



# Occupational stress in family health teams certified and non-certified with assistance quality seal

*Estresse ocupacional em equipes saúde da família certificadas e não certificadas com selo de qualidade assistencial*

*Estrés laboral en equipos de salud familiar certificados y no certificados con sello de calidad asistencial*

Luiza Ferreira Rigonatti Silva<sup>1</sup>

Alessandro Rolim Scholze<sup>1</sup>

Paloma de Souza Cavalcante Pissinati<sup>2</sup>

Janaína Recanello Begui<sup>1</sup>

Maynara Fernanda Carvalho Barreto<sup>1</sup>

Maria José Quina Galdino<sup>1</sup>

1. Universidade Estadual do Norte do Paraná.  
Bandeirantes, PR, Brasil.

2. Secretaria Municipal de Saúde de Rolândia.  
Rolândia, PR, Brasil.

## ABSTRACT

**Objective:** to compare occupational stress in professionals from family health teams certified and non-certified with assistance quality seal by the Primary Health Care Mentoring. **Method:** a cross-sectional study carried out with 178 workers from the Family Health Strategy teams of two municipalities in Paraná. The data were collected through a characterization questionnaire and the Job Stress Scale, and analyzed descriptively and inferentially by means of crude and adjusted logistic regression. **Results:** professionals linked to certified teams had significantly greater chances of high psychological demand ( $p < 0.001$ ; OR: 3.781) and low social support ( $p = 0.030$ ; OR: 1.896) in relation to those from non-certified teams. Control over work showed no significant difference ( $p = 0.891$ ; OR<sup>adj</sup>: 1.047). Participants from the certified teams had a higher chance of job strain ( $p < 0.001$ ; OR<sup>adj</sup>: 4.956) and among those from the non-certified teams, passive work predominated ( $p < 0.001$ ; OR<sup>adj</sup>: 0.293). **Conclusion:** Professionals from teams with quality certification in the provision of services had a greater chance of occupational stress in relation to those linked to non-certified teams. **Implications for the practice:** it is imperative that the management models of quality of care consider the health of the workers involved.

**Keywords:** Occupational Stress; Primary Health Care; Health Personnel; Occupational Health; Quality Management.

## RESUMO

**Objetivo:** comparar o estresse ocupacional em trabalhadores de equipes saúde da família certificadas e não certificadas com selo de qualidade assistencial pela Tutoria da Atenção Primária à Saúde. **Método:** estudo transversal realizado com 178 trabalhadores das equipes da Estratégia Saúde da Família de dois municípios do Paraná. Os dados foram coletados por um questionário de caracterização e a Job Stress Scale, e analisados descritiva e inferencialmente por meio de regressão logística bruta e ajustada. **Resultados:** os trabalhadores vinculados às equipes certificadas apresentaram chances significativamente maiores de alta demanda psicológica ( $p < 0,001$ ; OR<sup>aj</sup>: 4,164) e baixo apoio social ( $p = 0,048$ ; OR<sup>aj</sup>: 1,896) em relação aos das não certificadas. O controle sobre o trabalho não apresentou diferença significativa ( $p = 0,891$ ; OR<sup>aj</sup>: 1,047). Os participantes de equipes certificadas apresentaram maior chance de job strain ( $p < 0,001$ ; OR<sup>aj</sup>: 4,956) e entre aqueles de equipes não certificadas predominou o trabalho passivo ( $p < 0,001$ ; OR<sup>aj</sup>: 0,293). **Conclusão:** os trabalhadores de equipes de saúde com certificação de qualidade na prestação de serviços apresentaram maiores chances de estresse ocupacional em relação aqueles vinculados a equipes não certificadas. **Implicações para a prática:** torna-se premente que os modelos gerenciais de qualidade da assistência considerem a saúde dos trabalhadores envolvidos.

**Palavras-chave:** Estresse Ocupacional; Atenção Primária à Saúde; Pessoal de Saúde; Saúde do Trabalhador; Gestão da Qualidade.

## RESUMEN

**Objetivo:** comparar el estrés laboral en trabajadores de los equipos de salud familiar certificados y no certificados con sello de calidad en la atención de la Mentoría de Atención Primaria. **Método:** estudio transversal con 178 trabajadores de los equipos del plan Estrategia Salud de la Familia de dos municipios de Paraná. Los datos fueron recolectados a través de un cuestionario de caracterización y de la Job Stress Scale, por medio de análisis descriptivo e inferencial, mediante regresión logística bruta y ajustada. **Resultados:** los trabajadores vinculados a equipos certificados presentaron probabilidades significativamente mayores de alta demanda psicológica ( $p < 0,001$ ; OR: 3,781) y bajo apoyo social ( $p = 0,030$ ; OR: 1,896) en relación a los de equipos no certificados. El control sobre el trabajo no mostró diferencia significativa ( $p = 0,891$ ; OR<sup>aj</sup>: 1,047). Los participantes de equipos certificadas obtuvieron una mayor probabilidad de padecer tensión laboral ( $p < 0,001$ ; OR<sup>aj</sup>: 4,956) y entre los de equipos no certificadas predominó el trabajo pasivo ( $p < 0,001$ ; OR<sup>aj</sup>: 0,293). **Conclusión:** los trabajadores de equipos de salud con certificación de calidad en la prestación de servicios presentaban mayor probabilidad de estrés ocupacional en relación a los vinculados a equipos no certificados. **Implicaciones para la práctica:** es imperativo que los modelos de gestión de la calidad de la atención consideren la salud de los trabajadores involucrados.

**Palabras-Clave:** Estrés Laboral; Atención Primaria de Salud; Personal de Salud; Salud Laboral; Gestión de la Calidad.

### Corresponding author:

Maria José Quina Galdino  
E-mail: mjgaldino@gmail.com

Submitted on 11/11/2020.

Accepted on 03/17/2021.

DOI: <https://doi.org/10.1590/2177-9465-EAN-2020-0457>

## INTRODUCTION

Primary Health Care (PHC) is a consolidated and efficient strategy for organizing health systems, as it advocates universal access to services and comprehensive, quality care for the population.<sup>1</sup> PHC aims to decentralize services, organize the care model, be the provider and coordinator of care, in addition to incorporating the guidelines and principles of the Unified Health System (*Sistema Único de Saúde*, SUS).<sup>2</sup> In search of breaking away from a hegemonic model centered on the disease, in 1994, the Ministry of Health implemented the Family Health Strategy (FHS) and, subsequently, with the aim of reorganizing the SUS, with the National Primary Care Policy (*Política Nacional de Atenção Básica*, PNAB), the FHS became the main means of expansion, consolidation and qualification of PHC.<sup>2</sup>

At the same time, there is a movement to improve the quality of care provided to the users of the health services, monitored by service evaluation strategies, such as accreditation systems, used in more than 70 countries, a process that is administered by governments or organizations of independent evaluation.<sup>3</sup> Accreditation refers to the recognition of compliance with pre-established and reference models and excellence in health, which must be carried out by evaluators, in pairs, and external. At the PHC level, the United States, Canada, Australia, the United Kingdom, New Zealand, Jordan, Saudi Arabia, Lebanon and Egypt have well-developed, high-quality accreditation models. These models are useful tools to improve the safety and quality of the health services, with emphasis on primary care.<sup>4</sup>

In Brazil, the Ministry of Health introduced the National Program for the Improvement of Access and Quality of Primary Care (*Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica*, PMAQ-AB) to encourage managers and teams to improve the qualification of the actions offered to the population of the territory, with financial incentives according to adherence. The program recommends strategic actions with the objective of improving the results of PHC actions, considering a uniform quality standard, allowing greater effectiveness of governmental actions aimed at this care level.<sup>5</sup>

From this perspective, in Paraná, the implementation of the Primary Health Care Qualification Program (APSUS) was defined as a strategic action, a program to support municipalities, which proposes the improvement of PHC at the state level, being a reference for the other Brazilian states. The program is divided into three main components: investment in improving the structure of the unit, funding for the team, with monthly state incentives and permanent education.<sup>6</sup> As a result, the State Health Department developed a methodology called "mentoring" that promotes the application of concepts of the quality principles, as well as the attributes and functions of PHC in the reality of each health team. Thus, there is the establishment of standards and protocols, organization of the work process, guarantee of the safety of the user and the professional, which, consequently, generate improvements in care, health indicators and user satisfaction.<sup>6</sup> The evaluation process is reflected in hierarchical certification seals: bronze (risk management), silver (process

management), gold (guarantee of results to the population) and diamond (consolidation of the work process, with excellence in management), which are attributed to health teams that have reached the expected quality standards.<sup>7</sup>

The PHC professionals are protagonists of the development and improvement of this health system; they develop their work activities in an environment that is not always favorable to their professional practices,<sup>8</sup> manifested by health personnel, insufficient equipment and supplies, inadequate physical structure, low remuneration, and exposure to biopsychosocial health risks; and these factors favor the development of occupational stress.<sup>9,10</sup>

Occupational stress comes from the work environment and involves aspects of the organization, management, conditions and quality of interpersonal relationships at work.<sup>11,12</sup> Among the most widely adopted theoretical models for assessing stress at work, there is the Demand - Control - Social Support, proposed by Theorell and Karasek, which comprises occupational stress as a result of the interaction between many psychological demands arising from the work environment, less control over the labor process and less social support received from colleagues and bosses.<sup>12</sup>

The demands refer to the psychological requirements of the work, involving time, speed and intensity in carrying out the activities, and the conflicting demands; control refers to the use of intellectual skills and the autonomy to make decisions about one's own work; and social support refers to the interaction and support offered in the interpersonal relationships at work, which can minimize stressful events, as it collaborates in overcoming difficulties, and promotes well-being and satisfaction in the work environment.<sup>12</sup>

Thus, it is understood that the work organization of the Family Health team (FHT) affects the health of those who work there and the quality management model may influence demand, control and social support at work, due to the requirements established in models of service evaluation and accreditation, in which the professionals are inserted. High levels of occupational stress predispose workers to illness and increase presenteeism, absenteeism, turnover, job dissatisfaction, adverse events and, consequently, impact on the care provided to the population.<sup>13</sup>

For the reasons explained and the incipience of published studies that compare occupational stress in certified and non-certified primary care organizations, it is important to develop research that performs this analysis.<sup>9,14</sup> Such results may support actions to improve the working conditions and the quality of care provided to the community.

Thus, this study aimed to compare occupational stress in professionals from family health teams certified and non-certified with the quality assistance seal by the Primary Health Care Mentoring. The hypothesis is that the professionals who work in services certified with the quality seal present greater psychological demand, control and social support at work in relation to those from non-certified teams.

## METHOD

A cross-sectional study carried out with workers from the FHS teams of two municipalities in the state of Paraná, called A and B. Municipality A has approximately 65,000 inhabitants, a population density of 126 inhabitants/km<sup>2</sup>, 9 basic health units (BHU), with 15 FHS teams, all of them certified with the Bronze Seal of quality in PHC by the Mentoring for one year. Municipality B has approximately 32,000 inhabitants, 72 inhabitants/km<sup>2</sup>, 8 BHU and 8 FHS teams, which do not have any type of quality certification. These municipalities were chosen for intentionality, since 94.9% of the Brazilian cities are classified as small and medium-sized and have similarities in health management.<sup>15</sup>

The Mentoring evaluation process aims to qualify PHC, through voluntary adherence by the FHT and municipal managers, with the premise that the results achieved depend on the involvement of all actors. Among the guidelines, the definition of quality parameters is highlighted, based on the analysis of the different health realities; in addition to the continuous stimulation of standards for improving access and quality; mobilization of municipal and state managers for the qualification of primary care and strengthening of the care models provided for in the PNAB.<sup>7</sup> Unlike the PMAQ, it is a quality care model with no financial incentive for membership, a reason that motivated the choice of Mentoring in the analysis of this study.

By the year 2018, 358 municipalities had joined the Mentoring assessment process, totaling 1,070 BHU, of which 193 were certified, 165 with the Bronze Seal, 28 with the Silver Seal and 03 with the Gold Seal. The Bronze Seal, the first level of quality, achieved by all BHU in municipality A, gathers items aimed at risk management with a focus on citizen and team safety. The certification process occurs through the application of an Instrument for Quality Assessment in Primary Health Care, consisting of 105 items, categorized into two main axes of analysis, Unit Management and PHC Attributes. In the first axis, issues related to infrastructure, human resources, material and technological resources and risk management, among others, are contemplated. In the second, items related to the patient's first contact, longitudinality, integrality, coordination, family focus, community orientation and cultural competence are addressed.<sup>7</sup>

Prior to the evaluation, protocols are elaborated and flows and processes are readjusted, as well as the physical structure and other aspects, for which the FHT management and assistance team is involved. At the time of the evaluation, these units receive professionals belonging to other health regions for the application of the instrument, if nonconformities are found, the manager has a 90-day period for corrections and only after the adjustments and reassessment does the unit reach the certification.<sup>7</sup>

At the time of the survey of possible research participants, 286 professionals were identified, 153 from the municipality with certified FHT and 104 from the municipality with non-certified FHT. For the calculation of the sample size, a proportion of 50% was fixed, since this value implies maximum sample size, the

significance level of 5% ( $Z_{\alpha}=0.05$ ) and an absolute sample error of 5% ( $E=0.05$ ), resulting in a minimum of 164 professionals.

The inclusion criteria were as follows: belonging to the FHS team and working at the study locus for at least one year. And the exclusion criteria were the following: being away from work due to leave or vacation, not being present at the workplace during the data collection period and not providing answers in more than 20% of the questionnaire.

Between January and March 2019, all those eligible in the FHS units who were clarified about the purpose of the research, during work hours, and who were not assisting patients were invited. The questionnaires were delivered to those who consented and, after being answered, they were returned to the researchers, totaling 178 participants, of which 106 (69.3%) belonged to the municipality with certified FHS teams and 72 (69.2%) were from non-certified teams.

In order to obtain the data, a questionnaire was developed with sociodemographic variables: gender (female x male), age (in years old) and marital status (without x with marital relationship); and occupational: position/function held (physician, nurse, dentist, nursing technician/assistant, oral health technician, community health agent and endemic agent), other employment (no x yes), years of work in the FHS under study (in years) and enough remuneration to satisfy needs (no x yes).

To assess occupational stress, the *Job Stress Scale* was used, in its version translated and validated for Brazilian Portuguese.<sup>16</sup> This is a self-applicable instrument, composed of 17 items, which assesses three conceptual dimensions: demand, control and social support. The answers are provided on Likert-type scales from 1 to 4, ranging from smallest to highest intensity. The scoring of the demand and control dimensions are dichotomized into high and low, using the median as the cutoff point, allowing for the definition of four types of work: job strain or high-strain work (high demand and low control), active work (high demand and high control), passive work (low demand and low control) and low wear out work (low demand and high control).<sup>12,16</sup>

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS), version 20.0, using descriptive and inferential analyses. The comparison of the sociodemographic and occupational characteristics of the health workers was performed using Fisher's exact test. Univariate logistic regression was used in order to compare demand, control, social support and types of work among workers subjected to different management models. Subsequently, through multiple logistic regression, gender, age, years of profession, schooling level of the position and enough financial resources for the needs were considered as potential confounders and adjusted the relation. The results were presented in unadjusted and adjusted odds ratios (OR) with 95% confidence intervals, that is, in all analyses,  $p<0.05$  was considered statistically significant.

This study followed the recommendations of ethics in research involving human beings, being approved by the Research Ethics Committee according to Opinion No. 2,302,907. All the participants signed the Free and Informed Consent Form.

## RESULTS

The sample of this research was composed of 178 workers, of which 106 (69.3%) belonged to the municipality with certified teams and 72 (69.2%) to the municipality with non-certified teams by the Primary Care Mentoring. 11 physicians, 11 dentists, 24 nurses, 46 nursing technicians/assistants, 12 dental assistants and 73 community health agents/endemic agents (*agentes comunitários de saúde, ACS/agentes de endemia, ACE*) participated in the study.

When comparing the sociodemographic and occupational characteristics, Table 1 shows that these are people with similar characteristics except for marital status and remuneration, since most of the professionals linked to certified teams had a stable marital relationship and enough financial resources to satisfy their needs.

When associating these sociodemographic and occupational characteristics with the dimensions of occupational stress, low control over work was associated with middle-level positions ( $p < 0.001$ ) in non-certified teams. Low social support was associated

with the perception of insufficient remuneration for the needs of professionals from certified FHT ( $p = 0.014$ ). The other variables did not show a statistically significant association.

The comparison of the *Job Stress Scale* dimensions between professionals from FHT certified and non-certified by the PHC Mentoring are shown in Table 2. It was found that professionals from certified FHT presented 4.164 times more chances of high psychological demand in relation to those from non-certified teams. Despite the low control over work being lower among the participants from certified teams, there was no statistically significant difference. The chances of low social support at work were significantly higher among the professionals from certified FHT, when compared to those from non-certified units.

The presence of job strain was significantly higher among professionals from certified FHT. On the other hand, passive work was lower, indicating that, among professionals from non-certified units, this type of work was more prevalent. This relation remained significant even considering gender, age, years of profession, schooling level of the position and enough financial resources for the needs (Table 3).

**Table 1.** Comparison of the sociodemographic and occupational variables in workers from Family Health Strategy units certified and non-certified by the Primary Health Care Mentoring in northern Paraná, Brazil, 2019 (n=178).

Variable	Non-certified by Mentoring	Certified by Mentoring	<i>p-value*</i>
<b>Gender</b>			
Male	12 (16.7%)	10 (9.4%)	0.114
Female	60 (83.3%)	96 (90.6%)	
<b>Age</b>			
22-40 years old	44 (61.1%)	62 (58.5%)	0.424
41-70 years old	28 (38.9%)	44 (41.5%)	
<b>Marital status</b>			
No marital relationship	33 (45.8%)	23 (21.7%)	0.001
With marital relationship	39 (54.2%)	83 (78.3%)	
<b>Other employment contract</b>			
Does not have	60 (83.3%)	94 (88.7%)	0.211
Has	12 (16.7%)	12 (11.3%)	
<b>Position level</b>			
High school/Post high school	50 (69.4%)	81 (76.4%)	0.194
Higher education	22 (30.6%)	25 (23.6%)	
<b>Working time in the unit</b>			
1-5 years	37 (51.4%)	49 (46.2%)	0.300
6-33 years	35 (48.6%)	57 (53.8%)	
<b>Enough remuneration for needs</b>			
No	58 (80.6%)	62 (58.5%)	0.001
Yes	14 (19.4%)	44 (41.5%)	

\*Fisher's exact test

Source: Research data, 2019.



**Table 2.** Comparison of demand, control and social support in professionals from Family Health Strategy units certified and non-certified by the Primary Health Care Mentoring in the north of Paraná, Brazil, 2019 (n=178).

Dimension	Non-certified by Mentoring	Certified by Mentoring	<i>p</i> -value	<i>Odds Ratio</i> <sup>unadjusted</sup> (95% Confidence Interval)	<i>p</i> -value	<i>Odds Ratio</i> <sup>adjusted*</sup> (95% Confidence Interval)
<b>Demand</b>						
Low	53 (73.6%)	45 (42.5%)		1		1
High	19 (26.4%)	61 (57.5%)	<0.001	3.781 (1.973-7.246)	<0.001	4.164 (2.102-8.249)
<b>Control</b>						
Low	46 (63.9%)	67 (63.2%)	0.926	1.030 (0.553-1.919)	0.891	1.047 (0.542-2.022)
High	26 (36.1%)	39 (36.8%)		1		1
<b>Social support</b>						
Low	38 (52.8%)	72 (67.9%)	0.042	1.895 (1.023-3.511)	0.048	1.896 (1.006-3.573)
High	34 (47.2%)	34 (32.1%)		1		1

\*Adjusted for gender, age, years of profession, schooling level of the position and sufficient financial resources

Source: Research data, 2019.

**Table 3.** Comparison of the types of work in workers from Family Health Strategy units certified and non-certified by the Primary Health Care Mentoring in northern Paraná, Brazil, 2019 (n=78).

Type of work	Non-certified by Mentoring	Certified by Mentoring	<i>p</i> -value	<i>Odds Ratio</i> <sup>unadjusted</sup> (95% Confidence Interval)	<i>p</i> -value	<i>Odds Ratio</i> <sup>adjusted*</sup> (95% Confidence Interval)
<b>Job strain</b>						
No	64 (88.9%)	69 (65.1%)		1		1
Yes	8 (11.1%)	37 (34.9%)	0.001	4.290 (1.859-9.902)	<0.001	4.956 (2.067-11.882)
<b>Passive work</b>						
No	34 (47.2%)	76 (71.7%)		1		1
Yes	38 (52.8%)	30 (28.3%)	0.001	0.353 (0.189-0.661)	<0.001	0.293 (0.148-0.580)
<b>Active work</b>						
No	61 (84.7%)	82 (77.4%)		1		1
Yes	11 (15.3%)	24 (22.6%)	0.228	1.623 (0.739-3.565)	0.251	1.623 (0.710-3.711)
<b>Low wear out</b>						
No	57 (79.2%)	91 (85.8%)		1		1
Yes	15 (20.8%)	15 (14.2%)	0.245	0.626 (0.285-1.378)	0.297	0.651 (0.291-1.459)

\*Adjusted for gender, age, years of profession, schooling level of the position and sufficient financial resources

Source: Research data, 2019.

When comparing the types of work according to the professional categories, it was observed that, among those linked to the certified FHS units, job strain predominated in nurses (46.2%), in nursing technicians and assistants (40.0%) and in ACS/ACE (29.5%); passive work in physicians (40.0%) and dental assistants (57.1%); and active work in dentists (57.1%). On the other hand, most of the dentists (50.0%), physicians (50.0%) and nurses (30.0%) who worked in non-certified units presented low wear out; and among nursing technicians and assistants (62.5%), ACS/ACE (69.0%) and dental assistants (60.0%), passive work predominated.

## DISCUSSION

In this study, occupational stress was compared among professionals from FHS with and without quality certification in PHC from Mentoring. The results indicated that occupational stress presented higher prevalence in professionals from teams certified with the Bronze Seal of quality, as they had a greater perception of psychological demand of work and low social support, in addition to the predominance of job strain.

The health work process is the result of a set of coordinated actions developed by the workers, in which individuals, families

and social groups make up the object of work; and knowledge and methods represent the instruments that originate health care.<sup>17,18</sup>

The PHC demand is composed of attributes and functions that make it complex, mainly because it is the coordinator of the Health Care Networks<sup>6,19</sup> and the priority means for universal health coverage.<sup>20</sup> In this sense, the United Nations 2030 Agenda, through Sustainable Development Goal - SDG 3, proposes the achievement of universal health coverage, including access to essential quality health services and safe, effective, quality and accessible essential medications and vaccines.<sup>21</sup> Quality certification processes have the potential to guide this path and provide a facilitating framework for providing high quality assistance to the user.<sup>22</sup>

Quality certification in PHC, in addition to strengthening quality control and improvement, promotes relational and strategic changes in organizations, in addition to significant advances in their performance. It also produces managers with a focus on quality values, increases the commitment of the health teams to the organizational policy and improves teamwork, access, quality of care and patient safety.<sup>22</sup>

The Bronze Seal strives for the safety of the user and the health team, through two axes: PHC management and attributes. The assessment instrument contains 105 items to be achieved and its verification form, of which the following stand out: the identification of the unit, the physical structure and material resources to adequately serve the population, accessibility, biosafety and the stratification of risk and care according to guidelines of *Rede Mãe Paranaense*, Hypertension, Diabetes, Infarction, Mental Health, Oral Health and Health of the Older Adult.<sup>23</sup>

The management process proposed by Mentoring aims to be a daily and constant learning exercise, providing the connection between theory and practice, development of technical, communicational and relational skills, with a focus on improving technical and humanistic quality in the daily life of the services. In addition to that, Mentoring provides the creation of a climate of support for the team.<sup>6</sup> However, as in other countries,<sup>3</sup> the concern with quality in accordance with the health and safety of the professionals is limited to traditional occupational risks, specifically, the biological ones.<sup>23</sup>

Promoting health care quality through managerial quality certification processes was indicated by a study with nurses from three hospital institutions in São Paulo as a factor that impacted on higher levels of occupational stress and negatively affected the mental health of those surveyed due to relational aspects and to the complexity of the work,<sup>24</sup> corroborating the findings of this study. When the resources needed for work and the demands of the job are not adjusted to the professional, physical and emotional responses lead to stress; and the insufficiency of pre-existing psychological resources leads to biopsychosocial illness.<sup>12,16</sup>

The FHT certified by the quality seal presented significantly greater chances of high psychological demand compared to those from non-certified teams. Considering that the demand reflects the quantitative and qualitative psychological pressures of the work<sup>12</sup> and that the Bronze Seal requires a standardization of the

unit's management processes and PHC attributes, it is inferred that the fulfillment of the 105 verification items<sup>23</sup> implies creating habits, behaviors and strategies for achieving quality goals within an established schedule, which results in the execution of work activities with speed and intensity in short periods, increasing psychological demand, in relation to those who deal only with psychological demands which are existing and common to the PHC work process.

In addition, this management model based on an evaluation method of work production with quality goals requires that each team member is prepared and willing to carry out the agreement,<sup>25</sup> since in PHC the practice must be collaborative and interprofessional to adequately achieve the desired health results,<sup>26</sup> which may not be occurring, as teamwork is a weakness to be improved in the health services,<sup>27</sup> and the perception of social support by peers was lower among the professionals from certified units.

High control over work was greater among professionals from certified FHS units; however, this was not a statistically significant difference. Thus, the possibility for workers to use their intellectual skills to carry out their work, as well as to decide how they will perform it,<sup>12</sup> is similar among professionals from certified and non-certified FHS units. The absence of difference in autonomy reported by the professionals in disparate management processes can be related to the fact that the public service is stable and that the protocols and the assistance provided to people are stable.<sup>28</sup>

The coexistence of high psychological demands with low control over work is called job strain,<sup>12</sup> in which prevalence was higher in the certified FHS units, indicating that these units, when compared to non-certified ones, have a greater chance of presenting professionals with high wear out and low autonomy in decision-making, with little use of their creativity in the health work process. These aspects generate demotivation and are more likely to have harmful health effects, such as the development of depression.<sup>29</sup>

In addition, the predominance of this type of work was greater in the Nursing team; this can be related to the fact that these professionals work in all FHS processes and procedures. Nurses are also responsible for the management of the units<sup>30</sup> and, for this reason, they are responsible for meeting the agreed quality goals, directly suffering greater pressure from the managers to comply with the established requirements. Due to the increased risk of illness and wear out, organizational actions that improve nurses' skills are effective in developing mechanisms to cope with stress.<sup>31</sup>

Passive work also predisposes to illness since, due to the low psychological demand and low control, the work is repetitive, monotonous, with few opportunities for new learning, making the professional apathetic, and work development declines.<sup>12</sup> This type of work was prevalent in non-certified FHT, especially among nursing technicians and assistants, ACS/ACE and dental assistants.

In this study, the proportion of active work was similar in the certified and non-certified FHT. In this type of work, despite the fact that people have a high psychological demand for performing their work, they have autonomy in decision-making and use their intellectual potential to fulfill the health work process.<sup>11</sup>

The ideal work situation is the one in which there are low psychological demands and high control over the work performed; the work with low wear out,<sup>12</sup> which also did not show statistical differences in the proportions of workers from certified and non-certified units with a quality seal.

The chances of high social support at work were significantly lower in health personnel from certified FHT, when compared to those from non-certified units. Social support refers to the support received by the professional, from co-workers and supervisors, therefore reflecting the interpersonal relationships at work, which is a decisive factor in the experiences of satisfaction, dissatisfaction and success at work, with the potential to transform suffering in pleasure.<sup>32</sup> Given the above, social support must permeate the entire certification process for the teams in the health units, since the goals and challenges are collective and in favor of universal quality access to the population of the territory. The perception of insufficient remuneration was associated with low social support, implying that, in the professionals' perceptions, the activities performed can be recognized by the managers through pro-work compatible with their commitment and qualification for the certification process.

The movement of quality management is important and its adherence by the health teams within the PHC must be encouraged as a proactive and voluntary action by the health service, in search of quality and excellence in the service provided. However, the goals often do not include aspects related to the health of the professionals, which are the protagonists of this process. Therefore, it is necessary to include these factors in the quality assessment, as well as it is important that municipal managers seek strategies to manage occupational stress, preventing mental illness.

A study carried out in Lebanon corroborates this line of thought. The authors reflect that the high standards of health and safety of the health professional are not a marketing strategy for those who receive care and there is little market incentive to improve these standards, reasons for the administrators of these institutions not to invest in programs that promote occupational health. Without these incentives, regulatory agencies must encourage fair work arrangements and safe and healthy working conditions for the health workforce.<sup>3</sup> Quality assessment systems can offer incentives to improve the quality of professionals' health and safety, such as: inserting assessment items related to the professionals' physical and psychological health support service; compliance with current legislation, mainly Regulatory Standard 32,; and exclusive financial resources by concluded services related to the professionals' health, among others.

## CONCLUSION AND IMPLICATIONS FOR THE PRACTICE

The workers belonging to FHS teams with quality certification in the provision of their services had a greater chance of occupational stress in relation to those linked to non-certified units.

It is believed that the findings of this research may support changes in the implementation of these managerial models of

care quality in order to consider the health of the professionals involved, especially: support programs to deal with the psychological demands of work; promoting an organizational climate that encourages social support and interprofessional collaboration in health; periodic meetings to identify the professionals' difficulties in implementing the actions, outlining a strategic overcoming plan; and recognition of the work performed.

The main limitation of this study is the impossibility of generalizing the results, both due to its cross-sectional design, as well as to the sample of professionals belonging to certified teams with only one type of assistance seal and restricted to a single region of a Brazilian state. Additionally, there is the social convenience bias, characterized by the presence of health unit managers and filling in the research instrument in the workplace, as the interviewees may have provided answers that they considered desirable and socially accepted. However, the results should not be underestimated, as the workers were informed about the confidentiality of the data and anonymity. This study did not evaluate the influence of professionals' workloads on occupational stress and this aspect can be a determinant; thus, future studies should explore this relation in the different PHC management processes, as well as the factors associated with stress among certified FHT.

On the other hand, this study presents strengths as it was carried out in small- and medium-sized cities, representing the majority of Brazilian municipalities. In addition, one must consider its originality when analyzing occupational stress in professionals subjected to different management models and including all professional categories of the FHT.

The results were presented to the professionals and managers of the FHT, in a specific meeting in the municipalities studied, which allows managers and professionals to develop joint strategies to minimize stress, something fundamental for maintaining health and the quality process for improvement of the services.

## AUTHORS' CONTRIBUTIONS

Study design. Luiza Ferreira Rigonatti Silva. Alessandro Rolim Scholze. Maria José Quina Galdino.

Data collection or production. Luiza Ferreira Rigonatti Silva.

Data analysis. Luiza Ferreira Rigonatti Silva. Maria José Quina Galdino.

Interpretation of the results. Alessandro Rolim Scholze. Paloma de Souza Cavalcante Pissinati. Janaína Recanello Begui. Maynara Fernanda Carvalho Barreto.

Writing and critical review of the manuscript. Luiza Ferreira Rigonatti Silva. Alessandro Rolim Scholze. Paloma de Souza Cavalcante Pissinati. Janaína Recanello Begui. Maynara Fernanda Carvalho Barreto. Maria José Quina Galdino.

Approval of the final version of the article. Luiza Ferreira Rigonatti Silva. Alessandro Rolim Scholze. Paloma de Souza Cavalcante Pissinati. Janaína Recanello Begui. Maynara Fernanda Carvalho Barreto. Maria José Quina Galdino.

Responsibility for all aspects of the content and integrity of the published article. Luiza Ferreira Rigonatti Silva. Alessandro

Rolim Scholze. Paloma de Souza Cavalcante Pissinati. Janaína Recanello Begui. Maynara Fernanda Carvalho Barreto. Maria José Quina Galdino

## ASSOCIATED EDITOR

Gerson Luiz Marinho

## REFERENCES

- Giovanella L, Almeida PF. Comprehensive primary care and segmented health systems in South America. *Cad Saude Publica*. 2017;33(33, Suppl 2):e00118816. <http://dx.doi.org/10.1590/0102-311x00118816>. PMID:28977122.
- Portaria nº 2.436, de 21 de setembro de 2017 (BR). Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União, Brasília (DF)*, 22 set 2017.
- Habib RR, Blanche G, Souha F, El-Jardali F, Nuwayhid I. Occupational health and safety in hospitals accreditation system: the case of Lebanon. *Int J Occup Environ Health*. 2016;22(3):201-8. <http://dx.doi.org/10.1080/10773525.2016.1200211>. PMID:27398975.
- Tabrizi J, Gharibi F. Primary healthcare accreditation standards: a systematic review. *Int J Health Care Qual Assur*. 2019;32(2):310-20. <http://dx.doi.org/10.1108/JHCQA-02-2018-0052>. PMID:31017069.
- Mota RRA, David HMSL. National primary care access and quality improvement program: issues to discuss. *Rev Enferm UERJ*. 2015;23(1):122-7. <http://dx.doi.org/10.12957/reuerj.2015.14725>.
- Secretaria de Estado da Saúde do Paraná. A Tutoria na APS [Internet]. Curitiba, PR; 2017. [citado 2020 out 15]. Disponível em: [http://www.saude.pr.gov.br/arquivos/File/apostila\\_apsus\\_final.pdf](http://www.saude.pr.gov.br/arquivos/File/apostila_apsus_final.pdf)
- Secretaria de Estado da Saúde do Paraná. Resolução SESA nº 741/2018. Instituir e regulamentar a Tutoria como Processo de Qualidade na Atenção Primária em Saúde (APS) [Internet]. Curitiba, PR; 2018. [citado 2020 out 15]. Disponível em: [http://www.saude.pr.gov.br/arquivos/File/--Resolucoes2018/741\\_18.PDF](http://www.saude.pr.gov.br/arquivos/File/--Resolucoes2018/741_18.PDF)
- Biff D, Pires DEP, Forte ECN, Trindade LL, Machado RR, Amadigi FR et al. Nurses' workload: lights and shadows in the Family Health Strategy. *Cien Saude Colet*. 2020;25(1):147-58. <http://dx.doi.org/10.1590/1413-81232020251.28622019>. PMID:31859863.
- Leonelli LB, Andreoni S, Martins P, Kozasa EH, Salvo VL, Sopezki D et al. Perceived stress among Primary Health Care Professionals in Brazil. *Rev Bras Epidemiol*. 2017;20(2):286-98. <http://dx.doi.org/10.1590/1980-5497201700020009>. PMID:28832851.
- Moreira IJB, Horta JA, Duro LN, Chaves J, Jacques CS, Martinazzo K et al. Psychosocial aspects of work and psychological suffering among family health strategy workers. *R Epidemiol Control Infec*. 2017;7(1). <http://dx.doi.org/10.17058/reci.v7i1.6927>.
- Ribeiro RP, Marziale MHP, Martins JT, Galdino MJQ, Ribeiro PHV. Occupational stress among health workers of a university hospital. *Rev Gaúcha Enferm*. 2018;39:e65127. <http://dx.doi.org/10.1590/1983-1447.2018.65127>. PMID:30043951.
- Karasek RA, Theorell T. *Healthy work: stress, productivity and the reconstruction of working life*. New York: Basic Books; 1990.
- Hanson VF, Onasoga OA, Babalola C. Self-reported occupational stress, environment, working conditions on productivity and organizational impact among nursing staff in Nigerian hospitals. *Int J Transl Med Res Public Health*. 2017;1(2):29-35. <http://dx.doi.org/10.21106/ijtmrph.50>.
- Ghareeb A, Said H, El Zoghbi M. Examining the impact of accreditation on a primary healthcare organization in Qatar. *BMC Med Educ*. 2018;18(1):216. <http://dx.doi.org/10.1186/s12909-018-1321-0>. PMID:30236105.
- Calvo MCM, Lacerda JT, Colussi CF, Schneider IJC, Rocha TAF. Municipalities stratification for health performance evaluation. *Epidemiol Serv Saude*. 2016 out;25(4):767-76. <http://dx.doi.org/10.5123/S1679-49742016000400010>. PMID:27869970.
- Alves MGM, Chor D, Faerstein E, Lopes CS, Werneck GL. Short version of the "job stress scale": A Portuguese-language adaptation. *Rev Saude Publica*. 2004 abr;38(2):164-71. <http://dx.doi.org/10.1590/S0034-89102004000200003>. PMID:15122370.
- Fontana KC, Lacerda T, Machado MO. Work process in Primary Health Care: evaluation of management. *Saúde Debate*. 2016 set;40(110):64-80. <http://dx.doi.org/10.1590/0103-1104201611005>.
- Merhy EE, Feuerwerker LCM. Novo olhar sobre as tecnologias de saúde: uma necessidade contemporânea. In: Merhy EE, Baduy RS, Seixas ST, Almeida DES, Slomp Jr H, organizadores. *Avaliação compartilhada do cuidado em saúde: surpreendendo o instituído nas redes*. 1ª ed. Rio de Janeiro: Hexis; 2016. p. 59-72.
- Santos DS, Mishima SM, Merhy EE. Work process in Family Health Program: the potential of subjectivity of care for reconfiguration of the care model. *Cien Saude Colet*. 2018 mar;23(3):861-70. <http://dx.doi.org/10.1590/1413-81232018233.03102016>. PMID:29538566.
- Macinko J, Harris MJ. Brazil's Family Health Strategy - delivering community-based primary care in a Universal Health System. *N Engl J Med*. 2015;372(23):2177-81. <http://dx.doi.org/10.1056/NEJMp1501140>. PMID:26039598.
- Organização das Nações Unidas. *Transformando nosso mundo: A Agenda 2030 para o Desenvolvimento Sustentável. Objetivo 3. Assegurar uma vida saudável e promover o bem-estar para todas e todos, em todas as idades* [Internet]. Brasília, DF: ONU; 2015. [citado 2020 out 15]. Disponível em: <https://nacoesunidas.org/pos2015/ods3/>
- Nicklin W, Fortune T, Van Ostenberg P, O'Connor E, McCauley N. Leveraging the full value and impact of accreditation. *Int J Qual Health Care*. 2017;29(2):310-2. <http://dx.doi.org/10.1093/intqhc/mxz010>. PMID:28453825.
- Secretaria de Estado da Saúde do Paraná. Tutoria na Atenção Primária à Saúde. Manual operativo Selo Bronze [Internet]. Paraná; 2018. [citado 2020 out 15]. Disponível em: [http://www.saude.pr.gov.br/arquivos/File/ManualSeloBronze\\_2018\\_1.pdf](http://www.saude.pr.gov.br/arquivos/File/ManualSeloBronze_2018_1.pdf)
- Higashi P, Simonetti JP, Carvalhaes MABL, Spiri WC, Parada CMGL. Potentially stressful situations for nurses considering the condition of accreditation of hospitals. *Rev Rene*. [Internet]. 2013 [citado 2020 out 15];14(6):1141-48. Disponível em: <http://www.periodicos.ufc.br/rene/article/view/3728>
- Salci MA, Paiano M, Radovanovic CAT, Carreira L, Meirelles BHS, Silva DMVG. Program of assessment of primary care from the perspective of health professionals and managers. *Rev Rene*. 2019;20:e33980. <http://dx.doi.org/10.15253/2175-6783.20192033980>.
- Silva JAM, Peduzzi M, Orchard C, Leonello VM. Interprofessional education and collaborative practice in Primary Health Care. *Rev Esc Enferm USP*. 2015 dez;49(spe2):16-24. <http://dx.doi.org/10.1590/S0080-623420150000800003>. PMID:26959149.
- Peduzzi M, Agreli HF. Teamwork and collaborative practice in Primary Health Care. *Interface (Botucatu)*. 2018;22(2):1525-34. <http://dx.doi.org/10.1590/1807-57622017.0827>.
- Oliveira JLC, Magalhães AMM, Bernardes A, Haddad MCFL, Wolff LDG, Marcon SS et al. Influence of hospital Accreditation on professional satisfaction of the nursing team: mixed method study. *Rev Lat Am Enfermagem*. 2019;27:e3109. <http://dx.doi.org/10.1590/1518-8345.2799.3109>.
- Madsen IEH, Nyberg ST, Magnusson Hanson LL, Ferrie JE, Ahola K, Alfredsson L et al. Job strain as a risk factor for clinical depression: systematic review and meta-analysis with additional individual participant data. *Psychol Med*. 2017;47(8):1342-56. <http://dx.doi.org/10.1017/S003329171600355X>. PMID:28122650.
- Silva MCN, Machado MH. Health and Work System: challenges for the Nursing in Brazil. *Cien Saude Colet*. 2020 jan;25(1):7-13. <http://dx.doi.org/10.1590/1413-81232020251.27572019>. PMID:31859850.
- El Khamali R, Mouaci A, Valera S, Cano-Chervel M, Pinglis C, Sanz C et al. Effects of a multimodal program including simulation on job strain among nurses working in intensive care units: a randomized clinical trial. *JAMA*. 2018;320(19):1988-97. <http://dx.doi.org/10.1001/jama.2018.14284>. PMID:30357264.
- Rocha GSA, Andrade MS, Silva DMRD, Terra MG, Medeiros SEG, Aquino JM. Feelings of pleasure of nurses working in primary care. *Rev Bras Enferm*. 2019;72(4):1036-43. <http://dx.doi.org/10.1590/0034-7167-2018-0518>. PMID:31432963.