

**Original Research Article**

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ANALYSIS OF THE PHYSIOLOGICAL RESPONSE TO STRESS IN TEACHERS OF PUBLIC SCHOOL OF IPATINGA, MG**Haillane Stefane Oliveira Reis¹, Helama Vinicius Rocha Silva¹, Jose Lucas Raposo¹,
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ABSTRACT: This study has as objective to analyse the physiological answers (physical symptoms) to the stress, presented in teachers of one public school of Ipatinga, MG. Fifteen teachers of the fundamental teach did participated of the study. All have more than two years of teaching and act eight hours per day. It was utilized the Ebel table for stress. It was verified that 54% of the teachers of this school has the classification of the symptoms between high and excessive that means immediate care whit respect of health and quality of life of these professionals. Although this study aims to understand how works the professional of teach, to plan health actions that it has the objective of to have conscientious of the need of health care and of management it. This show the urgent need in development conscientious works about the stress and it control beside the teachers.

KEYWORDS: Stress, Teacher, Physiology, Quality of Life.

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1. INTRODUCTION

In his life the human being is submitted to different situations of pleasure, overcoming, emotions, to factors when it researches the equilibrium for a better quality of life. For this type of “equilibrium” the subject searches physiologic adaptations in the mental, physical and emotional organization. Which never come true, because depends of the capability of everyone to adjust these changes, and

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when it not occurs, could occasion the stress? The stress sensation could be that impression it sometimes we have nervousness, irritation, agitation, fatigue or illness. It is obviously her presence when we felling and experimented wear and fatigue [1]. The stress process is built of four phases, as it was enunciated by Lipp [2-6]: the first, alarm reaction, is the phase considered benefit to put the subject in a prompt state to fight the challenges to propose to him. So the physiologic functions are altered for one period of time in which he was against of each situation constituted a body defence, the second one is the phase of resistance, where the subject is expose to a period of long time of stressed stimulus, the organism begin to a physiologic equilibrium tentative and when it not reached and began to be vulnerable to diseases, the third phase is almost exhaustion, or, when the subject not be establish into the after phase progressing in the symptoms passing by to this phase that it was characterized by the transition between through the resistance phase to the exhausted phase. So, emerge than the fourth phase, exhaustion or depletion, it is a phase where diseases come, there is the physical, emotional and psychological exhaustion. In professor profession, in the present day, stressing factors are presents, students that not obey the institution and connivance rules, aggressiveness, noise, among others. This leads to emotional maladjustments associated to the physiological, increasing the hormonals levels of divested form. For Filgueiras and Hipper [1] the man could experiment tree type of emotions: rage directed to the outside, rage directed to him-self and anxiety or fear. These types of emotions lead to noradrenalin and adrenalin secretion producing health injuries. This daily exposition to stressing factors takes the people to release an excess of hormonal production taking to intoxication that begins the alert physiological signals [7]. The most of tensions, among others, come of the charge that the subject have with him-self, of the living situations or frustrations producing diseases and life quality lost. According Braga et al [8] there is a discontent of most of the people that not realize how the life is deeply influenced by some factors. Talk of hypertension, stress, cardiac diseases, among others, as something of physiology, instead of conceiving a holistic vision of the health and promote a social and cultural transformation. This holistic understanding begin to take bigger proportions when which the understanding of conceiving the diseases as multidimensional factor that involves tree levels as cited by Braga et al [8]: (1) individual, the subject in synchronism with him-self, have self-control to do his choices that will be less stress,(2) the social factor, formulation of News politic models that have as intention to elevate the life quality instead of the search for economic power at any cost and (3)the ecologic factor, getting politics that aimed a health ambient and self-sustainable. To help and or avoid the emergence of psychosomatic diseases we need keep us in the necessity of life quality, the care that need to have with the body and in the ambient that we are being with. The ambient in which the teacher is inserted is inconstant, with all problems which could occasioned a bigger level of stress and to arrive the Burnout syndrome, it is caused by relative circumstances to the professional activities caused affective, cognitive, physical and compartmental symptoms. According to Moreno-Jimenez et al [9]

the *burnout* in the professor does not appear abruptly, but is the final stage of a continuous process that are growing and that it is identify with signals as the sensation of inadequacy of the job, sensation of lack of resources for fight the professor job, felling of need of necessary formation, loss of the capability for problems resolution, careless of sufficient time, etc. The *burnout* of the docents characterizes by exhaustion of the resources self-emotional, in what are common distance and negative attitude for with the students and the negative value of their hole as professional. Beside this, according to Gasparine et al [10], the function of the professor extrapolated the knowledge process mediation of the student, it was commonly expected. This amplified the professional mission beyond the lesion room to guarantee an articulation between the school and the community. The teacher, beyond teaching, must be participate of the management and school planning, that meaning an amplified dedication, to which extends to families and the community. All these occupations and preoccupations are beyond the family self-life. This study purpose analyses the physiological answers (physical symptoms) that appear in teachers under stress of an Ipatinga public school, MG.

2. MATERIALS AND METHODS

Sample

15 teachers of the fundamental teaching participated of the study, of a public school of *Vale do Aço*, MG. All of them have more than two years of profession and work eight hours/day as teacher.

Methods

It was utilized a table of physiologic answers to the stress of Ebel to the verification and interpretation about the physical symptom's occurrence. The table is composing by 39 physical symptoms related with frequency of occurrence on classifications: never, rarely, frequently and constantly. Before the mark of these frequencies there is a table of data interpretation for evaluation of the symptoms. The present study following the rules of realization of the research with human beings, according resolution 196/96 of the Brazilian Health Council of 1996, 10th of October. All the participants of the study signed a content which has: the study objective, evaluation proceeds, possible consequences, character of voluntary participation of the subject and insertion of responsibility by the evaluator.

3. RESULTS AND DISCUSSION

According with the obtained results in this study about a classification, it was observed that most of the teachers of this school are with physiological answers in medial, high and excessive levels to the related symptoms (graphic1). The table 1 shows the symptoms and the frequency in relation to the answers given by teachers of fundamental teaching of an *Ipatinga* school, MG. Observe that the symptoms with high frequency in the teachers were: oiled skin, fatigue, the feeling of exhaustion, low back pain and stiff neck [11-13]. These symptoms can from the tension experienced daily by the teacher [14]. It was assuming that 54% of the teachers of this school were found in the symptom

classification in high and excessive, that requires immediate care about health and quality of life of these professionals [15-18]. Because one of the most motives of abandon or absence of the professionals of the Institutions have been by diseases generated by occupational stress [19, 20]. Work stress are of different causes as problems of make decision participations, function overload creating internal conflicts, work in satisfaction concerning the valorisation, recognition, incentive among other sand the work environment [21], that in our days the teacher is verbally and physically assaulted by students. Those are some point's stressors at work, in the case, at school [22]. Study realized by Servilha [11], with university teachers show high frequency of physical and psychological, revealing the teacher's suffering regardless of the level of performance [23-25]. As study of Noronha [12] that it identified anxiety [26-28] and frustration [29, 30] feelings among the studied teachers.

Graphic 1: Classification of the stress physiologic reactions



4. CONCLUSION

The present research inserts within the scope of the relations between health and work, focusing on the elementary school teacher. It which resulted in physiological symptoms of stress at high and excessive levels prevailing, which shows the need for urgency in developing awareness-raising activities in the stress and its control with teachers. With the development of this study, it would be interesting to apply the same instrument used in all the teachers of the public network for general analysis of the teachers of the network. This study aims to comprehend broadly how the teaching professional works, in order to plan health actions that goals to raise awareness of the need to care for and manage health.

Table 1: symptoms and frequency of the teacher's answers

Symptoms	Never	Rarely	Sometimes	Frequently	Constantly
Tension head pain		2	4	8	1
Vascular cephalgia	4	1	5	4	1
Stomach pains	2	5	5	2	1
Increase of blood pressure	5	4	4	2	2
Cold hands	4	7	2	2	
Stomach Acidez	2	4	4	4	1
Faster and superficial respiration	4	4	3	4	
Diarrea	6	3	4	2	
Palpitations	3	3	5	3	1
Trembling hands	5	5	2	3	
Belching	5	4	6		
Gases	1	3	7	3	1
Great urgency for urination	2	5	5	2	1
Hands or feet transpiration	5	6	2	2	
Oily skin	2	2	3	4	4
Fatigue/Exhausted sensation		2	5	4	4
Weezing	3	3	6	3	
Dry mouth	1	4	5	5	
Shaking hands	4	6	3	1	1
Low back pains	1	3	5	3	3
Neck stiffness	3	1	5	3	3
Chewing gum	4	5	2	2	2
Ranger teeth	5	6	2	2	
Cold	3	5	3	2	2
Tightness in the chest / heart	2	3	4	1	5
Dizziness	2	4	5	4	
Nausea/Vomiting	4	5	5	1	
Menstrual pain	4	1	4	5	1
Spots on the skin	4	2	7	1	1
Extrasistolles	6	2	5	1	1
Colitis	6	5	4		
Asthma	10	1	1	2	1
Indigestion	2	6	4	3	
Blood pressure	7	3	3	1	1
Hyperventilation	7	2	4	1	1
Arthritis	6	3	3	2	1
Rash	6	5	1	3	
Bruxism/ Pain in the jaw	8	2	1	2	2
Allergy	2	4	3	4	2

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CONFLICT OF INTEREST

The authors declare there are no conflict of interest or no any financial interest about this work.

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