Original paper

Nurses' health in the context of depressive symptoms

Stan zdrowia pielęgniarek w zakresie dolegliwości o charakterze depresyjnym

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Słowa kluczowe: depresja, pielęgniarki, PHQ-9.

Abstract

Introduction: Numerous health problems, including depression, are related to experiencing chronic stress. Stress-inducing factors in nurses' job comprise, among others, constant contact with pain, death of a patient, or despair of the family.
Aim of the research: The assessment of nurses' health in the context of depressive disorders.
Material and methods: The study included 147 nurses working in a shift-work system. The Patient Health Questionnaire, PHQ-9, and a questionnaire developed by the authors were used. The study was conducted from January to February 2015.
Results: Slight exacerbation of depressive symptoms was proven in 41.81% of nurses, moderate exacerbation in 17.68%, and moderate to severe in 4.76%. A significant relationship between the occurrence of depressive disorders and an existing serious disease in the family and economic migration was found ($p < 0.05$). Nurses recognised the following events related to the job performed as most frequently contributing to depressed mood: long-term mental and physical load (27.15%), and lingering long-lasting stress (24.05%). 83.67% of respondents postulated their willingness to use a psychologist's/psychotherapist's help in difficult situations.
Conclusions: Depressive symptoms of various intensity concerned almost two-thirds of the nurses. Nearly one-fifth of the nurses assumed that negative emotional states disturb nurse-patient and nurse-co-worker relations. It was evident that there is a substantial need to create the possibility for nurses to use a psychologist's support in difficult work situations.

Streszczenie

Wprowadzenie: Wiele problemów zdrowotnych, w tym depresja, wiąże się z doświadczaniem przewlekłego stresu. Do czynników stresogennych w pracy pielęgniarek należą m.in. ciągły kontakt z cierpieniem, śmierć chorego i rozpacz rodziny.
Cel pracy: Ocena stanu zdrowia pielęgniarek w zakresie dolegliwości o charakterze depresyjnym.
Materiał i metody: W badaniu wzięło udział 147 pielęgniarek pracujących w systemie zmianowym. Wykorzystano kwestionariusz zdrowia pacjenta (*Patient Health Questionnaire*-9 – PHQ-9) oraz kwestionariusz ankiety własnej konstrukcji. Badanie przeprowadzono od stycznia do lutego 2015 roku.
Wyniki: Stwierdzono lekkie nasilenie objawów depresyjnych u 41,81% pielęgniarek, średnie nasilenie u 17,68%, a średnio ciężkie u 4,76%. Wykazano istotną zależność pomiędzy występowaniem zaburzeń depresyjnych a poważną chorobą w rodzinie oraz emigracją zarobkową ($p < 0,05$). Za zdarzenia związane z wykonywaną pracą, które najczęściej przyczyniają się do obniżenia nastroju, pielęgniarki uznały długotrwałe obciążenie psychiczne i fizyczne (27,15%) oraz utrzymujący się długotrwały stres (24,05%). Postulatem zgłaszanym przez 83,67% badanych była chęć skorzystania z pomocy psychologa lub psychoterapeuty w sytuacjach trudnych.
Wnioski: Objawy depresyjne o różnym nasileniu dotyczyły ok. 2/3 pielęgniarek. Blisko 1/5 kobiet uznała, że negatywne stany emocjonalne zaburzają relacje na linii pielęgniarka–pacjent oraz pielęgniarka–współpracownicy. Stwierdzono znaczną potrzebę stworzenia pielęgniarkom możliwości korzystania ze wsparcia psychologa w związku z trudnymi sytuacjami zawodowymi.

Introduction

Depression is a disease accompanying man since the dawn of history. Hippocrates, the father of medicine, described the melancholic personality, where, according to his beliefs, the excess of „black bile" induced sadness and gloom of the soul and the body. The term "depression" was introduced to medical language in the 19th century. It meant "the drop of

the level of emotions" [1]. In colloquial language, the word "depression" is commonly used to describe any depressed mood, spleen, the state of gloom, or sadness, disregarding the cause of such a condition. In the clinical sense, it means psychopathological syndromes in which affective symptoms, anhedonia, pessimistic thinking pattern, reduced life activities, libido, and vegetative activity disorders are permanent and long-term [2].

What results from the research project report "Epidemiology of mental disorders and access to mental health care – EZOP Poland" is that in 3% of Polish residents of working age, a depressive episode occurred at least once during their lifetime, with different intensity [3]. According to World Health Organisation (WHO) data, depression constitutes 4.3% of the global burden of all diseases and is responsible for the loss of 11% of all years of living, adjusted by a change of its quality (disability adjusted life-years – DALY). It is worth emphasising that persons suffering from depression experience disproportionally more disabilities and diseases in their life than people without mental disorders [4].

In accordance with the literature of the subject, numerous health problems, including depression, are related to experiencing chronic stress [5]. Activities and efforts undertaken by an individual in the face of it significantly conditions an individual's health [6]. The psychophysical condition of an employee may be negatively influenced by the job, among other conditions. This phenomenon often concerns people working in the groups of so-called helping professions, among which there is nursing [7]. The high level of requirements arising from the profession may be responsible for chronic stress syndrome, which uses the vital resources of an employee. The contact with patients causes considerable emotional strain, which may last for quite a long time [8].

Stress-inducing factors in the nurse's profession include, among others, constant contact with pain, the death of a patient, or despair of the family [9]. The sources of emotional strain in nurses can also be found in work overload (the necessity to make fast decisions, bad organisation of work, too many duties, and too few personnel during duty shift), lack of professional satisfaction accompanied by the sense of underestimation, and lack of recognition or participation in decision-making processes. Among stress-inducing factors, interpersonal problems should also be mentioned (lack of communication, conflicts, no support) as well as unequal treatment of employees [10]. According to Borkowska, stress and depression are a consequence of imbalance in the work-family life relation [11].

This paper attempts to assess the impact of depressive disorders in nurses on the relations with patients and co-workers. It analyses the cause of the above disorders and presents nurses' expectations, aiming at the reduction of disorders and the improvement of the quality of life of respondents.

Aim of the research

The aim of the work was the assessment of nurses' health in the context of depressive disorders.

Material and methods

The study was conducted with the use of a diagnostic survey. For this purpose, the Patient Health questionnaire, PHO-9, and an authorial survey questionnaire were used.

The Patient Health questionnaire, PHO-9, is a universal tool to perform screening tests, and to diagnose, monitor, and measure the intensity and response to the applied treatment of depression in elderly people and the general population, and in outpatient care. It comprises nine questions for depression criteria included in the DSM-IV classification. The score of responses is in the scale 0–3, where 0 means no ailments, and 3 represents the maximum intensity of disorders. An important condition in the assessment of ailments is the persistence of specific conditions over a 2-week period. A score from 5–9 points shows mild intensity of ailments, 10–14 points define moderate form, 15–19 points show a moderate to severe picture of disorders. The final assessment was made, based on interpreting nine components, which include problems with sleep, appetite, ability to concentrate, mobility, the sense of sadness and gloom, fatigue, the level of interest in the external environment, self-satisfaction, and thoughts about death. Diagnostic usefulness of the applied scale requires confirmation and clinical documentation of depression [12].

The authorial survey questionnaire comprised 47 closed questions. The first part of the questionnaire aimed at the characterization of the surveyed group in demographic and social respect. The questions in the second part concerned factors responsible for depressed mood, the impact of occurring disorders on the performed job and relations with patients and co-workers, ways of coping in difficult situations, and expected support.

The study was conducted from January to February 2015. It comprised nurses of four hospitals in Małopolska. The condition of the inclusion in the surveyed group was shift work. One hundred and forty-seven people (97.96% females, 2.04% males) were subject to the final analysis. The survey was anonymous, and participation was voluntary.

The study was conducted in compliance with the ethical principles and good research practice resulting from the Declaration of Helsinki.

Statistical analysis

To assess the significance of the differences in the results for qualitative variables, Pearson's χ^2 test was

used. The results for which the level of significance was greater than or equal to 0.05 were adopted as statistically significant. The obtained results were elaborated with statistical package Statistica 8.0.

Results

The largest group of respondents comprised people aged 45–55 years (n = 75; 51.02%), country dwellers (n = 65; 44.22%), with children (n = 139; 94.56%), assessing their financial status as average (n = 89; 60.54%). The level of education varied; people with higher education or bachelor's degree prevailed (n = 71; 48.30%), with professional experience of 20–25 years (n = 44; 29.93%), working for 30–40 h per week (n = 88; 59.86%).

Based on a detailed analysis of the PHQ-9 questionnaire, it was found, over the previous 2 weeks, that as many as 57 (38.78%) respondents had problems with sleep for a few days. During the same period, the sense of sadness lingered in 70 (47.62%) people, little interest in 59 (40.14%), fatigue in 81 (55.10%), and suicidal thoughts and actions in 15 (10.20%). Disorders in the sphere of mobility, manifested in slowdown or motor agitation for a few days, was experienced by 31 (21.09%) respondents, whereas 56 (38.10%) people declared difficulties in concentrating during the performance of everyday activities. Fifty-seven (38.78%) respondents complained about feeling bad about oneself lingering for a few days, whereas 42 (28.57%) people observed problems with appetite with the same frequency (Table 1).

To sum up the results of the PHQ-9 questionnaire, slight exacerbation of depressive symptoms was found in 60 (41.81%) people, moderate in 26 (17.68%), and moderate to severe in 7 (4.76%).

What arises from the analysis of the collected material is that most respondents were not treated for depression (n = 139; 94.56%). Depression therapy at the moment of conducting the survey was only declared by 2 (1.36%) people, but 6 (4.08%) respondents admitted they believed they should take advantage of help from a specialist.

A considerable percentage of respondents (n = 69; 46.94%) admitted that in difficult work-related situations they would like to use the advice of a psychologist. Fofty-four (36.73%) respondents would take advantage of such help. The remaining 24 (16.33%) people were not interested in such support.

Next, family factors were analysed, which were the main source of reduced mood for respondents. Only 32 (15.69%) people declared the lack of any problems. A serious disease in the immediate family destabilised the emotional state in 36 (17.65%) respondents, whereas economic migration was indicated by 34 (16.67%) people. For 27 (13.24%) people it was a financial situation that was a considerable problem, and for 22 (10.78%) respondents it was unemployment. Then, respondents marked family conflicts (n = 18; 8.82%), child's school problems (n = 11; 5.39%), or housing problems (n = 9; 4.41%). The percentages do not add up to 100% because it was a multiple-choice question (Figure 1).

Based on the analysis of the obtained results, it was found that a serious disease in the immediate family (p = 0.0111) and separation due to economic migration (p = 0.0223) had the strongest relation with the occurring affective disorders.

A significant relation between variables, such as age, gender, financial situation, having children, job seniority, weekly working time, and depressive symp-

Table 1. Analysis of the frequency of experiences of disorders according to PHQ-9 in the surveyed nurses

Categories	Duration			
	None *n* (%)	A few days *n* (%)	More than half of days *n* (%)	Almost every day *n* (%)
Problems with sleep	46 (31.29)	57 (38.78)	25 (17.01)	19 (12.93)
Feeling down, depressed, or hopeless	56 (38.10)	70 (47.62)	14 (9.52)	7 (4.76)
Lack of interest	56 (38.10)	59 (40.14)	27 (18.37)	5 (3.40)
Suicidal thoughts and actions	132 (89.80)	15 (10.20)	0 (0.00)	0 (0.00)
Moving disorders	113 (76.87)	31 (21.09)	3 (2.04)	0 (0.00)
Trouble concentrating	75 (51.02)	56 (38.10)	15 (10.20)	1 (0.68)
Feeling bad about oneself	74 (50.34)	57 (38.78)	12 (8.16)	4 (2.72)
Nutrition disorders	78 (53.06)	42 (28.57)	19 (12.93)	8 (5.44)
Fatigue or lack of energy	12 (8.16)	81 (55.10)	40 (27.21)	14 (9.52)

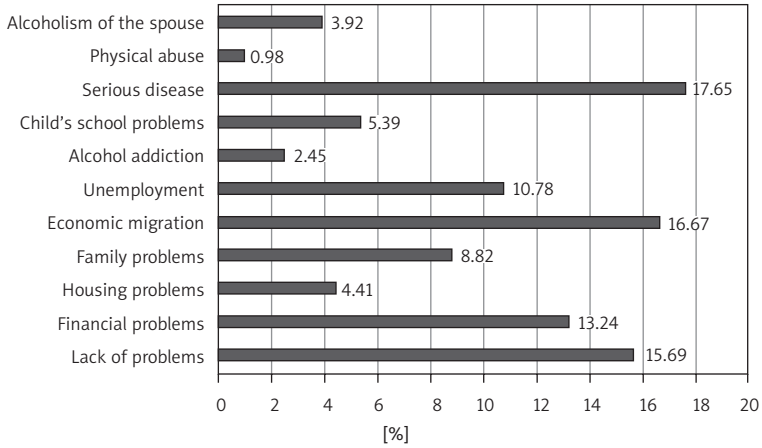

Figure 1. Family-related sources of depressed mood in the group of nurses

toms was not confirmed ($p > 0.05$). However, it was proven that the percentage of depressive symptoms was higher in city dwellers than country dwellers ($p = 0.0206$).

Respondents were asked how the states of depressed mood translate into family relations. The biggest group of respondents ($n = 112$; 76.19%) declared no impact of experienced bad emotions on family life. Greater nervousness was indicated by 28 (19.05%) people, 5 (3.40%) admitted they had withdrawn from family life, whereas 2 (1.36%) other respondents admitted they neglected family life significantly.

Nurses considered the following as events most often contributing to depressed mood: long-lasting mental and physical load ($n = 79$; 27.15%), long-term stress ($n = 70$; 24.05%), high level of requirements set at work ($n = 39$; 13.40%), problems and conflicts with co-workers ($n = 37$; 12.71%), disproportionate demanding attitude of patients and their families ($n = 35$; 12.03%), and a lot of responsibility for human life and health ($n = 31$; 10.65%). The percentages do not add up to 100% because it was a multiple-choice question.

Most respondents ($n = 120$; 81.63%) claimed that the states of depressed moods do not translate into the effectiveness of their work. On the other hand, 9 (6.12%) people complained about greater touchiness at work, related to bad emotional state, 7 (4.76%) respondents marked greater fatigue, 4 (2.72%) reduced concentration, and the other 2 (1.36%) – unwillingness to work. It is worth emphasising that respondents also gave examples of undesired behaviours, which they contributed to experiencing depressed mood: 2 (1.36%) people made a wrong entry in medical documentation, and 2 (1.36%) administered improper oral drugs, whereas 1 person overlooked the necessity to administer order pharmacotherapy.

What arises from the data analysis is that negative emotional states sometimes disturb relations between the nurse and the patient and the nurse and co-workers: 33 (22.45%) people said they felt greater touchiness towards others, 18 (12.24%) were less understanding, and one person got involved in conflicts more easily.

Respondents were also asked about the ways of handling their depressed mood: 42 (28.57%) people participated in sports or undertook other physical activity in difficult moments, and fewer ($n = 33$; 22.45%) asked others for help, or the opposite – they isolated ($n = 25$; 17.01%). Overeating concerned 20 (13.61%) people, 11 (7.48%) respondents gave up and did nothing, and 7 (4.76%) respondents relaxed. Other used forms of coping with depressed mood include taking drugs or psychoactive drugs ($n = 4$; 2,72%), prayer ($n = 3$; 2.04%), and reading books ($n = 2$; 1.36%).

Discussion

Due to its dissemination (over 350 million people all over the world) depression is treated as a priority entity in the area of mental diseases; it "ruins" human emotions, thoughts, and actions [13]. The analysis of research proved slight exacerbation of depressive symptoms in 41.81% of nurses, moderate in 17.68%, and moderate to severe in 4.76%. The study was conducted with the use of the PQH9 Questionnaire by Letvak *et al.* among 1117 American nurses in South Carolina and confirmed depressive symptoms in 18% of surveyed nurses, with 9% of suffering from depression in the US population [14]. The research conducted by Tsirigotis *et al.* among nurses working at psychiatric wards proved every third nurse (33.3%) suffers from dysthymia, one of the most recognised health disorders in the general population [15]. The results of the presented research justify the supposition that nurses are a professional group in which depressive symptoms occur more often in comparison to the general population.

Depressive disorders are related to limitations in functioning; the relation is connected with the ex-

acerbation of symptoms. When analysing the results of research, it was proven that, over the previous 2 weeks, 91.84% of respondents felt tiredness that lingered for at least a few days. At the same time, there were problems with sleep (68.72%), sadness (61.90%), reduction of interests (56,91%), and problems with concentration (48.98%). In the research carried out by Tsirigotis *et al.*, 43.3% of nurses of the psychiatric ward had sleep disorders, fatigue syndrome was observed in 41.7%, and thinking disorders occurred in 40% of respondents [15]. According to the report by Lewandowska and Litwin, nurses from Podkarpackie Voivodeship surveyed by the authors felt fatigue and exhaustion in a high percentage – 79%, and touchiness and depressed mood was observed in 46% of respondents [16]. Similar results were presented by Ramuszewicz *et al.*, who, after analysing the research results among nurses of Warsaw oncological wards, indicated fatigue as a frequent symptom in 68% of respondents, whereas in 47% of respondents depressed mood was observed [17].

In the analysis of this research, no significant relation between having children and depressive symptoms was found; however, most women who were mothers struggled with such disorders. The relation may arise from strong stress experienced while performing specific roles by women: single mothers, married housewives bringing up children, or combining upbringing of children with professional work without sufficient support from the family environment. In accordance with the literature, the family creates separate functions for a woman and for a man. It gives stability and is a source of support for the man. However, due to additional duties, a different way of coping with unfavourable emotions is a source of depressive disorders among women [18].

Difficult situations arising from everyday life are usually connected with crises with which the family struggles. Depressive disorders may be a consequence of stress connected with family problems, but depressive disorders may also be their cause. In the analysis of this research, a significant relationship between depressive disorders and existing serious disease in the family and economic migration was found ($p < 0.05$). Situations causing depressed mood, in the nurses' opinion, were also financial problems (13.24%), unemployment in the family (10.87%), and to a lesser extent, family problems, housing problems, and a child's school problems. To sum up the above results, we may claim that disease and financial problems strongly influence the mental condition of respondents. Economic migration is closely related to unemployment – a complex and multi-dimensional phenomenon, being a serious threat for mental health. Szymańczak *et al.* claim job loss is a critical event in the life of an individual and her or his family. With losing a job, depressed mood, withdrawal, exacerbation of depressive symptoms, and undertaking suicidal activities occur [19].

The state of emotions inevitably influences interpersonal relations existing among the nearest and dearest and in the work environment. According to other authors, the work environment may be a cause of depressed mood (in 46.00%), which disturbs relations in the family environment (25.00%), and generates misunderstandings among the family members, anger, and touchiness in relations with family members (38.00%) [16]. What arises from this research is that 23.81% of respondents observed the influence of experiencing bad emotions on family life.

In accordance with the literature, there is a relationship between the phenomenon of ineffective work and depressive symptoms. Employees coming to work despite the disease become annoyed more often, make mistakes, and are more vulnerable to conflicts with co-workers [20]. The job of a nurse is difficult; it is multi-task in nature and requires good physical and mental condition. In this research, nurses considered the following as factors that most frequently contribute to depressed mood: long-standing mental and physical load (27.15%), prolonged long-term stress (24.05%), high level of requirements (13.40%), problems and conflicts with co-workers (12.71%), demanding attitude of patients and their families (12.03%), and great responsibility for human health and life (10.65%). It was proven that, in the work environment, 22.45% of respondents felt greater touchiness towards others, 12.24% were less understanding, and one person more easily became involved in conflicts. In accordance with the research carried out by Tartas *et al.* conducted among nurses of a surgery ward and a hospice, the greatest burden in the nurses' opinion were: general workload (70% – surgery, 57% – hospice), problems in team work (47% – surgery, 70% – hospice), and low pay (40% – surgery, 47% – hospice) [21]. The research by Dębska *et al.* carried out in health care units of Krakow, comprising a group of 156 nurses, proved mental exhaustion was most influenced by long-term workload and problems and conflicts in the group [22].

83.67% of respondents postulated a willingness to take advantage of the help of a psychologist/psychotherapist in difficult situations, which are very frequent in the job of a nurse. Usually, it is a nurse who performs a psychological, educational function, supports patients, and helps them to accept the disease. The current legal state in Poland does not provide a possibility to use the assistance of a psychologist due to occupational stress. If such a need occurs, first a nurse must visit a family doctor to receive a referral to a specialist. However, there is a possibility to take part in training courses for nurses on coping with stress for which the participation is often chargeable.

Conclusions

Depression is a common problem among nurses. A serious disease in the family and parting due to economic migration constituted the main family-related factors influencing the mental condition of respondents. Nurses regarded mental and physical load and prolonging stress as the events most frequently contributing to depressed mood. Negative emotional states disturb nurse-patient and nurse-co-workers' relations. A considerable need was found to create the possibility for nurses to use psychological support due to difficult professional situations.

Conflict of interest

The authors declare no conflict of interest.

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