OCCUPATIONAL STRESS ASSESSMENT IN TEACHERS BY MEANS OF A STRESS SYMPTOMS INVENTORY

ABSTRACT

Objective: assess occupational stress in teachers at Elementary School II in municipal public schools. Method: study with a quantitative approach using Lipp’s Stress Symptoms Inventory, whose participants were 94 teachers from 7 schools in São Lourenço da Mata, Pernambuco, Brazil. Data collection was conducted with a questionnaire and data were analyzed with the software Statistical Package for the Social Sciences (SPSS), version 15. The study was approved by the Research Ethics Committee of Universidade de Pernambuco (UPE) under the CAAE 0076.0.097.000-10. Results: 62.7% of teachers were stressed, and their main symptoms were psychic factors; 71.3% showed up discouraged from practicing the profession. Conclusion: the results showed a significant number of teachers with stress, and the resistance and exhaustion phases were those with higher frequency. At these phases, they were more exposed to the risk of getting sick. Descriptors: Occupational Health; Occupational Stress; Mental Health; Teachers; Nursing.

RESUMO

Objetivo: avaliar o estresse ocupacional em professores do Ensino Fundamental II em escolas públicas municipais. Método: estudo de abordagem quantitativa que utilizou o Inventário de Sintomas de Estresse de Lipp, com a participação de 94 professores de 7 escolas em São Lourenço da Mata (PE). A coleta de dados foi realizada com um questionário e os dados foram analisados com o programa Statistical Package for the Social Sciences (SPSS), versão 15. O estudo foi aprovado pelo Comitê de Ética em Pesquisa da Universidade de Pernambuco (UPE), sob o CAAE n. 0076.0.097.000-10. Resultados: 62,7% dos professores encontravam-se estressados, apresentando como principais sintomas fatores psíquicos; 71,3% mostravam-se desestimulados a exercer a profissão. Conclusão: os resultados mostraram um número significativo de professores com estresse, sendo as fases de resistência e exaustão as de maior frequência. Nessas fases, eles se encontravam mais expostos ao risco de adoecer. Descriptores: Saúde do Trabalhador; Estresse Ocupacional; Saúde Mental; Professores; Enfermagem.

RESUMEN

Objetivo: evaluar el estrés laboral en profesores de la Educación Primaria II en escuelas públicas municipales. Método: estudio con abordaje cuantitativo que utilizó el Inventario de Síntomas de Estrés de Lipp, con la participación de 94 profesores de 7 escuelas en São Lourenço da Mata, Pernambuco, Brasil. La recogida de datos se llevó a cabo con un cuestionario y los datos se analizaron con el software Statistical Package for the Social Sciences (SPSS), versión 15. El estudio fue aprobado por el Comité de Ética en Investigación de la Universidad de Pernambuco (UPE), bajo el CAAE 0076.0.097.000-10. Resultados: 62,7% de los profesores estaban estresados, y sus principales síntomas eran factores psíquicos; 71,3% mostraban desestimulados a exercer la profesión. Conclusión: los resultados mostraron un significativo número de profesores con estrés, y las fases de resistencia y agotamiento fueron las de mayor frecuencia. En estas fases, ellos estaban más expuestos al riesgo de contraer enfermedades. Descriptores: Salud Laboral; Estrés Laboral; Salud Mental; Profesores; Enfermería.
INTRODUCTION

Teachers are mediators of learning able not only to turn information into knowledge and critical awareness, but also to educate people. To do this, there is a need that this group of workers is inserted into a context favoring the development of their activities. Technological innovations, fast pace, complexity of tasks, and commitment to teaching may contribute to psychic and physical illness among teachers.

Currently, the teacher is within a school environment full of challenges, and she/he is subject to take responsibilities deriving from the social context. The demand of knowledge required to practice the profession and the pedagogical requirement imposing a set of abilities to be constructed by students conflict with the lack of interest of the latter ones, thus, teachers must bring proposals contextualized to the various realities.¹

The complexities and responsibilities imposed upon teachers can disturb their inner balance. This will depend on personal characteristics and the conditions of personal resources. The scenario worsens, since the schools do not provide teachers with any kind of professional support, be it psychological or medical, so that, in many cases, they find themselves alone to face the problems affecting their health and well-being.²

The essence of teaching work is admittedly stressful and a teacher’s daily work covers many situations that can contribute to health imbalance, resulting in the development of stress.²

Stress was initially conceptualized as a “nonspecific body response to any demand”, which leads to physiological changes in the individual, both positive and negative, when she/he is compelled to face situations triggering strong emotions. In the scope of this complex relationship between a human being and labor activity, stress emerges as a frequent cause of strain, causing occupational health problems.³

Nowadays, stress is divided into three phases: alarm, resistance, and exhaustion. The first phase is positively characterized by the production of adrenaline, making the individual more attentive, creative, productive, motivated, ready for action. The second phase requires that the individual copes with her/his stressors, in order to ensure homeostasis.⁴ Subsequently, we identify a fourth phase of stress, which is interposed between the resistance and exhaustion phases, named quasi-exhaustion. Within this period, tension levels exceed the physiological limits, leading to a decrease in physical and emotional endurance. In this case, there is a need for increased efforts to better fulfill daily activities, alternating moments of production and discomfort, something which causes anxiety.³

Studies show that university professors or High School and Elementary teachers are often affected by stress symptoms.⁶ The main symptomatology shows up in the psychological realm, and they are, in a large part, the causes of work leave due to health problems.⁷-¹¹ From this perspective, little is known about the teacher’s work and life conditions at school, especially concerning the quality of life of teachers at Elementary School, who, generally, neglect their health needs and conform to the discouraging context they are in, something which draws attention to the need for developing health promotion actions aimed at this group of workers.¹²

Just as society demands and requires competent and qualified teachers, committed to teaching, these professionals also must be monitored and better assessed with regard to their health status, especially concerning the psychosomatic aspects, where the variable stress has a huge destructive power not only in terms of ability to work, but also in the social and health-related spheres.

Given the above, this study has as its general objective assessing occupational stress in teachers at Elementary School II in municipal public schools in São Lourenço da Mata, Pernambuco, Brazil. As specific objectives we propose describing the sociodemographic profile of research participants and identifying the phases of stress, in addition to the symptoms reported by teachers at Elementary School II.

METHOD

This is a descriptive study, with a quantitative approach, carried out in all municipal public schools in the town of São Lourenço da Mata, with teachers at Elementary School II. This town is located within Recife Metropolitan Area, having an area of 264.48 km², and a population estimated in 99,945 inhabitants, in 2009. São Lourenço da Mata is part of the region of one of the 12 host cities selected for the 2014 World Cup, since it has met the criteria (use of funds available for the event, ticket sales, stadiums, structure for training and for the media, possibility of holding congresses and events, security, telecommunications, transport, and accommodation capacity -

Aquino JM de, Monteiro EMLM, Guerra DRC et al.
hotel sector) set by the International Federation of Association Football (FIFA).

Took part in this survey all teachers who were working at the classroom, directly with students, within the data collection period, either those who were approved in a public tender or those admitted on a temporary basis (ACT). Teachers who were in medical, prize, or unpaid leave did not participate, as well as those who were performing some administrative activity and those who did not agree to participate in the study. Among the excluded subjects, it is worth highlighting that 5 were on sick leave and 7 are readapted teachers (those who were away from their activities due to sick leave and are undergoing a rehabilitation period).

The total number of effective teachers in the municipal public school network is 127 subjects, but only 94 were included in this survey. To avoid a potential identification of subjects, we chose not to disclose the schools or the names of teachers who agreed to participate. Thus, for a simple characterization, we regarded as appropriate indicating schools by means of the letters A to G.

Schools E, F, and G are considered difficult to access, they are located at a considerable distance from downtown. In school C, classes were taught by rotation between teachers, due to lack of sufficient accommodation for students. Regarding the difficulties faced by schools A and B, it was observed that both have structural problems, such as: graffitied walls, fences, and gates, besides a significant number of broken desks. This reality is due to lack of maintenance, as well as the inappropriate use of public property. It is noteworthy also that school A operates in a rented building, which has unsanitary conditions and can generate sickening environments that, in turn, do not contribute to conduct teaching activities.

The secretary of education, school principals and coordinators were contacted, for explaining the study objectives and asking for authorization to conduct it. Then, we began visiting schools to provide information on the study and asking for teachers' consent, scheduling, according to their availability, the interviews.

For data collection we used two instruments:

1) Script with questions regarding the characterization of participants, prepared to identify the sociodemographic data (age, marital status, sex, number of children), health status (smoking, alcohol use, leisure, and physical activity), professional practice (weekly workload, work schedule, another occupation).

2) Lipp’s Stress Symptoms Inventory (LSSI), consisting of 37 items with a somatic nature and 19 with a psychological nature, some of them repeated, differing only in terms of intensity. These items are organized into three frames. The first frame, which evaluates the alarm phase, includes 12 physical and 3 psychological symptoms, experienced in the last 24 hours. The second frame consists in 10 physical and 5 psychological symptoms, experienced in the last week. In turn, the quasi-exhaustion phase is diagnosed having a higher frequency of symptoms listed in frame 2 of the inventory as a basis. Finally, the third frame, which assesses the exhaustion phase, has 12 physical and 11 psychological symptoms. In the latter, the participant reports the symptoms experienced in the last month.

To analyze the results of LSSI, developed by Lipp and Guevara, we adopted the descriptive statistical approach, observing the frequencies of answers to the scale items for preparing the tables. The entire material collected, through objective questions, was quantified and computed by means of statistical techniques using absolute and percentage distribution. The software used for data entry and statistical calculations was the Statistical Package for the Social Sciences (SPSS), version 15.

As an ethical procedure and complying with the standards of Resolution 196/96, from the National Health Council (CNS), this study was approved by the Research Ethics Committee of Universidade de Pernambuco (UPE), under the Protocol 077/2010 and the CAAE 0076.0.097.000-10.

RESULTS

Out of the 94 teachers from 7 municipal schools under study, regarding the sociodemographic data, most individuals are women (64.9%).
Aquino JM de, Monteiro EMLM, Guerra DRC et al. Occupational stress assessment in teachers...

We observe in Table 1 that 37 participants (39.4%) had dry mouth, among other stress symptoms at the alarm phase.

Table 2 presents the resistance phase; 60 participants (63.8%) reported the feeling of constant physical strain, the most common symptom.

According to Table 3, 51 participants (54.3%) at the exhaustion phase revealed constant and excessive tiredness, the most frequent symptom.

## DISCUSSION

Practicing the teaching work requires from the teacher concentration power, openness to listen, sensitivity to notice the limitations and difficulties of learners, emotional stability to deal with the inquiring and thorough adolescent personality, and also the interest in encouraging creative development and taste for studying.

The teachers participating in this study represent a young population, with a mean age of 39.3 years. The number of women in the sample proves the changes that took place in the labor market, which has an inexorable rise of this public in the workplace. Teaching has shown to adhere to the matriarchal culture, where the role of mother who educates played in the household highlights women’s artifices used in this profession.12

Regarding lifestyle, the subjects do not have time to practice physical activity, due to an excessive workload, since 60.6% work more than 40 hours per week. This situation may hamper the development of a creative work, compromising the quality of teaching action. Thus, the teacher gets closer to the proletarian, becoming alienated from the product of her/his work, where she/he starts (re)producing “serially”.7

This relentless pursuit of increased production ends up developing a sort of competition between teachers themselves and leads them to tiredness, stress, and often...
frustration, framing the teaching work into the rationale of the capitalist market, by hoisting a system of productive assessment, on which a quantitative rating is appreciated to the detriment of quality.7

Among the teachers who participated in this survey, 71.3% revealed discouragement as for practicing their profession. It is believed that this difficulty is attributed to the clash between an individual history, involving projects, hopes, and wishes, and a work organization that ignores them. This suffering, with a mental nature, begins when a human being, at her/his workplace, can no longer make any changes in her/his job, in order to make it more harmonic with their physiological needs and their psychological wishes, this occurs when human relations at the work environment are blocked.15

Teachers, due to the peculiarity of their activities, need to be attentive to their physical and mental health, because the quality of their classes depends on it. Stressors such as lack of physical structure for fulfilling activities, excessive workload, among others, combined with stressors of contemporary society, can lead to deterioration in the quality of life of these professionals, directly interfering with their work. Surveys to assess workers’ physical and mental health are key to contribute to keep the quality of services.44

The psychic structure of these individuals proves to be fragile, by presenting problems such as insomnia, emotional instability, memory problems, and appetite changes. This alarming context highlights the need for interventions by means of health policies specific to this professional, since her/him is completely vulnerable to the emergence of occupational pathologies.

Several studies conducted in Hong Kong in recent years have shown that teaching is highly stressful. About 1/3 of surveyed teachers showed signs of stress, among the major health problems.15

Occupational stress has increased alarmingly, and it is confirmed with the increasing predisposition to illness and the consequent work leave.16 The results of this study reveal a significant number of stressed teachers, so that 23.4% are at the resistance phase and 22.3% at the exhaustion phase. We may attribute to this fact great concern, since the exhaustion phase identified in other studies does not show up so high in statistical terms.

A survey conducted in Bahia with teachers and students at Elementary School points out that out of the 23 teachers under analysis, 9 were at the resistance phase, 6 at the quasi-exhaustion phase, and only 1 was at the exhaustion phase, and 7 had no stress symptoms.17 In another study12 conducted in São Paulo, with 175 teachers, 56.6% of them were stressed and 80.8% were at the resistance phase. Similar results were obtained in the countryside of the state of São Paulo6, where a study with 62 teachers at Elementary and High School found out the presence of stress in 58.1% of the sample, and 72.7% were at the resistance phase.

The resistance phase is characterized by the attempt to achieve a balance status and, through this reorganization, some early symptoms disappear, but this recovery uses the energy needed for other vital functions. Failing to receive this energy, the body will enter the exhaustion phase.3 In this case, there may be the psychological exhaustion or physical exhaustion, leading to both the illness process.2 This complete imbalance of body systems is evidenced by diseases such as hypertension, depression, anxiety, insomnia, diarrhea, stroke, and even death.

There was also a significant sampling at the quasi-exhaustion phase (17%). This is recognized as a boundary phase between physical and emotional endurance, where moments of normal functioning are combined with moments of discomfort. From this perspective, this phase is recognized as key for establishing specific coping strategies for health maintenance, in order to discourage the onset of the exhaustion phase.

The symptoms more frequently experienced by this stressed group demonstrate the physical and psychological suffering, highlighting the constant physical tiredness, emotional instability, insomnia, systemic problems such as hypertension, memory problems, wish to escape from it all. The permanence of these symptoms, due to absence or inability to cope with problems, can contribute to illness among teachers.

Teachers are constantly exposed to this daily work, and they may be affected by physical and mental pathologies, leading to absenteeism and work leave to treatment, causing social and financial loss. Therefore, the stress experienced by the teacher may interfere in her/his personal, social, and professional life. This reality influences on the quality of the educational system, it is not simply another institutional difficulty, but starts constituting a social and public health problem. Corroborating this view, stress may impair job performance, greatly affecting the institutional, interpersonal, and personal
environment, bringing negative effects to society as a whole.  

The identification of a stressful situation is aggravated by finding that 97.9% of these teachers do not use coping strategies to minimize stress. From the perspective of working out health in a collective way within the school environment, we cannot lose sight of the notion of individual health, which refers to a reflection on the health of teachers with whom people intend to work, because a school promoting health should include the idea of a healthy teacher, with well-being in many aspects, such as physical, mental, spiritual, among others. 

We notice the need for developing activities to reduce stress, as well as the creation of programs for maintaining the physical and mental health of these workers, given that the worker is not a “mechanical gear” but a holistic being, endowed with biopsychosocio-cultural aspects. This human being has a history that is established through her/his aspirations, wishes, motivations, psychological needs, something which provides her/him with unique characteristics. A teacher, when faced with dissatisfaction in her/his professional sphere, as well as with the numerous responsibilities generated by frequent changes and improved professional performance, becomes exposed to triggering situations of psychological distress and illness. Occupational stress has increased alarmingly, something confirmed with the increasing predisposition to illness and the consequent work leave.

CONCLUSION

It was possible to check occupational stress, identify the phases and symptoms of stress among teachers at Elementary School II, in the municipal public schools of São Lourenço da Mata. The results showed a significant number of teachers with stress at all phases, and the resistance and exhaustion phases have higher frequencies. At these phases, they were more exposed to the risk of getting ill.

It was found out that teachers did not use a coping strategy to minimize the effects of stress, leading them to physical and mental strain, with the possibility of compromising productivity. This situation can interfere with interpersonal relations between teachers/students/relatives and with the quality of educational process.

We think that this research has not been exhausted, since worker’s mental health constitutes a very important and poorly explored theme. This study highlighted the role played by the teacher at Elementary School, in which we expect a positive attitude towards life, encouraging the students to construct new kinds of knowledge.

The identification of stress among teachers awakens the need for including this professional group into public policies that provide inter-sector actions committed to health promotion. As it constitutes a dynamic process, stress can get worse, if coping strategies are not adopted. As a member of the multiprofessional team, the nurse may be a pushing element of interventions and monitoring, due to the sensitivity when faced with the physical and mental strain triggered by stress among teachers and, also, due to her/his education committed to a comprehensive care that promotes health.

REFERENCES


8. Contaifer TRC, Bachion MW, Yoshida T,
Aquino JM de, Monteiro EMLM, Guerra DRC et al.

Occupational stress assessment in teachers...


Aquino JM de, Monteiro EMLM, Guerra DRC et al.

Submission: 2013/02/14
Accepted: 2014/05/27
Publishing: 2014/07/15

Corresponding Address
Silvia Elizabeth Gomes de Medeiros
Programa de Pós-Graduação em Enfermagem
Faculdade de Enfermagem Nossa Senhora das Graças
Universidade de Pernambuco/FENSG-UPE
Rua Arnóbio Marques, 310
Bairro Santo Amaro
CEP 50100-130 – Recife (PE), Brazil