupational stress. EET is a general stress measure, of which items address various stressors and emotional reactions constantly associated with them. The validation study<sup>(14)</sup> indicates that EET has satisfactory psychometric characteristics and can contribute both to research on the topic and to the diagnosis of the organizational environment. EET is not a psychological test, but an organizational diagnostic tool that has been subjected to tests and psychometric requirements<sup>(14)</sup>.

The UWES consists of seventeen self-assessment items with three dimensions (vigor, dedication and absorption) and an overall score<sup>(15)</sup>. The measurement of vigor consists of the average of the six items that refer to high levels of energy and resilience, willingness to invest efforts, not fatigue easily, and persist in the face of difficulties<sup>(15,16)</sup>. Dedication is measured by the average of the five items related to a sense of meaning for the work, feeling excited and proud about his work, feeling inspired, and challenged by it<sup>(15,16)</sup>.

For the measurement of absorption, the average of the six items related to being immersed in the work and having difficulties in detaching from it is calculated, time passes quickly and he forgets everything around him<sup>(15,16)</sup>. The general score consists of the average of all UWES items<sup>(15,16)</sup>.

Data collection was carried out from January to March 2017. After authorization by the Municipal Health Secretary, the researchers contacted the managers of the health units included in the study to present the research and its objectives, and the participants signed the Free and Informed Consent Form (ICF).

Questionnaires and informed consent forms were handed over to the managers, who were responsible for distributing them to the study professionals and receiving them after being completed. To preserve the identity of the study participants, the data collection instruments were collected and stored in separate envelopes from the informed consent forms. Then, the envelopes with the answered instruments were delivered to the researchers.

The data obtained were stored in a database, using the Microsoft Excel® spreadsheet, enabling analysis according to the proposed objectives. It used the Statistical Package for Social Sciences (SPSS) version 20.0 to analyze the data.

Sociodemographic variables were used to characterize the study population. The evaluation of occupational stress occurred from the calculation of an overall average score and an average score for each item on the scale, identifying the most present stressors, according to the professionals' perception. EET indicators range from 1 to 5 and, the higher the average, the greater the stress. Average stress levels equal to or greater than 2.5 are considered indicators of important stress levels.

The UWES dimension scores were calculated according to the statistical model proposed in the UWES - Utrecht Work Engagement Scale<sup>(16)</sup> Preliminary Manual, presenting a reliability coefficient, minimum, maximum, median, and mean values (± standard deviation) and interval of 95% confidence for each dimension of the scale. After calculating the scores, there was the interpretation of the values according to the preliminary decoding Manual UWES, as shown in Table I.

Table I - Model for interpreting the values of the mean scores of the Utrecht Work Engagement Scale - UWES. São José do Rio Preto, 2019.

Classification	Frequency of feelings about work (questions UWES)
Very low	0 a 0.99 = 1 (A few times a year)
Low	1 a 1.99 = 2 (Once or less per month)
Medium	2 a 2.99 = 3 (A few times a month)
Medium	3 a 3.99 = 4 (Once a week)
High	4 a 4.99 = 5 (A few times a week)
Very High	5 a 6 = 6 (Every day)

The reliability of the measurements of the UWES constructs was measured by Cronbach's alpha internal consistency indicator. Finally, the correlation analysis between occupational stress and the dimensions of the UWES (Dedication, Absorption, Vigor and general score) was performed, using the Pearson correlation test, with a significance level of 95% (p<0.05). A weak correlation was considered for values of r up to 0.30, moderate for values between 0.40 and 0.60, and strong for values greater than 0.70.

This study was approved by the Research Ethics Committee of the Faculty of Medicine of São José do Rio Preto (FAMERP), with Opinion No. 1,776,737.

# **RESULTS**

The study included 31 professionals who answered the instruments, 20 (64.5%) of which were dental surgeons and 11 (35.5%) ASB. As shown in Table II, there was a prevalence of females (67.7%), 40 years old or older (45.2%), married (83.9%), public workers / statutory (51.6%), with a weekly workload of 40 hours (74.2%), without other paid activity (61.3%), working at the APS for three to ten years (41.9%) and satisfied with the profession (90.3 %).

Table II - Sociodemographic characteristics of oral health professionals in Primary Health Care. São José do Rio Preto, 2019.

Variables	n	%
Occupation area		
Dental surgeon	20	64.5
Oral health assistant	11	35.5
Sex		
Masculine	10	32.3
Feminine	21	67.7
Age group		
From 18 to 28 years	3	9.7
De 29 to 39 years	13	41.9
40 years or more	14	45.2
Did not answer	1	3.2
Marital status		
Married	26	83.9
Single	3	9.7
Divorced/Separate	1	3.2
Did not answer	1	3.2
Work regime		
Tender (Statutory)	16	51.6
Tender (CLT employee)	15	48.4
Weekly workload		
20 hours	8	25.8
40 hours	23	74.2
Outra atividade remunerada		
Yes	11	35.5
No	19	61.3
Did not answer	1	3.2
Family income*	·	
From 2 to 5 salaries	15	48.4
From 6 to 10 salaries	5	16.1
More than 10 salaries	9	29.0
Did not answer	2	6.5
Daily hours of sleep	-	0.0
Less than 6 hours	5	16.1
From 6 to 8 hours	26	83.9
Time working in APS	20	00.0
Up to 2 years	5	16.1
From 3 to 10 years	13	41.9
Over 10 years	10	32.3
Did not answer	3	9.7
Practices physical activity	J	5.1
Yes	12	38.7
No	19	61.3
Satisfied with profession / function	10	01.0
Yes	28	90.3
No	3	90.3
	S	9.1
Thought about giving up the profession / function	4	12.0
Yes	4	12.9
No	27	87.1

<sup>\*</sup> Minimum wage: R \$ 937.00; APS: Primary Health Care

The general occupational stress score of the professionals was 2.2 (SD =  $\pm$  0.6; minimum = 1.0 and maximum = 3.3), showing that the sample did not present important levels of stress. However, seven items obtained scores compatible with important stress ( $\geq$ 2.5).

Table III shows the scores for each EET item from the perception of the oral health professionals evaluated. The most important stressors were: [Q2] The type of control that exists in my work irritates me  $(2.8; \pm 1.0)$  [Q3] Lack of autonomy in performing the work  $(2.7; \pm 1.2)$ ; [Q13] Deficiency in training for professional training  $(2.7; \pm 1.1)$ ; [Q16] Lack of prospects for career growth  $(2.6; \pm 1.1)$ ; [Q17] How the tasks are distributed  $(2.5; \pm 1.0)$ ; [Q175] Little appreciation by superiors  $(2.5; \pm 1.1)$ ; [Q22] Lack of time to do the job  $(2.5; \pm 9)$ .

As shown in Table IV, the levels of engagement obtained by the studied oral health professionals ranged from 4.6 (± 1.1) to 4.8 (± 1.1), being classified as high in all dimensions of the UWES scale. Cronbach's alpha coefficient values ranged from 0.858 to 0.950, indicating data consistency and reliability of results.

Occupational stress and engagement were negatively correlated. As noted in Table V, the correlation between occupational stress and all dimensions of the UWES was weak.

Table III - Distribution of scores for the Stress at Work Scale – EET items, according to the perception of oral health professionals in Primary Health Care. São José do Rio Preto, 2019.

Workplace Stress Scale Items - EET	mean (±dp)
General indicator	2.2 (±0.6)
Q1 - The way tasks are distributed in my area has made me nervous	2.5 (±1.0)
Q2 - The kind of control in my work irritates me	2.8 (±1.0)
Q3 - The lack of autonomy in the execution of my work has been exhausting	2.7 (±1.2)
Q4 - I have been uncomfortable with my superior's lack of confidence in my work	2.1 (±1.2)
Q5 - I feel irritated by the deficiency in disseminating information about organizational decisions	2.4 (±0.7)
Q6 - I feel uncomfortable with the lack of information about my tasks at work	2.1 (±0.7)
Q7 - The lack of communication between me and my co-workers makes me angry	2.1 (±0.9)
Q8 - I feel bothered by my superior treating me badly in front of coworkers	1.8 (±1.2)
Q9 - I feel uncomfortable having to perform tasks that are beyond my ability	2.2 (±1.0)
Q10 - I get in a bad mood for having to work for many hours straight	2.1 (±0.9)
Q11 - I feel uncomfortable with the communication between me and my superior	2.0 (±0.9)
Q12 - I get irritated by discrimination / favoritism in my work environment	2.2 (±1.1)
Q13 - I have been uncomfortable with the deficiency in training for professional training	2.7 (±1.1)
Q14 - I get in a bad mood because I feel isolated in the organization	2.0 (±0.7)
Q15 - I am irritated by being underrated by my superiors	2.5 (±1.1)
Q16 - The few prospects for career growth have distressed me	2.6 (±1.1)
Q17 - I have been uncomfortable working on tasks below my skill level	2.1 (±0.9)
Q18 - The competition in my work environment has put me in a bad mood	1.7 (±0.6)
Q19 - The lack of understanding of what my responsibilities are in this job has caused irritation	2.2 (±1.0)
Q20 - I have been nervous that my superior gave me contradictory orders	2.1 (±0.9)
Q21 - I feel irritated by my superior covering up my job well done in front of other people	1.8 (±0.8)
Q22 - Insufficient time to do my workload makes me nervous	2.5 (±0.9)
Q23 - I am annoyed that my superior avoids taking on important responsibilities	1.9 (±0.7)

Table IV - Evaluation of the levels of engagement of oral health professionals in Primary Health Care. São José do Rio Preto, 2019.

UWES dimensions	Cronbach's alpha	Min	Max	Md	Mean±sd	IC (95%)	Interpretation
Force	0.897	3.0	6.0	5.0	4.8±1.0	4.4 – 5.2	Alto
Dedication	0.868	2.6	6.0	5.4	4.8±1.1	4.4 – 5.3	Alto
Absorption	0.858	1.8	6.0	5.0	4.6±1.1	4.2 – 5.0	Alto
Overall score	0.950	2.8	6.0	5.1	4.7±1.0	4.4 – 5.1	Alto

Min: minimum, Max: maximum, Md: median, sd: standard deviation, 95% CI: 95% confidence interval; Dimensions of Utrecht Work Engagement: dedication, absorption, vigor and overall score

Table V - Correlations between the Stress at Work Scale (TSE) and the dimensions of Utrecht Work Engagement (UWES). São José do Rio Preto, 2019.

Dimensões UWES	EET	Valor-p
Dedicação	-0.227**	0.114
Absorção	-0.134**	0.240
Vigor	-0.371°	0.022
Escore geral	-0.254**	0.087

<sup>\*</sup> p<0.05; \*\*p<0.01; EET: Work Stress Scale; Dimensions of Utrecht Work Engagement: dedication, absorption, vigor and overall score

# **DISCUSSION**

The prevalence of female professionals, found in the present study, is similar to that pointed out by studies related to the topic in the field of health<sup>(17-19)</sup> and it is related to the feminization process of health professionals linked to Primary Health Care services. This phenomenon may be associated with the economic change that occurred in Brazil in the past decade, driving women to the labor market <sup>(20)</sup>.

The predominance of married couples corroborates a study with ESF workers in a city in Rio Grande do Sul<sup>(21)</sup>. This result may be related to the prevalence of professionals over the age of 40.

The prevalence of public tenders is opposed to the results of a study carried out in 2001/2002, by the Department of Primary Care of the Ministry of Health (DAB / MS), which identified about 20 to 30% of ESF workers with precarious employment<sup>(22)</sup>. On the other hand, corroborate studies carried out in Vitória, Espírito Santo<sup>(23)</sup> and Minas Gerais<sup>(2,24)</sup>. Stable professional ties are a positive factor, which contributes to the work performance of the worker, ensuring better assistance to users of the health service<sup>(2,23,24)</sup>. Besides, the guarantee of social protection that the stable employment relationship generates avoids feelings of instability, insecurity and worker stress<sup>(23)</sup>.

Although the general occupational stress score of the professionals studied did not identify an important level of stress, some aspects inherent to the work process in the ESF were pointed out as stressful, corroborating the literature that states that work stress is a multi-factorial phenomenon that can develop early in the dentistry career<sup>(25)</sup>.

The feeling of stress due to the lack of autonomy and type of control, pointed out by the workers in the current research, may be related to cultural issues inherent to working in a private practice, in which the professional has autonomy over all aspects of their professional practice. A study carried out in the Federal District corroborates these results by identifying that the practice of individual care, the conception of work in the ESF, and the autonomy of oral health professionals restrict their performance with the eSB<sup>(26)</sup>. The literature corroborates the complaint of the professionals in this study about the lack of time to carry out the work<sup>(24,27,28)</sup>.

The lack of professional training, highlighted by the professionals in this study, is pointed out in the literature as a stress-generating factor<sup>(24,29)</sup>. Therefore, it is essential to reflect on the need to improve the qualification process of eSB professionals, implementing actions that qualify them to meet the general and specific attributions established by the National Primary Care Policy<sup>(11)</sup>.

Another possible strategy for improving the training of oral health professionals is the improvement of the curricular matrices of Dentistry courses, ensuring training in health promotion and protection, disease prevention, diagnosis, treatment, monitoring, rehabilitation and maintenance of individual and collective health for all families, individuals and specific groups assisted by the ESF<sup>(11)</sup>.

The levels of engagement presented by oral health professionals corroborate the results of a study carried out with Indian dentists<sup>(9)</sup> and other studies, carried out in Brazil<sup>(30-32)</sup> and Portugal<sup>(32)</sup>, with APC professionals. These studies show that, despite the presence of stressors, the professionals studied have energy, disposition, concentration, effort capacity and persistence in the face of existing difficulties in the work environment. Engagement was conceptualized as a relatively stable phenomenon and the positive relationship of oral health professionals with the work environment as essential, as it is directly proportional to patient satisfaction in relation to dental care<sup>(9)</sup>.

The negative correlation between occupational stress and engagement, although weak in the current study, shows that an increase in one reduces the other. As engagement is linked to positive work-related attitudes, encouraging individual and collective engagement can reduce occupational stress and increase the involvement of professionals at work, providing well-being for the eSBs, improving the quality of care provided to users and increasing resolution, benefiting APS services.

The results of the present study allow us to reflect on the importance of healthy professional environments, which provide workers' well-being and reduce the risks of stress. Professionals lack professional training, which is fundamental for improving the quality of services provided and increasing resolution. The identification of stressful aspects allows the targeting of stress prevention and health promotion actions. It is necessary to develop new studies, involving a greater number of professionals and deepening the discussion on this topic, to support the creation of actions that promote the health of oral health professionals inserted in APS services.

# CONCLUSION

The investigated workers showed high levels of engagement; some aspects related to work cause stress. Occupational stress and engagement tend to be inversely proportional.

#### CONFLICTS OF INTEREST

There are no conflicts of interest.

# **CONTRIBUITIONS**

Jussara Rossi Castro and Luciano Garcia Lourenção contributed to the elaboration and design of the study; data acquisition, analysis and interpretation; writing and / or revision of the manuscript; Claudia Eli Gazetta, Albertina Gomes da Silva and Paula Canova Sodré contributed to the analysis and interpretation of data; writing and / or revision of the manuscript.

**Article extracted from the master's dissertation of** Jussara Rossi Castro entitled Occupational stress and engagement in oral health professionals in Primary Health Care. São José do Rio Preto Medical School, Graduate Program in Psychology and Health, 2019, 49 pages.

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**How to cite**: Castro JR, Gazetta CE, Silva AG, Sodré PC, Lourenção LG. Occupational stress and engagement in oral health professionals. Rev Bras Promoç Saúde. 2019;32:9157.