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## ASSESSMENT OF PSYCHOSOCIAL WORK CONDITIONS OF NURSES AT SELECTED HOSPITAL WARDS

OCENA PSYCHOSPOŁECZNYCH WARUNKÓW PRACY PIELĘGNIAREK NA WYBRANYCH ODDZIAŁACH SZPITALNYCH

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### ABSTRACT

**Background:** Good organisation of work, clear division of responsibilities, support from superiors are factors that positively influence the satisfaction of the profession. The purpose of the work was the assessment of psychosocial working conditions of nurses. **Material and Methods:** The research included 388 nurses working at surgical wards, medical treatment wards, and psychiatric wards. The research method was a diagnostic survey carried out by means of a questionnaire called Psychosocial Work Conditions. The obtained results were statistically analysed. **Results:** Nearly a half of the nurses considers the requirements at work as moderate, and 36.66% as high. Nurses from medical treatment wards indicate the highest level of requirements. Nurses working at psychiatric wards and in a shift system significantly more often feel the requirements relating to overload and resulting from a conflict of roles. Nurses working in the profession for more than 10 years considerably more often describe the level of behavioural control as high in comparison to those working for a shorter time. Regardless of the character of a ward, nurses most often (44.33%) assess the support from co-workers as average, and 1/5 considered this as low. **Conclusions:** The results indicate the correctness of introducing psychosocial training for professionally active nurses. Med Pr 2014;65(2):173–179

**Key words:** nurses, psychosocial work conditions, hospital wards, work system

### STRESZCZENIE

**Wstęp:** Dobra organizacja pracy, jasny podział obowiązków, wsparcie ze strony przełożonych to czynniki, które pozytywnie wpływają na satysfakcję z wykonywanego zawodu. Celem niniejszej pracy była ocena psychospołecznych warunków pracy pielęgniarek. **Materiał i metody:** Badaniem objęto 388 pielęgniarek pracujących na oddziałach zabiegowych, zachowawczych i psychiatrycznych. Metodą badawczą był sondaż diagnostyczny przeprowadzony z wykorzystaniem kwestionariusza Psychospołeczne Warunki Pracy. Uzyskane wyniki poddano analizie statystycznej. **Wyniki:** Blisko połowa pielęgniarek uważa wymagania stawiane w pracy za przeciętne, a 36,66% za wysokie. Na najwyższy poziom wymagań wskazują pielęgniarki z oddziałów zachowawczych. Pielęgniarki pracujące na oddziałach psychiatrycznych oraz w trybie zmianowym istotnie bardziej odczuwają obciążenie pracą wynikające z przeciążenia i konfliktu ról. Pielęgniarki pracujące w zawodzie ponad 10 lat istotnie częściej określają poziom kontroli behawioralnej jako za wysoki w stosunku do osób pracujących krócej. Bez względu na rodzaj oddziału pielęgniarki oceniają najczęściej wsparcie ze strony współpracowników jako przeciętne (44,33%), a 1/5 uznała je za niskie. **Wnioski:** Uzyskane wyniki badań wskazują na konieczność rozważenia, czy nie jest zasadne wprowadzenie szkoleń psychospołecznych dla czynnych zawodowo pielęgniarek. Med. Pr. 2014;65(2):173–179

**Słowa kluczowe:** pielęgniarki, psychospołeczne warunki pracy, oddziały szpitalne, system pracy

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## INTRODUCTION

The process of nursing is the basic element of health and life maintenance of people. This responsibility lies with nurses who are the principal part of the healthcare system. The performance of the profession of a nurse has a fundamental influence on the quality of healthcare. That is this professional group that is a link between patients, their families and the remaining part of the healthcare system (1,2). Working as a nurse is connected with a high level of psychosocial risk. It results from the nature of the profession, which is multitask and complex (3–5).

Nurses are independent workers who have the realization of many activities in the scope of their area of responsibility. These are, among others, nursing care, therapy, prevention, diagnostics, rehabilitation and health promotion (6). A nurse working in a hospital environment is expected not only to provide professional medical help, but also broadly understood support and empathy (7). Despite the clearly defined professional nurse functions, the characteristics of each ward affect the level of stress, burnout, and the level of application requirements (3). Working in surgical wards requires physical strength as well as mental resistance, permanent concentration and rapid decision-making (7). Communication skills with patients with mental disorders, patience, perseverance, empathy are particularly important in psychiatric wards. Literature emphasizes that psychiatric nurses are particularly exposed to professional burnout and occupational stress (8,9). Kurowska et al. showed that nurses working in inhibited wards also have the highest level of empathy, which may be due to the nature of the work, more organized, static versus the dynamic work of nurses in surgical wards (10).

The dominating system of nurses' work in hospitals is the 12-hour system in continuous motion. Such a system of work disturbs biological rhythm and fosters professional burnout (11). According to the research of Camerino et al. (12), nurses working according to a day-night system have lower job satisfaction and course of their careers. Sygit stated that nurses, regardless of seniority, are characterized by urgency, thoroughness and precision, however, longer seniority has a positive effect on professional ambitions (13).

According to the DCS (demand-control-support) model, stress resulting from the scope of work responsibilities depends on three fundamental dimensions of work, including the level of requirements set out by work, the scope of control, and social support, both from

superiors and co-workers. The essence of the model are interactions between particular constituents (3,14–17).

The research indicates that the most negative health consequences, decrease in job satisfaction, and lower work quality are caused by high requirements and low level of control in connection with minimum social support (18). Similar conclusions are shown by the research of Sveinsdóttir et al. and Lu et al. (19,20).

Good organisation of work with the support of superiors, clear division of functions among therapeutic team members contribute to work satisfaction and, thereby, favourably influence the quality of nursing care (21,22). The research by Hägeström et al., conducted among nurses taking care of geriatric patients, indicated that good communication and support from the management staff contribute most to work satisfaction (23). Kovner et al. also stated that a high level of satisfaction of the performed work is gained by nurses who have the feeling of support from their superiors, working in well-organised teams with clear division of responsibilities (24).

### Purpose of the study

The purpose of the study was the psychosocial assessment of nurses' work conditions. The hypothesis assumes that the type of the ward has an impact on psychosocial working conditions. Subjective assessment of these aspects depends on the system of work, forms of employment and seniority of the nurses who participated in the study.

## MATERIAL AND METHODS

The research was conducted using a method of diagnostic survey with the selection of aspects allowing to achieve the study's purpose contained in the Psychosocial Work Conditions (PWC) questionnaire, drawn up at the Central Institute of Labour Protection in Warszawa by Widerszal-Bazyl and Cieślak (25).

The survey form consisted of 4 parts:

- part I referred to the level of requirements set out by the job, including intellectual, mental and physical ones relating to the responsibility for safety and relating to overwork and conflict of roles – 25 questions;
- part II referred to the scope of the control of their work (cognitive and behavioural control), as perceived by respondents – 20 questions;
- part III contained questions concerning the perceived level of social support in the work environment by superiors and co-workers – 16 questions;

■ part IV served collecting social and demographic data of the respondents – 12 questions.

In parts I to III, the respondents had a possibility to choose 1 of the 5 given answers in each question. The study used a key informing of the manner of counting the raw value and a list of standards for particular scales of the questionnaire (18,26).

While analysing the raw value, it was compared to sten scores. It was assumed for the result interpretation (18):

- sten value from 1 to 4 – low result,
- sten value from 5 to 6 – average result,
- sten value from 7 to 10 – high result.

The obtained results were statistically analysed using a non-parametric Chi-squared test ( $\chi^2$ ). If  $\chi^2$  is lower than the value of  $\chi^2$  alpha, that means that the compared variables are independent of each other. Cramer's V was also used, which is a measure of the dependence among the studied features. Value  $V < 0.3$  means a weak relation,  $V < 0.5$  a moderate relation, and  $V > 0.5$  a strong relation.

The research was conducted from February to May 2012 and from September to November 2012. The study included 388 nurses working at selected hospital wards in the West Pomerania province. Among them, 152 nurses (39.18%) worked at medical treatment wards, 136 (35.05%) at surgical wards, and 100 respondents (25.77%) were nurses working at psychiatric wards. More than 55.15% ( $N = 214$ ) of them had secondary education. The majority of respondents – 82.98% ( $N = 322$ ) – were employed in the system of 12-hour shift work, 63.91% ( $N = 248$ ) had a permanent contract of employment. In the case of the most of them – 80.41% ( $N = 312$ ) – their seniority was more than 10 years.

Participation in the survey was voluntary and anonymous. Unrepresentative test group was composed of volunteers interested in participating in the study.

## RESULTS

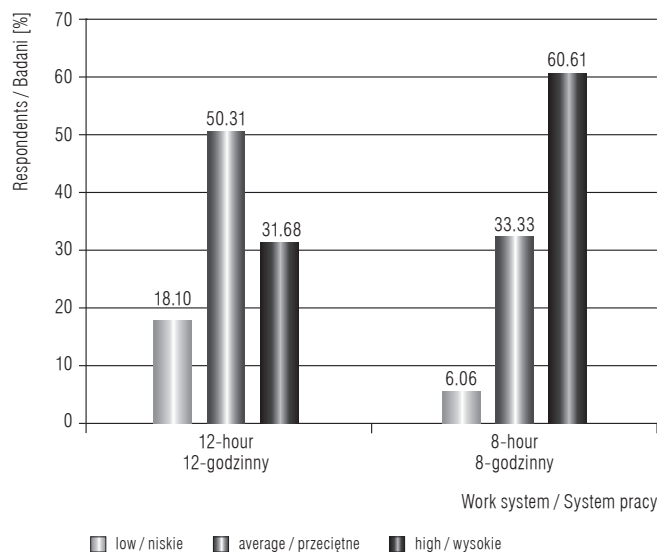
The questioned nurses, in 47.42% ( $N = 184$ ), think that their general requirements at work are moderate, and 36.60% ( $N = 142$ ) considered them as high. High level of intellectual requirements was noted in 37.63% of the respondents, whereas low level of intellectual requirements was noted in 17.53% of the surveyed persons. As far as mental and physical requirements are concerned, as well as requirements in the responsibility for people and property, mostly high results were

observed – 55.15% ( $N = 214$ ). Analysing the requirements relating to the necessity of work in a situation of a conflict of roles and overwork, it was observed that more than a half – 62.37% ( $N = 241$ ) – of the respondents determined their work as highly demanding. On the other hand, 42 surveyed persons had their results at a low level, which is 3.61% of all of the respondents.

Statistical analysis showed a relationship between the specificity of the ward and the overall level of requirements set out by work ( $\chi^2 = 10.055 > \chi^2$  alpha = 9.488, Cramer's  $V = 0.161$ ). It was found that the highest level of general requirements are felt by nurses from medical treatment wards. Such an answer was given by 47.37% of the group of the nurses employed at those wards. However, the statistical analysis did not show a relationship between a ward's specific characteristic and intellectual requirements ( $\chi^2 = 2.026 < \chi^2$  alpha = 9.488), as well as between a ward's specific characteristic and conditions which stem from the psychophysical and professional responsibility for the safety of other people and property. On the other hand, statistical analysis revealed the relationship between a hospital ward and requirements relating to the conflict of functions and overwork ( $\chi^2 = 11.685 > \chi^2$  alpha = 3.488, Cramer's  $V = 0.174$ ). Nurses working at psychiatric wards indicate their highest levels (74% of this group).

The statistical analysis showed that work systems significantly interact with the requirements relating to the conflict of roles and overload ( $\chi^2 = 8.295 > \chi^2$  alpha = 5.991). The majority of the nurses – 66.46% ( $N = 214$ ) – working in a shift system indicated high requirements in this respect, 31.06% ( $N = 100$ ) of them felt moderate requirements, and only 2.48% ( $N = 8$ ) of them described them as being at a low level. However, among the respondents working according to an 8-hour system, 48.49% ( $N = 32$ ) indicated a moderate level of requirements, 42.42% ( $N = 28$ ) – high, and only 9.09% ( $N = 6$ ) of this group felt a low level of requirements resulting from the conflict of roles and overwork.

The statistical analysis also showed a significant relation between the work system and the level of general requirements in the profession of a nurse. The surveyed persons working in an 8-hour system more often indicated a high level of work requirements, whereas nurses working in a 12-hour system most often assessed the level of general requirements as moderate (Figure 1). The difference in the perception of general requirements and the work system was statistically significant ( $\chi^2 = 10.375 > \chi^2$  alpha = 5.991).



**Fig. 1.** Work system and the level of general requirements  
**Ryc. 1.** System pracy a poziom wymagań ogólnych

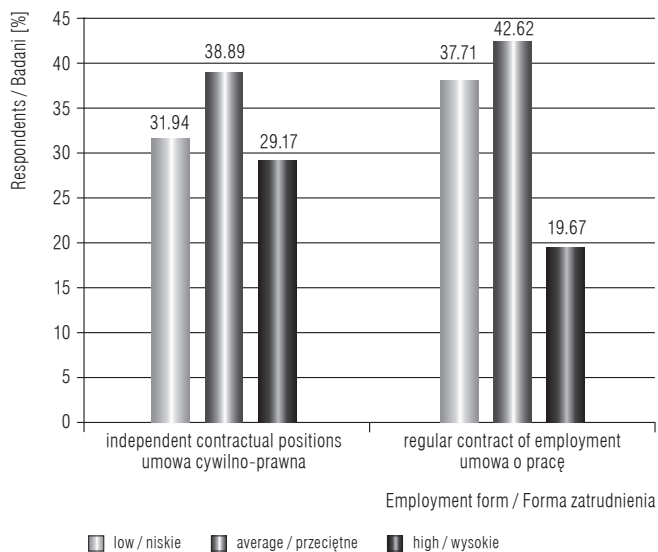
Assessing the scope of the control of work, it was found that almost half of the surveyed persons thought that they had a low influence on the set out requirements – 45.88% (N = 178).

Studying the possibility of participation in decisions concerning physical, social, and organisational work environment, it was shown that 39.18% (N = 152) of the respondents felt a high level of control in this respect, 25.77% (N = 100) – low, and the remaining persons – moderate.

The conducted research did not show any connection between a specific characteristic of a ward and the requirements referring to psychophysical and professional responsibility for the safety of other people and property ( $\text{Chi}^2 = 2.107 < \text{Chi}^2 \text{ alpha} = 3.488$ ).

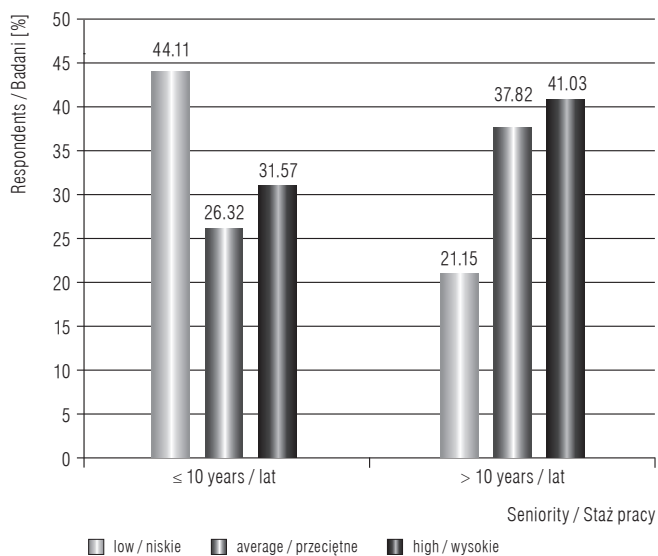
Assessing the psychosocial work conditions in terms of cognitive control, it was found that 41.24% (N = 160) of the respondents obtained results at the average level, 23.20% (N = 90) at a high level, and the remaining ones at a low level. Establishing the connection between the form of employment and the scope of cognitive control, it was found out that there is no relation between those variables. The research showed that the cognitive control was perceived as average, both among nurses with a regular contract of employment and those with independent contractual positions (Figure 2).

Nurses with seniority of more than 10 years described the behavioural control at high and average levels. On the other hand, nurses with seniority of less than 10 years most often indicated a low level of behav-



**Fig. 2.** The form of employment and the scope of cognitive control  
**Ryc. 2.** Forma zatrudnienia a kontrola poznawcza

avioural control. The research showed a statistically significant connection between seniority and behavioural control –  $\text{Chi}^2 = 7.144 > \text{Chi}^2 \text{ alpha} = 5.991$  (Figure 3). No statistically significant difference between the form of employment and behavioural control was found ( $\text{Chi}^2 = 7.144 < \text{Chi}^2 \text{ alpha} = 5.991$ ).



**Fig. 3.** Seniority and the scope of behavioral control  
**Ryc. 3.** Staż pracy a kontrola behawioralna

Analysing the general scope of social support in the nurses' work environment, most often, its low level was indicated – 54.36% (N = 176); and 34.54% (N = 134) as-

essed it at an average level. More than a half – 51.03% (N = 198) – of the respondents stated that they could count on their superiors' support to a large extent, but 9.79% (N = 38) considered that kind of support as low. The nurses participating in the study usually described the level of support from their co-workers as average – 44.33% of the surveyed persons gave such an answer (N = 172) – whereas 20.62% assessed that aspect as low. The research did not show any connection between seniority, form of employment, and the perceived level of support from superiors and co-workers. No statistically significant relations between the feeling of support from superiors and co-workers, and the type of the ward were found.

## DISCUSSION

Nurses, while doing their work, are exposed to physical, biological, and chemical dangers and to extremely significant factors of psychosocial risk. According to the information of the World Health Organisation, psychosocial work conditions are the main source of stress which, in turn, is a serious threat to health (6,16). Identification of psychosocial threats and the knowledge on the degree of their intensity allow to introduce preventive measures the results of which are visible both in the functioning of an employee and the whole organisation. The research conducted by Perk et al. shows that 79.6% of nurses mention excessive number of responsibilities as overloading situations (27). On the other hand, it results from the research on the sources of professional stress in nurses' work, conducted in 2009 by Tartas et al., that the majority of the respondents (57%) indicated a high degree of workload resulting from the profession of a nurse (28). Researches by American scientists show that nurses are exposed to verbal abuse by physicians at wards where there is overload with responsibilities and there are no good organisational solutions (29). The research by Ruggiero proves that shift work has no influence on nurses' work satisfaction, but too many weekends spent at work contribute to the decrease of satisfaction with their work (30).

Results of the authors' research show that the biggest proportion of the respondents describe requirements set out by their work as average. The level of intellectual requirements was also described as moderate by most surveyed persons. A considerable part of the respondents feel an overload in terms of mental and physical requirements and those connected with the responsibility for safety of people and property. In the case of most of the surveyed nurses a high level of re-

quirements concerning the conflict of roles and overload was noted. Hungarian research confirms that the conflict of roles and overload with responsibilities lead to emotional exhaustion, which, in turn, considerably lowers work satisfaction (31).

The level of control of work is a significant factor influencing work satisfaction. It includes both behavioural control relating to the possibilities of participation in making decisions concerning a way of doing work, and cognitive control. Cognitive control relates mainly to the clarity of professional functions, the scope of responsibilities, access to information, and certainty of work. As it results from the research conducted by the Central Institute of Labour Prevention – State Research Institute as part of a European project NEXT (Nurses' Early Exit Study), Polish nurses felt a low level of work control. The study also showed a low degree of professional development possibilities of nurses.

The results concerning the certainty of work at a held position were also at a low level. Nurses stated that they had no influence on the fact whether they would keep a held work position. It should be added that the studied group of nurses from our country showed the lowest level of work control among 10 countries involved in the project (18). The results of our research confirm the results conducted as part of the NEXT European research. Nurses participating in our study, in 45.88%, felt a low level of general control or the influence on performed professional responsibilities. In the case of the behavioural control, however, 39.18% of respondents felt a high control in this respect, and 35.57% stated that they can control the way and time of their work performance in a moderate manner. Making an assessment of psychosocial conditions, also the level of received social support was measured.

High level of the perceived support is extremely advantageous for employees, especially with a high level of requirements. As numerous studies indicated, the awareness of support from superiors and co-workers lowers psychosocial risk. The research conducted by Plotka et al. in 2000 shows that relationships with superiors are stressful for nurses (48.2%), which signifies a low degree of assistance from them (32).

Perek et al. showed in their studies that, among the nurses participating in the study and employed at intensive medical care wards, 77.8% and 50% from the group of respondents working at a hospital emergency ward, felt little support from their superiors (27). The results of studies published in 2009 by Tartas et al. show that nurses from a surgical ward and from a hospice partici-

pating in the study perceived support from their superiors at a low level. Such an answer was given by 43% of the nurses from the hospice and 40% from the surgical ward. The author also determined the support of co-workers in her study. Eighty percent of nurses employed at a hospice and 53% from a surgical ward declared that they sometimes received help from their colleagues (28).

Our own studies prove that the surveyed persons generally perceived social support at a low level. Only more than a half of the respondents felt a high degree of support from their superiors. However, in the case of the support from co-workers, 44.33% of the respondents declared that they could count on help from their colleagues in a moderate degree, and 1/5 did not feel such support, which may indicate difficulties in good organisation of team work.

Advantages resulting from activities aiming at the improvement of psychosocial work conditions are significant, particularly in such social professions as a nurse. As numerous studies indicate, the levels of requirements, control, and social support are particularly significant. Even with high requirements resulting from the uniqueness of the work and a large degree of social support, there is a lower level of risk resulting from psychosocial. Monitoring work conditions in workplaces is extremely important. Many advantages, both for employees and their employers, can be noticed. Employees feel more motivated for work. Moreover, they are less exposed to diseases connected to psychosocial stress. Increased work efficiency and lower level of absence related to illnesses are observed among employees working in favourable conditions. It brings about notable economic benefits for the whole organisation. Due to the above, the main priority of hospital managements should be minimising psychosocial risk by introducing a management system in this respect.

### Limitations

This study, due to lack of interest of the selected occupational group, was not representative. Participation in quantitative research, conducted by using an extensive questionnaire, requires a large time commitment. The study group was composed of volunteers interested in the issues of psychosocial aspects of their profession. Due to the unrepresentative selection to the study, the presented results cannot be generalized and identified with the opinions of the entire group of professional nurses. However, the research carried out has allowed to know the opinion of nurses, from selected wards, interested in psychosocial working conditions.

## CONCLUSIONS

Nurses working in psychiatric wards indicate a high level of requirements resulting from role conflict and overload. It might be due to, among others, aggressive behaviours of patients to staff. Nurses working in conservative wards highly adjudicate the overall requirements, because their scope of responsibilities includes holistic care of patients with various diseases. Nurses working according to the 8-hour system feel it the most, because most nursing procedures is carried out during the day. This assessment allows establishing that the specificity of the wards and work system differentiate the level of work requirements. Together with professional experience, the self-control of the performed work increases. According to nurses, support by co-workers is unsatisfactory. Therefore, it can be assumed that the integration of nursing staff as a team is insufficient. The obtained results notify about the importance of the introduction the psychosocial training for professionally active nurses.

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