

## Research Article

# Analysis of the Coping Strategies of Primary Health Care Professionals: Cross-Sectional Study in a Large Brazilian Municipality

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**Abstract:** The aim was to analyze the coping strategies used by primary health care (PHC) professionals. A cross-sectional, descriptive-analytical study was conducted with professionals working in primary health care units in São José do Rio Preto, a large city in the interior of São Paulo, Brazil. For data collection we used an instrument developed by the researchers, containing sociodemographic and professional variables, as well as the Problem Coping Modes Scale (EMEP). We evaluated 333 PHC professionals. A difference was observed between the scores of the four coping strategies ( $p < 0.001$ ), with the highest score for the problem-focused strategy (3.8) and the lowest score for the emotion-focused strategy (2.4). Physicians had the lowest scores in coping strategies focused on religious practices/fantastical thinking ( $p < 0.001$ ) and pursuit of social support ( $p = 0.045$ ), while community health agents had the highest scores in these coping strategies). Professionals working in PHC have different coping strategies for the problems and stressful situations experienced in the work environment. These strategies can involve more positive attitudes focused on confrontation and problem solving, to emotional responses that involve attitudes of avoidance and denial that involve attitudes of avoidance and denial of the problem.

**Keywords:** primary health care; family health strategy; health personnel; adaptation, psychological.

## 1. Introduction

In Brazil, Primary health care (PHC) or basic health care (BHC) is the first level of health care in the Unified Health System (SUS) and represents the "entrance door" to the public health system. The Family Health Strategy (FHS) is the priority model of health care in PHC [1].

Professionals in FHS teams work with client assignment, home visits, integrality of practice, and health promotion. They are multiprofessional teams, composed of a general physician (preferably a specialist in Family and Community Medicine), a nurse (preferably a specialist in Family Health), a nursing assistant and/or a nursing technician, and community health workers (CHWs) [1,2].

The organization and work process of PHC professionals can induce stress, which is understood as a psychological, physiological, and behavioral response of the worker to environmental, physical, and social situations that generate pressures and exhaustion [3]. The overload and the precariousness of the work conditions, the fragility of the employment bonds, the lack of training and perspectives of professional growth, the pressure for the fulfillment of goals and the lack of professional autonomy are identified as the main causes of psychological suffering among PHC professionals [4-10].

To adapt to these stressful events, the workers expend a great amount of adaptive energy and, for this reason, in high levels or chronic situations, stress can cause physical and psychological illness, leading to difficulties facing problems and situations that feel threatening and/or wearying, and compromising the quality of life of workers [5,11-13].

When under stress, professionals seek coping strategies, which consist of cognitive, emotional, and behavioral reactions intentionally adopted to help them adapt to stressful situations and decrease susceptibility and negative impacts [14,15].

These coping strategies can be problem-focused (focused on ways to manage or solve the problem, re-evaluation, and positive meaning of the stressor), emotion-focused (involving avoidance behaviors, denial, emotions expressing anger and tension, attribution of blame, withdrawal from the problem, and ameliorative actions in the face of the stressor), based on religious or spiritually-related practices and fantastical thinking, or based on the pursuit of social support (pursuit of emotional or instrumental social support and the search for information) [16]. These coping strategies define different ways in which PHC professionals might deal with daily stress situations, avoid damage to health, produce motivation, and improve job satisfaction [17].

Moreover, coping strategies have an important protective role against the development of Burnout Syndrome (a state in which a person feels overwhelmed, immobilized, and feels reduced motivation) and directly influence the quality of life of professionals [12,18]. Coping strategies are used to reduce or eliminate suffering caused by stressors, and utilize internal and external resources such as social skills, beliefs, health condition, and availability of material resources [14,19-22].

Studies with health professionals in hospital services indicate that the most commonly adopted coping strategies are problem solving and social support, which consist of behavioral strategies aimed at solving the problem and cognitive strategies aimed at perceiving the stressor as a positive experience, in addition to seeking out information and socioemotional support [23,24]. Similarly, in studies with psychologists from a Psychosocial Care Center (CAPS) and with community health workers, the authors showed that problem solving strategies are more frequently used and more positively perceived by professionals [25,26].

In this context, understanding the coping strategies adopted by PHC professionals can contribute to the implementation of policies that promote positive coping mechanisms and improve the quality of life and productivity of this population, and by realizing this, we can improve the mental health of PHC workers.

Given the above, this study aimed to analyze the coping strategies used by workers in PHC.

## 2. Materials and Methods

### 2.1. Type of Study

This cross-sectional, descriptive-analytical study was conducted in 2017 with professionals working in the Primary Health Care units of a large municipality in the northwestern region of the state of São Paulo, Brazil. This municipality is the headquarters of the Regional Health Department (DRS) XV, which serves a total of 102 municipalities.

This large municipality had, at the time of the study, an estimated population of 451,354 inhabitants [27] and was administratively organized into five Health Districts. Primary Care comprised 27 health units, which had 58 teams of the FHS [28].

### 2.2. Sample and Participants

The population of this study consisted of 351 workers (physicians, nurses, nursing assistants/technicians, and community health workers) from 27 PHC units in the municipality. The sample was defined by convenience and included 333 professionals who responded to the data collection instruments.

### 2.3. Procedures, Measurements, Variables and Outcome

For data collection, two self-administered instruments were used: Firstly, a questionnaire developed by the researchers, containing sociodemographic variables (gender, age, marital status, education, family income) and professional variables (professional category, type of contract, weekly workload, time working in PHC, satisfaction with the profession). Secondly, the Problem Coping Modes Scale (EMEP), which encompasses thoughts and actions that individuals use to deal with the internal or external demands of a specific stressful event and consists of 45 items that address four factors, namely, problem-focused coping strategies, emotion-focused coping strategies, pursuit of religious practices/fantastical thinking, and pursuit of social support [16].

The EMEP items were answered on a Likert-type scale with five possible responses: 1 = I never do this; 2 = I hardly ever do this; 3 = I do this sometimes; 4 = I do this a lot; 5 = I always do this. The characterization of coping occurs from the comparison between the mean obtained in each factor, as follows: factor 1 [Coping focused on the problem], which consisted of items 1, 3, 10, 14, 15, 16, 17, 19, 24, 28, 30, 32, 33, 36, 39, 40, 42, and 45; factor 2 [Coping focused on emotion], which consisted of items 2, 5, 11, 12, 13, 18, 20, 22, 23, 25, 29, 34, 35, 37, and 38; factor 3 [Coping based on religious practices and fantastical thinking], which consisted of items 6, 8, 21, 26, 27, 41, and 44; factor 4 [Coping based on social support], which consisted of items 4, 7, 9, 31, and 43 [16].

### 2.4. Statistical Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS), version 20.0. To evaluate the coping modes, the mean scores of the four strategies (problem-focused, emotion-focused, religiosity/spirituality, social support), the standard deviation, the 95% confidence interval (95% CI), and Cronbach's alpha coefficient ( $\alpha$ ) were obtained. The internal consistency of the EMEP scale factors, measured by Cronbach's alpha coefficient, was 0.879 for the problem-focused strategy, 0.804 for the emotion-focused strategy, 0.587 for the strategy based on religious practices/fantastical thinking, and 0.682 for the strategy based on social support.

The comparison of coping strategies with the socio-demographic and professional variables of PHC workers was performed with the t-test for two means or analysis of variance (ANOVA) and for three or more means, considering a significance level of 5% ( $p \leq 0.05$ ).

### 2.5. Ethical Considerations

Ethical approval regarding this study was obtained from the institutional ethics committee (decision: 1,776,737 – October 16, 2016; CAAE: 59604116.0.0000.5415). All the participants in this study were only included after informed consent had been obtained from them. All procedures performed in this study were in accordance with the ethical standards of the institutional research committee and with the comparable ethical standards outlined in the Declaration of Helsinki.

### 3. Results

A total of 333 PHC workers participated in this study, of which 32 (9.6%) were physicians, 20 (6.0%) were nurses, 77 (23.1%) were nursing assistants/technicians, and 71 (21.3%) were community health agents. Participants were predominantly female (81.1%), 60 years old or above (44.7%), with higher education (55.3%), married or in a stable union (63.1%), permanent employees (74.5%), with 40 working hours per week (91.0%), with family income of two to 10 minimum wages (56.8%), up to two years working in PHC (37.8%) and satisfied with the profession (77.8%) (Table 1).

Table 1 - Sociodemographic and professional characteristics of Primary Health Care (PHC) workers in São José do Rio Preto, São Paulo, Brazil.

Variables	n	%
<b>Professional Category</b>		
Physician	32	9.6
Nurse	20	6.0
Nursing Auxiliary/Technician	77	23.1
Community Health Agent	71	21.3
No answer	133	39.9
<b>Sex</b>		
Male	60	18.0
Female	270	81.1
No answer	3	0.9
<b>Age Group (years)</b>		
18 to 28	1	0.3
29 to 39	32	9.6
40 to 59	138	41.4
60 or more	149	44.7
No answer	13	3.9
<b>Education</b>		
High School	149	44.7
Higher Education / Graduate	184	55.3
<b>Civil Status</b>		
Married / Stable Union	210	63.1
Single	86	25.8
Separated	28	8.4
Widowed	9	2.7
<b>Contract Type</b>		
Government employee	248	74.5
Hired	80	24.1

No answer	3	0.9
<b>Weekly Work Hours</b>		
20 hours	20	6.0
30 hours	8	2.4
40 hours	303	91.0
No answer	2	0.6
<b>Family Income (number of minimum wages*)</b>		
Up to one	23	6.9
Two to five	189	56.8
Six to 10	66	19.8
More than 10	47	14.1
No answer	8	2.4
<b>Length of time working in PHC</b>		
Up to two years	126	37.8
> two and ≤ five years	56	16.8
> five and ≤ 10 years	64	19.2
Over 10 years	71	21.3
No answer	16	4.8
<b>Satisfied with Profession</b>		
Yes	259	77.8
No	70	21.0
No answer	4	1.2

\* Minimum wage value: BRL 937.00 ≈ USD 299.35 (1 USD = 3.1301 BRL).

As shown in Table 2, there was a statistically significant difference between the scores of the four coping strategies ( $p < 0.001$ ). The highest score obtained was in the factor "problem-focused", which corresponds to behavioral strategies aimed at managing or solving the problem and cognitive strategies aimed at re-evaluation and positive meaning-making regarding the stressor. The lowest score corresponds to the "emotion-focused" factor, that is, the cognitive and behavioral strategies that involve avoidance, denial, expressing emotions of anger and tension, attribution of blame, withdrawal from the problem, and ameliorative actions in the face of the stressor.

Table 2. Mean scores of the coping strategies of Primary Health Care workers in São José do Rio Preto, São Paulo, Brazil.

Coping Strategy	Mean Score	Standard Deviation	95%CI*	p-value (t-test)
<b>Problem-focused</b>	3.8	0.66	3.7 – 3.9	<0.001
<b>Emotion-focused</b>	2.4	0.62	2.4 – 2.5	
<b>Religious Practices / Fantastical Thinking</b>	3.2	0.78	3.1 – 3.3	
<b>Pursuit of Social Support</b>	3.1	0.91	3.0 – 3.2	

\* 95% Confidence Interval.

Analysis of the coping strategies according to the sociodemographic and professional variables of the PHC workers showed that there was no statistically significant difference between the scores of coping strategies and the type of contract, weekly work hours, and marital status ( $p>0.05$ ).

As observed in Table 3, physicians presented the lowest scores in the coping strategies focused on religious practices/fantastical thinking ( $p<0.001$ ) and pursuit of social support ( $p=0.045$ ), while community health agents scored the highest in these strategies. Similarly, females showed higher scores than males for the coping strategies focused on religious practices/fantastical thinking ( $p=0.001$ ) and pursuit of social support ( $p=0.005$ ).

Younger workers (18 to 28 years old) had significantly higher scores than workers aged 60 years and older for the emotion-focused coping strategy ( $p=0.014$ ). Workers whose family income was up to one minimum wage presented higher scores for the coping strategy focused on religious practices/fantastical thinking than those with family income higher than 10 minimum wages ( $p=0.001$ ).

Workers with more than 10 years of professional PHC experience presented the lowest scores for the coping strategies focused on emotion ( $p=0.008$ ) and on religious practice/fantastical thinking ( $p<0.001$ ). Further, workers who reported being dissatisfied with their profession had higher scores for the coping strategies focused on emotion ( $p=0.011$ ) and religious practices/fantastical thinking ( $p<0.010$ ) than those who reported being satisfied with their profession (Table 3).

Table 3. Mean scores of the coping strategies of PHC workers, according to sociodemographic and professional variables. São José do Rio Preto, São Paulo, Brazil.

Coping Strategy	Problem-focused	Emotion-focused	Religious Practices / Fantastical Thinking	Pursuit of Social Support
	Mean (SD*)	Mean (SD*)	Mean (SD*)	Mean (SD*)
<b>Professional Category</b>				
Physician	3.9 (1.5)	3.6 (1.8)	2.3 (1.9)	3.0 (1.5)
Nurse	3.5 (1.4)	3.6 (1.3)	3.2 (1.4)	3.7 (1.4)
Nurse	3.7 (1.3)	4.0 (1.2)	3.7 (1.2)	3.7 (1.3)
Auxiliary/Technician				
Community Health Agent	3.8 (1.3)	4.3 (1.4)	4.2 (1.2)	3.8 (1.3)
<i>p-value**</i>	0.136	0.091	<b>&lt;0.001</b>	<b>0.045</b>
<b>Sex</b>				
Male	3.9 (0.7)	2.5 (0.7)	2.9 (0.8)	2.8 (1.0)
Female	3.8 (0.7)	2.4 (0.6)	3.3 (0.8)	3.2 (0.9)
<i>p-value***</i>	0.495	0.872	<b>0.001</b>	<b>0.005</b>
<b>Age Group (years)</b>				
18 to 28	3.4 (0.8)	3.8 (0.6)	3.8 (0.5)	3.8 (0.5)
29 to 39	3.3 (0.5)	3.5 (0.7)	3.5 (0.7)	3.5 (0.7)
40 to 59	3.4 (0.8)	3.4 (0.7)	3.4 (0.7)	3.4 (0.7)
60 or more	3.4 (0.8)	2.8 (0.5)	3.3 (0.7)	3.4 (0.8)
<i>p-value***</i>	0.926	<b>0.014</b>	0.235	0.271
<b>Education</b>				
High School	1.5 (0.5)	1.6 (0.5)	1.8 (0.4)	1.9 (0.4)



Higher Education / Graduate	1.6 (0.5)	1.6 (0.5)	1.4 (0.5)	1.6 (0.5)
<i>p-value***</i>	0.860	0.111	<b>&lt;0.001</b>	0.168
<b>Family Income (number of minimum wages<sup>§</sup>)</b>				
Up to one	2.2 (0.4)	2.6 (1.2)	3.5 (1.0)	2.9 (1.0)
Two to five	2.5 (0.8)	2.5 (0.8)	2.6 (0.8)	2.5 (0.8)
Six to 10	2.4 (0.8)	2.4 (0.8)	2.5 (0.8)	2.4 (0.8)
More than 10	2.5 (0.8)	2.3 (0.5)	2.3 (0.8)	2.4 (0.8)
<i>p-value**</i>	0.701	0.259	<b>0.001</b>	0.290
<b>Length of time working in PHC</b>				
Up to two years	3.3 (0.6)	2.4 (1.3)	2.5 (1.0)	3.3 (1.4)
> two and ≤ five years	2.5 (1.2)	2.6 (1.3)	2.6 (1.3)	2.4 (1.3)
> five and ≤ 10 years	2.2 (1.3)	2.2 (1.3)	2.6 (1.3)	2.3 (1.3)
Over 10 years	2.2. (1.4)	2.0 (1.2)	2.0 (1.3)	2.4 (1.3)
<i>p-value**</i>	0.184	<b>0.008</b>	<b>&lt;0.001</b>	0.795
<b>Satisfied with Profession</b>				
Yes	3.8 (0.7)	2.4 (0.6)	3.2 (0.8)	3.1 (0.9)
No	3.8 (0.7)	2.6 (0.6)	3.4 (0.7)	3.1 (0.9)
<i>p-value*</i>	0.921	<b>0.011</b>	<b>0.010</b>	0.685

\* Standard Deviation. \*\* *t*-test. \*\*\* ANOVA test. § Minimum wage value: BRL 937.00 ≈ USD 299.35 (1 USD = 3.1301 BRL).

#### 4. Discussion

The characteristics of PHC workers in this study is consistent with those described in other studies [5,29-32]. The predominance of female professionals is due to the feminization process that health professions have undergone in many countries, including Brazil, in recent decades [33,34]. Moreover, the professional structure of the teams is consistent with that proposed by the National Primary Care Policy particularly with regards to the composition of the minimum number of FHS teams [1].

The coping strategy presented most among the PHC professionals in this study was problem-focused, which involves becoming aware of/identifying the stressor agent in order to manage or solve the problematic situation that causes them exhaustion/fatigue and stress. Through the process of reframing the problem, the professionals who adopt this strategy make cognitive efforts to perceive the problem in a positive way and, from there, attempt to face it [16,35]. These results corroborate the findings of other studies conducted with healthcare professionals that also presented the problem-focused strategy as the main coping strategy [23,25,35,36].

For the professional to develop effective coping skills, it is necessary to be aware of the presence of the stressor agent, which will allow him to adopt assertive coping mechanisms and achieve a reduction of occupational stress as a consequence [17]. In this sense, it is noteworthy that the way of coping depends on behavioral and cognitive strategies used to control external and internal demands, which generate overload and compromise the physical and mental capacity of the individual. Therefore, the coping process will depend on the interaction of the individual with the environment, and may

be influenced by personality and previous experiences that allowed development of cognitive, behavioral, emotional, and social resources to face stressful situations [37,38].

Highest scores for the strategies focused on religious practices/fantastical thinking were presented among community health agents, female workers, those with family income up to one minimum wage, with more than 10 years of professional experience, and who reported being dissatisfied with their profession and whose dissatisfaction with their profession was identified as an important motivational factor. A religious outlook in the work place encourages the worker's involvement with colleagues and favors the alignment of personal goals with organizational ones. Furthermore, spirituality is important for the construction of individual and community resilience, since it favors mutual support and enables groups (in this case, the FHS team) to share their needs, find strategies, and develop resources to face problems [39,40].

The strategy based on the pursuit of social support, more evident among community health agents and female workers, shows the importance of expanding the network of social and emotional support to PHC workers. Thus, it is essential that managers encourage team meetings, which are important opportunities for listening to the demands of these professionals and sharing information that contributes to more effective confrontation of the problems present in the work practice, thereby reducing the risk of suffering and mental illness of these workers [25].

In the case of females, facing the problems can become even more difficult, since female workers' tasks are not over at the end of the work day, but can be but extend to domestic and child care. Therefore, female workers are more susceptible to overload and emotional stress, and require social support to face the workplace problems [41].

The results also revealed that younger workers, those with more than 10 years of PHC experience and those who are dissatisfied with their profession tend to adopt emotion-focused coping strategies, that is, they are more likely to develop denial and escape strategies, demonstrate feelings of tension and anger, and withdraw from problems and stressful situations. In this circumstance, it is common for workers to engage in behaviors that alleviate suffering such as alcohol consumption and use of illicit drugs [42-44].

Moreover, these professionals experience feelings of discouragement and hopelessness which compromise productivity and quality of life, and further, hinder the adoption of more positive and assertive responses to a stressful situation [45-49]. Therefore, because these workers show difficulty in facing their problems, they deserve special attention from managers and other professionals within the team.

Finally, it is noteworthy that workers with more than 10 years of professional experience tend not to adopt emotion-focused strategies and/or religious practices/fantastical thinking. This may be due to their extensive professional experience, which brings the maturity needed to react in a more assertive, concrete, and objective way when faced with stressful situations, without great emotional attachment and free of unpleasant feelings [50,51].

The cross-sectional design of this study does not make it possible to establish cause and effect relationships, or perform further analysis on coping strategies and sociodemographic and professional characteristics of PHC workers. However, the results should be carefully analyzed, since coping strategies are essential to solve problems and manage stressful situations that permeate the PHC work environment. Another limitation of the study is the inclusion of professionals from a single municipality, which does not allow the generalization of the results. However, this study distinguishes itself by allowing the understanding of coping strategies adopted by PHC workers and promoting the development of interventions that can strengthen the negative aspects and consolidate the positive aspects of this reality.



## 5. Conclusions

The study showed that PHC professionals adopt different coping strategies for the problems and stressful situations experienced in the work environment. These strategies can involve more positive attitudes aimed at management and problem solving, to emotional responses that involve attitudes of avoidance and denial of the problem.

Considering that confronting problems in a positive manner is the best way to deal with the oppressive situations that arise in the work environment, it is essential that managers create support structures that encourage and strengthen the capacity of PHC professionals to adopt assertive strategies to face and solve problems.

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**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

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