Original Article Pol J Public Health, Vol. 130 (2020): 22-25

AGATA STEFAŃSKA[1], STANISŁAW MANULIK[2], KRZYSZTOF CHMIELOWIEC[3], JOLANTA CHMIELOWIEC[3], AGNIESZKA BOROŃ[4]

Burnout syndrome among nurses of hospitals in Wrocław, including seniority assessed with Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS)

Abstract

Introduction. Burnout syndrome among nurses is very common. It develops very dynamically, it is mainly related to the reaction to long-term emotional stress, as well as to the professional work they perform.

Aim. The aim of the study is to assess the degree of occupational burnout in the professional group of nurses.

Material and methods. The research was conducted among 123 professionally active nurses employed in an outpatient clinic and a hospital in Wrocław. The work uses standardized research tools: Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS).

Results. Nurses in old age, with longer work experience, are at a higher risk of burnout.

Conclusion. Burnout as measured by the Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS) in nurses is associated with higher age and seniority. In addition, a negative correlation was noted between Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS).

Keywords: burnout; nurse; burnout syndrome.

DOI: 10.2478/pjph-2020-0006

INTRODUCTION

Burnout syndrome applies only to those professions whose main assumption is contact with other people. Therefore, these will be all works defined in the English-language literature as belonging to the group of human services. The aforementioned professional group is characterized by the performance of work focused primarily on contact with other people. The inherent feature of the human services professions will be the fact that without the participation of another person (in the case of a nurse's job it will be the patient), this job does not exist, because it is focused on it.

Burnout syndrome is most generally defined as the consequence of chronic work-related stress. So far, many definitions of this phenomenon have been developed, one of them is proposed by Freudenberger and Richelson, who describe it as a state of fatigue or frustration resulting from dedication to a cause, way of life or relationship, which did not bring the expected reward [1]. Researchers Pines and Aronson proposed a slightly different understanding of this phenomenon. They described it as "a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally burdensome" [1]. The disadvantage of this theoretical concept may be the relative ease of making a mistake and confusing exhaustion with stress, which enter into quite a clear correlation with each other.

The team of researchers consisting of Siemiński et al. [2] proposed to divide the course of the burnout syndrome into three phases: depersonalization, emotional exhaustion, reduced assessment of one's own abilities and achievements. Most researchers include emotional exhaustion, depersonalization and low motivation as the most important symptoms. The authors also add that the phenomenon occurs primarily in the professional environment of those professions that deal with the provision of social services and work with and for people. This is due to the fact that on the one hand these professional groups are exposed to many stressors, and on the other hand, they are required to be highly engaged in work and highly qualified. Undoubtedly, the group of these professional groups includes the nursing environment [3].

Masły and Leiter [4] proposed a similar look at the problem of burnout. They distinguished the following features: exhaustion, cynicism, a sense of reduced professional effectiveness. In their opinion, the issue of the occurrence (or not) of burnout symptoms in an individual will be related to the technique of appropriate selection of people for a given position. The most important conclusion from this change is the fact that when discussing burnout in terms of this concept, one should not focus solely on social professions.

The symptoms which may lead to suspicion of burnout in a patient or client include emotional factors, manifested in the unstable emotionality and unfavorable mood of the examined

[1] Absolwentka kierunku studiów mgr. pielęgniarstwo, Wydział Nauk o Zdrowiu ,Uniwersytet Medyczny we Wrocławiu, Poland
[2] Zakład Chorób Układu Nerwowego, Katedra Pielęgniarstwa Klinicznego, Wydział Nauk o Zdrowiu, Uniwersytet Medyczny we Wrocławiu, Poland
[3] Department of Hygiene and Epidemiology, Collegium Medicum, University of Zielona Góra, Poland
[4] Department of Clinical and Molecular Biochemistry, Pomeranian Medical University in Szczecin, Poland

person. The next symptoms of burnout include behavioral factors, and thus directly related to the presented behavior. Important are cognitive factors that can be identified with the thinking of the person who is suspected of having burnout syndrome. Finally, the last element of the division, i.e. the motivational factors, was objected to. The willingness to work seems to be a key marker when it comes to the initial diagnosis of the possibility of burnout syndrome. Therefore, emphasis is placed on the motivational factor, but in order to make an accurate diagnosis, they are all the same [5].

AIM

The aim of the study is to assess the degree of occupational burnout in the professional group of nurses. Taking into account the age and work experience with the use of Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS).

MATERIAL AND METHODS

The group of surveyed nurses consisted of 123 people. The study was conducted in two health care entities in a hospital in different departments and in a clinic in Wrocław in 2018 and 2019. The number of 123 respondents took part in the survey. The vast majority of the study participants (92.7%) were women. The most numerous group were people aged from 41 to 50 (37.4%), and the least numerous – those aged 61 and over (2.4%) (Table 1).

TABLE 1. Age distribution of the study participants.

Age distribution	n	%
20-30 years	26	21.1
31-40 years	27	22.0
41-50 years	46	37.4
51-60 years	21	17.1
61 years and older	3	2.4

26 8% had secondary medical education, 15.4%, 58.5% completed undergraduate studies, 14.6% graduated from MA studies. Almost 40% of the respondents (39.8%) have worked in the profession for at least 20 years. The respondents with work experience not exceeding 5 years constituted 21.9% of the study group (Table 2). As much as 73.2% of nurses worked in a hospital (closed treatment) and 26.8% worked in the Primary Healthcare (open treatment).

TABLE 2. Distribution of seniority of the study participants.

Seniority	n	%
0-2 years	19	15.4
3-5 years	8	6.5
6-10 years	7	5.7
11-15 years	21	17.1
16-20 years	19	15.4
20 years and more	49	39.8

Maslach Burnout Inventory (MBI)

A questionnaire by Christina Maslach consisting of 22 questions, to which it was possible to answer "yes" or "no", was used for the proper examination of the features related to the Burnout Syndrome. This method allows to describe the attitude of the examined person to his/her profession. Customarily, the questionnaire is used rather to assess the satisfaction with work in a group of team members of a given organization, less often as a tool for individual diagnosis.

Work Satisfaction Scale (WSS)

It deals with the measurement of the cognitive aspect of overall satisfaction as a holistic, complex phenomenon, and required a conscious evaluation of work based on personal criteria. The following 5 statements were also included:

- In many respects, my work is close to the ideal;
- I have great working conditions;
- I am satisfied with my work;
- So far, at work I was able to achieve what I wanted;
- If I had to decide once yet, I would choose the same paper.

A short standard instruction is placed in front of the statements, asking to assign to each statement an opinion number from a 7-point scale that best corresponds to the opinion of the respondent. The manual also asks for honest statements. Before the statements, there is also a numbered opinion scale:

1. I strongly disagree;
2. I disagree;
3. I rather disagree;
4. It is difficult to say whether I agree or disagree;
5. I rather agree;
6. I agree;
7. I strongly agree.

Statistical methods

The obtained results were analyzed with the use of the 13.0 version of STATISTICA. The values of analyzed data were pictured with the use of descriptive statistics. The mean values (M), standard deviation (SD), minimal values (MIN) and maximal values (MAX), population (n) and percent (%). The Mann-Whitney U test and the Kruskal-Wallis test with Dunn's post-hoc test were used for the intergroup comparisons of measurable variables. The strength and direction of the relationship between pairs of measurable variables was assessed on the basis of the Spearman's rank correlation coefficient (R).

RESULTS

More or less one third of the respondents (34.1%) achieved above-average values Maslach Burnout Inventory (MBI) (>11 points). Taking into account the values of the median and the upper quartile of the scale (9 and 13 points, respectively), it should be concluded that there was a moderate risk of burnout in the studied group (Tables 3 and 4).

TABLE 3. Statistical characteristics of the test results with Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS).

	M	SD	median	MIN	25%	75%	MAX
WSS (points)	23.94	5.39	25	8	21	28	35
MBI (points)	8.87	5.15	9	0	4	13	20

TABLE 4. Distribution of test results with Maslach Burnout Inventory (MBI).

Scale value (points)	n	n cumulative	%	% cumulative
0	4	4	3.3	3.3
1	4	8	3.3	6.5
2	3	11	2.4	8.9
3	13	24	10.6	19.5
4	10	34	8.1	27.6
5	3	37	2.4	30.1
6	11	48	8.9	39.0
7	6	54	4.9	43.9
8	6	60	4.9	48.8
9	7	67	5.7	54.5
10	8	75	6.5	61.0
11	**6**	**81**	**4.9**	**65.9**
12	5	86	4.1	69.9
13	7	93	5.7	75.6
14	11	104	8.9	84.6
15	4	108	3.3	87.8
16	6	114	4.9	92.7
17	4	118	3.3	95.9
18	3	121	2.4	98.4
19	1	122	0.8	99.2
20	1	123	0.8	100

Above average (greater than 20 points) values of the Work Satisfaction Scale (WSS) were obtained by nearly three fourths of the respondents (75.6%). However, only in the case of 7.3% of the respondents, the SSP values were above 30 points, which in combination with the values of the median and the upper quartile of the scale (25 and 28 points, respectively) suggests that most of the survey participants showed a moderately high level of job satisfaction (Tables 3 and 5).

Statistical analysis revealed the presence of moderately strong statistically significant inverse correlations between the Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS) (Fig. 1). Lower levels of job satisfaction translated into an increased risk of burnout.

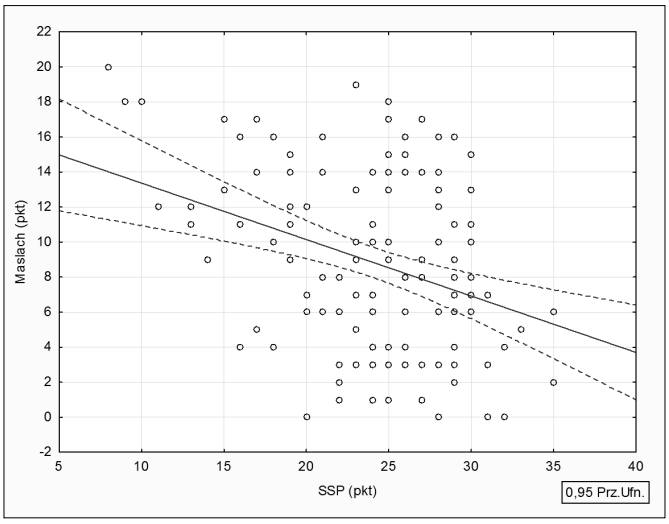

FIGURE 1. Spearman's rank correlation coefficient (R) between the values Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS) (R=-0.252 p=0.005).

TABLE 5. Distribution of test results using Work Satisfaction Scale (WSS).

Scale value (points)	n	n cumulative	%	% cumulative
8	1	1	0.8	0.8
9	1	2	0.8	1.6
10	1	3	0.8	2.4
11	1	4	0.8	3.3
13	2	6	1.6	4.9
14	1	7	0.8	5.7
15	2	9	1.6	7.3
16	3	12	2.4	9.8
17	3	15	2.4	12.2
18	4	19	3.3	15.4
19	6	25	4.9	20.3
20	**5**	**30**	**4.1**	**24.4**
21	4	34	3.3	27.6
22	7	41	5.7	33.3
23	8	49	6.5	39.8
24	11	60	8.9	48.8
25	13	73	10.6	59.3
26	8	81	6.5	65.9
27	7	88	5.7	71.5
28	9	97	7.3	78.9
29	9	106	7.3	86.2
30	8	114	6.5	92.7
31	4	118	3.3	95.9
32	2	120	1.6	97.6
33	1	121	0.8	98,4
35	2	123	1.6	100

A statistically significant influence of the age of the study participants on the Maslach Burnout Inventory (MBI) values was found. Post-hoc analysis showed that respondents aged 41-50 and 51 and above had significantly higher Maslach Burnout Inventory (MBI) values than those aged 20-30 ($p = 0.005$ and $p = 0.006$, respectively) (Table 6.).

TABLE 6. Values of Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS) depending on the age of the study participants.

	20-30 years		31-40 years		41-50 years		51 years and more		p
	M	SD	M	SD	M	SD	M	SD	
WSS (points)	22.73	5,79	25.89	4.03	24.26	4.49	22.46	7.17	0.137
MBI (points)	6.00	3.84	7.59	4.89	10.15	4.78	10.96	5.84	0.001*

*** significant statistical differences**

TABLE 7. Values of Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS) depending on the length of service of the study participants.

	0-10 years		11-20 years		20 years and more		p
	M	SD	M	SD	M	SD	
WSS (points)	22.74	5.50	25.93	3.74	23.16	6.07	0.019*
MBI (points)	5.44	3.73	9.73	4.87	10.55	5.19	<0.001*

*** significant statistical differences**

DISCUSSION

Kowalczuk et al. [6] emphasize that the results of Maslach's research already indicated that people working in positions dealing with helping other people, including nurses, are particularly exposed to burnout syndrome. Ramuszewicz et al. [7] indicate that burnout syndrome occurs to a greater extent in the nursing environment than in other professional groups. The research conducted by Ptaszek et al. [8] showed that people affected by the discussed problem define occupational burnout as fatigue, both physical and mental. The authors also confirmed the fact that the phenomenon occurs among medical personnel, including nurses. The authors indicate that the nurse staff who struggles with the discussed problem experiences symptoms of depression or a reduced sense of optimism, as well as a hostile attitude towards the environment. Uchmanowicz et al. [9] showed that the risk of burnout increases with the decrease in job satisfaction, life satisfaction and dispositional optimism. In other words, a reduced sense of the quality of the professional and private sphere is inextricably linked with the possibility of the syndrome in question.

According to Spooner-Lane and Patton [10], young and full-time nurses are most exposed to burnout syndrome. In the results obtained by us, it was the older and longer-term nurses who were exposed to the burnout syndrome. On the other hand, cross-sectional studies on the frequency of burnout among nurses working in a hospital in Singapore showed that seniority determines the syndrome in question [11]. According to the authors, nurses with extensive professional experience are more prone to burnout. At the same time, it should be added that the current scientific achievements do not allow us to take a clear position on this issue, as the research conducted so far is carried out on various demographic profiles. The relationship between seniority and burnout requires in-depth research [11].

The literature shows that younger people may have a higher burnout rate than older people. If you compare two groups, new and long-term employees, it turns out that younger employees are at a higher risk of burnout. This may be due to the fact that people working longer hours have already developed adaptation mechanisms useful in the position held during their professional internship [12].

Perhaps the employee's attitude to the work performed may also be a factor that can somehow protect oneself from occupational burnout. That is, one can suspect that treating one's own work as a hobby may be a factor motivating to perform it, on the other hand, there is a risk that a person engaging in work-hobby will lose the work-life balance mentioned earlier at some point in his/her life. However, this is a hypothesis that requires more careful analysis and balancing. It is also difficult to draw conclusions about the attempt to combine the occurrence of the phenomenon of occupational burnout with a greater or lesser tendency to it in one of the sexes, despite the fact that the topic was discussed many times, it was not possible to establish an unambiguous answer [13].

CONCLUSIONS

Burnout as measured by the Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS) in nurses is associated with higher age and seniority. In addition, a negative correlation was noted between Maslach Burnout Inventory (MBI) and Work Satisfaction Scale (WSS).

REFERENCES

1. Pines AM. Wypalenie w perspektywie egzystencjalnej. In: H. Sęk (ed). Wypalenie zawodowe: przyczyny, mechanizmy, zapobieganie. Warszawa: Wydawnictwo Naukowe PWN; 2000. p.32-57.
2. Siemiński M, Nitka-Siemińska A, Nyka W. Zespół wypalenia. Forum Med Rodz. 2007:1(1);45-9.
3. Jarzynkowski P, Książek J, Piotrkowska R, Dobosz M. Zespół wypalenia zawodowego wśród pracowników zawodów medycznych. Med Rodz. 2017:20(2);105-10.
4. Maslach C, Leiter M. Early predictors of job burnout and engagement. J Appl Psychol. 2008:3;498-512.
5. Chirkowska-Smolak T. Organizacyjne czynniki wypalenia zawodowego, ruch prawniczy, ekonomiczny i socjologiczny. Poznań: Wydział Prawa i Administracji UAM; 2009.p. 257-61.
6. Kowalczuk K, Zdańska A, Krajewska-Kułak E, et al. Stres w pracy pielęgniarek jako czynnik ryzyka wypalenia zawodowego. Probl Pielęg. 2011:19(3):307-14.
7. Ramuszewicz M, Krajewska-Kułak E, Rolka H, Łukaszuk C. Próba oceny wiedzy na temat zespołu wypalenia zawodowego wśród pielęgniarek bloku operacyjnego. Pielęg XXI. 2004:3(8):25-30.
8. Ptaszek G, Stołecka B, Graf L, Śleziona M. Wypalenie zawodowe pielęgniarek. Pielęg Specjalist. 2014:1(4);180-4.
9. Uchmanowicz I, Manulik S, Lomper K. Life satisfaction, job satisfaction, life orientation and occupational burnout among nurses and midwives in medical institutions in Poland: a cross-sectional study. BMJ Open. 2019;9(1):1-9.
10. Spooner-Lane RS, Patton WA. Determinants of burnout among public hospital nurses. The AJAN. 2007;25(1):8-8.
11. Tay WY, Tan SY, Earnest A, Ming Ng MJ. Prevalence of burnout among nurses in a Community Hospital in Singapore: a Cross-sectional study. PoSH. 2014:2(23):93-9.
12. Anczewska M, Świtaj P, Roszczyńska J. Wypalenie zawodowe. Adv Psychiatry Neurol. 2005;14(2):67-77.
13. Tucholska S. Wypalenie zawodowe w ujęciu strukturalnym i dynamicznym. Lublin: Instytut Psychologii KUL. 2009. p. 10-2.

Corresponding author
Dr Krzysztof Chmielowiec
Department of Hygiene and Epidemiology Faculty of Medicine and Health Sciences, Collegium Medicum, University of Zielona Góra
28 Zyty St., 65-046 Zielona Góra
E-mail: k.chmielowiec@wln.uz.zgora.p