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## Coping strategies as predictors of professional burnout in Polish nurses

### Abstract

**Introduction.** Professional burnout, as a defensive, psycho-physical reaction to chronic occupational stress resulting from the imbalance between the demands of the environment and resources of an individual, is the phenomenon which considerably affects the nursing profession. Coping strategies reflect typical ways of reacting to stressful events. The following dissertation is an attempt to provide information on which coping strategies predispose nurses to burnout.

**Aim.** The aim of the study is determination of coping strategies that are predictors of professional burnout in Polish nurses.

**Material and methods.** The research group comprised 29 nurses employed in hospitals located in Eastern Poland. The authors' own socio-demographic questionnaire and standardised psychometric tools were utilised in the course of the research. Brief COPE by S.CH. Carver, adapted into Polish by Z. Juczyński and N. Ogińska-Bulik was applied to determine coping strategies. Link Burnout Questionnaire by M. Santinello, adapted into Polish by A. Jaworowska, was used to measure burnout.

**Results.** Psychophysical exhaustion is to a great extent connected with such coping strategies as self-blame and planning. Relationship deterioration affects individuals who tend to react to a stressful event by venting emotions. The greater the tendency to self-blame and venting when faced with a stress-related situation, the greater the risk of experiencing the sense of professional ineffectiveness. Disillusion with work is conditioned by denial whereas self-distraction protects from disillusion.

**Conclusions.** Polish nurses present a moderate and high level of burnout. Some coping strategies (self-blame, venting, self-distraction, planning and denial) are predictors of professional burnout in nurses. It can be assumed that interventions aimed at training certain coping strategies based on the research results may enhance resistance to burnout in nursing professionals.

**Keywords:** coping, burnout, nurses.

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### INTRODUCTION

Professional burnout, as a defensive, psycho-physical reaction to chronic occupational stress resulting from the imbalance between the demands of the environment and resources of an individual, is the phenomenon which considerably affects the nursing profession [1]. According to Ch. Maslach, the author of the most renowned definition of the phenomenon, burnout is the syndrome that involves emotional exhaustion, depersonalization and the sense of reduced personal achievement, which can occur in individuals working with people in a certain way [2]. Furthermore, A. Pines emphasizes that a specific quality of burnout that differentiates it from other phenomena – such as occupational stress, fatigue, alienation, depression and existential crisis – is the fact that burnout is always the final outcome of gradual loss of illusions (disillusion) on the possibility to find the meaning of life in professional work [3]. Psychophysical exhaustion is the key manifestation of the syndrome. It is often accompanied by relationship deterioration reflected by detached attitude and excessive indifference or even cynicism or hostility to patients. Sense of professional ineffectiveness involves a difficulty experiencing

satisfaction with work outcomes. Burnout is also manifested by disillusion with work, loss of enthusiasm resulting from the discrepancy between the expectations and the professional reality [1].

Confronting with chronic stress is considerably connected with the notion of coping understood as constantly changing, cognitive and behavioural efforts aimed at managing certain external and internal demands, assessed by an individual as burdensome or exceeding their resources [4]. Coping strategies reflect ways of reacting to stress in order to alter the situation evoking stress or overcome the exasperating emotional state [5].

Plentiful research on nurses show that the nursing profession is especially susceptible to burnout. This results from the specificity of the profession in which emotional commitment and empathy are the rudiments of cooperation with the patient. Moreover, factors such as lack of satisfaction with work, low salary which does not compensate for the effort, or excessive tasks of great responsibility contribute to professional burnout in nurses [6].

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## AIM

The aim of the study is determination of coping strategies that are predictors of professional burnout in Polish nurses.

## MATERIAL AND METHODS

The study was performed in a group of 29 nurses (24 females and 5 males) aged from 25 to 57 years old, mean age 41 years old ( $M=40.90$ ;  $SD=9.29$ ), employed in hospitals located in Eastern Poland. Professional experience of the individuals researched ranged from 1 to 29 years ( $M=16.7$ ;  $SD=10.55$ ). Detailed characteristics of the group researched is depicted in Table 1.

**TABLE 1. Characteristics of the group researched.**

Variables	N	%	
Gender	Female	24	82.8
	Male	5	17.2
Place of residence	Urban areas	25	86.2
	Rural areas	4	13.8
Education	Medical Vocational School	4	13.8
	Bachelor's degree	7	24.1
	Master's degree	11	37.9
	Medical High School	6	20.7
	PhD	1	3.4
Marital status	Single	11	37.9
	Married	18	62.1
Number of children	0	8	27.6
	1	8	27.6
	2	11	37.9
	3	2	6.9
Residence with family	Yes	24	82.8
	No	5	17.2
Relationship with the family	Good	26	89.7
	Bad	3	10.3
Socioeconomic conditions	Very good	6	20.7
	Good	23	79.3

Participation in the research was anonymous and all respondents signed informed consent to take part in the study. The research project was approved by the Bioethical Commission of the Medical University of Lublin.

The authors' own socio-demographic questionnaire and standardised psychometric tools were utilised in the course of the research. Brief COPE by Ch.S. Carver, adapted into Polish by Z. Juczyński and N. Ogińska-Bulik was used to determine coping strategies that nurses tend to apply when faced with a stressful situation. The scale comprises 28 items that constitute 14 coping strategies (self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioural disengagement, venting, positive reframing, planning, humour, acceptance, religion, and self-blame) [7]. The strategies that turned out to be significant in the research include: venting, self-distraction, self-blame, planning and denial. Venting involves expressing negative emotions in a forceful way. Coping strategy of self-distraction is manifested by undertaking actions in order to draw an individual's

attention away from a stressful situation. Self-blame, in turn, is characterised by the belief that an individual is responsible for the stress-related situation. The strategy of planning is concerned with developing potential solutions to a problem and denial is reflected by refusal to accept the negative thoughts, feelings and consequences of stress.

Burnout was measured by means of the Link Burnout Questionnaire (the LBQ) developed by M. Santinello and adapted into Polish by A. Jaworowska. The instrument is composed of 24 items that determine burnout in four dimensions: psychophysical exhaustion, relationship deterioration, sense of professional ineffectiveness as well as disillusion. Psychophysical exhaustion is the key symptom of burnout. Relationship deterioration is concerned with an excessive distance to patients that in extreme cases can turn into cynicism or even hostility. The sense of professional ineffectiveness is the belief that the results an individual achieves at work are unsatisfactory and provide no professional development. The last dimension of the scale, disillusion, is concerned with loss of enthusiasm and disappointment with work resulting from the discrepancy between the expectations and reality at work.

Quantitative variables were characterised on the basis of the mean, standard deviation, minimum and maximum. Nominal variables were described by means of numerosity and percentage. Coexistence of burnout dimensions and coping strategies were measured with Spearman's rank order correlation. Regression analysis was utilised to indicate predictors of burnout. Statistical calculations were made with the IBM SPSS21 software.

## RESULTS

The vast majority of the individuals researched presented a moderate level of burnout in the dimension psychophysical exhaustion ( $n=22$ ; 75.9%) and disillusion ( $n=26$ ; 89.7%) as well as a high level of burnout in the dimension of relationship deterioration ( $n=21$ ; 72.4%) and the sense of professional ineffectiveness ( $n=25$ ; 86.2%). None of them showed a low level of burnout in any of its dimensions – Table 2.

**TABLE 2. Level of burnout in nurses based on the LBQ results.**

the LBQ subscales	Level	N	%
Psychophysical exhaustion	Moderate result	22	75.9
	High result	7	24.1
Relationship deterioration	Moderate result	8	27.6
	High result	21	72.4
Sense of professional ineffectiveness	Moderate result	4	13.8
	High result	25	86.2
Disillusion	Moderate result	26	89.7
	High result	3	10.3

Statistical analysis indicated coexistence of some dimensions of professional burnout. The sense of professional ineffectiveness is positively correlated with psychophysical exhaustion ( $r=0.51$ ,  $p<0.01$ ) and disillusion ( $r=0.56$ ,  $p<0.01$ ). Statistically significant correlations between dimensions of burnout and coping strategies were also found. There is a positive correlation between psychophysical exhaustion and self-blame ( $r=0.42$ ,  $p<0.05$ ) and between relationship deterioration and venting ( $r=0.47$ ,  $p<0.01$ ) and avoidance strategies ( $r=0.40$ ,  $p<0.05$ ).

A positive relation between the sense of professional ineffectiveness and venting ( $r=0.44$ ,  $p<0.05$ ) and self-blame ( $r=0.49$ ,  $p<0.01$ ) was revealed. A negative relation between the sense of professional ineffectiveness and self-distraction was also discovered ( $r=-0.40$ ,  $p<0.05$ ). Disillusion, in turn, is negatively correlated with self-distraction ( $r=-0.46$ ,  $p<0.05$ ) – Table 3.

**TABLE 3. Correlations between dimensions of burnout and coping strategies in nurses.**

	Psychophysical exhaustion	Relationship deterioration	Sense of professional ineffectiveness	Disillusion
Psychophysical exhaustion				
Relationship deterioration	0.18			
The sense of professional ineffectiveness	0.51**	0.12		
Disillusion	0.27	-0.01	0.56**	
Active coping	0.01	-0.14	-0.15	0.15
Planning	0.30	0.05	0.08	0.11
Positive reframing	0.06	-0.01	0.03	0.20
Acceptance	0.05	0.23	-0.02	0.10
Humour	-0.10	-0.05	-0.04	-0.36
Religion	0.14	0.02	0.27	0.17
Use of emotional support	0.18	-0.01	-0.03	0.03
Use of instrumental support	0.20	-0.03	0.13	0.18
Self-distraction	-0.17	0.19	-0.40*	-0.46*
Denial	-0.08	0.19	0.07	0.13
Venting	0.21	0.47**	0.44*	0.29
Substance use	-0.01	0.12	-0.01	-0.03
Behavioural disengagement	0.04	0.17	0.18	0.20
Self-blame	0.42*	0.30	0.49**	0.19
Problem-focused strategies	0.17	-0.06	0.02	0.17
Emotion-focused strategies	0.02	0.03	-0.01	0.01
Avoidance strategies	0.14	0.40*	0.29	0.15

\* $p<0.05$ , \*\* $p<0.01$

Regression analysis was applied to explain variance of burnout dimensions. Regression model for the dependent variable – psychophysical exhaustion contains two independent variables, namely self-blame and planning. The model explains 26.5% of the dependent variable, is statistically significant and proves that both coping strategies, self-blame and planning, contribute to psychophysical exhaustion – Table 4.

**TABLE 4. Regression analysis for the variable psychophysical exhaustion (corrected  $R^2=26.5\%$ ).**

Model	Unstandardised coefficients		Standardised coefficients	t	p
	B	Sd	Beta		
(Permanent)	10.77	4.01		2.68	0.01
Self-blame	1.35	0.47	0.47	2.84	0.00
Planning	1.96	0.77	0.41	2.51	0.01

Regression model for relationship deterioration includes one explanatory variable, venting. The model is statistically significant and explains 16.9% of the dependent variable. It indicates that the use of venting as a coping strategy leads to relationship deterioration – Table 5.

**TABLE 5. Regression analysis for the variable relationship deterioration (corrected  $R^2=16.9\%$ ).**

Model	Unstandardised coefficients		Standardised coefficients	t	p
	B	Sd	Beta		
(Permanent)	21.58	1.20		17.97	0.00
Venting	1.02	0.39	0.44	2.59	0.01

Regression model for variable the sense of professional ineffectiveness indicates two independent variables such as self-blame and venting. The model explains 29.0% of the dependent variable and is statistically significant. It confirms that coping strategies, that involve self-blame and venting, are related to the sense of professional ineffectiveness – Table 6.

**TABLE 6. Regression analysis for the variable sense of professional ineffectiveness (corrected  $R^2=29.0\%$ ).**

Model	Unstandardised coefficients		Standardised coefficients	t	p
	B	Sd	Beta		
(Permanent)	16.38	1.96		8.35	0.00
Self-blame	1.39	0.53	0.41	2.60	0.01
Venting	1.11	0.51	0.35	2.17	0.03

Regression model for variable disillusion presents two explanatory variables: self-distraction and denial. The model explains 27.4% of the dependent variable and proves to be statistically significant. It is indicative of denial being positively and self-distraction negatively related to disillusion. The results are presented in Table 7.

**TABLE 7. Regression analysis for the variable disillusion (corrected  $R^2=27.4\%$ ).**

Model	Unstandardised coefficients		Standardised coefficients	t	p
	B	Sd	Beta		
(Permanent)	22.57	1.63		13.80	0.00
Self-distraction	-1.63	0.48	-0.57	-3.38	0.00

## DISCUSSION

Plentiful research confirms that the risk of burnout is higher in individuals who tend to remain passive and apply maladaptive coping strategies when confronted with a stressful situation compared with the ones who present an active and rational attitude to a stress-related situation. Meta-analysis of 36 research results concerned with the relationship between burnout and coping strategies conducted by Chinese researchers proved that the stronger the tendency to concentrate on emotions when faced with stress, the higher the level of emotional exhaustion, depersonalization and lack of personal accomplishment. The stronger the tendency to focus on a problem in a stressful situation, the lower the results in all three dimensions of burnout. However, a strong tendency to seek support

in stress-related situations results in a low level of depersonalization and the lack of personal achievements [8].

Polish normalization of the Link Burnout Questionnaire showed that individuals who focus on themselves and their emotions in stress evoking situations are more susceptible to burnout particularly manifested by psychophysical exhaustion and disillusion. However, individuals who show the tendency to cope with stress actively present lower levels of burnout. Self-distraction turned out to be a maladaptive coping strategy (a positive correlation with disillusion), whereas seeking company of other people contributed to lower levels of disillusion with work [9]. Similar results were obtained by A. Piotrowski in the research on burnout in prison officers [10]. Research conducted in a group of 275 medical professionals providing home-based palliative care indicated that emotional exhaustion and depersonalization are related to avoidance coping strategies while positive attitude and problem-focused strategies are negatively correlated with emotional exhaustion but positively correlated with the sense of personal achievement [11]. Similarly, according to the research performed among Nigerian nurses, a relationship between strong and moderate tendency to apply emotion-focused coping strategies and a high level of reduced personal accomplishment was found [12]. Consistent results which confirm that emotion-focused coping strategies contribute to professional burnout were obtained in the research conducted among 314 staff nurses in Taiwan, 2 404 medical professionals in Ecuador as well as Portuguese oncology personnel [13-15].

The authors' own research results are, to a great extent, consistent with the ones obtained by other researchers. Nevertheless, it is worth highlighting that planning, which belongs to the group of problem-focused strategies and generally guarantees lower levels of burnout, turned out to contribute to psychophysical exhaustion in our research. Although self-distraction was positively correlated with disillusion in the aforementioned researched, a negative correlation between this coping strategy and disillusion was discovered in the study.

## CONCLUSIONS

The issue of burnout in nurses is of great importance as it affects this professional group to a moderate and great extent. A high level of psychophysical exhaustion and disappointment with work intensifies the sense of professional ineffectiveness. The more frequently the nurses react to occupational stress by blaming themselves for the situation or by expressing negative emotions, the stronger their psychophysical exhaustion and relationship deterioration becomes. Moreover, these coping strategies intensify the sense of dissatisfaction with work. Nevertheless, directing attention away from the stress-related situations and engaging in other tasks and thoughts results in decreased disappointment with work or the sense of being ineffective at work.

Nurses, who tend to blame themselves for the situation evoking stress and engage in developing possible solutions to the problem are at the greatest risk of psychophysical exhaustion. The more frequently they express negative emotions, the more detached from the patients they become. If they feel responsible for the stressful situation and direct these negative feeling to patients, they become convinced that their work performance is poor. However, tendency to reject the negative facts concerning their work contributes to the intensification of

disappointment with work. Undertaking additional tasks apart from work and separating private life from professional one proves to protect from disillusion with work.

Coping strategies are a modifiable factor which can be shaped and taught. Therefore, an individual can gradually learn to apply such strategies that guarantee well-being. Interventions aimed at enhancing certain coping strategies might contribute to a decrease in the levels of burnout in nurses.

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