MAGDALENA STADNYK<sup>1,2</sup>, DOROTA SZCZYGIEŁ<sup>3</sup>, JANINA KSIĄŻEK<sup>1,4</sup>

# Emocje w relacjach zawodowych a stan zdrowia pracowników na przykładzie zawodu nauczyciela

#### Streszczenie

**Wprowadzenie.** Zawód nauczyciela wymaga stałego i intensywnego kontaktu z innymi ludźmi, co wiąże się ze znacznym obciążeniem emocjonalnym, a w konsekwencji może prowadzić do problemów zdrowotnych.

**Cel.** Celem badania była analiza związków między stanem zdrowia nauczycieli a emocjami jakich doświadczają podczas kontaktów z uczniami oraz umiejętnością kontrolowania przeżywanych stanów emocjonalnych.

Materiał i metody. W badaniu wzięło udział 100 nauczycieli, w tym 91 kobiet i 8 mężczyzn. Do badania stanu zdrowia został wykorzystany kwestionariusz GHQ-12. Skala PANAS została użyta do oceny pozytywnej i negatywnej afektywności natomiast kwestionariusz INTE do pomiaru poziomu inteligencji emocjonalnej. Pomiar deklarowanych emocji odbył się za pomocą skonstruowanego na potrzeby pracy kwestionariusza.

**Wyniki.** Związek negatywnych emocji ze stanem zdrowia ujawnił się przy kontroli stażu pracy i zmiennych dyspozycyjnych: pozytywnej i negatywnej afektywności oraz inteligencji emocjonalnej. Poziom zaburzeń zdrowotnych u badanych nauczycieli koreluje ujemnie z inteligencją emocjonalną (r=-0.43, p<0.01), pozytywną afektywnością (r=-0.43, p<0.01). Natomiast poziom zaburzeń zdrowotnych dodatnio koreluje z afektywnością negatywną (r=0.36, p<0.01) i doświadczaniem emocji negatywnych (r=0.42, p<0.01). Natomiast częstsze doświadczanie pozytywnych emocji nie wiąże się z niższym poziomem problemów zdrowotnych (r=-0.15, p>0.05).

**Dyskusja.** Ze zmiennych dyspozycyjnych ujętych w badaniu najsilniejszym predyktorem ogólnego stanu zdrowia okazała się inteligencja emocjonalna. Jednak na poziom ogólnego stanu zdrowia u badanych nauczycieli ma wpływ wiele czynników, zarówno osobowościowych i dyspozycyjnych, a także sytuacja, czy raczej negatywne emocje wywoływane przez różne wydarzenia związane z kontaktami z uczniami.

Wnioski. Na stan zdrowia ma wpływ nie tylko doświadczanie negatywnych emocji, ale również umiejętna praca i radzenie sobie z emocjami. Umiejętności te są ważne nie tylko w zawodzie nauczyciela, ale również w innych zawodach społecznych.

**Słowa kluczowe:** stan zdrowia, pozytywne i negatywne emocje, inteligencja emocjonalna.

<sup>3</sup> High School of Social Psychology SWPS

# Emotions in professional relations and employees' health as exemplified by the teacher's profession

#### Abstract

**Introduction.** The teacher's profession demands being in constant and intensive contact with other people, which entails a significant emotional strain and may, as a consequence, lead to health problems.

**Aim.** The purpose of the study was to analyze the interrelations between the teachers' health and the emotions they experience in contacts with students, and the ability to control the emotional states experienced.

**Material and methods.** The study included 100 teachers, of whom 91 were women and 8 were men (one participant did not state the sex). Their health condition was examined by means of GHQ-12. The PANAS scale was used to evaluate positive and negative affectivity, and the INTE questionnaire to measure the emotional intelligence level. Declared emotions were measured using a questionnaire developed for the purposes of this paper.

**Results.** The relationship between negative emotions and health was found during the control of seniority and dispositional variables: positive and negative affectivity and emotional intelligence. The level of health disorders in the examined teachers negatively correlates with emotional intelligence (r=-0.43, p<0.01) and positive affectivity (r=-0.43, p<0.01). And the level of health disorders correlates positively with negative affectivity (r=0.36, p<0.01) and experiencing negative emotions (r=0.42, p<0.01). However, experiencing positive emotions more frequently is not connected with a lower level of health-related problems (r=-0.15, p>0.05).

**Discussion.** The strongest predictor of general health among the dispositional variables included in the study proved to be emotional intelligence. Nevertheless, the general health of the teachers studied is affected by a number of factors, both personality-related and dispositional as well as the situation or rather the negative emotions aroused by different events associated with contacts with students.

**Conclusions.** Health is affected not only by the experiencing of negative emotions but also by competent work and the way of managing emotions. These skills play an important role not only in the teacher's profession but also in other social professions.

**Keywords:** health condition, positive and negative emotions, emotional intelligence.

<sup>&</sup>lt;sup>1</sup> Department of Thoracic Surgery, Medical University of Gdansk

<sup>&</sup>lt;sup>2</sup> Psychological and Pedagogical Center

<sup>&</sup>lt;sup>4</sup> Department of Surgical Nursing, Medical University of Gdansk

## **INTRODUCTION**

Emotion is a particular mental state resulting from a conscious or unconscious assessment of the situation. Experiencing emotions is accompanied by somatic and behavioral changes. The emotions we experience can have negative or positive consequences. They can also influence our actions and careers in different ways. They also have markedly affect our health and the way we feel. Literature presents diverse definitions of health [1]. General health will be analyzed in this paper from the perspective of two phenomena: the inability to carry on normal, healthy existence and the appearance of psychic distress which can be defined as a state of tension or fatigue [2].

General health may be affected by a number of factors. According to numerous researchers representing health psychology, optimism is an attitude favorable to health. Optimism can affect the somatic condition and, for example, improve the functioning of the immune system or the mental state. A higher level of optimism favors a decrease in depressiveness, a lower level of anxiety and sense of futility of the actions undertaken [1]. It is noticeable that optimism is associated with experiencing positive affect [3], which in turn positively influences the sense of mental and physical well-being [1]. Accordingly, negative affect is not favorable to a sense of well-being and health. Negative affect is associated with a higher level of reported stress and a lower degree of coping [3]. People with negative affectivity are at risk of experiencing symptoms of physical discomfort since they are more prone to falling into a rage, anger, depression or sense of guilt. Moreover, there is a strong relationship between negative emotional states and feeling bad [1,3].

The level of general health is influenced not only by a complex of characteristics (affectivity) but also by individual emotions experienced by a person. Positive emotions can contribute to a faster recovery or overcoming the disease. Ogińska and Juczyński mention the recognized influence of re-interpretation of the disease which leads to a significant decrease in negative emotions and an increase in the degree of positive emotions, which can result in an increased immunity of the organism and, as a consequence, a faster recovery [1]. Positive emotions favorably influence the immunological system, which was proven by Cohen et al. He demonstrated the influence of the experienced emotions on the development of a common cold virus. It was shown that a higher degree of positive emotions experienced reduces the risk of the development of common cold [4]. Additionally, positive emotions aroused by both external events and own activity induce us to deploy our own resources, which can contribute to the overcoming or handling of difficult situations [5,6]. Negative emotions have a contrary impact on the level of health. Among14 the best known emotions negatively affecting health are the feelings of anger and hostility. They are attributed a particular role in the emergence and development of cardiovascular conditions, such as coronary disease, angina and myocardial infarction. In addition, people who experienced negative emotions more frequently suffered more from such complaints as vertigo, sleep disorders, loss of energy and feeling exhausted [1].

Emotional intelligence seems to have a significant influence on the experiencing of emotions and the level of health. Emotional intelligence helps in understanding one's own and other people's feelings. The research by Schneider et al. shows that people with a higher degree of emotional intelligence more accurately detect the modifications to the heart rhythm associated with the psychological response to an emotion-inducing situation. Apart from that, emotional intelligence enhances the ability of conscious understanding of the reasons behind emotions and making use of the knowledge of emotions, which results in the improvement and broadening of the way of thinking [7].

These abilities play an important role in the career. Their importance to functioning at work can be seen in the research conducted by Bar-Ona, showing that individuals who achieve professional success are characterized by a higher degree of emotional intelligence than unemployed people [7,8]. Apparently, a strong influence of emotional intelligence on health and functioning at work can be observed especially in social professions, requiring permanent contact with other people. An example of such a profession is teaching, where interpersonal skills, close emotional contact and psychophysical condition directly translate into the quality of education, commitment and efficacy of teaching [9]. Teaching is a tiring and exhausting activity because of the considerable emotional strain caused by the necessity of constant contact with students. In addition, it requires a lot of personal commitment, as a consequence of which the teacher's profession is considered to be mentally demanding and exhausting. Its consequence is experiencing stress and a potentially higher level of health disorders. People in worse health present a higher degree of stress at work, which can mean that they assess the requirements of the community as exceeding their capacity for satisfying them [1]. This is the reason why the teacher's profession carries a high risk of cardiovascular diseases. Teachers are additionally at risk of neurosis [10].

### AIM

The purpose of the paper is to find the relationship between the emotions experienced during the performance of their job and the health of teachers as well as the factors likely to affect this relationship.

### **MATERIAL AND METHODS**

The study was conducted in a group of teachers of junior high schools. There were 100 participants in the study, of whom 91 were women and 8 were men (one participant did not state the sex). The age range of the study subjects was 20-64 years (M=36.6; SD=8.87). The average teaching experience was: M=12.87 years; SD=9.57. 96 people had a college degree, while 3 people had secondary school certificates (one person did not state the education).

A questionnaire consisting of eight emotions, including four negative ones: sadness, sense of guilt, fear and anger, and four positive ones: pride, joy, interest and satisfaction, was constructed to measure the study teachers' statements regarding the experiencing of emotions during contacts with students. The study participant's task was to indicate on a seven-point scale how often s/he felt the listed emotions during contacts with students over the last month. The answers were given a score from 1 (very rarely or never) to the maximum of 7 (very often or always). The results are calculated individually for each of the two groups of emotions, determining the mean of the participant's answers, which can range from 1 at the minimum to 7 at the maximum. The higher the result, the higher the level of experienced emotions in a particular group was. The reliability for the positive and negative emotions scales was 0.81 and 0.69, respectively. See Attachment 1.

Positive and negative affectivity were analyzed using the Positive and Negative Affect Scale PANAS [5], in its Polish adaptation by Małgorzata Fajkowska-Stanik and Magdalena Marszał Wiśniewska (an unpublished experimental version). The scale consists of 20 words describing various affective conditions. Half of them constitutes positive affectivity (PA), while half of them – negative affectivity (NA). The study participants gave their answers on a 5-point scale from 1-5. The negative/positive affectivity index is the total score obtained by the participant in the range from 10 to 50 for both affectivity dimensions. The higher the score, the higher the (negative or positive) affectivity level was. Following the calculations, the internal consistency Cronbach's coefficient  $\alpha$  amounted to 0.73 and 0.84 for PA and NA, respectively.

Emotional intelligence was assessed using the Emotional Intelligence Questionnaire INTE, in the Polish adaptation by Jaworska and Matczak [8]. The theoretical basis adopted by the authors of the original version (Schutte et al.) was the emotional intelligence model suggested by Salovey and Mayer [7], according to which emotional intelligence encompasses: ability to perceive, appraise and express emotions, ability to regulate them and to use emotions to promote thinking and activity [7]. The INTE questionnaire consists of 33 statements, assessed on a 5-point scale. The higher the participant's score, the higher their level of emotional intelligence is. The test is a reliable tool, Cronbach's  $\alpha$ =0.91 [8].

Health disorders were measured using David Goldberg's GHQ [2]. The questionnaire includes 12 questions regarding general health over the last few months. The higher the score obtained by the participant, the higher the incidence of their health problems is. The reliability of the test is 0.88 [11].

# RESULTS

The level of health disorders in the teachers studied negatively correlates with emotional intelligence, positive affectivity and work experience. Precisely speaking, a longer period of teaching experience, a higher level of emotional intelligence and positive affectivity in the teachers studied are accompanied by a lower level of health disorders they report. And negative affectivity and negative emotions experienced during contacts with students positively correlate with the level of health disorders in the teachers studied. The correlation results are presented in Table 1.

Moreover, regression analysis demonstrated that the predictors of health disorders in the teachers studied were emotional intelligence and experiencing negative emotions. Hence, the level of health disorders in the teachers studied is connected with a lower level of positive affectivity and emotional intelligence and a higher level of negative affectivity. It should be noted that the strongest predictor of health disorders among the dispositional variables included in the analyses, is emotional intelligence (negative relationship), followed by negative affectivity (positive relationship) and positive affectivity (negative relationship). Work experience proved to be a significant predictor but only when the other variables were not controlled. The results also show that a higher degree of health disorders in the teachers is associated with their experiencing of negative emotions in contacts with students more frequently. However, more frequent experiencing of positive emotions by the teachers is not associated with a lower degree of health disorders. The regression results are presented in Table 2.

## DISCUSSION

The strongest predictor of general health among the dispositional variables included in the study was emotional intelligence. The teachers with a higher degree of emotional intelligence declared fewer health disorders. The results of the study conducted by Ogińska-Bulik indicate that emotional intelligence reduces the sense of the work environment as a stress-inducing place, which helps to cope with stress and lessens its negative effects [12]. Based on the results of the presented study, it is also possible to conclude that emotional intelligence prevents mental health disorders from developing. Presumably, teachers with a higher degree of emotional intelligence may be more inclined to devote their time and energy to students. They establish contacts with students more easily, co-operate with them better and find it easier to resolve conflicts. In addition, they may be more friendly towards their charges. Such behavior can additionally protect against depersonalization, and therefore reduce the intensity of the symptoms of professional burnout, so typical of professions serving the society [1]. A low level of emotional intelligence in teachers is unfavorable to their general health and can lead to psychosomatic disorders.

TABLE 1. Mean, standard deviation, index of internal conformity (a Cronbacha) intercorrelations (r Pearsona).

				• •	,	,	,		
		М	SD	1	2	3	4	5	6
1	GHQ	11.54	5.55	(α=0,88)					
2	INTE	127.54	15.31	-0.43**	(α=0,91)				
3	Panas NEG.	25.51	5.05	0.36**	-0.21*	(α=0,84)			
4	Panas POS.	36.24	4.00	-0.43**	0.47**	-0.32**	(α=0,73)		
5	Emotions NEG.	2.53	1.01	0.42**	-0.23*	0.18	-0.19	(a=0,69)	
6	Emotions POS.	5.13	0.97	-0.15	0.29**	0.00	0.44**	-0.24*	(α=0,81)
7	Practice of work	12.87	9.57	-0.22*	0.15	-0.13	0.26**	0.16	0.13

\* correlation is significant at the level of 0.05

\*\* correlation is significant at the level of 0.01

		Predictors	ß	t	$R^2_{\ skoryg}$	F
Block 1	Step 1	Practice of work	-0.22*	-2.22		
					0.04	5.05*
	Step 1	Practice of work	-0.16	-1.73		
	Step 1	Emotional Intelligence	-0.41***	-4.46		
					0.19	12.95***
-	Step 2	Practice of work	-0.13	-1.47		
		Emotional Intelligence	-0.35***	-3.94		
Block 2		Negative affect	0.27**	3.00		
					0.26	12.35***
		Practice of work	-0.09	-1.06		
	Step 3	Emotional Intelligence	-0.27**	-2.71		
	Step 5	Negative affect	0.22*	2.46		
		Positive affect	-0.21*	-2.01		
					0.28	10.58***
		Practice of work	-0.63	-0.74		
	3 Step 1	Emotional Intelligence	-0.22*	-2.37		
Block 3		Negative affect	0.19*	2.17		
		Positive affect	-0.20*	-1.99		
		Experience of negative emotions	0.29**	3.38		
					0.35	11.68***

 TABLE 2. Results of hierarchic analysis of regression – health disorder predictions.

p<0.05; \*\* p<0.01; \*\*\* p<0.001

The study results also showed that emotional intelligence negatively correlates with negative affectivity, which proved to be the second predictor, in terms of strength, of health disorders. The expectations that teachers with stronger negative affectivity would report a higher level of health disorders were confirmed. Negative affect in teachers may contribute to their falling into a fury, anger or depression more frequently [3]. A higher level of negative affectivity may affect the manner of both perceiving a situation and managing it, by weakening the resources needed for its management because of a greater susceptibility to stress in teachers. Similar views are expressed by Watson and Clark (1984), who demonstrated that negative affect can be viewed as a tendency to experience distress even if there are not stressors, which results from the inclination to experience negative emotional states for most of the time [1,3]. Studies of a group of teachers conducted by Parkers showed that teachers with higher negative affectivity demonstrated stronger reactivity to the requirements at work [13]. Moreover, negative affectivity may prove as it were a disputable variable associated with health. This is due to the fact that negative affectivity is closely related to health complaints, although it is not so strongly and permanently connected with the long-term perception of general health [3]. Perhaps the teachers characterized by predominantly negative affect much more frequently noticed temporary health problems than perceived their general health as worse, in comparison with those with predominantly positive affect. This is because the tendency to feel a particular mood by people may affect the frequency of perception of their ailments. This was demonstrated by the studies of Crolye and Uretsky, who concluded that inducing a bad mood in the subjects leads to a negative assessment of their own health [1]. Teachers with a higher level of negative affectivity are more at risk of feeling negative moods, and thus are likely to feel a deterioration in their health. Perhaps the relationship between affectivity and physical symptoms and between affectivity and general health should be developed in more detail in future studies.

It appears that the last dispositional variable mentioned - positive affectivity - is connected with a lower level of health disorders reported by the teachers. An explanation of this relationship could be the fact that positive affect is a sort of a buffer protecting against the negative consequences of stress, counterbalancing its potentially harmful physiological effects [6]. Therefore, the teachers experiencing negative situations in their work experience positive ones too. Moreover, they may interpret a negative situation by giving it a different, often positive, meaning. Such re-formulation can make them feel better, and as a consequence lead to a better general health of the teachers. The dominance of positive affect can influence their health also by the fact that the teachers develop a sense of efficiency in managing stress through concentrating on the task and challenge, since positive coping strategies are connected with positive affectivity. It seems important, in relation to the discussion of the affectivity examined, that positive and negative affectivity are independent factors, meaning that positive affectivity can be useful to a particular individual regardless of the level of negative affectivity manifested [6].

The study demonstrated that all the afore-mentioned dispositional variables together with the negative emotions experienced by the teachers constitute the greatest percentage of the examined variability of the level of health disorders. The teachers are exposed to the effects of stressors because they experience negative emotions induced by the situation at work. This can lead to chronic stress, resulting in such consequences as disorders, psychosomatic conditions and symptoms of the professional burnout syndrome [1]. The impact of negative emotions on health is also shown in the studies of Mann and Holdsworth demonstrating that teleworkers who had experienced negative emotions reported more stress and disease symptoms than office workers [14]. This is quite an important observation in the context of the analyzed impact of emotions experienced during professional activities on the teachers' health. These studies may evidence that employees of the public services sector are more exposed to the consequences of experiencing negative emotional states, leading to stress and emotional strain, hence a higher level of health disorders. Other studies in this field indicate that the negative emotional states of the strongest influence on general

health are the states of anxiety and cognitive confusion [15], often experienced by teachers while performing their professional duties. In view of the above considerations, teachers should avoid negative emotions during contacts with students or constructively deal with their emotional states.

The results also revealed that the positive emotions experienced by the teachers during their contacts with students were not associated with a lower level of health disorders. According to Fredrickson's theory [5,6], the benefits from experiencing positive emotions are related to physical, cognitive and intellectual resistance as well as personality resources. It is possible to conclude that in the case of teachers these emotions are not directly related to a decrease in the level of health disorders but help in a better adaptation to working conditions. Of significance in this case may prove the hypothesis formulated by Larsen et al. [6], saying that the relationship between the proportion of positive and negative emotions and health has a curvilinear character. Health in this case will be understood as an equilibrium of positive and negative emotions experienced. Obviously, the impact of positive emotions on health is not as unambiguous as it may seem. In addition, definitely more studies of relationships between experienced emotions and health are concerned with the importance of negative emotions in this aspect. The proportion of papers dealing with relationships between negative emotions and diseases and those dealing with positive factors and health is 11 to 1 [6]. A possible conclusion is that the impact of positive emotions needs to be analyzed and investigated in more detail.

## CONCLUSIONS

The general health level in the teachers studied depends on numerous factors, both personality-related and dispositional, and on the situation, or rather the negative emotions caused by various events associated with contacts with students. As teaching is a profession carrying a risk of emotional strain and professional burnout as well as a deterioration of mental and physical health, it would be advisable to emphasize the role of psychoeducation focused on better selfknowledge and the ability to cope in difficult situations. It is also worth noting the role of interpersonal training or support groups at the workplace [9], which would certainly be helpful in managing the negative emotions experienced better, and as a consequence, in reducing the level of health disorders in working teachers. Additionally, an improved awareness of one's own emotional states and the potential risk of professional burnout could contribute to a more careful selfobservation and noticing the first alarming symptoms.

Another noteworthy problem are the differences in the level of emotional intelligence between the sexes. Women and men use different strategies in dealing with emotions, they express and interpret emotions differently. Women were in the majority in this study. It would be interesting to conduct similar studies in the future on a group more diversified with respect to sex.

#### REFERENCES

- Ogińska-Bulik N, Juczyński Z. Osobowość, stres a zdrowie. Warszawa: Difin; 2008. p. 120-40.
- Goldberg D, Williams P. Podręcznik dla użytkowników Kwestionariusza Ogólnego Stanu Zdrowia. Łódź: Oficyna Wydawnicza Instytutu Medycyny Pracy im. prof. J. Nofera; 2001. p. 204-10.
- Watson D, Clark A, Tellegen A. Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales. J Pers Soc Psychol. 1998;6(54):1063-70.
- Hupper F. Positive emotion and cognition: developmental, neuroscience and health perspectives. In: Hearts and minds: Affective influence on social cognition and behaviour. Psychology Press. New York; 2005. p. 42-60.
- Fredrickson BL. The role of positive emotions in Positive Psychology. Am Psychol. 2001;56(3):218-26.
- Sęk H. Udział pozytywnych emocji w osiąganiu zdrowia. In: Heszen, Życińska (ed). Psychologia zdrowia w poszukiwaniu pozytywnych inspiracji. Warszawa: Wydawnictwo Academica; 2008; p. 60-85.
- Mayer JD, Roberts RD, Barsade SG. Human Abilities. Emotional Intelligence. Annual Review of Psychology. 2008;59:507-34.
- Jaworska A, Matczak A. INTE Kwestionariusz Inteligencji Emocjonalnej. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego; 2001.
- Grzegorzewska KM. Indywidualne i organizacyjne czynniki a poziom stresu w zawodzie nauczyciela. In: H. Polańska-Wrona (ed). Zdrowie – stres – choroba: w wymiarze psychologicznym. Kraków: Impuls; 2008. p. 100-20.
- Kretschmann R. Stres w zawodzie nauczyciela. Gdańsk: Gdańskie Wydawnictwo Psychologiczne; 2004. p. 10-22.
- Picardi A, Abeni D, Pasquini P. Assessing psychological distress in patients with skin diseases: reliability, validity and factor structure of the GHQ-12. J Eur Acad Dermatol Venereol. 2001;15(5):410-17.
- Ogińska- Bulik N. Stres zawodowy w zawodach usług społecznych: źródła, konsekwencje, zapobieganie. Warszawa: Difin; 2006. p. 125-42.
- Parkers KR. Coping, negative affectivity, and the work environment: Additive and interactive predictors of mental health. J Applied Psychol.1990;75(4):399-409.
- Mann S, Holdsworth L. The psychological impact of teleworking: stress, emotions and health. New Technology, Work and Employment. 2003;18(3):196-211.
- Todaro JF, Shen BJ, Niaura R, Spiro A, Ward KD. Effect of negative emotions on frequency of coronary heart disease. Am J Cardiol. 2003;92:901-6.

#### Informacje o Autorach

Mgr MAGDALENA STADNYK – Ośrodek Psychologiczno-Pedagogiczny "Razem", Zakład Pielęgniarstwa Chirurgicznego, Katedra Pielęgniarstwa, Gdański Uniwersytet Medyczny; dr DOROTA SZCZYGIEŁ – Katedra Psychologii Ogólnej, Wyższa Szkoła Psychologii Społecznej; dr n. med. JANINA KSIĄŻEK – kierownik, Zakład Pielęgniarstwa Chirurgicznego, Katedra Pielęgniarstwa, Gdański Uniwersytet Medyczny.

#### Adres do korespondencji

Magdalena Stadnyk ul. Smoluchowskiego 17, 80-952 Gdańsk E-mail: magda.stadnyk@gumed.edu.pl