

OCCUPATIONAL STRESS AND COPING STRATEGIES AMONG PRIMARY HEALTH CARE PHYSICIANS

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Abstract

Objective: *this study aimed to examine the levels of occupational stress and coping strategies among primary health care physicians. Materials and Methods:* *a cross-sectional study was conducted with primary health care physicians who worked in a large city in the state of São Paulo, Brazil. Data were collected using an instrument that measured sociodemographic and professional variables, the Problem Coping Modes Scale, and the Work Stress Scale, of which the latter two were validated for the Brazilian population. The data were analyzed according to the calculation of the scores appropriate to the scales, with appropriate statistical treatment and a significance of 5% ($p \leq 0.05$). Results:* *the primary care physicians were predominantly women (59.4%), who worked approximately 40 hours per week (59.4%) and had a median of 7 years of experience in primary care. Eight professionals (25.0%) presented scores compatible with major stress (>2.5). Low perspectives of career growth (2.9; ± 1.3), form of task distribution (2.7; ± 1.0), deficient professional training (2.7; ± 1.2), and insufficient time to perform the work (2.6; ± 1.2) were reported to be the greatest stressors. The coping*

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mode with the highest score was the one focused on the problem (3.75), followed by the search for social support (3.17). **Conclusion:** the pressures of the work environment promote the development of stress among primary care physicians. In this group, emotional imbalance affects the choice of coping strategy, and therefore, it is crucial to create a welcoming work environment, with cohesive, integrated, and well-managed teams that feel comfortable sharing their emotions and actively provide social support.

Keywords: Family Health Strategies; Primary Health Care; Physicians, Family; Occupational Stress; Adaptation, Psychological.

Estrés laboral y estrategias de afrontamiento entre los médicos de Atención Primaria

Resumen

Objetivo: evaluar los niveles de estrés laboral y las estrategias de afrontamiento de los médicos de Atención Primaria. **Materiales y Métodos:** se realizó un estudio transversal con médicos de equipos de Atención Primaria de Salud de una gran ciudad del estado de São Paulo, Brasil. Los datos fueron recogidos a través de un instrumento que contiene variables sociodemográficas y profesionales, Escala de Modos de Enfrentamiento de Problemas y Escala de Estrés no Trabalho, validado para Brasil. Los datos se analizaron según el cálculo de las puntuaciones adecuadas a las escalas, con un tratamiento estadístico apropiado, con una significación del 5% ($p \leq 0,05$). **Resultados:** los profesionales eran mayoritariamente mujeres (59,4%), con una jornada de 40 horas semanales (59,4%) y trabajaban en Atención Primaria durante una mediana de siete años. Ocho profesionales (25,0%) presentaron puntuaciones compatibles con un estrés importante ($>2,5$). Los principales estresores fueron: falta de perspectivas de crecimiento profesional (2,9; $\pm 1,3$); forma de distribución de las tareas (2,7; $\pm 1,0$); formación profesional deficiente (2,7; $\pm 1,2$); tiempo insuficiente para realizar el trabajo (2,6; $\pm 1,2$). El modo de afrontamiento con mayor puntuación fue el centrado en el problema (3,75), seguido de la búsqueda de apoyo social (3,17). **Conclusión:** las presiones del entorno laboral en Atención Primaria favorecen el desarrollo del estrés por parte de los médicos. El desequilibrio emocional dirige la estrategia de afrontamiento de los profesionales, lo que refuerza la necesidad de crear un entorno de trabajo acogedor, con equipos cohesionados, integrados y bien gestionados, capaces de compartir emociones y comprometidos con la promoción del apoyo social.

Palabras clave: Medicina Familiar y Comunitaria; Atención Primaria de Salud; Médicos de Familia; Estrés Laboral; Adaptación Psicológica.

Introduction

Health professionals are subject to situations that can trigger stress, such as excessive workloads, incomplete teams, and inadequate

working conditions for meeting the demand for services. Such conditions can favor physical and mental illness in health care workers, triggering a chronic picture of stress and leading to the development of burnout syndrome [1-3].

Previous research has shown that physicians are highly susceptible to stress, due to the high physical and emotional demands that their professional practice imposes, especially in specialties such as family and community medicine. Among the factors that cause mental illness among these workers, the ones associated with work are highlighted, such as overload, precarious bonds and working conditions, lack of autonomy, and pressure to meet goals [2,4].

Brazil has a universal public health system, the Sistema Único de Saúde - SUS (Unified Health System), responsible for providing comprehensive health care to the population. The SUS is organized by levels of complexity and has as its entrance door the Primary Health Care Units, which have multiprofessional teams, whose work process is defined by guidelines, norms, and policies established by the Ministry of Health [5-6].

In Brazil, the process of recomposition of primary health care teams and the reorganization of the work process approved by the National Policy for Primary Health Care in 2017 cause fragilities in the management of the system, especially in relation to the workers. The incorporated modifications make it even more difficult to qualify the professionals who make up the Family Health Strategy teams and to regularize the contractual bonds. This situation affects the worker's satisfaction with the work environment and processes, causing stress and turnover, especially of medical professionals [6-8].

Stress reduces professional performance, leads to a loss in the levels of well-being and satisfaction of workers, and contributes to an increase in absenteeism, labor stagnation, an increase in errors and financial expenses, and a decrease in the quality of services made available to the population [9]. Moreover, the relationship between stress and mental health of workers increases the risks of illness related to work activity, increasing the rates of absence due to temporary incapacity and requests for retirement due to illness [10].

However, health professionals can employ coping strategies to reduce the negative emotional load generated by factors associated with their work, such as taking a vacation, engaging in physical activities, seeking social support, and involvement in spiritual practices. The process of coping comprises a set of behavioral responses to a stressful situation and aims to modify the environment in order to adapt to the stressful event [11-12].

This process involves cognitive, behavioral, and emotional strategies that are aimed at controlling stressful situations and maintaining mental and physical integrity. They consist of an intentional physical or mental action that, in response to the stressful situation, seeks to reduce it and to increase the levels of well-being and health of the worker. They are, therefore, ways in which the subject faces stressful situations and tries to reduce the impacts of stressful agents on his or her body, avoiding the compromising of his or her physical and emotional well-being [12-13].

Conceptually, coping strategies consist of behavioral and cognitive measures that people intentionally adopt to adapt to various stressful situations, aiming to reduce susceptibility levels and negative impacts [14].

There are two types of coping strategies: problem-focused strategies and emotion-focused strategies. They start from a cognitive-behavioral principle, directing the individual toward cognitive achievement and controlling their attitudes to solve the problem. Therefore, the individual adopts a coping strategy to decrease or eliminate the stressors of the work environment and the suffering they cause, from internal and external resources that include health, belief, social skills, and material resources [14-15].

The identification of occupational stress levels can aid in the implementation of measures and strategies that minimize illness and loss of motivation and support the creativity, proac-

tivity and resolutivity among primary health care physicians, allowing the development of a pleasant and beneficial work environment. Similarly, identifying the coping strategies used by workers to adapt to the stressors present in their work environment can direct the actions of managers to mitigate the stress factors, besides helping professionals to face unfavorable and stressful situations, thus providing a healthier and more productive work environment [16-18].

In this context, the identification of stressors and coping strategies among physicians of Family Health Care teams is relevant and can provide them with a more productive and less stressful daily life, with increased self-esteem, quality of life, and self-control, positively impacting the care provided to users of primary health care services.

Thus, the present study aimed to evaluate levels of occupational stress and coping strategies among primary health care physicians.

Materials and methods

This was a descriptive, cross-sectional study, carried out with physicians from primary health care units in the municipality of São José do Rio Preto, state of São Paulo, Brazil. The population of this study was composed of general practitioners, who work in the 40 teams of the family health units. General practitioners who were away from work or on vacation during data collection were excluded, as well as physicians from other specialties (pediatrics and gynecology/obstetrics) who worked in the Health Care Units included in the study. A convenience sample of 32 professionals participated in this study by answering the instruments.

São José do Rio Preto is a city located in the Northwest region of the state of São Paulo, with an estimated population of 451,354 inhabitants, it is a reference in the health area and the headquarters of Regional Health Department XV [19]. At the time of data collection, the municipality was divided into five Health Districts

and the Primary Care system had 27 municipal health units, in which 40 Family Health Strategy teams were working.

Data were collected from August to December 2017, using a self-administered instrument that measured sociodemographic and professional variables, and the Work Stress Scale [20] and Problem Coping Modes Scale [21], both validated for the Brazilian population.

The Work Stress Scale contains 23 negative statements, with responses based on a Likert-type scale (1="totally disagree," 2="disagree," 3="partially agree," 4="agree," and 5="totally agree"). The higher the score, the higher the level of stress. This scale provides a general analysis of stress, from the evaluation of stressful aspects and the emotional reactions that are associated with them. It is an instrument that allows the performance of an organizational diagnosis, and can be useful for researchers and managers [20].

The Problem Coping Modes Scale consists of 45 items that evaluate the use of coping strategies focused on four aspects: the problem, emotion, search for religious practices or fanciful thoughts, and search for social support [21]. Responses are based on a five-point Likert scale (1="I never do it," 2="I do it a little," 3="I do it sometimes," 4="I do it a lot," and 5="I do it always"). To characterize coping, the means of each factor are compared, as described below:

Factor 1 corresponds to the problem-focused coping mode and is measured as the mean score of questions 1, 3, 10, 14, 15, 16, 17, 19, 24, 28, 30, 32, 33, 36, 39, 40, 42, and 45. It involves the cognitive and behavioral strategies employed for solving or managing the problem through the positive signification or re-evaluation of the stressor [21].

Factor 2 refers to emotion-focused coping, and is measured as the mean of questions 2, 5, 11, 12, 13, 18, 20, 22, 23, 25, 29, 34, 35, 37, and 38. It corresponds to behavioral and cognitive coping strategies focused on denial, avoidance,

anger and tension, unrealistic thoughts, blame-seeking, and distancing from the stressor [21].

Factor 3 corresponds to coping based on fanciful thoughts and the search for religious practices. It is measured as the mean score of questions 6, 8, 21, 26, 27, 41, and 44. It involves behavioral strategies focused on spirituality and religion, as well as fanciful thoughts [21].

Factor 4 refers to coping based on the search for social support and is measured as the mean score of questions 4, 7, 9, 31, and 43. It corresponds to strategies that involve searching for information and based on the search for social, instrumental, and emotional support [21].

The researchers used team meetings for data collection, after scheduling with the managers of the health units. The objectives of the study were first explained, and then the instruments for data collection and two copies of the informed consent form were given to the physicians who, after completing the questionnaires, handed them in separately, in sealed envelopes. The physicians were allowed to complete the questionnaires at the workplace or at home, within a period of up to 7 days. After completing them, the questionnaires were returned in separate sealed envelopes, to preserve the anonymity of the study participants.

For the physicians who were not present at the meeting, the researchers left the questionnaires and the consent form with the unit managers, who delivered and collected them in separate and sealed envelopes, and delivered them to the researchers, later, within 30 days.

Data Analysis

SPSS software, version 23.0 (IBM Corporation, Armonk, New York, United States) was used to carry out the data analysis. Sociodemographic and professional variables were used to characterize the study population.

For the analysis of occupational stress, a mean total score was calculated. To identify the highest stressors, a mean score was calculated

for each question/item of the Work Stress Scale. The scores on the scale range from one to five, and the higher the score obtained, the higher the level of stress. Mean values equal to or greater than 2.5 indicate important levels of stress [20].

For the analysis of coping modes, the mean scores of the four strategy types (problem-focused, emotion-focused, religiosity/spirituality, social support), the standard deviation, the median, and Cronbach's alpha coefficient were obtained. To compare the modes of coping with problems between the physicians with and without occupational stress, the t-test was applied, with significance set at $p \leq 0.05$.

Ethical Considerations

The study project was submitted to the Research Ethics Committee of the Faculdade de Medicina de São José do Rio Preto, under Certificate of Submission for Ethical Appreciation number 59604116.0.0000.5415, and approved on October 16, 2016, with Opinion no. 1,776,737.

Results

Thirty-two physicians, aged between 27 and 75 years (mean 45.2 years and standard deviation [SD] of 11.7 years) participated.

As shown in Table 1, 59.4% of the physicians were women, 62.5% were married, 46.9% were specialized, 53.2% were overweight or obese, 53.1% were permanent employees, 59.4% worked 40 hours per week, 50.0% had other paid activities, 50.0% had physical activities, 78.1% reported leisure activities, 53.1% frequented a religious environment, and 71.9% obtained 6 to 8 hours of sleep per night. With regards to the monthly family income, 68.8% of the physicians reported being above 10 minimum wages, whose value at the time of data collection was R\$ 937.00. The years of experience working in primary health care ranged from 6 months to 30 years, with a median of 7 years.

Table 1 - Sociodemographic characteristics of physicians

Variables	n	%
Gender		
Male	13	40.6
Female	19	59.4
Marital status		
Married	20	62.5
Single	9	28.1
Divorced	2	6.3
Widowed	1	3.1
Education level		
Bachelor's degree	11	34.4
Specialist degree	15	46.9
Master's degree	5	15.6
Doctoral degree	1	3.1
Body mass index		
Normal	11	34.4
Overweight	14	43.8
Obesity grade I	2	6.3
Obesity grade III	1	3.1
No information	4	12.5
Type of contract		
Permanent (statutory regime)	18	56.3
Contracted (consolidation of Brazilian labor laws)	14	43.8
Weekly workload		
20 hours	9	28.1
30 hours	4	12.5
40 hours	19	59.4
Family income (minimum wages)*		
From 6 to 10 minimum wages	9	28.1
More than 10 minimum wages	22	68.8
No information	1	3.1
Other remunerated activity		
Yes	16	50.0
No	16	50.0
Practice of physical activity		
Yes	16	50.0
No	16	50.0
Recreational activity		
Yes	25	78.1
No	7	21.9
Frequent religious observance		
Yes	17	53.1
No	15	46.9
Daily hours of sleep		
Less than 6 hours	9	28.1
From 6 to 8 hours	23	71.9

*Minimum monthly wage value: R\$ 937.00 (US\$ 284.00). Source: prepared by the authors.

In the analysis of occupational stress, one professional who did not answer the Work Stress Scale questions was excluded. The overall mean score was 2.1 (SD: 1.1). Eight professionals (25.0%) presented scores compatible with major stress (>2.5).

The physicians perceived the major stressors to be related to low perspectives of professional growth (2.9; SD=1.3); the manner in which tasks are distributed (2.7; SD=1.0); inadequate professional training (2.7; SD=1.2); the lack of time to perform the work (2.6; SD=1.2); the type of control in the work environment (2.5; SD=1.0); and the lack of autonomy to perform work activities (2.5; SD=1.2) (Table 2).

The internal consistency of the Problem Coping Modes Scale factors, as measured by Cronbach's alpha coefficient, ranged from 0.50 (in the "seeking social support" strategy) to 0.91 (in the "problem-focused" strategy).

Table 4 presents the results of the analysis of the coping strategies, according to the presence or absence of occupational stress. There was a significant difference in the mean scores for problem-focused strategies ($p < 0.001$) and search for social support strategies ($p = 0.013$), with higher scores for these strategies among the non-stressed physicians.

Discussion

The sociodemographic and professional profiles of the physicians in our study were similar to those in other national [16,22-23] and international studies [4,24], adding more evidence of the feminization of medicine, which is thought to have begun in the 1990s, in countries such as Brazil, the United States, and Canada [25]. This study also demonstrated that there is a significant percentage of primary health care physicians with little qualifications, without any specialization or even residency, contrary to the National Policy for Primary Health Care, which recommends that physicians of the Family Health Strategy

Table 2 - Rating of the items of the Work Stress Scale, according to the perceptions of physicians

Items	Mean (\pm standard deviation)
Q1 - The way tasks are distributed in my area makes me irritated	2.7 (1.0)
Q2 - The kind of control that exists in my work annoys me	2.5 (1.0)
Q3 - The lack of autonomy in implementing my work is exhausting	2.5 (1.2)
Q4 - I am uncomfortable with my superior's lack of confidence in my work	1.8 (1.0)
Q5 - I am irritated by the lack of disclosure of information about organizational decisions	2.4 (1.2)
Q6 - I feel uncomfortable with the lack of information about my tasks at work	2.1 (1.0)
Q7 - Lack of communication between my coworkers and me makes me angry	2.1 (0.9)
Q8 - I feel annoyed that my superior mistreats me in front of coworkers	1.5 (0.7)
Q9 - I feel uncomfortable having to perform tasks that exceed my capacity	2.0 (1.1)
Q10 - I get in a bad mood through having to work for many hours at a time	2.4 (1.2)
Q11 - I feel uncomfortable with the communication between my superior and me	1.8 (1.1)
Q12 - I get irritated with discrimination/favoritism in my work environment	1.9 (1.0)
Q13 - I am uncomfortable with the deficient professional training	2.7 (1.2)
Q14 - I get in a bad mood because I feel isolated in the organization	2.1 (1.0)
Q15 - I get annoyed at being undervalued by my superiors	2.1 (1.3)
Q16 - The few prospects for career growth make me distressed	2.9 (1.3)
Q17 - I am uncomfortable about working on tasks below my skill level	2.4 (1.3)
Q18 - The competition in my work environment puts me in a bad mood	1.5 (0.6)
Q19 - Lack of understanding of what my responsibilities are in this work annoys me	2.0 (1.0)
Q20 - I get irritated about my superior giving me contradictory orders	1.6 (0.8)
Q21 - I feel annoyed that my superior is covering up my well-done job in front of other people	1.6 (0.8)
Q22 - Insufficient time to carry out my workload makes me irritated	2.6 (1.2)
Q23 - I am annoyed that my superior prevents me from taking on significant responsibilities	1.7 (0.8)

Source: prepared by the authors.

Table 3 - Mean scores of the coping strategies of physicians

Coping Strategy	Mean Score	Standard Deviation	Median	Cronbach's Alpha Coefficient
Problem-focused	3.75	0.65	3.71	0.91
Emotion-focused	2.28	0.63	2.40	0.85
Religious Practices / Fantastical Thinking	2.79	0.74	2.83	0.60
Pursuit of Social Support	3.17	0.73	3.25	0.50

Source: prepared by the authors.

Table 4 - Analysis of physicians' coping strategies, according to the presence or absence of occupational stress

Coping Strategy	Occupational Stress	Mean Score	Standard Deviation	p-value
Problem-focused	Yes	3.15	0.69	< 0.001
	No	4.0	0.49	
Emotion-focused	Yes	2.52	0.68	0.172
	No	2.17	0.59	
Religious Practices / Fantastical Thinking	Yes	2.76	0.71	0.881
	No	2.80	0.77	
Pursuit of Social Support	Yes	2.72	0.52	0.013
	No	3.36	0.72	

Source: prepared by the authors.

be specialists in family and community medicine [26].

Moreover, aspects related to the physical condition of physicians, such as the high rate of professionals who are overweight or obese and those who do not engage in regular physical activity are considered negative for the physical health of these workers. They can compromise their psycho-emotional health, interfering in the capacity and the way they face problems [27].

In medical practice, the increase in the complexity of services, technological advances, and the characterization of health care as a business are stress factors that put pressure on the activity of these professionals. Associated to them and to the high workload of these professionals, the conditions of overweight, obesity and sedentary lifestyle can increase physical and emotional stress, which leads to the loss of effective and/or potential biopsychic and functional capacity, favoring the disease [2,4,27].

This study found that the work environment of primary health care physicians presents conditions and pressure favorable to the development of stress, such as lack of time to perform all tasks, the type of control, and lack of autonomy, which is in line with previous studies that indicated that the work overload resulting from the lack of professionals and physical resources hinders teamwork and increases emotional distress [2,4,28].

Although this study showed that the stress-related factors, which generate risk of psychological illness among physicians are a reality present in primary health care services, it is important to emphasize that there is still a risk of developing mental illness, and that the risk is even greater in crisis situations, such as the COVID-19 pandemic, because the work environment is more precarious and stressful, with negative impacts on the well-being of health care professionals that may reverberate for years [29-31].

Moreover, if the work does not match the worker's needs and desires, the individual may not recognize himself or herself in it. In the face of this, his or her work practice may feel meaningless, which could lead to emotional suffering. This can occur when the dynamics of the work organization inhibits the creative capacity and technical potential of the professional, imposing a hierarchically rigid environment, with centralized decisions, excessive bureaucratic procedures, excessive pace of work, lack of recognition, and low perspectives of professional growth [2,22].

Still, it is imperative to highlight that, although the insertion of Family Health Strategy physicians in the community provides a better understanding of health problems and improves social organization, favoring the resoluteness of the health service, it can trigger feelings of impotence and frustration among physicians. They are not always able to meet the demands of the flow of the health care network and end up being pressured and penalized by users, which can cause emotional distress and stress [22,28]. The impact of this pressure can be aggravated by deficiencies in professional training, indicated as a stress factor by the physicians in this study.

The stress generated by the form of distribution of tasks, according to the evaluation of the physicians, may be related to the charge for production that is performed by the municipality, which has a bonus plan based on productivity. Although, at first glance, it seems to stimulate professional performance, the pressure generated by the accomplishment of goals can lead to illness due to work overload. Moreover, this type of strategy can stimulate the curative view, which is opposed to the ideals of prevention and health promotion, considered the basis of primary health care [7,28,32].

On the other hand, the stress caused by the deficiency of professional qualification can be reduced through the implementation of effective continuing education programs, as well as the

promotion of strategies that enhance coping, such as social support, changes in the work process, and lifestyle modifications [7,13-14].

The low perspectives of professional growth is a reality present all over the country, because there are many municipalities in Brazil that do not have a job and salary plan. Besides causing emotional exhaustion and, associated with other factors, increasing the risk of psychological illness. The absence of a career plan for primary health care physicians has been an obstacle to the settlement of these professionals, who frequently move in search of better financial opportunities [7,18,33-35].

Regarding the mode of coping, the results of this study show a greater tendency to adopt problem-focused strategies and search for social support strategies. This reinforces the need for structuring a welcoming work environment that brings safety and cohesive and integrated teams, with professionals who share their emotions and provide social support [36-38]. The social support of colleagues associated with the quality of the relationship with the manager positively impacts the work environment, stimulating the engagement of professionals and favoring a series of positive effects, such as increased motivation and work performance, and improved resolutivity [17,22].

The results also suggest that the emotional destabilization caused by the presence of stress tends to change the way physicians face problems that, when stressed, increase the adoption of strategies emotion-focused and religious practices/fantastical thinking. In this context, it is imperative that managers invest in organizational strategies to promote occupational health and improvements in the primary health care work environment, in addition to the adoption of measures that strengthen the social relationships of support to health teams [14,38].

Moreover, the adoption of lifestyle habits that help to mitigate stress and to manage stressful situations, such as the practice of

physical activity, relaxation sessions, yoga, or auriculotherapy should be encouraged, starting during academic life, in university spaces. Thus, it is important that there is integration among universities, teachers, and managers to jointly direct viable measures that contribute to a healthier academic education and the adoption of coping strategies of stressors by future medical professionals, minimizing suffering in their practice in primary health care [22,38].

Nevertheless, it is essential that studies are developed to identify the presence of anxiety, depression, stress, and job dissatisfaction among primary health care physicians, as well as to implement actions of social and emotional support, in order to mitigate the impacts caused by the environment and the work practice on the health of these professionals.

Conclusion

One-quarter of the physicians in this study had scores compatible with occupational stress. The participants indicated that their main stressors were aspects related to difficulties and failures of management and material and personnel resources, and insufficient specialized training and continuing education, suggesting that the conditions and pressures of the work environment are favorable to the development of stress among primary health care physicians.

In terms of the coping strategies used, the results showed that an emotional imbalance can influence the choice of strategy used by primary health care physicians in their work environment. This factor reinforces the need to create a welcoming work environment, with cohesive, integrated and well-managed teams that feel comfortable sharing their emotions and actively provide social support. The results indicate that those responsible for primary health care management and people management in the municipality should carry out actions and strategies that enhance coping and strengthen social support and problem solving.

By identifying the levels of occupational stress and the coping strategies of primary health care physicians, this study stands out for its relevance and can aid in the management and administration of work environments of these professionals. Thus, it contributes to the

development of welcoming and well-managed environments that favor greater engagement and better quality of life for physicians working in primary health care.

Conflict of interest: The authors have no conflicts of interest to declare for this study.

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