

Janiszewska Mariola, Firlej Ewelina, Drop Bartłomiej, Barańska Agnieszka, Ślusarska Anna, Bogdan Magdalena. Stressogenic factors of professionally working teachers. *Journal of Education, Health and Sport*. 2018;8(4):34-46. eISSN 2391-8306. DOI <http://dx.doi.org/10.5281/zenodo.1213649> <http://ojs.ukw.edu.pl/index.php/johs/article/view/4944>

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 754 (09.12.2016).
754 Journal of Education, Health and Sport eISSN 2391-8306 7

© The Author (s) 2018;

This article is published with open access at Licensee Open Journal Systems of Kazimierz Wielki University in Bydgoszcz, Poland

Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium,

provided the original author(s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

This is an open access article licensed under the terms of the Creative Commons Attribution Non Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted, non commercial

use, distribution and reproduction in any medium, provided the work is properly cited.

The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 02.01.2018. Revised 16.01.2018. Accepted: 24.03.2018.

Czynniki stresogenne zawodowo pracujących nauczycieli

Stressogenic factors of professionally working teachers

**Mariola Janiszewska¹, Ewelina Firlej¹, Bartłomiej Drop², Agnieszka Barańska²,
Anna Ślusarska³, Magdalena Bogdan^{4,5}**

¹**Katedra Zdrowia Publicznego, Uniwersytet Medyczny w Lublinie**

²**Zakład Informatyki i Statystyki Medycznej, Uniwersytet Medyczny w Lublinie**

³**Studenckie Koło Naukowe przy Zakładzie Informatyki i Statystyki Medycznej
Uniwersytetu Medycznego w Lublinie**

⁴**Zakład Medycyny Społecznej i Zdrowia Publicznego, Warszawski Uniwersytet
Medyczny**

⁵**Kolegium Nauk o Przedsiębiorstwie, Szkoła Główna Handlowa w Warszawie**

¹**Department of Public Health, Medical University of Lublin**

²**Department of Informatics and Medical Statistics, Medical University of Lublin**

³**Student Scientific Group at the Department of Informatics and Medical Statistics of the
Medical University of Lublin**

⁴**Department of Social Medicine and Public Health, Warsaw Medical University**

⁵**Collegium of Business Administration, Warsaw School of Economics**

Streszczenie

Wprowadzenie. Stres jest nieodłącznym elementem życia człowieka. Jest powszechnie znany i często kojarzony z negatywnymi sytuacjami zawodowymi czy rodzinnymi. Sam stres nie jest niebezpieczny dla naszego organizmu, lecz to jak na niego reagujemy.

Cel pracy. Celem pracy było zbadanie czynników stresogennych zawodowo pracujących nauczycieli.

Material i metody. Badania były prowadzone od listopada 2016 roku do maja 2017 roku wśród nauczycieli pracujących w szkołach podstawowych na terenie województwa lubelskiego. Badaniem objęto 77 respondentów. W pracy posłużono się metodą sondażu diagnostycznego, która została zrealizowana poprzez kwestionariusz ankiety własnego autorstwa. Obliczenia sporządzono za pomocą programu Microsoft Office Excel 2010.

Wyniki. Badani uważają, że najlepszym sposobem na radzenie sobie ze stresem jest rozmowa z bliskimi (57%) i uprawianie sportu (39%). Respondenci stwierdzili, że przez stres związany z pracą zaniedbali relacje towarzyskie (25%) oraz nie mają czasu wolnego dla siebie i rodziny (44%). W opinii badanych największym źródłem stresu jest hałas (60%), który najczęściej można spotkać na korytarzu podczas przerw międzylekcyjnych. Najczęściej odczuwanym objawem somatycznym wśród badanych był ból głowy (45%). Badani nie widzą możliwości awansu (44%) a część respondentów chce podnieść swoje kwalifikacje (34%) tylko po to, aby móc utrzymać się na swoim stanowisku.

Wnioski. Nauczyciele powinni mieć jasno określone role, mniej się stresować, mieć zoptymalizowane zadania, poczucie bezpieczeństwa, dobrą atmosferę w pracy, regularne i obiektywne ocenianie oraz sprecyzowane ścieżki awansu zawodowego, który może eliminować sytuacje stresowe w zawodzie nauczyciela.

Słowa kluczowe: stres, nauczyciele, praca, zdrowie

Summary

Introduction. Stress is an inherent part of human life. It is well known and often associated with negative professional or family situations. Stress is not dangerous to our body, but it reacts to it.

Aim of work. The aim of the study was to investigate the stressors of professionally working teachers.

Material and methods. The research was conducted from November 2016 to May 2017 among teachers working in primary schools in the Lubelskie Voivodship. The study covered 77 respondents. The diagnostic survey was used in the study, which was carried out through a self-report questionnaire. Calculations were made using Microsoft Office Excel 2010.

Results. Researchers believe that the best way to cope with stress is to talk to loved ones (57%) and practice sports (39%). The respondents reported that they had neglected social interaction (25%) and had no leisure time for themselves and their family (44%). In the opinion of the respondents the greatest source of stress is noise (60%), which is most often encountered in the corridor during intercourse breaks. The most frequently reported symptom of somatic symptoms was headache (45%). The respondents do not see the possibility of promotion (44%) and some respondents want to improve their qualifications (34%) only to be able to stay in their position.

Conclusions. Teachers should have clearly defined roles, less stressed, have optimized tasks, a sense of safety, a good work atmosphere, regular and objective assessments, and specific career paths that can eliminate stressful situations in the teaching profession.

Keywords: stress, teachers, work, health

Introduction

The concept of stress is widely known and associated with negative situations daily, including unions. Often stressed before important events in our life, financial situation, illness or loss of a loved one. Stress itself is not dangerous for our bodies, but how we react to it. Too low a level of stress causes a decrease in motivation, fatigue, while too high can lead to distraction, anxiety and physical fatigue.

Studies that have been carried out 50 years ago by Hans Selye enriched knowledge about stress. He defined stress as the body's non-specific response to the challenging situation [1]. Hans Selye, Ivan Pavlov and Walter Cannon proved that some cardiovascular problems, including heart disease are the result of chronic stress. These changes observed in the animal studies [2]. Selye described it as a syndrome GAS, the General Adaption Syndrome which consists of phases:

- Phase Alarm - this is the initial reaction of surprise, caused by lack of experience and the emergence of a new situation.
- Phase mobilization - mobilization, utilization of available capacity unit (stage of shock, preventing, addressing defense efforts).

- Phase adaptation - the body learned to deal with stress.
- Phase exhaustion - general stimulation of the entire body; can lead to chronic stress or death [3].

Stress response consists of two principal systems; the sympathetic (SAM) system and the hypothalamic-pituitary-adrenal (HPA) system. The SAM system is responsible for the so-called fight or flight reactions. In the first few seconds after tripping occurs the stressor adrenal glands, which secrete epinephrine and norepinephrine. The result of this sequence is to accelerate the breathing, heart rate, pupil dilation, and bronchitis. Moreover, this leads to the decomposition of fat to fatty acids. It can be seen better blood circulation in the brain, heart and muscle [4]. The system (HPA) is activated much later than (SAM), after several minutes or hours of activation stressor. The system of the hypothalamus-pituitary-adrenal axis is called the stress. According to the sequence, the hypothalamus stimulates the pituitary gland, which leads to separation of corticotropin releasing hormone (CRH). This is the hormone responsible for activating the behavior of anxiety and inhibition of sexual activity and appetite. Under the influence of corticotropin anterior pituitary secretes another hormone or corticotropin (ACTH). Hormone (ACTH) is transported to the adrenal glands that secrete glucocorticoids (cortisol, inter alia). Cortisol is called the "stress hormone." In stress situations the concentration is significantly increased thereby raising the level of sugar in blood pressure and respiratory rate [5]. Not only cortisol, adrenaline and noradrenaline are hormones that are involved in the stress response. It also endorphins and enkephalins, which are responsible for reducing the perception of pain, lifting aldosterone blood pressure or many other hormones. Under the influence of corticotropin anterior pituitary secretes another hormone or corticotropin (ACTH). Hormone (ACTH) is transported to the adrenal glands that secrete glucocorticoids (cortisol, inter alia). Cortisol is called the "stress hormone." In stress situations the concentration is significantly increased thereby raising the level of sugar in blood pressure and respiratory rate [5]. Not only cortisol, adrenaline and noradrenaline are hormones that are involved in the stress response. It also endorphins and enkephalins, which are responsible for reducing the perception of pain, lifting aldosterone blood pressure or many other hormones. Under the influence of corticotropin anterior pituitary secretes another hormone or corticotropin (ACTH). Hormone (ACTH) is transported to the adrenal glands that secrete glucocorticoids (cortisol, inter alia). Cortisol is called the "stress hormone." In stress situations the concentration is significantly increased thereby raising the level of sugar in blood pressure and respiratory rate [5]. Not only cortisol, adrenaline and noradrenaline are hormones that are involved in the stress response. It also

endorphins and enkephalins, which are responsible for reducing the perception of pain, lifting aldosterone blood pressure or many other hormones. that secrete glucocorticoids (cortisol, inter alia). Cortisol is called the "stress hormone." In stress situations the concentration is significantly increased thereby raising the level of sugar in blood pressure and respiratory rate [5]. Not only cortisol, adrenaline and noradrenaline are hormones that are involved in the stress response. It also endorphins and enkephalins, which are responsible for reducing the perception of pain, lifting aldosterone blood pressure or many other hormones. that secrete glucocorticoids (cortisol, inter alia). Cortisol is called the "stress hormone." In stress situations the concentration is significantly increased thereby raising the level of sugar in blood pressure and respiratory rate [5]. Not only cortisol, adrenaline and noradrenaline are hormones that are involved in the stress response. It also endorphins and enkephalins, which are responsible for reducing the perception of pain, lifting aldosterone blood pressure or many other hormones.

Selected sources of stress at work teacher - physical stress factors

Teachers work mainly in enclosed spaces such as the hall, classroom or auditorium. During the winter, when the heating season starts in the indoor air is relatively dry, and its moisture content does not exceed 45%. In such conditions, the voice of the organ does not function properly. To avoid these irregularities must in any enclosed space to maintain a temperature of 18°C to 21°C. In turn, the proper air humidity for this type of operation should be 60-70%. While speaking inhale 3 times more air than normal, quiet breathing. Inhaled air is dry and dirty, causing excessive drying of the mucous membrane of the throat and larynx. These factors are allergenic and irritating to the mucous membrane and larynx, which adversely affect the organ voice.

Another unfavorable factor in the work of a teacher is the noise. According to studies in schools during the breaks occur międzylekcyjnych massive oscillating noise in the range 66-98dB [6]. Frequent exposure to noise can lead to a variety of disorders and diseases such as hypertension, gastric ulcer and an increase in adrenaline (greater than 75dB). In contrast, the noise above 90 dB can cause weakness and hearing loss [7]. Based on research conducted by the Central Register of Occupational Diseases we can see that in 2005 there were two cases in teachers because of the noise. In 2006, the number rose to four people, while in the following year there was a decline to one patient teacher in Poland. Quoted earlier results may indicate, that noise in educational institutions do not pose a serious threat to hearing from teachers.

However, the level of noise above 80dB can not exclude the risk of hearing damage among both teachers and students [8].

Objective of the work

The aim of the study was to investigate stressors professionals working teachers.

Material and methods

The study was conducted from November 2016 until May 2017 years among teachers working in primary schools in the province of Lublin. The study involved 77 respondents. The study method was used diagnostic survey, which was carried out through a questionnaire by their own. 86 pieces of questionnaires were distributed, of which 77 were successfully completed further analysis. Calculations done using Microsoft Office Excel 2010.

Results

On the basis of the questionnaire survey questions were developed, which appeared the most stressful factors in the work of teachers.

Table 1. Ways of coping with stress

How do you deal with stress?	N	%
I go in for sports	thirty	39%
I talk with loved ones	44	57%
drink alcohol	6	8%
I smoke cigarettes	7	9%
I take sedatives	6	8%
Other: shopping, listening to music, movies and books	4	5%

% Of the observations do not add up to 100 because respondents could choose more than one answer

Source: Own

According to the respondents the best way to deal with stress is to talk with your loved ones (57%). The second way indicated by the respondents sport (39%). With drinking alcohol and taking sedatives uses 8% of respondents. The least of the respondents indicated other activities such as listening to music, going to the movies, reading books and shopping (5%).

Table 2. Effects of stress on other areas of life

Does stress affect you / the Lord's family, friends, relations with the environment?	N	%
Neglect of social relations	19	25
Lack of free time	34	44
A quarrel with your spouse / partner	15	19
No time for a child	10	13
NO (not affected)	18	23

*% Of the observations do not add up to 100 because respondents could choose more than one answer
Source: Own*

Most respondents indicated that stress has an impact on family, friends and relationships with the environment. Lack of free time accompanied by 44% of respondents. To neglect social relationships indicated 25% of respondents. While 23% of respondents said that stress does not affect other areas of life. Then respondents pointed arguments with your spouse or partner (19%), and in last place the respondents ticked the lack of time for a child (13%).

Table 3. The most common factors causing stress among teachers

Which of the following factors most often, you / your opinion, cause stress among teachers?	N	%
poor earnings	28	36
A large number of classes	27	35
Noise	46	60
A large number of students in class	15	19
A large responsibility for students	45	58

Lack of discipline among students	32	42
-----------------------------------	----	----

% Of the observations do not add up to 100 because respondents could choose more than one answer

Source: Own

According to the respondents the most common factor causing stress among teachers is the noise (60%) and a big responsibility for students (58%). Respondents indicated a lack of discipline among students (42%) as another cause of stress. Other factors were poor excipients (36%) and a large number of classes (35%). A large number of students in the class (19%) were least likely typed an example of stress among teachers.

Table 4. Physical symptoms experienced in stressful situations

Which of the following do you feel somatic symptoms / Lady in stressful situations?	N	%
excessive sweating	16	21
Headaches	35	45
Palpitations	24	31
loss of appetite	16	21
sleep disorders	27	35
Other	0	0

% Of the observations do not add up to 100 because respondents could choose more than one answer

Source: Own

Respondents indicated that headache (45%) are the most common somatic symptom in stressful situations. Trouble sleeping is 35%, and palpitations as much as 31% of respondents. Excessive sweating and loss of appetite was indicated by 21% of interviewers.

Table 5. The future of professional respondents

How do you / do you foresee your future career?	N	%
I expect in the near future on the rise	15	19
Lack of promotion opportunities	34	44
It plans to increase their skills in order to stay on the job	26	34
Other	0	0

% Of the observations do not add up to 100 because respondents could choose more than one answer

Source: Own

The respondents indicated that their careers do not have promotion opportunities (44%). While plans to increase qualifications, 34% of respondents. The least studied in the near future expects a promotion (19%).

Table 6. Seniority, and ways to cope with stress

How do you deal with stress?	Seniority			
	To year	Over 5 years	From 5 to 10 years	Over 10 years
I go in for sports	0%	5%	10%	23%
I talk with loved ones	4%	6%	6%	42%
drink alcohol	1%	1%	3%	3%
I smoke cigarettes	0%	1%	3%	5%
I take sedatives	0%	0%	1%	6%
Other: shopping, listening to music, movies and books	0%	0%	0%	4%

% Of the observations do not add up to 100 because respondents could choose more than one answer

Source: Own

Respondents from 10 years of work experience most often coped with stress by talking with loved ones (42%) and sport (23%). All respondents (regardless of seniority) pointed to drink alcohol. The longer seniority, the greater the percentage of drinkers. Respondents working for less than a year using the least of these ways of coping with stress. Have taken into account only talks with loved ones (4%) and alcohol (1%).

Table 7. The ability to separate the personal from the professional life, and ways to cope with stress

How do you deal with stress?	Can you separate the private life of a professional?	
	YES	NO
I go in for sports	thirty%	8%
I talk with loved ones	45%	12%
drink alcohol	6%	1%
I smoke cigarettes	4%	5%

I take sedatives	4%	4%
Other: shopping, listening to music, movies and books	4%	0%

*% Of the observations do not add up to 100 because respondents could choose more than one answer
Source: Own*

Respondents who are able to separate private life from professional preferred the response "I talk with relatives" (45%) and "do sports" (30%). While less frequently they pointed to variants "drink alcohol" (6%), "tobacco smoke", "enjoy soothing agents" and "other" (4%). People who do not know how to separate private life from professional preferred the conversation with loved ones (12%) and sport (8%). The smallest tested indicated that the smokes (5%), the use of sedatives (4%) and drinking alcohol (1%). None of the respondents marked other ways of coping with stress (shopping, listening to music, movie and book).

Table 8. Sex, and ways to cope with stress

How do you deal with stress?	Sex	
	Women	Men
I go in for sports	34%	5%
I talk with loved ones	52%	5%
drink alcohol	4%	4%
I smoke cigarettes	6%	3%
I take sedatives	8%	0%
Other: shopping, listening to music, movies and books	4%	0%

*% Of the observations do not add up to 100 because respondents could choose more than one answer
Source: Own*

Women and men most often coped with stress by talking with loved ones (52% women, 5% men) and sport (34% women, 5% men). womens the least indicated to drink alcohol (4%) and doing other things like shopping, listening to music, movies and books (4%). None of the men chose the answer "enjoy sedatives" and "other."

Table 9. Marital status and ways to cope with stress

How do you deal with stress?	Marital status	
	Those unmarried	People in a

	(single / single, widow / widower, divorcee / divorced)	relationship (married / married)
I go in for sports	16%	23%
I talk with loved ones	17%	42%
drink alcohol	1%	6%
I smoke cigarettes	1%	8%
I take sedatives	1%	8%
Other: shopping, listening to music, movies and books	1%	3%

% Of the observations do not add up to 100 because respondents could choose more than one answer

Source: Own

Respondents who are therefore most often coped with stress by talking with loved ones (42%) and through sport (23%). Least of drinking alcohol (6%), smoking cigarettes (8%) by taking sedatives (8%) and others (3%). Unmarried person least likely to point to drinking, smoking, drug and other sedatives (1% each). Most chose answers "talking to close" (17%) and "enjoys sports" (16%).

Results

1. The respondents believe that the best way to deal with stress is to talk with friends and sport. Some of the respondents smoke cigarettes, drink alcohol or are taking sedatives.
2. Respondents stated that the work-related stress neglected social relationships and do not have free time for yourself and your family.
3. According to the respondents the biggest source of stress is the noise, which can often be found on the corridor during a break. Then the responsibility for students and lack of discipline on the part of pupils.
4. The most common symptom of somatic felt among respondents was headache. Respondents also mentioned sleep disturbances, palpitations, sweating and loss of appetite.
5. The respondents do not see opportunities for advancement and part of the respondents want to improve their qualifications just to be able to stay at his post.

6. Operating time is related to methods of coping with stress. The most frequently chosen way of coping with stress regardless of the time work is examined talk with loved ones on the second place in people working more than 5 years ranked sports. Talking with relatives and sport are ways of coping with stress in people who are able to separate the private life of a professional. In people who are in a relationship and unmarried people the best way to deal with stress is to talk with relatives and sport. Both women and men talk with relatives and sport is the best way to deal with stress.

Conclusions

In the opinion of the social teaching profession is recognized for the work difficult and aggravating mentally. The aim of the study was to investigate the stressors professionals working teachers. It is important that due to the stress of teachers have many health problems. The most frequently reported were headache, sleep problems, heart and loss of appetite. Headaches are the result of excessive noise, which is commonplace during breaks at school.

In this profession it is important to close interpersonal contact, commitment and emotional exchange. A teacher is a person who has extensive knowledge and seeks to share it with students. Strong commitment to work and daily care of the students can be a big psychological burden. The teacher is often faced with difficult situations decision-making, conflict or where you need to act quickly and effectively. Stress is also a source of excess duties which are incumbent on the teacher. Then use the best strategy for time management, which will allow more efficient use of time. People wykonywujące teaching profession must prevail at all meet the expectations of students and their parents, as well as his colleagues, teachers and management. All these factors cause tension, that affects the physical and mental state of man. There is no possibility of getting rid of stress, so you should learn to control it.

Teachers should have clearly defined roles, less stressed, have optimized tasks, sense of security, a good atmosphere at work, regular and objective evaluation and career advancement path specified, which can eliminate stressful situations in the teaching profession.

References

1. Selye H. Stres okiełznany. Państwowy Instytut Wydawniczy. Warszawa 1979: 25.
2. Wrześniewski K. Cena stresu. Charaktery 2000, 4: 19.

3. Cenin M. Stres a psychospołeczne wymagania roli menadżera. Prace psychologiczne XLVI. Wrocław 1996: 166.
4. Martin P. Umysł, który szkodzi. Mózg, zachowanie, odporność i choroba. Rebis. Poznań 2000.
5. Landowski J. Neurobiologia reakcji stresowej. Neuropsychiatria i Neuropsychologia 2007, 2(1): 27-28.
6. Koszarny Z, Goryński P. Narażenie uczniów i nauczycieli na hałas w szkole. Rocznik PZH, XLI 1990, 5-6.
7. Czeskin MS. Człowiek i hałas. Warszawa 1986: 19-20.
8. Choroby zawodowe w Polsce w 2005-2007. Instytut Medycyny Pracy im. Prof. J. Nofera, Centralny Rejestr Chorób Zawodowych. Łódź 2006, 2007, 2008.