








Pet-health as a tool for identifying stress levels in primary healthcare professionals

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ABSTRACT

Evidenced today that working conditions can contribute to changes in the physical and mental health of individuals, studies point to the relationship of these disorders with dissatisfaction, lack of professional recognition, exhaustion caused by direct contact with the patient, insufficient rewards, lack of autonomy, dysfunctional interpersonal relationships, conflict of values, lack of human and material resources, long working hours, low pay, narrowing of the labor market, high exposure to occupational risks and the lack of definition of the professional role. The research emerged from the initial experiences of the *PET-Saúde Interprofissionalidade* project. **Objective:** Analyze stress levels among professionals at a Family Health Center (FHC), through the application of the Lipp test - Lipp Stress Symptoms Inventory (ISSL). **Methodology:** A quantitative, descriptive, transversal research was carried out. Thirty professionals who worked in the service participated in the research. **Results:** Of the professionals evaluated, 6.7% were in the alert phase, 56.6% in the resistance phase and 16.7% in the exhaustion phase. The most identified symptoms were physical, since the psychological symptoms found are intrinsic and identified through information given by professionals. **Conclusion:** In this way, it is necessary to carry out strategies for the prevention and control of disorders that affect and/or tend to affect these professionals, thus improving their quality of life, as well as assistance to users.

Keywords: Health education, Health policy, Mental health, Unified Health System, Stress.

INTRODUCTION

Working conditions can contribute to changes in the physical and mental health of individuals¹. When considering the conditions and context of activities carried out in the field of health, surveys carried out with workers in the area in Brazil show the existence of associations between the occurrence of diseases and psychosocial disorders with the working conditions of these professionals^{2,3}.

Regarding the above, Garcia and Marziale (2018) describe that health professionals are subject, at all times in their professional dealings, to situations and environments considered sources of pressure⁴. With this, Luengo, Hidalgo, Jara and Rivera (2019) report that professionals, especially those working in public health, serve a population that presents more and more demands. Thus, they need specific, technical and interpersonal skills, often not addressed in their professional training⁵.

Silva, Ribeiro et al. (2021), point out factors related to mental disorders of professionals: dissatisfaction, lack of professional recognition, wear caused by direct contact with the patient, insufficient rewards, lack of autonomy, dysfunctional interpersonal relationships, the conflict of values, the lack of human and material resources, the long working hours, the low remuneration, the narrowing of the labor market, the high exposure to occupational risks and the lack of definition of the professional role⁶.

The diversity of professions, with nuclei of specific knowledge that can be integrated into the field of public health, especially the generalist teams that work in the Family Health Strategy (FHS), gives the possibility to perform interdisciplinary activities and advance toward an interprofessional action. This implies collaboration between professionals who revisit the relationships between their professions, which affects personal relationships and produces stress at work⁷.

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The research emerged from the initial experiences of the *PET-Saúde Interprofissionalidade* project, which included moments of immersion of the PETs in the FHCs. In this way, it was possible to observe the prescribed work process of the professionals and the obstacles that arise from daily work. The main objective of this work was to analyze the levels and markers of stress among professionals of the Family Health Teams (FHT) and Expanded Centers for Family Health and Primary Care (ECFH-PC) of FHC Chico Mendes through the application of the test by LIPP - LIPP Stress Symptom Inventory (ISSL).

METHODOLOGY

This is research with a quantitative approach, with a descriptive character. The study scenario was the FHC Chico Mendes, located in the Presidente Médici neighborhood in the municipality of Chapecó, Santa Catarina, Brazil.

The following inclusion criteria were used: being a member of the CSF Chico Mendes team during the data collection period for more than 3 months and being over 18 years old. Those who were on vacation, sick leave or on leave for professional training were excluded.

The data collection instrument used was the Inventory of Stress Symptoms for young people/adults (ISSL), standardized by Lipp and Guevara (1994). Regarding the collected data, the sample does not have identification and, even so, absolute

Table 1
Number of professionals allocated in the unit.

Category	Number of professionals
Doctors	3
Nurse	3
Community Health Agent	17
Administrative Assistant	1
Nursing Technicians	2
Nursing Assistant	6
General Services Assistant	2
Dentists	2
Oral Health Technician	2
Total	38

secrecy was guaranteed regarding the identity of the researched people since access to the database is exclusive to the researchers. This bank will be kept confidential for five years in the care of the academic researcher and after that, it will be destroyed.

Data collection began after authorization from the municipal health department (SESAU) and contact with the FHC. All research participants received the Informed Consent Form (TCLE) by e-mail. After acceptance, the professional had access to the LIPP inventory, which was inserted into Google Forms for completion.

Data analysis was performed using descriptive statistics, considering the phase scores according to the assessment indicated by the authors of the inventory, such as: Alertness, Resistance and Exhaustion. The research was approved by the Research Ethics Committee (CEP), approval number 36819720.8.0000.5564.

RESULTS

During the data collection period, 43 employees worked at the CSF, including members of the FHT, Oral Health teams (OHT), outsourced employees and members of the NASF-AB. Of these, 31 professionals participated in the research, one of them excluded, according to the exclusion criterion for working for less than 3 months in the service. In view of the collected information, the following profile was identified:

Regarding the LIPP Questionnaire, the analysis is as follows: in Phase I, if the professional marks 7 items or more, it is characterized as in the alert phase; in phase II, if the professional marks 4 items or more, it is characterized as in the resistance phase; and in phase III, if the professional marks 9 items or more, it is characterized as in the exhaustion phase. It should be noted that the questionnaire has 37 items of a somatic and 19 psychological nature, with symptoms often repeated.

From the interpretation of the information, it was evidenced that 24 (80%) of the participants were classified in one of the ISSL phases, two (6.7%) of the participants in the alert phase, 17 (56.6%) in the resistance and five (16.7%) in the exhaustion phase. Of the professionals identified in the alert phase, both were women and had completed high school. One of them is active in the service for between 1 to 2 years and the other between 2 to 3 years.

Frame 1

Characterization of the sociodemographic profile of the interviewees (N=30). Chapeco, SC, Brazil, 2021.

Variables	Answer Option	Number	Percentage
Sex	Feminine	27	90%
	Masculine	3	10%
Education level	Elementary School	2	6.66%
	High School	16	53.33%
	University Education	4	13.33%
	Postgraduate	8	26.66%
Age Range (years)	20 -30 years	7	23.33%
	31-40 years	13	43.33%
	41-50 years	6	20%
	51-60 years	4	13.33%
Working time	3 months to 1 year	9	30%
	1 to 2 years	5	16.7%
	2 to 3 years	2	6.7%
	3 to 4 years	0	0%
	4 to 5 years	4	13.3%
	More than 5 years	10	33.3%
Type of employment relationship	Temporary contract	2	6.7%
	Outsourced contracts	1	3.3%
	Civil Service Exam	27	90%

Among the professionals in the resistance phase, all were women, 11 (64.7%) had completed high school, three (17.6%) had graduate degrees, two (11.7%) had completed elementary school and one (5.8%) completed higher education. Regarding time in the service, 6 (35.2%) worked in the period between 3 months and 1 year, five (29.4%) for more than 5 years, three (17.6%) for 4 to 5 years, two (11.7%) from 1 to 2 years and one (6.6%) from 2 to 3 years. In the exhaustion phase, all of them were also women, with complete secondary education. The length of service varied, one with 5 years or more, one with a period of operation between 4 to 5 years, one from 2 to 3 years, one from 1 to 2 years and one from 3 months to 1 year.

Among the symptoms that make up Phase I, are 15 physical or psychological symptoms that the person has experienced in the last 24 hours, the most prevalent in this research were: muscle tension, change in appetite, increased sweating, sudden desire to start new projects, mouth dry, knot or pain in the stomach, jaw tightness/teeth grinding and insomnia/difficulty sleeping, as per Table 2.

Phase II presents 10 physical and 5 psychological symptoms that the person has experienced in the last week, the most prevalent were: feeling of constant physical exhaustion, constant tiredness, problems with memory/forgetfulness and excessive irritability, as shown in Table 3.

Phase III is represented by 12 physical and 11 psychological symptoms that the person has experienced in the last month, the most prevalent were: excessive tiredness, desire to escape from everything, daily anguish or anxiety, apathy/willingness to do nothing/depression or anger prolonged and irritability without apparent cause, as shown in Table 4.

The instrument used made it possible to analyze the symptoms of stress in two aspects, these being physical and psychological. It was observed that among the participants who were in the alert and resistance phase, physical symptoms were predominant. In the exhaustion phase, psychological symptoms predominated.

Table 2

Frequency of professionals who showed some stress symptoms in Phase I. Chapecó, SC, Brazil, 2021.

LIPP QUESTIONNAIRE - PHASE I		
SYMPTOMS	Nº OF PROFESSIONALS	PERCENTAGE
Cold hands and/or feet	2	7.4%
Dry mouth	6	22.2%
Stomach knot or pain	6	22.2%
Increased sweating	7	25.9%
Muscle tension	21	77.8%
Jaw clenching/teeth grinding	6	22.2%
Transient diarrhea	1	3.7%
Insomnia/difficulty sleeping	6	22.2%
Tachycardia	3	11.1%
Panting breath	4	14.8%
Sudden and transient hypertension	3	11.1%
Appetite change	8	29.6%
Sudden increase in motivation	3	11.1%
Sudden enthusiasm	2	7.4%
Sudden urge to start new projects	7	25.9%

Table 3

Frequency of professionals who presented some stress symptoms in Phase II. Chapeco, SC, Brazil, 2021.

LIPP QUESTIONNAIRE - PHASE II		
SYMPTOMS	Nº OF PROFESSIONALS	PERCENTAGE
Problems with memory/forgetfulness	18	62.1%
Generalized malaise, with no specific cause	6	20.7%
Tingling in the extremities (feet and/or hands)	4	13.8%
Feeling of constant physical exhaustion	20	69.0%
Appetite change	8	27.6%
Appearance of dermatological problems (on the skin)	5	17.2%
Arterial hypertension (high blood pressure)	2	6.9%
Constant tiredness	20	69.0%
Appearance of prolonged gastritis (burning in the stomach, heartburn)	6	20.7%
Dizziness, floating sensation	4	13.8%
Excessive emotional sensitivity, gets emotional about anything	8	27.6%
Doubts about yourself	9	31.0%
Constant thoughts on one subject	2	6.9%
Excessive irritability	11	37.9%
Decreased libido (decreased sex drive)	9	31.0%

Table 4

Frequency of professionals who presented some stress symptoms in Phase III. Chapeco, SC, Brazil, 2021.

LIPP QUESTIONNAIRE - PHASE III		
SYMPTOMS	Nº OF PROFESSIONALS	PERCENTAGE
Frequent diarrhea	3	10.3%
Sexual difficulties	2	6.9%
Tingling in the extremities (feet and/or hands)	6	20.7%
Insomnia	7	24.1%
Nervous tics	7	24.1%
Continued high blood pressure	3	10.3%
Prolonged dermatological (skin) problems	4	13.8%
Extreme change in appetite	6	20.7%
Tachycardia (fast heartbeat)	3	10.3%
Frequent dizziness	4	13.8%
Ulcer	0	0.0%
Heart attack	0	0.0%
Inability to work	0	0.0%
Nightmares	4	13.8%
Feeling of incompetence in all areas	5	17.2%
Desire to get away from it all	13	44.8%
Apathy, wanting to do nothing, depression or prolonged anger	8	27.6%
Excessive tiredness	19	65.5%
Constant thinking/talking about the same subject	3	10.3%
Irritability with no apparent cause	8	27.6%
Daily distress or anxiety	10	34.5%
Emotional hypersensitivity	4	13.8%
Loss of sense of humor	6	20.7%

DISCUSSION

Consistent with data from the sociodemographic profile of the sample, there is a higher prevalence of a female population working in the service, corroborating the findings of other studies related to the subject, which mention the female predominance in relation to health professionals working in the services of the Primary Health Care (PHC)^{8,9}. The data collected show a greater proportion of professionals with complete Elementary Education; this finding can be related to the fact that most of the sample is composed of CHAs, since, to occupy this position, it is not necessary to complete secondary education¹⁰.

Regarding the age of the participants, the predominant age group was considered young, reconciling with the study by Martins (2020), which reveals a higher percentage of professionals aged between 31-40 years, being evidenced by similarity in the sample⁹. This age profile suggests the prevalence of professionals with less time working in the service.

Research indicates that professionals working for more than five years, that is, more experienced, perform better in their work activities and have a lower chance of becoming ill (9.11%). In disagreement with the study that points out that 39% of the professionals have temporary work contracts, the

research showed that 90% of the professionals working in the research unit are allocated in the tender format, which is a “security” since, hired professionals have precarious and fixed-term work relationships through direct or indirect employment⁹.

The study significantly evidences the presence of stress indicators obtained by the ISSL in the professionals participating in the research. The work by Sampaio, Oliveira and Pires (2020) highlights that almost half of the analyzed sample (42%) presented stress at some stage, corroborating the findings of this research, where 80% of professionals fit in at some stage¹¹.

Some studies point out that stress is a physical and emotional reaction of the body to situations that can provide a greater challenge. It can be classified as positive or negative. It is seen positively when the individual is in the alert phase, where he seeks strength to fight or flee from stressful situations. When persisted, it can progress to the resistance phase, the most prevalent phase in the sample, where generalized exhaustion is identified, as well as problems with memory and self-doubt¹².

In the sample, a greater number of professionals presented with stress in the resistance phase (56.6%), according to the study by Sampaio, Oliveira and Pires (2020), where of the 42% of the population that presented some level of stress, 32% were in the resistance phase¹¹. In this way, it can be identified that they are being exposed to stressful factors for a longer period; therefore, one must seek to identify what are the causes and seek to create actions to solve the problems quickly, preventing the symptoms from worsening the clinical case and move from a positive identification that occurs when symptoms and stressors are recognized to the negative and pathological side, when the symptoms are already generated by installed pathologies¹².

Resistance is the phase that precedes the alert phase and has this aggravation in cases where harmful agents remain persistent in the face of the body's defenses. Signs and symptoms are different from those presented in the first phases, as in this phase individuals seek to deal with these stressors in order to maintain a physical-mental balance¹³. Therefore, the resistance phase is demarcated as a period of response of the body to stressors, where energy expenditure begins to become excessive, initiating the most intense signs and symptoms. Some of these signs and symptoms are identified in

our research, namely: physical exhaustion, constant tiredness, forgetfulness and irritability¹³.

When compared to other surveys involving health professionals, but at other levels of assistance, a greater number of cases of exhaustion can be identified in the present study, in line with the study carried out in Pernambuco with pre-hospital care professionals, where only 1 (one) was exhausted¹⁴. In the exhaustion phase, tension exceeding the limits of physical and emotional resistance is evident, which can be cause of possible pathologies.

The exhaustion phase is considered the most negative due to the great inner imbalance caused in the individual, resulting in greater difficulty in returning to general well-being¹². In this way, control of possible stressors must be maintained so that in this way the passage from the level of resistance to the level of exhaustion is avoided since the individual in levels of exhaustion presents wear on his psychic and organic energy reserves, in line with the findings of other studies¹².

According to LIPP (2001), the study of stress must necessarily evaluate the physical and psychological symptoms since the changes triggered can affect the organism in its entirety¹⁵. In this study, physical symptoms were more predominant than psychological ones. In contrast, the study carried out by Nascimento et al. (2019), muscle tension, change in appetite, insomnia, bruxism and dry mouth were evidenced as physical symptoms. As a psychological symptom, the sudden desire to start new projects predominated¹⁶.

The resistance phase is more prevalent in most studies, such as the study by Santos et al. (2021), which shows fatigue and excessive irritability as physical and psychological symptoms, respectively, according to the findings¹⁷. The exhaustion phase showed a higher prevalence of psychological symptoms, where it is possible to denote greater damage to individuals, the study by Belancieri (2004) brings some similar symptoms such as tiredness, insomnia, eating disorders, anxiety, and depression¹⁸.

A higher prevalence of physical symptoms is also identified since psychological symptoms are not reported, in most medical consultations, they do not appear and are seen as non-existent. Therefore, actions aimed at diagnosing stressors and seeking strategies to cope with them are of paramount importance, enabling an improvement in the mental health of professionals in this unit.

CONCLUSIONS

In view of the above data, it is evident that the professionals most affected by symptoms of anxiety, stress and depression are women with complete secondary education, thus, it can be related to the fact that the female gender has a double workday, being work and household, as well as, it is known that health professionals with high school education are characterized by lower wages and work with greater physical and mental effort.

With regard to the alert, resistance and exhaustion phases, identifications in the alert phases usually become late, since the symptoms are mostly not related to their employment relationship, resulting in an increase in the alert phase that the symptoms begin to become more gifts and in greater quantity. The exhaustion phase considered the most critical tends to generate psychological symptoms in greater intensity, which still ends up making diagnosis difficult.

It is known that mental illnesses present diagnostic difficulties since they present several non-physical symptoms, which do not become visible and are sometimes disregarded because they do not generate physical changes, so the levels end up becoming more critical due to the lack of early control of pathologies.

In view of the data exposed in the research, it is identified the need to create strategies for the prevention and control of these disorders in the health professionals of the researched unit, which is linked to primary health care, with the aim of reducing the illness and removal of professionals, as well as an improvement in the quality of care provided by these professionals.

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ACKNOWLEDGMENT

We would like to thank Petianos colleagues from Subgroup 1, as well as professionals from FHC Chico Mendes, Chapecó City Health Department, as well as the Ministry of Health.

Financing:

this project was made possible based on Notice No. 10/2018, of July 23, 2018, FROM THE MINISTRY OF HEALTH/ Secretary of Work and Health Education Management entitled PET-Saúde-Interprofessionality, where scholarships were made available to those involved, as well as being allowed to participate as volunteers.

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Editor:

Ada Clarice Gastaldi

Received in: nov 11, 2022

Approved in: mar 06, 2023
