Stressing working conditions self-reported...



## **ORIGINAL ARTICLE**

# STRESSING WORKING CONDITIONS SELF-REPORTED BY PUBLIC SCHOOL PROFESSORS

## CONDIÇÕES ESTRESSANTES NO TRABALHO AUTORREFERIDAS POR PROFESSORES DO ENSINO PÚBLICO

CONDICIONES DE ESTRÉS EN EL TRABAJO REPORTADAS POR PROFESORES DE ESCUELAS PÚBLICAS

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### **ABSTRACT**

Objective: to identify stressful working conditions that are self-reported by preschool and elementary school teachers from public schools. *Method*: this is an exploratory descriptive study. Data were collected during a program designed to integrate the university and the school community through a self-applied form and non-participant observation of the program's activities. The study's population was composed of teachers who represented 27 public schools from the metropolitan region of the capital of Rio Grande do Sul, Brazil. Data obtained were quantitatively and qualitatively analyzed. The data were collected after approval obtained from the Research Ethics Committee/Federal University of Rio Grande under protocol No. 109/2010. *Results*: the teachers reported that a lack of place to rest at schools, the insufficient size of the classrooms, and taking work home are stressing factors at work. They reported that becoming anxious was how they responded to stressing working conditions. *Conclusion*: identifying stressful working conditions is relevant to devising actions aimed to improve the work environment and, consequently, the health of teachers. *Descriptors*: occupational health; occupational health nursing; working conditions.

#### RESUMO

Objetivo: identificar as condições estressantes no trabalho, autorreferidas por professores da educação infantil e do ensino fundamental de escolas públicas. *Método*: trata-se de um estudo exploratório descritivo. A coleta de dados ocorreu durante programa de integração entre a universidade e a comunidade escolar, por meio de formulário autoaplicável e observação não participante de atividade do programa, após aprovação pelo Comitê de Ética da Universidade Federal do Rio Grande com protocolo de n. 109/2010. A população do estudo foi constituída por professores representantes de 27 escolas públicas de município da região metropolitana da capital do Rio Grande do Sul. Os dados obtidos foram analisados quantitativa e qualitativamente. *Resultados*: os professores referiram como condições estressantes no trabalho a falta de sala para descanso na escola, o tamanho inadequado das salas de aula e o fato de levar trabalho para casa. Como resposta às condições estressantes no trabalho, os professores apontaram a ansiedade. *Conclusão*: a identificação das condições estressantes no trabalho dos professores é relevante para orientar ações destinadas a melhorar o ambiente de trabalho e, consequentemente, a saúde dos professores. *Descritores*: saúde do trabalhador; enfermagem do trabalho; condições de trabalho.

### **RESUMEN**

Objetivo: identificar las condiciones estresantes en el trabajo, reportadas por docentes de la educación infantil y de la educación básica de las escuelas públicas. *Método*: se trata de un estudio exploratorio descriptivo. La colecta de datos ocurrió durante programa de integración entre la universidad y la comunidad escolar, por medio de formulario autoadministrado y observación no participante de actividad del programa. La población de estudio fue constituida por profesores representantes de 27 escuelas públicas de municipio de la región metropolitana de la capital de Rio Grande do Sul. Los datos obtenidos fueron analizados cuantitativa y cualitativamente. Os dados foram coletados após aprovação do CEP/ Universidade Federal del Rio Grande bajo protocolo 191/10109/2010. *Resultados*: los profesores definieron como condiciones estresantes en el trabajo la falta de una sala para descanso en la escuela, el tamaño inadecuado de las clases y el hecho de llevar trabajo a casa. Como respuesta a las condiciones estresantes en el trabajo, los profesores apuntaron la ansiedad. *Conclusión*: la identificación de las condiciones estresantes en el trabajo de los profesores es relevante para orientar acciones destinadas a mejorar el ambiente de trabajo y, consecuentemente, la salud de los profesores. *Descriptores*: salud laboral; enfermería del trabajo; condiciones de trabajo.

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### INTRODUCTION

The mental health of educators has become a growing problem in many places in recent years. Such a concern arises from the fact that teaching is acknowledged as strenuous work. The stressful conditions faced in a teacher's daily routine may lead to an imbalance between work and physical and mental health and, consequently, to the development of stress.

Stressful conditions in the workplace are directly related to an overload of tasks in addition to classes, the excessive number of students per class, heavy workload, the need for teachers to have more than one job, and a low monthly income. <sup>5-7</sup> In addition to these, a lack of social and economic security increases the risk of occupational burnout in all age groups. Conflicting roles, the loss of control and/or autonomy, and a lack of social support are the most important predisposing factors. <sup>8</sup> Stressful conditions experienced by teachers in public schools are the focus of this study.

Acquiring further knowledge on this subject is important to supporting the nursing care directed to these professionals, considering occupational diseases. Hence, we question: "What conditions do teachers consider stressful in their workplace?"

The justification of this study is based on the assumption that nurses have an important role in seeking improved working and living conditions of workers, in this case, teachers. Hence, the identification of the main risks to which workers are exposed from their point of view is relevant.

## **OBJECTIVE**

• To identify self-reported stressful working conditions of preschool and elementary school teachers working in public schools through a program aimed to integrate the university with the school community.

### **METHOD**

This exploratory and descriptive study addressing stressful working conditions was conducted in the Federal University of Rio Grande (FURG) in a small city (39,685 habitants)<sup>9</sup> from the metropolitan region of the capital of Rio Grande do Sul, Brazil.

It was conducted during a program intended to integrate the university and the school community in the city, organized and promoted by the Laboratory for the Study of Socio-environmental Processes and the Collective Production of Health (LAMSA). The study's population was composed of teachers

representing 27 public schools in the city, who were invited to participate in the program. The intentional sample was composed of 15 teachers representing 13 municipal schools. The participants met the following criteria: 1) being a representative of a public school; 2) being a participant in the program; 3) signing a free and informed consent form.

Data were collected during the program to integrate the university and school communities held in the first semester of 2011 through two procedures: a self-applied form and non-participant observation of the activity.

During the first procedure, a self-applied form was handed to the participants at the beginning of the scheduled activity. The adapted questionnaire was instrument previously validated by LAMSA that addressed socio-demographic information and stressful conditions at work and extra work. The second procedure included an activity with audio that referred to a fictitious story based on the work routine of a teacher. It was designed to lead the participants to reflect on their stressful working conditions. Then the LAMSA members discussed with participants the implementation of health promotion strategies designed to avoid or minimize stressful conditions faced by these professionals at work. The activity was video recorded and later fully transcribed. The participants' testimonies are identified with RT (representative teacher) followed by a number.

Obtained data were quantitatively and qualitatively analyzed. Data were processed and analyzed using the Statistical Package for the Social Sciences (SPSS) version 13.0. Data are presented in a frequency distribution, absolute numbers and percentages. Non-participant observation concerning the program to integrate the university and the school community was analyzed through thematic analysis. <sup>10</sup>

The study project "Occupational Health, Risks and Diseases: integrated study in different work environments" was approved by the City Department of Education and by the Health Research Ethics Committee at the Federal University of Rio Grande (process 109/2010) according to Resolution 196/96, Brazilian Council of Health, Ministry of Health.

## **RESULTS**

# Characterization of the study's participants

All the participants were women; their average age was  $39.67 \pm 9.28$  (Average  $\pm$ 

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Standard Deviation), ranging from 19 to 53 years of age; 80% (N=12) of the representative teachers were either married or lived in consensual unions; all reported being Caucasian; and 53.3% (N=8) reported post graduate studies. A total of 66.7% (N=10) of the participants reported having worked more than 10 years at their current school and 73.3% (N=11) reported having worked in this profession for more than 10 years.

In relation to weekly work hours, 46.7%

(N=7) reported working between 30 and 40 hours directly with students in the classroom; 13.3% (N=2) work in this capacity for more than 40 weekly hours. In relation to other positions teachers occupy in the school, they report: 40% (N=6) teach; 20% (N=3) teach, and have administrative and management positions; 13.3% (N=2) have management positions; and 6.7% (N=1) teach and have management positions. The remaining data are presented in Table 1.

**Table 1.** Characterization of the study's participants. City in the metropolitan region of the capital of Rio Grande do Sul, Brazil - 2011.

Variable		n (15)	%
Marital Status			
	Single	02	13.3
	Married/Consensual union	12	80.0
	Separated/Divorced	01	6.7
<b>Educational Background</b>	ound		
	Secondary school	02	13.3
	Bachelor's degree	04	26.7
	Incomplete post graduate studies	01	6.7
	Complete post graduate studies	08	53.3
In how many school	ls/institutions do you work?		
·	One	12	80.0
	Two	03	20.0
Time working at the	e school		
	Less than one year	02	13.3
	From 1 to 5 years	02	13.3
	From 5 to 10 years	01	6.7
	More than 10 years	10	66.7
Time working as a t	teacher*		
	Less than one year	01	6.7
	From 5 to 10 years	02	13.3
	More than 10 years	11	73.3
Hours spent with st	udents per week		
	Less than 10 hours	02	13.3
	From 10 to 20 hours	02	13.3
	From 20 to 30 hours	02	13.3
	From 30 to 40 hours	07	46.7
	More than 40 hours	02	13.3
Monthly income*			
	Up to R\$ 950.00	02	13.3
	From R\$ 950.00 to R\$ 1,900.00	07	46.7
	From R\$ 1,900.00 to R\$ 2,375.00	04	26.7

Source: direct interview \*The participants crossed out their answers.

### Working conditions

In evaluating the collective working environment, 73.3% (N=11) of the teachers reported there was no proper place to rest/take a break at school, while 26.7% (N=4) reported the school provided an appropriate place for resting; 73.3% (N=11) reported that the size of the classroom was not adequate for the number of students, while 26.7% (N=4) reported the classrooms' size was adequate; 93.3% (N=14) reported that the classrooms' lightning was adequate while 6.7% (N=1)

stated it was inadequate; 73.3% (N=11) answered there was adequate and sufficient working material in classrooms while 26,7% (N=4) answered there was not adequate or sufficient working material. In relation to noise at the workplace, 46.7% (N=8) considered the schools' environment to be noisy, 33.3% (N=5) answered the school was not noisy, while 13.3% (N=2) ignore the presence of noise at school. The places from where noise originated at school according to the teachers are presented in Table 2.

**Table 2.** Numerical and percentage distribution of places at school from where noise originates. City in the metropolitan region of the capital of Rio Grande do Sul, Brazil - 2011.

Variable	n	%
From the classroom itself	05	33.3
From other classrooms	05	33.3
From the school patio	03	20
From the street	03	20
From people's voices	03	20
From stereo or TV	02	13.3
From construction at school	01	6.7
Shoe factory near the school	01	6.7

Source: Direct interview

In relation to interaction with co-workers in the collective working environment, 66.7% (N=10) reported harmonious relationships;

73.3% (N=11) respect the group; 80% (N=12) reported getting along with co-workers; 40% (N=6) reported being autonomous; and 6.7%

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(N=1) reported that interaction with coworkers in the collective working environment was complicated. The stressful conditions reported by the representative teachers are described in Table 3.

**Table 3.** Numerical and percentage distribution of conditions considered stressful in the work of teachers.

Variable	n(15)	%
Low salary	10	66.7
Lack of attention on the part of students	09	60
Difficulty in keeping the students focused in classroom	05	33.3
Lack of acknowledgment	04	26.7
Excessive number of activities	03	20
Excessive workload	03	20
Noise in classroom	03	20
A large number of students per classroom	02	13.3
Demands from school	02	13.3
Demand from society in relation to the academic education of students	01	6.7
Lack of respect on the part of students		6.7

Source: Direct interview

Other stressful working conditions emerged from teachers' work during the non-participant observation of the program to integrate the university and the school community. The teachers indicated, when prompted by the fictitious story, that there is

stress in the collective working environment and when working with students, the need to seek innovative teaching methodologies to work with students, and also the routine work of teaching, as presented in Box 1.

#### Central Idea - The work of teachers

That part in which the teacher entered the classroom and the students were talking and even mocking the teachers; I think that we need a calm environment to learn [...] and one of the current complaints of teachers is related to this issue, of having an appropriate environment to learn, since they are little children during childhood education or during secondary school, they've got to have the right environment to learn [...] (RT4).
[...] It is very difficult to have such control, so the teacher has to be prepared to get to the classroom

[...] It is very difficult to have such control, so the teacher has to be prepared to get to the classroom and organize an innovative class, with a differentiated methodology, often [...] to control the class. (RT4).

It is familiar, we don't realize, we don't take the time everyday to make such an evaluation, this evaluation the teacher did, of everything that happens around her, so we don't realize all this (RT2). Some things we see everyday but we don't perceive them. We keep working, so much routine, so much [...] that when she got there by herself, she notices some things, the beauty around the school, the herb garden was so beautiful, but she was only able to see it because she looked at it from a different perspective, that of an observer, because of that daily routine. (RT3).

Figure 1. Stressful conditions in the collective working environment Source: Direct interview

The fact that attention is focused only on students was also observed when the teachers replied negatively when asked whether the activities implemented in the city also involved the health of workers. In relation to content of such activities, the participants stated: "You do this in many different ways, sometimes it is a computer course" (RT1) and "Sometimes, it is a lecture or a workshop on pathology" (RT9). The discussion concerning this issue was extended in order to identify the main focus of such activities, and the teachers answered: "The student" (RT4), "To learn" (RT2).

The issue whether one needs to have a vocation to be a teacher led to a discussion as follow: "it's not a vocation, it's patience too, and we often see we have no patience at all" (RT6). This report was complemented by: "[...] there are no limits today, they entered in the classroom in the same way as when they were on the streets, talking, and they do not realize that the environment outside is one thing and in the classroom it is something else; they mix everything" (RT4).

The story presented to the participants was provocative in the sense it emphasized important aspects at work. The teachers

noticed such aspects, saying: "It seemed very familiar to me" (RT1), "Identical to our reality" (RT2) and "[...] we identified with it because we have similar problems" (RT5).

### • Extra work conditions

When they were asked whether the workplace environment influenced their personal lives and health, 60% (N=9) of the teachers stated it affected their personal lives and 53.3% (N=8) affirmed it affected their health.

In relation to their sleep patterns, 46.7% (N=7) of the participants reported waking many times during the night; 26.7% (N=4) reported somnolence; 20% (N=3) reported waking up tired in the morning; and 6.7% (N=1) reported insomnia. In relation to hours of sleep, 33.3% (N=5) reported they slept eight hours per night; 33.3% (N=5) slept six hours per night; 13.3% (N=2) reported seven hours; 6.7% (N=1) reported between six and seven hours per night; 6.7% (N=1) between six and eight hours per night and 6.7% (N=1) did not answer.

In relation to activities they have difficulty handling, 13.3% (N=2) reported difficulties in family relationships and 40% (N=6) reported

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difficulties in performing home chores. Related to such difficulties, 80% (N=12) of the teachers reported taking work home, while 20% (N=3) reported not taking work home.

## Responses to stressful working conditions

All the participants denied the use of alcohol or smoking; 46.7% (N=7) of the participants reported the use of regular medication. Of these, 26.8% (N=4) used hypertensive medication; 6.7% (N=1) took antidepressants; 6.7% (N=1) took antibiotics and 6.7% (N=1) antiulcer medication and vitamins.

In relation to being able to concentrate, 26.7% (N=4) of the participants reported difficulties concentrating; and 6.7% (N=1) difficulties in beginning and ending a task; 6.7% (N=1) reported the use of tranquilizers when stressed; 6.7% (N=1) isolated themselves; 53.3% (N=8) become irritated; and 40% (N=6) reported headaches.

The stressful working conditions result in anxiety for 73.3% (N=11) of the participants; stress for 40% (N=6); while 6.7% (N=1) reported depressive episodes; and 26.7% (N=4) did not report any mental or emotional distress related to work.

In relation to gastric disorders related to work, 33.3% (N=5) of the teachers stated they have or have had stomachache; 20% (N=3) reported they have or have had gastritis; 20% (N=3) have or have had sickness; 6.7% (N=1) reported heartburn; and 46.7% (N=7) of the teachers did not report any gastric disorder related to work.

### **DISCUSSION**

The study's participants were all women and most have worked in public schools for more than ten years, where they spent 30 to 40 hours per week directly working with students, totaling 40 weekly hours. The fact that all the representative teachers were women suggest there is a predisposing factor to psychological stress. Having just one job contradicts a study<sup>11</sup> conducted in the northeast of Brazil, according to which, most teachers worked in more than one school. Such a contradiction may be explained by the fact this study was conducted in a small town, where the work opportunities are limited.

All the schools invited to join the program to integrate the university and school community were public. One study associating psychological morbidity with the working environments of teachers showed that mental disorders are more frequent among public schools teachers when compared to those

working in private schools.3

The similarity found in this study between hours teachers spend with students per week and total weekly work hours differs from a study<sup>1</sup> conducted in Germany with teachers from elementary and secondary schools, which investigated the total working hours of teachers dividing time in classroom, time used to prepare classes, time for administrative tasks, time to supervise students, and time to replace absent teachers. The study revealed that the time teachers spent with students in the classroom was about 18 hours per week, about half the time found in this study. However, totaled with the other activities previously mentioned, the total time of work was approximately 51 hours per week.

Some teachers in this study perform more than one function in the same school and have more than one job, probably due to the profession's low salary. Such factors were also found in another study<sup>6</sup> that showed that the workload of teachers is related to occupational stress and also to a lack of acknowledgment of teachers' work.

Positive aspects were reported by the teachers concerning the collective working environment. They considered lighting adequate and material provided in classrooms to be sufficient. The obtained results differ from another study,<sup>6</sup> in which lack of didactic resources limited the teachers' work even more, a fact that may be associated with satisfaction at work.

The negative aspects presented by the teachers are related to the physical space; most reported there was no place to rest and classrooms were not appropriate given the number of students. A study shows that a lack of appropriate physical space and lack of comfortable conditions at work constitute risk factors for mental disorders.<sup>5</sup>

Perhaps the fact that classrooms were too small for the number of students is a predisposing factor to the high level of noise. Another study demonstrates that noise can be a stressing factor in workplaces. Additionally, noise can originate from the school dynamics itself or the limited physical area to hold extra-classroom activities.

The teachers reported that the main stressful conditions at work include low salaries, lack of attention on the part of students, a large number of students in the classroom and a lack of respect from students. The stress related to the low salaries has been already addressed in another study, 14 which verified its association with mental disorders. In relation to stress related

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to students, the study suggests that the behavior of students within the classroom is a stressor in the teachers' working environment. Additionally, interventions are always focused on students while the teachers are left aside.

Other factors were listed in this context among which lack of acknowledgement, excessive number of activities and excessive workload. The reported stressful working conditions were also mentioned in other studies<sup>5-6</sup>, in addition to a lack of time to prepare classes and a lack of autonomy.

Most teachers stated they took work home due to a lack of time to prepare classes, revealing they do not have time to prepare for their classes while at school. This fact may be related to the workload previously mentioned. Studies report that workload occurs because teachers do not have enough time at school to perform all their activities. 6

The fact that teachers took work home may be one of the reasons most of the study's participants reported that conditions related to the work environment interfere in their personal lives. Only one teacher considers that the stressful working conditions do not interfere in her personal life. We understand that the work for this teacher may be considered a 'two-way street': even though the work is stressful, it can also represent a way to unload everyday tension. 6

Most agreed that stressful working conditions interfere in their health, a fact also reported in another study in which the teachers considered the work to be tiresome and stressful, which can generate consequences in one's health sphere.<sup>12</sup>

In the particular case of this study, consequences for health included sleep disorders reported by the teachers. Such disorders were also reported in another study<sup>13</sup> in which the participants related the same symptom, which the authors related to presence of noise in the work environment. Sleep disorders are reported by another study in which the authors relate the symptom to stress, uneasiness, nervousness, anxiety preoccupation. 12

Individuals may respond to stressful conditions in many ways, such as smoking and drinking. This study obtained a positive answer from teachers, since none reported the use of such substances. This study's results are opposed to those found in other studies, according to which, some participants are either former smokers or smokers and consume alcohol. 11,16

This study reveals that anxiety, depressive episodes, stress and gastric disorders are the main responses to stressful working conditions. Among the responses to stressful working conditions, the most frequent was anxiety, which corroborates another study conducted with college professors.<sup>17</sup> Gastric disorders were reported in yet another study.<sup>13</sup>

Other studies show that teachers may present diseases, pain, dizziness, auditory and circulatory problems, such as hypertension or hypotension, weight gain or obesity, and the use of medications in response to stressful conditions. 12-3,18-9 Even though specific responses to stressful conditions were not investigated in this study, these can be related to those conditions reported by the teachers given the use they make of medication; they reported the use of antianti-depressive, hypertensive, medication and vitamins.

### CONCLUSION

The conclusion, based on the obtained results, is that work is related to the increase of stressful conditions in the lives of teachers. Such a fact requires attention from health professionals, workers who interact with different professionals, including teachers (e.g. primary care, hospitals, home visits). Because nurses are those who draw closer to patients, they should be apt to recognize and try to minimize stressful conditions related to work.

Hence, identifying the work of professors favors the interaction of nurses with the studied professionals, which contributes to planning interventions in the field. The identification of stressful conditions in teachers' work is relevant to guide actions directed to improve the work environment and consequently the health of professors. In this context, nursing can intervene to help workers in the education field identify ways to minimize difficulties, adopt strategies to cope with situations that pose risks to health and reduce mental distress as much as possible.

Additionally, the implementation of policies designed to increase the acknowledgment of these professionals by principals, students and parents, especially in public schools, should help protect the mental health of teachers and contribute to their professional performance and health.

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