

Mental Health of Nurses Employed in Surgical and Non-invasive Treatment Wards

Zdrowie psychiczne pielęgniarek zatrudnionych w szpitalnych oddziałach zabiegowych i zachowawczych

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Abstract

Introduction. The nursing profession requires employees to be highly resistant to stress. Assisting patients in their experience of pain, illness, helplessness is a stressful experience can be a traumatic experience especially in the face of an immediate threat to a patient's life. Nursing staff working in treatment wards is exposed to particularly intense stress, in contact with a patient experiencing fear of a surgery and a patient after a surgery experiencing postoperative pain and requiring specialist care.

Aim. The exploratory goal of the study was to diagnose the level of mental health in case of the nurses working in two types of wards: surgical and non-invasive treatment ones. The nurses working in hospital non-invasive treatment wards were expected to have better mental health than the ones working in treatment units.

Material and Methods. An anonymous questionnaire survey was conducted among N=244 nurses of randomly selected hospital wards in a district town in the north of Poland. In the study there were used: General Health Questionnaire GHQ-28 by D. Goldberg and Life Satisfaction Scale by E. Diener and co-workers.

Results. Contrary to the expectations, nurses from non-invasive treatment wards experienced stronger anxiety, insomnia, social dysfunction and lower life satisfaction than their colleagues from surgical units.

Conclusions. Counter to the intuitively imposing image of the work of a nurse in various types of hospital wards, professional burden and mental condition, the need for mental health prevention of nursing staff applies primarily to staff employed in non-invasive treatment wards. With the aging of the population, it is becoming increasingly important to equip these nurses with the skills to cope with prolonged exposure to occupational stressors. (JNNN 2023;12(2):69–73)

Key Words: mental health, nurses, work

Streszczenie

Wstęp. Zawód pielęgniarki wymaga od pracowników wysokiej odporności na stres. Asystowanie pacjentom w ich doświadczeniu bólu, choroby, bezradności jest doświadczeniem stresogennym, może być doświadczeniem traumatycznym szczególnie w obliczu bezpośredniego zagrożenia życia pacjenta. Na szczególnie intensywny stres narażony jest personel pielęgniarski pracujący na oddziałach zabiegowych, w kontakcie z pacjentem doświadczającym lęku przed operacją oraz pacjentem po zabiegu operacyjnym doświadczającym pooperacyjnego bólu i wymagającym specjalistycznej opieki.

Cel. Eksploracyjnym celem badania była diagnoza poziomu zdrowia psychicznego u pielęgniarek pracujących na dwóch typach oddziałów: zabiegowych i zachowawczych. Oczekiwano, że lepszym zdrowiem psychicznym charakteryzują się pielęgniarki pracujące w szpitalnych oddziałach zachowawczych niż pielęgniarki w oddziałach zabiegowych.

Materiał i metody. Anonimowe kwestionariuszowe badanie zostało przeprowadzone wśród N=244 pielęgniarek losowo wybranych oddziałów szpitalnych w mieście powiatowym na północy Polski. W badaniu zastosowano: Kwestionariusz Ogólnego Stanu Zdrowia D. Goldberga GHQ-28 oraz Skalę Satysfakcji z Życia E. Dienera i współpracowników.

Wyniki. Odmienne od oczekiwań pielęgniarki z oddziałów zachowawczych doświadczały silniejszego niepokoju, bezsenności, zaburzeń funkcjonowania oraz niższej satysfakcji z życia niż ich koleżanki z oddziałów zabiegowych.

Wnioski. Wbrew intuicyjnie narzucającemu się wyobrażeniu o pracy pielęgniarki w różnych typach oddziałów szpitalnych, obciążenia zawodowego i kondycji psychicznej, potrzeba profilaktyki zdrowia psychicznego personelu pielęgniarskiego dotyczy przede wszystkim personelu zatrudnionego na oddziałach zachowawczych. Wraz ze starzeniem się społeczeństwa coraz istotniejsze staje się wyposażenie właśnie tych pielęgniarek w umiejętności radzenia sobie z przedłużoną ekspozycją na stresory zawodowe. (PNN 2023;12(2):69–73)

Słowa kluczowe: zdrowie psychiczne, pielęgniarki, praca

Introduction

The nursing profession is very stressful — this statement is neither new nor surprising, and references to occupational burdens, their consequences and methods of preventing and minimizing their effects have been appearing for over 50 years both in the studies of the International Labour Office and in scientific articles [1–3]. Among the occupational stressors of nurses are, among others, confrontation with the dying and death of patients, inadequate preparation for emotional coping with the needs of patients and their families, relationships with colleagues [4]. Assisting patients in their experience of pain, illness, helplessness is a stressful experience and it sometimes can be a traumatic experience [5]. It seems that the nursing staff working in surgical wards, in contact with a patient experiencing fear of a surgery, a patient after a surgery experiencing postoperative pain and requiring specialist care, high vigilance and quick response in the event of a sudden outbreak of the patient's condition, is exposed to particularly intense stress of procedures carrying a potential risk to the patient's life. On the other hand, nurses working in non-invasive treatment wards are less confronted with a direct threat to the lives of patients — which, theoretically, could cause less stress load and better mental condition of the staff. Therefore, nurses working in hospital non-invasive treatment wards were expected to have better mental health than nurses in surgical units.

The aim of the study was to diagnose the level of mental health in case of the nurses working in two types of wards: surgical and non-invasive treatment ones. This study also examined whether possible differences in mental health levels can be linked to the differences in the intensity of social stress at work — cases of negative behaviour between employees and supervisors.

Material and Methods

To measure the cognitive aspect of mental health (subjective well-being), the Satisfaction With Life Scale (SWLS) of Diener, Emmons, Larsen and Griffin was used in the Polish adaptation by Zygfryd Juczyński [6,7]. SWLS is characterized by good psychometric features: the reliability of the entire scale measured by the

Cronbah's alpha method is 0.86 — in Polish research by Juczyński [7]. The data collected with SWLS was recoded in such a way that the higher the score, the lower the life satisfaction. Thanks to this measure, high scores of all mental health variables included in the study mean a weaker mental condition, and low scores — better one.

The David Goldberg's General Health Questionnaire (GHQ) was used to measure the affective component of mental health (subjective well-being) [8,9]. This tool is used for the diagnosis of short-term disorders, not for the clinical diagnosis. The 28-item version of the Questionnaire used in the study, in addition to the overall result, provides information about the results in four subscales: somatic symptoms (subscale A), anxiety, insomnia (subscale B), social dysfunction (subscale C) and symptoms of depression (subscale D). The GHQ questionnaire is characterized by good psychometric features: the reliability of the Polish adaptation of GHQ-28 measured with the help of the Cronbah's alpha method ranges from 0.91 to 0.93, the reliability of the subscales is: scale A from 0.71 to 0.93, scale B from 0.70 to 0.87, scale C from 0.46 to 0.78, scale D from 0.70 to 0.87 [9]. GHQ has been used, among others, in psychological studies of the consequences of stressors in the work environment [9–13]. The authors of Polish adaptation of GHQ-28 recommend using this tool especially for research aimed at understanding the determinants of mental health [9]. The higher the GHQ-28 score, the weaker your mental health.

The set of questionnaires was supplemented by the NAQ Negative Action Questionnaire [14] in the Polish adaptation by Magdalena Warszevska-Makuch [15] (Central Institute for Labour Protection — National Research Institute). NAQ measures perceived exposure to the negative social activities at work. The reliability of the entire scale of the Polish NAQ adaptation is 0.94 of Cronbah's alpha.

The study was conducted among nurses of randomly selected hospital wards in a county town in the north of Poland. These wards were drawn based on a numbered list of hospital wards (a total of 46 wards and an emergency rooms), 23 of which were chosen finally [16]. The participants of the study received workplace questionnaire sets directly from the researcher; all completed tests were submitted to a closed, labelled box in a sealed envelope. All employees of the selected wards were invited to

participate in the study. Participation in the study was voluntary and anonymous. This study was the part of a broader research project on social stress in different occupational groups. Each participant received a set of questionnaires, including at the beginning of the set — E. Diener's Life Satisfaction Scale, then the D. Goldberg's General Health Questionnaire GHQ-28. At the end, additionally, the Negative Action Questionnaire was presented. There were collected a total of N=244 entirely completed test sets and the response rate was 69.32%. Females accounted for 98.4% of respondents, with an average age of 40.68. The youngest participant was 21 years old; The oldest one was 68 years old. 9% of people worked in managerial positions. The average seniority was 19.75 years (from 2.5 to 39 years) and the average seniority in the hospital (in the current workplace) was 15 years (from 1 month to 32 years). 51.2% (125 people) of the surveyed people worked in non-invasive treatment wards, the rest — in surgical wards; 43.85% of respondents spent about half of their working time on the night shift.

Results

A cursory review of descriptive statistics and correlations reveals a significant positive relationship with all mental health variables studied, as well as negative actions and life satisfaction, depressive symptoms, and overall GHQ-28 test score. However, correlation of these variables with age or seniority of study participants has not been confirmed (Table 1).

Verification of the hypothesis was carried out using the Student's t-test (the assumed homogeneity of variance in the compared groups is met). The results are presented in Table 2.

Contrary to the expectations, nurses working in non-invasive treatment wards had poorer overall mental health than their colleagues in surgical units. They experienced the stronger severity of somatic symptoms, higher levels of anxiety, insomnia, more intense functional disorders and lower life satisfaction than the nurses from non-invasive treatment wards. They did not differ only in the level of symptoms of depression. There was no variation in the level of interpersonal stress in relationships between employees in the compared groups. There was

Table 1. Descriptive statistics and correlations

	M	SD	1	2	3	4	5	6	7	8	9
1. Life satisfaction	6.12	4.23	–								
2. Somatic symptoms	8.35	4.23	0.300**	–							
3. Anxiety and insomnia	7.99	4.50	0.362**	0.623**	–						
4. Social dysfunction	7.63	2.52	0.344**	0.503**	0.484**	–					
5. Symptoms of depression	1.98	2.86	0.446**	0.320**	0.497**	0.508**	–				
6. Total mental health	5.34	1.81	0.441**	0.808**	0.839**	0.674**	0.559**	–			
7. Age	40.69	6.10	0.092	–0.011	–0.045	0.019	–0.015	0.004	–		
8. Total seniority	19.80	6.39	0.122	0.021	–0.040	0.046	0.018	0.013	0.927**	–	
9. Seniority in the current location	15.55	8.14	0.089	–0.018	0.037	0.030	0.094	0.019	0.517**	0.602**	–
10. Negative acts (NAQ)	1.361	0.446	0.160*	0.077	0.100	0.172**	0.221**	0.152*	–0.083	–0.077	–0.078

**p<0.01; *p<0.05; SD — standard deviation

Table 2. Mental health of nurses working in surgical and non-invasive wards — comparison of averages (the higher the average — the weaker mental health)

	Surgical ward	Non-invasive ward	F	t	df	Cohen's d
Life satisfaction	5.712	6.483	0.196	–3.029**	229	–0.399
Somatic symptoms	7.307	9.160	1.843	–3.492***	237	–0.452
Anxiety and insomnia	7.254	8.704	0.217	–2.511*	237	–0.325
Social dysfunction	7.132	8.064	1.128	–2.896**	237	–0.375
Symptoms of depression	1.763	2.232	1.990	–1.261	237	–0.163
Mental health in general	4.966	5.672	0.047	–3.107***	237	–0.402
Negative acts (NAQ)	1.324	1.378	0.125	–0.987	237	–0.127

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

also no significant difference in the proportion of night shift workers (Kramer's $V=0.146$ $p=0.247$): it was similar in both types of wards.

Discussion

Intuitive, common-sense understanding of the specifics of nursing work in non-invasive treatment and surgical wards is usually associated with the understanding of surgical work as more stressful, associated with more frequent exposure to direct threat to patients' lives, requiring quick decision-making and sudden actions, constant vigilance, and as a result making medical staff more mentally burdensome. If so, you can expect, among others, higher levels of anxiety, insomnia, etc. of the nurses employed in these wards. However, this expectation was not confirmed by the collected data. The nurses from surgical wards were stood out by better mental condition than those working in non-invasive treatment ones. Similar associations were also observed in other studies where nurses from non-invasive treatment wards were described as ones who felt more anxiety, fatigue, mood changes caused by work, depression and the intention to leave their work [17–19]. The collected data indicate that the differences in mental health of nurses from the compared types of wards relate to both those variables that are a direct response to stress (anxiety and insomnia) and a distant response (functional disorders). There was no significant difference only in the symptoms of depression. However, the observed in the range of somatic symptoms difference may be related to the different physical load (and its consequences) of the staff in the compared wards (the authors of the General Health Questionnaire and the authors of the Polish adaptation recommend careful interpretation of the results on the somatic symptom scale, because the results obtained by somatic patients on this scale may affect the overall GHQ result used for the diagnosis of mental health [8,9]).

A possible reason for the difference in the range of mental health variables between nurses from non-invasive treatment and surgical wards may be different professional burdens in the compared wards caused by the interaction of two factors: the characteristics of diseases of patients from non-invasive treatment and surgical wards (in the first type these are more often dependent patients requiring holistic care, e.g. geriatric, neurological, stroke, dependent patients, sometimes with behavioural and emotional disorders of organic origin) and the duration of the stay of these patients at hospital (longer in the case of non-invasive treatment wards). Higher care requirements, along with a prolonged interaction with dependent patients and their families, may generate a greater psychological burden on nursing staff in non-invasive treatment wards than in surgical treatment ones [20,21].

Another reason for the observed differences in mental health variables may be styles and strategies for coping with the stress of nursing staff when confronted with different types of stressors (different occupational burdens — the patient type). According to the research of other authors [22–25], hospital nurses prefer the task-oriented, active style strategies while coping with the stress. Such a style is adaptive when confronted with controllable stressors, while when an individual has limited possibilities to change the situation (low controllability of the stressor), the usage of a task style can generate emotional costs. The care for dependent patients in non-invasive treatment wards may, theoretically, be associated with the less possibility of influencing on the patient's health behaviour and a greater sense of helplessness than in the case of working with surgical patients — in the study of Borgosz and colleagues [17], a greater percentage of nurses from non-invasive treatment wards than from surgical ones experienced depression caused by work, a sense of emptiness, lack of purpose and fatigue caused by work. However, this thesis requires empirical verification in subsequent studies.

Conclusions

The aim of this study was to diagnose the mental condition of the nurses employed in non-invasive treatment and surgical wards. The collected data indicate stronger anxiety, insomnia, functional disorders and generally worse mental condition of nurses working in non-invasive treatment wards. This fact may be important in the face of the progressive aging of the population and the growing demand for non-invasive treatment care. The analysis of the types of stressors in the work of nurses and their controllability in the aspect of coping with stress requires further, in-depth research. The limitation of this study is its cross-sectional and self-descriptive nature; It would be interesting and methodologically valuable to conduct a longitudinal study in the future taking into account the mental health and professional burden of nurses.

Implications for Nursing Practice

On the basis of the result of this study, it can be recommended to extend the scope of tasks of clinical psychologists employed in hospitals to include mental health prophylaxis of nursing staff, with particular emphasis on staff working in non-invasive treatment wards.

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