

ORIGINAL PAPER

CHOSEN ASPECTS OF CURRENT PSYCHOLOGICAL CONDITION IN RELATION TO COPING STRATEGIES OF NURSES IN SLOVAKIA

Lucia Pašková

Department of Psychology, Pedagogical Faculty, University of Matej Bel in Banská Bystrica, Slovakia

Received January 8, 2018; Accepted March 30, 2018. Copyright: This is an open access article distributed under the terms of the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

Abstract

Aim: To analyze chosen aspects of the current psychological state of Slovak nurses, and their relation to preferred strategies for workload management. Design: Cross-sectional study. Methods: The research sample consisted of 240 nurses. Mikšík's SUPSO questionnaire was used in order to record and evaluate the structure and dynamics of subjective experiences and conditions. Stress management strategies were identified through Tobin's Coping Strategies Inventory (CSI) questionnaire, and the frequency of the experience of individual emotions through the SEHP Emotional Subjective Habitual Wellbeing questionnaire. The relationships between the variables were subjected to the Spearman correlation coefficient. Results: Nurses reported lower levels of psychological wellbeing and activity than the population average, as opposed to asthenic experience of stress and uncertainty. Regarding preference of coping strategies in the context of work, nurses mainly use problem solving, social support, and cognitive restructuring. Regarding the mutual relationship of current psychological state and preferences in coping strategies, there were significant positive relationships between a positively-attuned psychological state and an inclination toward problem-oriented strategies, and, in terms of negative experiences, with divergent strategies. Conclusion: Recognizing the relationship between nurses' current psychological state and preferences in terms of coping strategies allows the application of adequate preventive programs, thereby improving the physical wellbeing of nurses and their ability to cope with the demands of the profession, with potentially positive outcomes in specific nursing activities.

Keywords: anxiety, coping strategies, depression, psychological wellbeing, restlessness.

Introduction

The interaction of people with their surroundings is reflected in their current psychological state (determined by the quality of this interaction), and is also reflected in their psyche in the form of dynamic changes in psychological experience, and a particular emotional setting, the result of which is a readiness for certain kinds of interactions with an external environment. Every significant change in the environment (both external and internal) triggers an "updating" of the psychological state, generating a number of psychological changes in individuals in order to restore their psychological balance. According to Mikšík (2004), it is possible to classify a situation in terms of optimal and pessimal psychological stress by analyzing the relationship between the dynamics of the psychological state and variables. situation-interaction Healthcare professionals typically experience a heavy workload

Corresponding author: Lucia Pašková, Department of Psychology, Pedagogical Faculty, University of Matej Bel, Ružová 13, Banská Bystrica, Slovakia; email: lucia.paskova@umb.sk and are exposed to everyday contact with people, and high work demands.

Blahovec (2002), among others, states that the significance, specificity, and excellence of the social mission of nurses, and their degree of responsibility for the health of the population are in sharp contrast to the conditions experienced by the rest of society. Various risk factors resulting from excessive workload in the caring professions are highlighted, for example, by Vodáčková et al. (2002), Kebza and Šolcová (2003), Stevenson and Wolfers (2013), Sun et al. (2016), and others. The identified factors include: continous contact with people and their problems, the effort involved in understanding and helping, the uncertainty of the professional role, the excessive number of clients, the complex burden the client presents, the lack of competencies, the need to withstand chronic stress, the duration of work, the exceptionally high interest in others, empathy, decreased self-confidence, lack of appreciation, and the quality of particular working conditions.

Lim, Bogossian, and Ahern (2010) examined the

factors contributing to excessive stress in Australian nurses. Their research was based on assumptions regarding the impact of coping strategies used by nurses on their experience of stress in terms of their health and psychological wellbeing. The most frequent stressors identified were: excessive overtime at work, role conflicts at work, and experience of aggression. The prevailing coping strategies employed were: the search for social support, problem-solving, and self-control. In a similar overview study, Chang et al. (2005) also found that the main reason nurses leave the profession is the stress associated with work performance. In the conclusion of the study, the authors emphasize that training regarding the consequences of excessive stress and the need for an organized approach to work can be preventive factors. Positive factors identified in the work of nurses in the context of effective coping strategies used included team building, strategies connected with balancing stress at work, social support, flexibility at work, and establishing aggression protocols at work. A study by Lambert et al. (2007) was dedicated to an analysis of the relationship between stressors and personality variables in the context of the psychological health of Chinese nurses, with the main sources of stress being workload (related to experience), probability of death, and actual death. In most cases, the nurses used positive reprogramming strategies, self-control, planning, and problem-solving. The main predictors of psychological health in relation to experience of stress in nursing work were: psychological resistance, conflicts with other nurses, and uncertainty about patient care. Other psychological health predictors identified included the search for social support, age, and thoughts of leaving the nursing profession over the previous 12 months.

Xianyu and Lambert (2006), Lambert and Lambert (2008) Li and Lambert (2008), Laal and Aliramaie (2010), studied the use of active and effective coping strategies, such as planning (Li, Lambert, 2008), positive reevaluation, problem-solving, self-control, and social support (Makie, 2006; Xianyu, Lambert, 2006; Laal, Aliramaie, 2010; Laranjeira, 2012). Their are supported by the conclusions of Ramezanli et al. (2015) regarding the use of problem-solving strategies. Fewer of the strategies employed by nurses focused on emotions and the least common were exit strategies. Mohamed (2016) also points to the tendency of nurses to use active strategies (active problem solving), as well as using the strategy of social support, positive reframing, and expression of emotions.

Other studies reveal the relationship between active coping, health, and the working environment

(Schreuder et al., 2012). Low scores in the evaluation of physical and psychological health correlate with passive strategies, low self-control at work, and insufficient social support. Improving the working environment of nurses seems to be a protective factor against the occurrence of psychological problems, and the selection of passive, ineffective strategies (Shimizutani et al., 2008).

Subsequently, in several studies researchers found that the demands on psychological and physical health, as well as on social relationships within family or broader social relationships of nurses were significant. The occurrence of medical, psychological and emotional disorders was documented by Lauková, Tóth, Jurišová (2010); physical and emotional exhaustion. fatigue. irritability. mistrustfulness, and depression, often leading to cynical attitudes toward work, were recorded by Bočáková and Rolníková (2005); the frequent occurrence of depression and various somatic manifestations (fatigue and loss of energy, problems with sleeping, etc.) were recorded by Gurková and Macejková (2012), whose findings allowed them to establish the existence of an indirectly proportional relationship between the frequent occurrence of depression, psychological stress and the level of subjective wellbeing of nurses. In their study, Sováriová Soósová and Varadyová (2012) found an increase in the occurrence of spinal pain, migraines, high blood pressure, and menstrual cycle disorder related to the long-term workload of nurses.

Aim

The objective of the research was to identify chosen aspects of the current psychological state of nurses (including their frequency of experience of positive and negative emotions), to identify their preferences regarding strategies for managing their workload, and, in addition, possible relationships between specific management strategies and monitored variables of their current psychological state.

Methods

Design

A cross-sectional design was used in the research.

Sample

The research subjects comprised nurses who voluntarily participated in our research and were familiar with its purpose, processing, and use of data. Prior consent was obtained from the director of the healthcare facility. Since the selection of the research subjects was governed by the principle of availability, it was an intentional available selection.

The data collection was conducted March–June 2017 in various health facilities in the Banská Bystrica, Žilina, Trnava, and Košice regions.

The research sample comprised 240 nurses with an average age of 34.21 years (min. 21; max. 59). Since nursing is a profession with significant female dominance, it is not surprising that our research subjects consisted of 211 women (87.92%) and 29 men (12.08%). The average duration of experience in the field was 12.61 years (min. 1; max. 40). 183 respondents (76.25%) were living with a partner, and 57 respondents did not have a permanent partner (23.75%).

Data collection

In order to record and evaluate the structure and dynamics of subjective experiences and conditions, Mikšík's SUPSO questionnaire (2004) was used, allowing penetration into the structure and dynamics of psychological states through subjective assessment scales. It is composed of operatively-defined and pragmatically-conceived scales comprising adjectives, organized into seven components: 1) Psychological wellbeing (feeling of freshness, satisfaction, psychological balance, and optimism); 2) Activity - strenuousness (feeling of strength, energy, desire for activity); 3) Impulsiveness abreaction (spontaneous release of burdens and psychological tension); 4) Psychological restlessness (experience of tension and the inability to vent it, psychological/motor restlessness); 5) Depression (exhaustion. passivity, apathy, pessimism); 6) Expectation of anxiety (fear, uncertainty, stress); 7) Dejection (passively experiencing negative effects psychological stress, current indications of sadness, loneliness, and hypersensitivity).

The gross score for each component is a value of 4-24. These components can be internally divided into dimensions of comfort/discomfort (on the basis of inner wellbeing/non-wellbeing) and dimensions of experience/activation (based on the quality of experience and response). The questionnaire includes an index of psychosomatic and health issues (headaches, stomach issues, loss of appetite, sweating, frequent urge to defecate, physical and psychological fatigue, sleep disorders, sleepiness) and use of medication or psychotropic alcohol. substances (coffee. cigarettes, and pharmaceuticals). The respondent expresses the frequency they experience a particular condition, difficulty, or substance use on a six-degree scale (1 = almost never to 6 = almost always). The reliability of the SUPSO questionnaire measured by the Cronbach alpha is 0.779.

The frequency of experiencing positive and negative emotions was measured by the SEHP Emotional Habitual Subjective Wellbeing questionnaire, written Džuka and Dalbert (2002). The SEHP questionnaire is a concise tool for measuring subjective habitual emotional wellbeing, distinguishing the positive and negative aspects of experiences, integrated with physical feelings. The questionnaire detects the frequency of experience of individual states over a longer period, divided by the authors of the questionnaire into positive states: joy, happiness, pleasure, physical freshness, and negative states: fear, guilt, sadness, pain, anger, and shame (Džuka, Dalbert, 2002). The questionnaire has ten items and the respondents express their response related to the frequency they experience a particular emotion on a six-degree scale (1 = almost never - 6 = almost always).The reliability coefficient is 0.77 for positive emotions and 0.74 for negative emotions (Cronbach alpha).

Workload management strategies were assessed through the Coping Strategies Inventory (CSI) Tobin et al. (1989), allowing us to identify preferences for specific workload management strategies. It is based on two concepts: Lazarus' Transactional theory on problems and emotion-oriented stress management, and disposition theory by Carver, Scheier, Weintraub (1989), regarding inclination and divergence strategies. The advantage of the questionnaire is its hierarchical structure, permitting the measurement of tertiary level factors - factors of inclination (active action and management of stressful environments) and divergence (isolation or divergence from the "person and environment" relationship), secondary level - inclination and divergence factors are divided into four sub-levels based on problem and emotional orientation, and the primary level, which includes eight factors: problemsolving and cognitive restructuring (inclinationproblems). strategies focusing on emotional expression and search for social support (inclination emotions), strategies oriented on avoidance of problems and retreat into fantasy (divergence strategies oriented on problems), and self-blaming and social isolation (divergence strategies focusing on emotions). Respondents, through a five-degree Likert scale, respond to 72 items, while determining to what degree these statements relate to their thoughts, feelings and actions in a stressful situation (1 = the statement does not at all describe my behavior to 5 = the statement very much describes my behavior). The gross score of each of the eight primary strategies is a value of 9-45.

The questionnaire's reliability attains a Cronbach

alpha value of 0.83 on average, and according to Tobin (2001), it has been successfully validated in terms of critical and constructive validity.

Data analysis

The research data was processed through the SPSS Statistics program, version 19. The univariate and bivariate descriptive analysis was followed by inferential statistical procedures. We tested the normality of the distribution of the variables with the Shapiro-Wilk test and the Kolmogorov-Smirnov normality test in a Lilliefors modification, which did not confirm the even distribution of data, on the basis of which we chose nonparametric statistical procedures. We used Spearman's rank correlation coefficient for the analysis of mutual relationships.

Results

Descriptive analysis of selected components of the psychological state, coping strategies and the frequency of experiencing positive and negative emotions in nurses

Table 1 presents the basic descriptive characteristics of the SUPSO questionnaire. The respondents' answers are directed primarily towards psychological wellbeing and activity, and least frequently towards abreaction and the experience of dejection. The most frequent problems include psychological and physical fatigue, and sleepiness; on the other hand, the least frequent occurrences include loss of appetite, awakening due to urge to use the toilet, and nightmares. Physicians consume coffee very often, whereas they smoke cigarettes least frequently. Concerning the valency of the experienced emotions, we found a higher frequency of negative experiences than positive emotions. Regarding preferences of management strategies, nurses predominantly use inclination strategies, namely: problem-solving, social support and cognitive restructuring, and least frequently employ divergence strategies: social isolation, self-blaming and avoidance of problems.

Table 1 Characteristics of selected components of psychological state, psychosomatic issues, frequency of experiencing emotions and coping strategies of nurses (n = 240)

Variable	mean	median	min.	max.	SD
psychological well-being	15.59	16	8	23	2.956
activity	14.39	14	6	23	3.422
abreaction	10.66	10	4	20	3.388
restlessness	11.33	11	5	21	3.069
depression	11.38	11	5	22	3.245
anxiety	11.73	12	4	24	3.328
dejection	10.84	10	4	17	2.641
headaches	2.76	3	1	6	1.214
stomach issues	2.47	2	0	6	1.267
loss of appetite	1.88	2	0	6	1.104
sweating	2.65	3	1	6	1.168
urge to use the toilet	2.63	2	1	6	1.192
physical fatigue	3.56	4	0	6	1.126
psychological fatigue	3.67	4	1	6	1.137
sleep disorders	2.29	2	1	6	1.375
sleepiness	3.12	3	0	6	1.181
coffee	3.35	4	0	6	1.544
cigarettes	1.57	1	0	6	1.376
slcohol	1.9	2	0	6	0.921
pharmaceuticals	1.83	2	0	6	1.055
problem-solving	29.17	30	8	45	7.557
cognitive restructuring	28.46	29	8	45	6.628
emotional expressions	22.74	23	8	42	6.784
social support	28.68	29	9	45	7.299
avoidance of problem	20.44	21	8	34	6.157
retreat into fantasy	25.18	25	9	41	6.685
self-blaming	17.65	15	8	48	8.745
social isolation	17.09	17	8	34	5.581
frequent of positive emotions	15.03	15	7	23	2.997
frequent of negative emotions	17.02	17	8	28	3.489

min. – minimum, max. – maximum, SD – standard deviation

Comparison of selected components of the current psychological state of nurses with the population standard

The average value of individual components of the current psychological state is 14, and the nurses exceeded this only in the psychological wellbeing and activity component. In other components, the respondents were below this average. In order to find a suitable system for comparing relationships between components, as criteria for evaluating psychological states, we chose to convert the gross score to a standardized form of relations between components in a proportional expression of the ratio scale, whose total = 1. Converting gross scores to

proportions allowed us to compare the proportions of our respondents with the average population proportions with regard to the relevant components (Figure 1).

In Figure 1 the differences between our respondents and the population standard are visible. The components of impulsiveness (abreaction), depression, and psychological restlessness mimic population standards. In the realm of psychological wellbeing and activity, healthcare professionals reported lower values. In contrast, they reported higher values for the experience of dejection and anxiety.

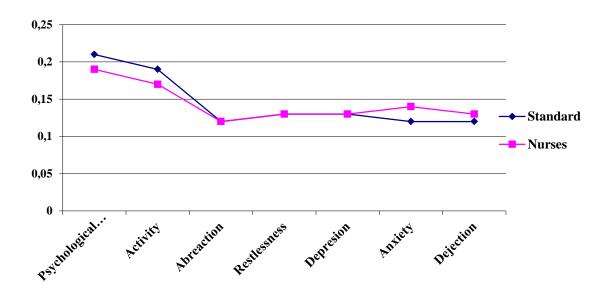


Figure 1 Comparison of selected components of nurses' psychological state and population standard

Analysis of the mutual relationships between current psychological state and coping strategies

The mutual relationships between the individual variables of the current psychological state and coping strategies are presented in Table 2.

Psychological wellbeing statistically significantly positively correlates with problem-solving strategies (r = 0.355; p = 0.008) and cognitive restructuring (r = 0.226; p = 0.048), and negatively correlates with emotional expression (r = -0.346; p = 0.004), social isolation (r = -0.290; p = 0.003), and retreat into fantasy (r = -0.159; p = 0.036). Activity significantly positively correlates with inclination problemoriented strategies (r = 0.258; p = 0.000) and cognitive restructuring (r = 0.1814; p = 0.005), and negatively correlates with retreat into fantasy (r = -0.134; p = 0.028). The spontaneous release of tension/impulsiveness has a statistically significant

negative correlation with cognitive restructuring strategies (r = -0.255; p = 0.016, and a positive correlation with emotional expression (r = 0.216; p = 0.045). Psychological restlessness (tension) significantly correlates with emotional expression strategies (r = 0.365; p = 0.006), and a relationship with strategies of problem avoidance (r = 0.113; p = 0.049) is also indicated. Depression is statistically significantly related mainly to self-blaming strategies (r = 0.350; p = 0.002), social isolation (r = 0.262;p = 0.012) and social support (r = 0.221; p = 0.001). Expectation of anxiety, as in the previous case, has a statistically significant weak positive correlation with emotional strategies – self-blaming (r = 0.159; p = 0.016), social isolation (r = 0.193; p = 0.003) and social support (r = 0.128; p = 0.048). Dejection has a significant weak positive link to strategies of problem avoidance (r = 0.188; p = 0.005), and

self-blaming (r = 0.224; p = 0.041). The frequency of experiencing positive emotions has a significant weak positive relationship to the following strategies: problem-solving (r = 0.257; p = 0.005), cognitive restructuring (r = 0.266; p = 0.006), and retreat into fantasy (r = 0.197; p = 0.045), and has a negative relationship to social isolation (r = -0.127; p = 0.049). The frequency of experiencing negative emotions is

significantly positively related to strategies focused on emotions: emotional expression (r=0.355; p=0.009), self-blaming (r=0.388; p=0.007) and social isolation (r=0.311; p=0.005), and is negatively related to strategies focused on problems: problem solving (r=-0.213; p=0.049) and cognitive restructuring (r=-0.269; p=0.012).

Table 2 Correlations between selected components of psychological state, frequency of experiencing emotions and coping strategies of nurses (n = 240)

	Psychological Well-being	Activity	Abreaction	Restlessness	Depresion	Anxiety	Dejection	Frequency positive emotions	Frequency negative emotions
PS	0.355**	0.258***	-0.120	-0.011	-0.003	0.043	-0.013	0.257**	-0.213*
CR	0.226*	0.181**	-0.255*	-0.056	-0.033	0.054	-0.060	0.266**	-0.269*
EE	-0.052	0.022	0.216*	0.365**	0.036	-0.048	-0.020	-0.054	0.355**
SS	-0.049	-0.019	-0.016	0.025	0.221**	0.159*	-0.023	-0.024	-0.007
AP	-0.346**	-0.098	0.018	0.113*	0.085	0.030	0.188**	-0.071	-0.095
EF	-0.159*	-0.134*	0.094	0.064	0.113	0.092	-0.059	0.197*	0.025
SB	-0.120	-0.069	0.093	0.040	0.350**	0.193**	0.224*	0.012	0.388**
SI	-0.290**	-0.110	0.078	0.104	0.262*	0.128*	0.101	-0.127*	0.311**

PS – problem solvin; CR – cognitive restructuring; EE – emotional expression; SS – social support; AP – avoidance of problem; EF – escape into fantasy; SE – self-blaming; SI – social isolatio; PS +0.00; PS +2 0.01; PS +2 0.001

Discussion

We understood psychological state as a dynamic category with typical fluctuations in the activation of psychological processes, which, along with changes in emotional experience, determines the internal and external activity of the subject. This dynamic change is an integral part of every situational change, as well as a mechanism for immediate response to the acting stimuli, which conditions the functional ability of the psyche to respond to the general characteristic of the stimulus before its entire complexity is detailed. This dynamic change is the basic premise of an individual's general readiness to address a situation, and, consequently, determines the experience and behavior of a person in terms of speed, intensity and coordination of individual activities. Through the process of restoring psychological balance in a stressful situation, we can characterize non-specific changes in the psyche of the individual – from the awareness of the emergence of the imbalanced state, through its solution, and to the termination of its effect.

In terms of psychological state based on descriptive analysis, we can state that nurses most often experience psychological wellbeing and activity, and least often impulsiveness. When compared to the population standard, it is clear that healthcare professionals reported a less frequent experience of states characterized by an optimistic, satisfied,

balanced or more active focus. On the other hand, regarding the asthenic experience of stress and uncertainty, health professionals were several percent above the standard. These findings can be attributed to the nature of the profession itself, in which they must cope with sadness, pain or loss, making it difficult to maintain an optimistic and energetic attitude. In the research by Gurková et al. (2013), Czech nurses experienced positive emotions to a greater extent than negative. However, our research indicated the opposite. In comparison with the research by Nábělková and Filiačová (2011), nurses attained lower values for positive emotions, although in comparison to the research conducted by Ráczová (2006), they achieved higher values for positive emotions and lower for negative emotions.

Regarding subjective difficulties, we most often encountered fatigue (both psychological and physical), sleepiness, and headaches and sweating. These problems may be related to the nature of the job and working shifts. Regarding substance use, the consumption of coffee was most commonly reported, in addition to alcohol, pharmaceuticals and cigarettes. With regard to choosing coping strategies to address stress in a professional context, the findings point to a tendency towards active coping (Schumacher, Wilz, Brähler, 1997; Brady et al., 1999), along with problem-oriented strategies (Lazarus, Folkman, 1984; Lazarus, 2006; Sheppard, Crocker, 2006). Folkman and Lazarus (1980), and Park, Cohen, Murch (1996),

among others, examining the situational context of choosing coping strategies, also stated that active problem-oriented management strategies dominate in managing workload, which, given the years of implemention of the research studies, can be considered a relatively stable fact.

In terms of using nursing strategies, in comparison with other research studies, we found that, similarly to Xianyu and Lambert (2006), Lambert et al. (2007), Lambert and Lambert (2008), Li and Lambert (2008), Lim, Bogossian and Ahern (2010), and Laal and Aliramaie (2010), nurses predominantly use effective or inclination strategies to manage stress. The most frequently occurring strategies were inclination strategies such as problem-solving, finding social support, and cognitive restructuring. This was also the case in the study by Lim, Bogossian and Ahernt (2010), with the exception of self-control strategies, which was not confirmed in our study.

Self-control was the most frequently occurring strategy for managing the stress of nurses, as reported by Lambert et al. (2007), who also identified positive reframing, planning and problem-solving, differing from the results of our research study. Planning as the most frequent coping strategy of nurses was also recorded in the Li and Lambert (2008) study, a further contrast to our results. Xianyu and Lambert (2006) found, as did we, that nurses use problemsolving as one of their main inclination strategies. Contrary to our findings, however, planning and selfcontrol were also reported as the most frequent coping strategies. Different findings were found in the study by Makie (2006), in which the authors detected the most frequent effective coping strategies of nurses to be positive reframing, planning, and active coping. The search for social support in the case of coping strategies was a finding which conforms with our results. Mohamed (2016) also attained a similar result to Makie (2006). A comprehensive finding in the use of coping strategies compared to the results of other studies is the relatively frequent use of an effective social support strategy.

Our findings further indicate that nurses make less frequent use of avoidance of problems, self-blaming, and social isolation (i.e., divergence strategies). In the category of the most common causes of workload, it is logical that healthcare professionals choose active solutions to problems during work, as they cannot avoid the fulfillment of their work duties. Compared to the research by Millová, Blatný, Kohoutek (2008), the nurses comprising our research subjects use cognitive restructuring, social support, retreat into fantasy and self-blaming significantly less frequently.

On the other hand, they use social isolation to a greater degree.

Millová, Blatný and Kohoutek (2008), and Slížik and Blahutková (2016) draw attention to the role of personality styles, whereby those characterized by high positive emotionality correlate with inclination strategies and those for whom negative emotions are characteristic correlate mainly with divergence management strategies. This is also corroborated by our findings, according to which healthcare professionals who use emotionally-oriented strategies (emotional expression, self-blame, and social isolation), more often experience fear, shame, guilt, and hopelessness, and that these manifest themselves externally. Such experiences, and their external manifestation, are likely to require considerable energy, and it is therefore not surprising that these individuals are characterized by a slower pace and a tendency toward passivity. The specific case of the relationship between retreating into fantasy and the experience of positive emotions can be explained by the fact that individuals do not want (are not able) to adapt to or solve a problem, but instead retreat into a world of fantasy in which the stressor does not leading to positive emotions psychohygienic effect of the imagination.

Limitation of study

The limits of the research include the number of research subjects, and the use of a specific tool for detecting the subjective experience of nurses. After expanding the number of research subjects, we plan to subject the data to regression analysis.

Conclusion

Analysis of the current psychological state of a subject and specific typical changes in situational is undeniably a significant factor in understanding how the basic temperament of an individual influences perception, assessing stressful situations and selecting strategies to deal with them. A person is capable of situationally managing stress. In cases of long-term, excessive, and subjectively unmanageable stress, the body may become exhausted, leading to negative consequences at a psychological and physical level. Psychosocial stress can be a significant source of health risk in working conditions. Our findings clearly indicate that nurses experience more frequent and intense negative emotions such as fear, guilt, shame, etc., associated with the occurrence of various psychosomatic disorders headaches, gastrointestinal (fatigue, disorders, etc.). From this stems the requirement for advance preparation in future nurses for the complexity and difficulty of performing this

profession, not only on a cognitive, but also on an emotional plane. Preparedness should include training, the development of adequate stress management strategies, and relaxation techniques, which could be a way of preventing the burn-out syndrome threatening those in this profession. The necessity of creating a positive and productive working environment e.g. the introduction of supportive supervision by nurses, seems to be a key factor in relation to our research findings, since effective strategies for managing and maintaining supportive social relationships can be preventive in relation to feelings of excessive psychological stress, with an associated decline in physical and psychological work performance in nurses.

Ethical aspects and conflict of interest

The respondents were aware of the purpose, and the processing and use of data. The informed consent of the director of the healthcare facility was obtained. All participants were informed of their right to withdraw from participation in the study at any time, while their anonymity and privacy were maintained. The author declares that there is no potential conflict of interest.

References

Blahovec P. Spoločenské postavenie zdravotníkov v centre pozornosti. *Technológia vzdelávania*. 2002;10(2):9–14. (in Slovak)

Bočáková O, Rolníková B. Efekt vyhorenia a stres v učiteľskej a zdravotníckej profesii. In: Šramka M, Bérešová A, editors. *Komplexná starostlivosť o človeka v hraničných situáciách*. Prešov: Fakulta zdravotníctva a sociálnej práce bl. P. P. Gojdiča v Prešove; 2005. p. 28–35. (in Slovak)

Brady MJ, Peterman AH, Fitchett G, Mo M, Cella D. A case for including spirituality in quality of life measurement in oncology. *Psychooncology*. 1999;8(5):417–428.

Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*. 1989;56(2):267–283.

Chang EM, Hancock KM, Johnson A, Daly J, Jackson D. Role stress in nurses: review of related factors and strategies for moving forward. *Nursing and Health Sciences*. 2005;7(1):57–65.

Džuka J, Dalbert C. Vývoj a overenie validity škál emocionálnej habituálnej subjektívnej pohody (SHEP). Československá psychologie. 2002;46(3):234–250. (in Slovak)

Folkman S, Lazarus RS. An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*. 1980;21(3):219–239.

Gurková E, Macejková S. Psychická záťaž a depresívna symptomatológia u sestier. *Ošetřovatelství a porodní asistence*. 2012;3(1):326–334. (in Slovak)

Gurková E, Žiaková K, Sováriová Soósová M, Haroková S, Šerfelová R, Mrosková S. Subjektívna pohoda českých a slovenských sestier a ich úvahy o odchode. *Ošetřovatelství a porodní asistence*. 2013;4(4):664–669. (in Slovak)

Kebza V, Šolcová I. Well-being jako psychologický a zároveň mezioborově založený pojem. *Československá psychologie*. 2003;47(4):333–345. (in Czech)

Laal M, Aliramaie N. Nursing and coping with stress. *International Journal of Collaborative Research on Internal Medicine and Public Health*. 2010;2(5):168–181.

Lambert VA, Lambert CE, Petrini M, Li XM, Zhang YJ. Predictors of physical and mental health in hospital nurses within the People's Republic of China. *International Nursing Review*. 2007;54(1):85–91.

Lambert VA, Lambert CE. Nurses' workplace stressors and coping strategies. *Indian Journal of Palliative Care*. 2008;14(1):38–44.

Laranjeira CA. The effects of perceived stress and ways of coping in a sample of Portuguese health workers. *Journal* of *Clinical Nursing*. 2012;21(11-12):1755–1762.

Lauková P, Tóth S, Jurišová S. Zmeny v zdravotnom stave a v životnom štýle učitelov. *Verejné zdravotníctvo*. 2010;7(1):1–7. (in Slovak)

Lazarus RS, Folkman S. *Stress, appraisal, and coping*. New York: Springer; 1984.

Lazarus RS. *Stress and emotion: a new synthesis*. New York: Springer Publishing Company; 2006.

Lim J, Bogossian F, Ahern K. Stress and coping in Australian nurses: a systematic review. *International Nursing Review*. 2010;57(1):22–31.

Li J, Lambert VA. Workplace stressors, coping, demographics and job satisfaction in Chinese intensive care nurses. *Nursing in Critical Care*. 2008;13(1):12–24.

Makie VV. Stress and coping strategies amongst registered nurses working in South African tertiary hospital. Western Cape: Faculdade de Ciências da Saúde - Universidade de Western Cape; 2006. [cited 2018 Feb 21]. Available from: http://etd.uwc.ac.za/xmlui/bitstream/handle/11394/1983/Maki e_MCUR_2006.pdf?sequence=1

Mikšík O. *Dotazník SUPSO*. Bratislava: Psychodiagnostika; 2004. (in Slovak)

Millová K, Blatný M, Kohoutek T. Osobnostné aspekty zvládania záťaže. *E-psychologie*. 2008;2(1):1–8. (in Slovak) Mohamed FR. Relationship among nurses role overload, burnout and managerial coping strategies at intensive care units. *International Journal of Nursing and Clinical Practice*. 2016;3(180):1–6.

Nábělková E, Filiačová M. Perfekcionizmus vo vzťahu k subjektívnej pohode. In: Fedáková D, Kentoš M, editors. *Sociálne procesy a osobnosť 2010.* Košice: Spoločenskovedný ústav SAV; 2011. p. 256–264. (in Slovak) Park CL, Cohen LH, Murch RL. Assessment and prediction of stress-related growth. *Journal of Personality*. 1996;64(1):71–105.

Ráczová B. Prežívanie osamelosti a miera subjektívnej pohody u vysokoškolákov/čok. *Psychologické dny 2006:* "*Prožívaní sebe a měnícího sa světa"*. Praha: KP FFUK; 2006. (in Slovak)

Ramezanli S, Koshkaki AR, Talebizadeh M, Jahromi ZB, Jahromi MK. A study of the coping strategies used by nurses working in the intensive care units of hospitals affiliated to Jahrom University of Medical Sciences. *International Journal of Current Microbiology and Applied Sciences*. 2015;4(4):157–163.

Schreuder JA, Roelen CA, Groothoff JW, van der Klink JJ, Magerøy N, Pallesen S, Bjorvatn B, Moen BE. Coping styles relate to health and work environment of Norwegian and Dutch hospital nurses: a comparative study. *Nursing Outlook*. 2012;60(1):37–43.

Schumacher J, Wilz G, Brähler E. Influence of dispositional coping strategies on physical complaints and life satisfaction in the elderly. *Zeitschrift fur Gerontologie und Geriatrie*. 1997;30(5):338-347. (in German)

Sheppard M, Crocker G. Locus of control, coping and proto prevention in child and family care. *British Journal of Social Work.* 2006;38(2):308–321.

Shimizutani M, Odagiri Y, Ohya Y, Shimomitsu M, Kristensen TS, Maruta T, Imori M. Relationship of nurse burnout in personality characteristics and coping behavior. *Industrial Health.* 2008;46(4):326–335.

Slížik M, Blahutková M. Štruktúra osobnosti z hľadiska temperamentu a emocionálna odolnosť slovenských pretekárov v športovom karate. *Studia Kinanthropologica*. 2016;17(3):443–450. (in Slovak)

Sováriová Soósová M, Varadyová A. Stres v práci sestry v anestéziologickej a intenzívnej starostlivosti. *Ošetřovatelství a porodní asistence*. 2012;3(1):340–347. (in Slovak)

Stevenson B, Wolfers J. Subjective well-being and income: is there any evidence of satiation? *American Economic Review: Papers & Proceedings*. 2013;103(3):598–604.

Sun S, Chen J, Johannesson M, Kind P, Burström K. Subjective well-being and its association with subjective health status, age, sex, region, and socio-economic characteristics in a Chinese population study. *Journal of Happiness Studies*. 2016;17(2):833–873.

Tobin DL, Holroyd KA, Reynolds RV, Wigal JK. The hierarchical factor structure of the Coping Strategies Inventory. *Cognitive Therapy and Research*. 1989;13(4):343–361.

Tobin DL. *Users manual for the Coping Strategies Inventory*. Ohio: Ohio University, Department of Psychology; 2001. [cited 2017 Mar 18]. Available from: http://www.peersupport.edu.au/wp-

content/uploads/2014/08/Coping-Strategy-Indicator-Guide.pdf

Vodáčková D et al. *Krizová intervence. Krize v životě člověka. Formy krizové pomoci a služeb.* Praha: Portál; 2002. (in Czech)

Xianyu Y, Lambert VA. Investigation of the relationships among workplace stressors, ways of coping, and the mental health of Chinese head nurses. *Nursing and Health Sciences*. 2006;8(3):147–155.