

ANALYSIS OF FACTORS THAT INFLUENCE THE PREVALENCE OF PROFESSIONAL BURNOUT AMONG ONCOLOGY NURSES

ANALIZA CZYNNIKÓW MAJĄCYCH WPŁYW NA WYSTĘPOWANIE WYPALENIA ZAWODOWEGO U PIEŁĘGNIAREK ONKOLOGICZNYCH

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ABSTRACT

Aim. The purpose of the paper was to show the scale of professional burnout among nurses working on oncology wards.

Material and Methods. The research was conducted on a group of 100 nurses employed to work on the oncology wards of two hospitals in the Province of Lesser Poland. The research involved the use of the Maslach Burnout Inventory (MBI) and an authorial questionnaire.

Results. As many as 62% of diagnosed nurses were suffering from acute emotional exhaustion (EEX). 30% of respondents were found to have the highest level of depersonalization (DEP), while more than half (64%) of the nurses were experiencing a high sense of no personal accomplishment (PAR). The increase in the educational level related to the lower burnout coefficient on all MBI subscales ($p < 0.05$). More frequent participation in different forms of postgraduate learning significantly lowered the burnout coefficient on the 'Emotional exhaustion' and 'Sense of no personal accomplishment' subscales - EEX and DEP ($p < 0.05$) – the higher the satisfaction, the lower the burnout coefficient. The results on MBI subscales were not dependent on financial satisfaction ($p > 0.05$).

Conclusions. The higher educational level and frequency of participation in postgraduate learning significantly lowers professional burnout.

KEYWORDS: professional burnout, nurses, oncology ward, MBI.

STRESZCZENIE

Cel. Celem pracy było ukazanie skali wypalenia zawodowego wśród pielęgniarek pracujących na oddziałach onkologicznych.

Materiał i metody. Badania przeprowadzono w grupie 100 pielęgniarek zatrudnionych na oddziałach onkologicznych dwóch małopolskich szpitali. Posłużono się Kwestionariuszem Wypalenia Zawodowego Ch. Maslach (ang. Maslach Burnout Inventory, MBI) oraz autorskim kwestionariuszem ankiety.

Wyniki. Wyczerpanie emocjonalne (EEX) na wysokim poziomie stwierdzono u 62% badanych pielęgniarek. U 30% respondentek odnotowano najwyższy poziom depersonalizacji (DEP), a ponad połowa (64%) pielęgniarek odczuwała wysoki wskaźnik utraty osiągnięć osobistych (PAR). Wzrost poziomu wykształcenia wiązał się z niższym wskaźnikiem wypalenia we wszystkich podskalach MBI ($p < 0,05$). Częstsze uczestnictwo w różnych formach kształcenia podyplomowego istotnie obniżało wskaźnik wypalenia w podskalach „wyczerpanie emocjonalne” oraz „poczucie utraty osiągnięć osobistych” ($p < 0,05$). Wyniki podskal MBI nie zależały od satysfakcji z zarobków ($p > 0,05$).

Wnioski. Wyższy poziom wykształcenia oraz częstsze uczestnictwo w kształceniu podyplomowym istotnie wpływa na obniżenie wypalenia zawodowego.

SŁOWA KLUCZOWE: wypalenie zawodowe, pielęgniarki, oddział onkologiczny, MBI.

Introduction

Professional burnout concerns people who work in groups in the so-called helping professions, with a nurse being one of these professions. Everyday emotionally-loaded contact with a person, their family, specific work environment, lack of satisfaction from work, or salary, to a tremendous extent contributes to the occurrence of the professional burnout phenomena [1]. According to Ch. Maslach, the leading authority in the studies on

professional burnout, the above syndrome comprises three components [2–4]:

- 1) Emotional exhaustion on a professional level concerns the feeling of tiredness and fatigue without the prospect of recuperation. Often, a person lacks energy to begin the day and interact with people who need help.
- 2) Depersonalization manifests itself as a negative, cynical or extensive distancing in relations

with other people. Interpersonal relations lose their previous subjective dimension, and become impersonal and depersonalized. Depersonalization is a secondary result of emotional exhaustion. It is somehow a form of self-defence, protecting a person against contact with another person.

- 3) Lowered sense of personal accomplishment means a loss of the sense of one's own competence and a loss of working capacity. Persons who suffer from a lowered sense of personal effectiveness and practical effectiveness are also characterized by higher levels of depression and greatly increased difficulties in coping with the stress and requirements of the job.

Symptoms of professional burnout can be divided into four groups: physical symptoms, emotional symptoms, family symptoms, and social symptoms, as well as symptoms related to work, which intensify gradually according to working time. The consequence of the symptoms related to work are, among others: mental and physical exhaustion, the loss of working enthusiasm, withdrawal from professional problems, and also a lack of satisfaction from the work done [5, 6].

Care for oncology patients requires meeting specific prerequisites. Caretakers are expected to have not only high qualifications, but first of all empathy, understanding and the ability to give support [7]. It is the primary responsibility of a nurse to conduct interpersonal contacts with people. The contact with a patient can often involve experiencing strong emotions: frustration, aggression or fear, and that is why therapeutic interpersonal skills and the ability to cope with strong and unpleasant emotions are so important. It is the nurse who accompanies the patient during difficult moments of the treatment, and watches over him/her when in fear of, e.g. radiotherapy or chemotherapy. Another difficulty at work is the constant stress to which ill people are subjected, and which also affects the caring personnel [8].

According to Piness, an enormous influence on the occurrence of the professional burnout problem also comes from the working environment, filled with negative characteristics, bureaucracy, lack of interpersonal communication, and lack of necessary autonomy and equipment, which significantly deepens the problem. Conversely, a supportive environment is an environment which enables people with a high level of motivation to pursue their personal development [9].

The purpose of the present work was to determine the prevalence and severity of professional burnout among nurses working on oncology wards, as well as determining the factors which contribute to the above mentioned phenomena.

Material and Methods

The research was conducted on a group of 100 nurses employed to work on oncology wards – hematology wards, radiotherapy wards, oncology surgery wards and clinical oncology wards of two hospitals in the Province of Lesser Poland. The research involved the use of the Maslach Burnout Inventory (MBI) and an authorial questionnaire. The research was conducted between November 2015 and January 2016.

The MBI questionnaire consists of 22 questions, divided into three sections, allowing for the examination of the burnout in each of three dimensions, being [2]:

- Emotional exhaustion (EEx),
- Depersonalization (DEP),
- Sense of no personal accomplishment (PA).

The results are calculated separately for each of the subscales. In the EE and DEP subscales, the higher the results, the more intense the sense of no personal accomplishment [2].

The authorial questionnaire is comprised of 8 questions regarding: age, education, specialization, years of experience, postgraduate education, financial satisfaction, performed work, and the ability to cope with mental stress.

For the results described, we used basic descriptive statistics and a Spearman's rank correlation coefficient. The correlations were considered significant at $p < 0.05$.

Results

The average seniority in the profession amounted to 18.91 years (SD = 10,85) and fluctuated between 1 and 37 years. The biggest group comprised nurses aged 41–45 (26%), with secondary school education (46%) and without a specialization in any of the nursing fields (71%) (Table 1).

Table 1. Characteristics of the Group Under Research

Variable	%
Age Group	
25–30	17%
31–35	4%
36–40	12%
41–45	22%
46–50	26%
51–55	15%
56–60	4%
Education	
Secondary/Medical Secondary School	46%
Higher/Bachelor's Degree	40%
Higher/Master's Degree	14%
Specialty	
Yes	29%
No	71%

Source: author's own research

The results indicate that the nurses under the examination frequently participated in postgraduate forms of further studying – 33% participated more than once a year, an equal percent did that less than once a year, and only 2% studied less than once every 5 years.

It has been revealed that the nurses under the examination were content with their jobs, though they did not feel satisfied with their income. Only 1% expressed such satisfaction, 69% of the respondents were not pleased with their salaries, while 30% were only partially satisfied. The biggest percent of nurses, namely 47%, were satisfied, 39% were not fully satisfied with the job, and 14% felt no satisfaction at all.

As many as 62% of the nurses under the survey were diagnosed with acute emotional exhaustion (EEX). 30% of the respondents showed the highest level of depersonalization (DEP), and more than half (64%) of the nurses were characterized by a high level of the sense of no personal accomplishment (PAR) (**Figure 1**).

Then the analysis focused on the influence of such factors as: age, seniority, level of education, participation in postgraduate training, work satisfaction and financial satisfaction on professional burnout among the group in question.

A statistically significant relation between the respondents' age and the level of depersonalization ($r = 0.21$, $p = 0.036$) was observed. This relation is positive; which means that the older the age, the higher the result on that subscale, and so the professional burnout factor. The other correlation coefficients were not significant ($p > 0.05$), hence age had no influence on the results in the remaining subscales.

The increase of the educational level corresponded to the lower burnout scores on all MBI subscales ($p < 0.05$). Correlations with EEX and DEP are negative, i.e. the

higher the education, the lower the results on those subscales, hence the lower level of professional burnout. The correlation with PAR is positive, i.e. the higher the education, the higher the result on that subscale, which also means the lower level of burnout (**Table 2**).

Table 2. Education in Correlation to Each of the MBI Subscales

MBI Sub-scale	Education	n	X	SD	Me.	Min.	Max.	Q1	Q3	p *
EEX	Secondary/Medical Secondary School	46	36,5	11,63	38	10	54	27,75	45	$r = -0,37$ $p < 0,001$
	Higher/Bachelor's Degree	40	26,98	11,97	26	0	50	20	37	
	Higher/Master's Degree	14	26,21	11,29	24,5	12	48	16,25	35,75	
DEP	Secondary/Medical Secondary School	46	11,54	5,53	11	1	25	9	14,75	$r = -0,285$ $p = 0,004$
	Higher/Bachelor's Degree	40	6,55	5,22	5	0	19	3	9,25	
	Higher/Master's Degree	14	9,86	5,76	8,5	3	22	6	13	
PAR	Secondary/Medical Secondary School	46	26,24	7,07	27	14	44	20,25	31,75	$r = 0,215$ $p = 0,032$
	Higher/Bachelor's Degree	40	28,05	7,7	27,5	12	48	22,5	34,25	
	Higher/Master's Degree	14	31,64	9,22	31,5	13	47	27	37,75	

n – sample number; X – arithmetic average; SD – standard deviation; Me. – median; Min. – minimum; Max. – maksimum; Q1 – the first quartile; Q3 – the third quartile; p – significance level

Source: author's own research

Years of experience had a significant influence on the sense of no personal accomplishment ($p < 0.05$) – the longer the seniority, the lower the burnout severity. The remaining correlation factors are statistically insignificant ($p > 0.05$) (**Table 3**).

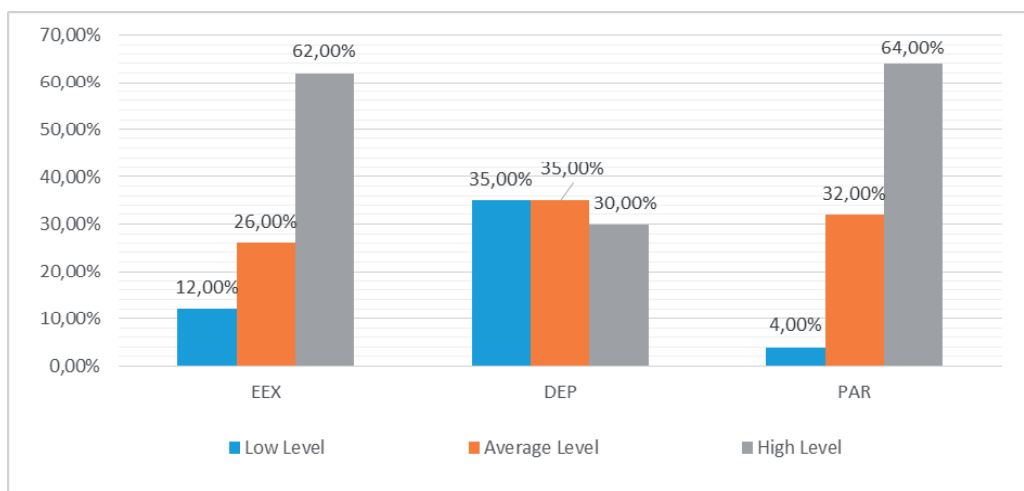


Figure 1. Sample burnout description for low, medium and high Maslach Burnout Inventory sub-scores

Source: author's own research

Table 3. Years of Experience Against the Results on the MBI Subscales

MBI Subscale	Correlation with Seniority			
	Correlation Coefficient	p	Direction of Correlation	Strength of Correlation
EEX	0,045	0,657	---	---
DEP	0,187	0,063	---	---
PAR	0,203	0,043	positive	weak

p – significance level

Source: author's own research

More frequent participation in different forms of postgraduate education significantly lowered the burnout on the “Emotional exhaustion” and “Sense of no personal accomplishment” subscales ($p < 0.05$). The correlation coefficient for the DEP subscale is statistically insignificant ($p > 0.05$), so the participation in postgraduate courses had no influence on that subscale (**Table 4**).

Table 4. Participation in Postgraduate Learning in Correlation with Each MBI Subscale

MBI Subscale	Postgraduate Participation in Postgraduate Learning	n	X	SD	Me,	Min,	Max,	Q1	Q3	p *
EEX	More than once a year	33	28,67	11,55	28	0	48	20	39	r=-0,295 p=0,003
	Less than once a year	33	27,82	12,2	24	8	54	19	36	
	Once every 2 years	27	35,96	12,19	37	6	54	32,5	43,5	
	Once every 5 years	5	36,4	10,33	37	20	47	35	43	
	Less than once every 5 years	2	54	0	54	54	54	54	54	
DEP	More than once a year	33	8,52	6,29	8	1	25	3	13	r=-0,188 p=0,061
	Less than once a year	33	8,64	5,87	7	0	24	5	11	
	Once every 2 years	27	10,56	5,25	11	0	22	8	13	
	Once every 5 years	5	12,4	6,47	13	3	21	11	14	
	Less than once every 5 years	2	9	5,66	9	5	13	7	11	
PAR	More than once a year	33	31,36	6,68	33	18	47	27	35	r=0,296 p=0,003
	Less than once a year	33	25,88	7,6	26	12	44	21	30	
	Once every 2 years	27	26,3	8,42	24	15	48	20	31,5	
	Once every 5 years	5	26,4	3,91	24	24	33	24	27	
	Less than once every 5 years	2	20,5	9,19	20,5	14	27	17,25	23,75	

n – sample number; X – arithmetic average; SD – standard deviation; Me, – median; Min, – minimum; Max, – maksimum; Q1 – the first quartile; Q3 – the third quartile; p – significance level

Source: author's own research

Satisfaction with work had a significant influence on the EEX and DEP subscales ($p < 0.05$) – the greater the satisfaction, the lower the burnout coefficient. The correlation coefficient for the PAR subscale is statistically insignificant ($p > 0.05$), so satisfaction from work had no influence on the results of that subscale (**Table 5**).

Table 5. Satisfaction From Work in Correlation to Each of the MBI Subscales

MBI Subscale	Satisfaction from Work	n	X	SD	Me.	Min.	Max.	Q1	Q3	p *
EEX	No	14	41,79	7,71	40,5	30	54	37	48	$r=-0,338$ $p=0,001$
	Not Full	39	31,77	12,53	31	6	54	23	43	
	Yes	47	27,68	12,15	27	0	50	18,5	38,5	
DEP	No	14	11,29	4,45	11,5	4	18	8,25	14,5	$r=-0,23$ $p=0,022$
	Not Full	39	10,13	6,11	9	0	25	5,5	13	
	Yes	47	8,04	5,85	8	0	22	3	12	
PAR	No	14	26	8,68	26	14	44	18,75	31	$r=0,187$ $p=0,062$
	Not Full	39	26,59	7,8	27	12	48	20	32,5	
	Yes	47	29,17	7,38	29	13	47	24	35	

n – sample number; X – arithmetic average; SD – standard deviation; Me. – median; Min. – minimum; Max. – maksimum; Q1 – the first quartile; Q3 – the third quartile; p – significance level

Source: author's own research

The results of the MBI subscales were not dependent on financial satisfaction ($p > 0.05$).

Discussion

Daily relations with a sick person in particular exposes a nurse to the professional burnout syndrome [10]. Emotional involvement and a heavily stimulated contact with a patient can in turn create a distance, making it difficult to maintain that contact along the patient-caretaker line. [1, 2].

Individual research shows that the nurses under the survey employed to work in oncology wards are professionally burned out; the majority of them present high and average levels of burnout on each of the MBI subscales. The most balanced results, though, concern the level of depersonalization: 35% had a low level or an average level, while 30% had a high level. Similar results were obtained by Dębska and Cepuch, who conducted research among nurses of primary health care. They claimed that the low and average results on the depersonalization scale are indicative of proper relations along the nurse-patient line [11]. Krukowska and Zuza-Witkowska had similar conclusions from conducting research on empathy and professional burnout among oncology nurses [12]. The diagnosed nurses received a high score in feeling no personal accomplishment (30.44%), a moderate score in emotional exhaustion (19.39%), and low in depersonalization (6.25%).

While performing analysis of the results of each subscale of burnout, researchers performed statistical calculations of the correlations between factors potentially contributing to the occurrence of that phenomena. There was a significant connection between the age of respondents and the level of depersonalization – the burnout coefficient increased with age, while seniority significantly influenced the result on the PAR subscale – the more years of experience, the higher the respondents' score on that subscale, which equals a lower burnout coefficient, and so a lower sense of no personal accomplishment. Different conclusions to that were drawn by Marcysiak et al. [10] in research on the relation between professional burnout and the ability to cope with stress. They claimed that age and seniority had no connection with the level of professional burnout. Instead, they observed a significant correlation between the ability to cope with stress caused by emotional experiences and the age of nurses under the survey – the lower age corresponded to the better coping ability in stressful situations.

Education had a significant influence on all MBI subscales – with a higher level of education came lower burnout among nurses. Moreover, the more frequent the participation in different forms of postgraduate education the nurses presented, the lower the level of burnout seemed to be present on both the Emotional exhaustion and the Sense of no personal accomplishment subscales. The results accurately fit in with the concepts of the authors dwelling on the subject of professional burnout, who believe that together with the increase in competence comes the decrease of the burnout syndrome. As stated by Wilczek-Rużyczka [1], the biggest risk of burnout among caring persons occurs when those persons are not professionally prepared and have taken on the job out of necessity. However, as Tomaszewska et al. [13] pointed out, analyzing the possibilities for the professional development of nurses, financial problems are a frequent factor impeding professional development in that group of employees.

The factor pointed out by the authors dwelling on the subject of burnout is salary. Taking into account satisfaction with earnings, the analysis shows that 69% of nurses feel no satisfaction with their salaries at all (only 1% of them are satisfied). The obtained results were used as the basis for calculations of correlation coefficients between the above variables, which turned out to be statistically insignificant. Therefore, the following conclusion can be drawn: nurses get satisfaction with giving aid to another person, and having an opportunity to accompany that person in the last moments of his/her life. One might even risk saying that nurses prefer helping others over financial satisfaction. Pagórski and

Markiewicz, who engaged in an analysis of the ways to motivate hospital employees, with a particular emphasis on nursing staff, proved that none of the respondents decided on being a nurse due to financial reasons [14]. Statistically significant correlations in this regard were shown, among others, by Cegła et al. [15], in research on the relation between the financial situation of nurses and the professional burnout syndrome. The researchers showed that in the group of nurses who considered their earnings to be very low, the level of burnout was the highest. Therefore, it has been confirmed that along with the increase of salary the decrease in the level of burnout comes.

Conclusions

The majority of nurses working in oncology wards show a high level of burnout on each of the MBI subscales.

1. The higher level of education and frequent participation in postgraduate learning significantly lower the professional burnout syndrome.
2. The burnout syndrome is not related to financial satisfaction.

References

1. Wilczek-Rużyczka E. Wypalenie zawodowe a empatia u lekarzy i pielęgniarek. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego; 2008, 8–23.
2. Maslach C. Wypalenie w perspektywie wielowymiarowej. W: Sęk H (red.), Wypalenie zawodowe – przyczyny i zapobieganie, Warszawa: PWN; 2006, 13–31.
3. Maslach C. Burnout: a multidimensional perspective. W: Schaufel WB, Maslach C (red.). Professional burnout. Recent developments in theory and research. Washington: Taylor & Francis; 1993.
4. Maslach C, Jackson SE, Leiter MP. Maslach Burnout Inventory Manual. Third Edition. California: Consulting Psychologist Press; 1996.
5. Litzke SM, Schuh H. Stres, lobbienie i wypalenie zawodowe. Gdańsk: Wydawnictwo GWP; 2007, 166–180.
6. Tucholska S. Wypalenie zawodowe w ujęciu strukturalnym i dynamicznym. W: Zbyrad T (red.), Wypalenie zawodowe pracowników służb społecznych, Stalowa Wola: Wydział Zamiejscowy KUL; 2008, 15–32.
7. Kowalczyk K, Zdańska A, Krajewska-Kułak E, Łukaszuk C, Van Damme-Ostapowicz K, Klimaszewska K, Kondzior D, Kowalewska B, Rozwadowska E. Stres w pracy pielęgniarek jako czynnik ryzyka wypalenia zawodowego. *Problemy Piel.* 2011; 19: 307–314.
8. Koper A, Wrońska I. Problemy pielęgnacyjne pacjentów z chorobą nowotworową. Lublin: Wydawnictwo CZELEJ; 2003, 119–124.
9. Pines AM. Wypalenie w perspektywie egzystencjalnej. W: Sęk H (red.), Wypalenie zawodowe – przyczyny i zapobieganie. Warszawa: PWN; 2006, 32–57.
10. Marcysiak M, Dąbrowska O, Marcysiak M. Wypalenie zawodowe a radzenie sobie ze stresem pielęgniarek. *Problemy Piel.* 2014; 22(3): 312–318.
11. Dębska G, Cepuch G. Wypalenie zawodowe u pielęgniarek pracujących w zakładach podstawowej opieki zdrowotnej. *Problemy Piel.* 2008; 16: 273–279.

12. Kurkowska K, Zuza-Witkowska A. Empatia a wypalenie zawodowe u pielęgniarek onkologicznych. *Now. Lek.* 2011; 80(4): 277–282.
13. Tomaszewska M, Cieśla D, Czerniak J, Dykowska G. Możliwości doskonalenia zawodowego pielęgniarek – potrzeby a rzeczywistość. *Problemy Piel*, 2008; 16(1,2): 40–47.
14. Pagórski P, Markiewicz D. Motywowanie pracowników wybranych oddziałów szpitalnych, ze szczególnym uwzględnieniem pielęgniarek, *Piel Pol*, 2015; 2(56): 216–224.
15. Cegła B, Dowbór-Dzwonka A, Filanowicz M, Szykiewicz E, Kędziora-Kornatowska K, Bartuzi Z. Sytuacja materialna rodzin pielęgniarek a poziom występującego wypalenia zawodowego. *Problemy Piel* 2010; 18(4): 393–398.

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