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THE ROLE OF THE NURSE IN THE REHABILITATION OF PATIENTS WITH STRESS-ASSOCIATED DISORDERS IN A MULTIDISCIPLINARY TEAM

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***Key words**: nurses, multidisciplinary team, rehabilitation activities, combatants.*

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***Resume.** The modern concept of nursing development emphasizes equal partnership in teamwork. A nurse is considered a highly qualified specialist - a partner of a doctor and a patient, capable of independent work as part of a single team.*
***The aim** is to investigate the role of a nurse as part of a multidisciplinary rehabilitation team.*
***Material and methods**. For a detailed clinical, anamnestic and empirical study, 56 combatants (46 men and 10 women) with post-traumatic stress disorder (PTSD) were selected. All respondents had experience of 6 to 12 months in an active combat zone. A psychodiagnostic method was used with the PHQ-9 (Patient Health Questionnaire), the Mississippi PSTD scale (military version), and the Hospital Anxiety and Depression Scale (HADS).*
***Results.** Among the entire combatants cohort, PTSD was the most common (62.9%), acute stress reaction was registered in 10.1% of individuals, and the rest (26.9%) had adjustment disorders (F43.21 - 3.3%, F43.22 - 8.9%, F43.23 - 6.7%).*
Among the combatants, moderate and severe degrees of depression prevailed. A low level of anxiety (less than 40 points) was established in 8.9% of combatants, reduced (40 - 78 points) - in 10.7%; medium (79 - 117 points) - in 14.2; increased (118 - 156 points) - in 50.0%; high (more than 156 points) - in 17.8%. The functions of a nurse as part of multidisciplinary rehabilitation teams (physiotherapist, physiotherapist, psychologist, social educator, speech therapist, occupational therapist, nurse) were highlighted. The implementation of the nursing process in the rehabilitation of patients is a necessary condition for the implementation of professional care, as it allows improving the quality of nursing care and has a positive effect on the patient's quality of life related to health.
***Conclusion**. Based on the conducted research, it was established that no global task in the field of health care could be solved without coordinated and systematic efforts to maximize the potential of nursing and increase its role within the framework of interdisciplinary medical teams. The study made it possible to compare the state of psycho-emotional health of combatants, to determine the necessary rehabilitation areas, the role and tasks of a nurse/medical brother as part of a multidisciplinary rehabilitation team.*

РОЛЬ МЕДИЧНОЇ СЕСТРИ В РЕАБІЛІТАЦІЇ ПАЦІЄНТІВ ІЗ СТРЕС-АСОЦІЙОВАНИМИ РОЗЛАДАМИ У МУЛЬТИДИСЦИПЛІНАРНІЙ КОМАНДІ

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***Ключові слова:** медичні сестри, мультидисциплінарна команда, реабілітаційні заходи, учасники бойових дій.*

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***Резюме**. Сучасна концепція розвитку сестринської справи виокремлює рівні партнерські відносини в командній роботі. Медична сестра розглядається як висококваліфікований фахівець - партнер лікаря і пацієнта, здатний до самостійної роботи у складі єдиної команди.*
***Мета дослідження** – дослідити роль медичної сестри в складі мультидисциплінарної реабілітаційної команди.*
***Матеріал і методи**. Для детального клініко-анамнестичного та емпіричного дослідження відібрано 56 учасників бойових дій (46 чоловіків та 10 жінок) із посттравматичним стресовим розладом (ПТСР). Усі респонденти мали досвід від 6 до 12 місяців перебування в зоні активних бойових дій. У роботі використаний психодіагностичний метод із затосуванням анкети-опитувальника PHQ-9 (Patient Health Questionnaire), Міссісіпської шкали ПСТР (військовий варіант), госпітальної шкали тривоги й депресії (HADS).*
***Результати.** Серед усієї когорти УБД найчастіше траплявся ПТСР (62,9%),*

гостра реакція на стрес була зареєстрована у 10,1% осіб, у решти (26,9%) - розлади адаптації (F43.21- 3,3%, F43.22 - 8,9%, F43.23 - 6,7%).
Серед УБД переважали середні та тяжкі ступені депресії. Встановлено низький рівень тривоги (менше ніж 40 балів) у 8,9 % УБД, знижений (40 – 78 балів) – у 10,7%; середній (79 – 117 балів) – у 14,2; підвищений (118 – 156 балів) – у 50,0%; високий (більш ніж 156 балів) – у 17,8%. Виокремлено функції медичної сестри в складі мультидисциплінарних реабілітаційних команд (лікар ЛФК, фізіотерапевт, психолог, соціальний педагог, логопед, ерготерапевт, медична сестра). Впровадження сестринського процесу в реабілітацію пацієнтів – необхідна умова здійснення професійного догляду, оскільки дозволяє покращити якість сестринської допомоги та позитивно впливає на якість життя пацієнта, пов'язане зі здоров'ям.
Висновок. *На основі проведеного дослідження встановлено, що жодне глобальне завдання у сфері охорони здоров'я не може бути вирішено без координованих і систематичних зусиль по максимальній реалізації потенціалу медсестринства та підвищення його ролі в рамках міждисциплінарних медичних команд. Дослідження дало можливість порівняти стан психо-емоційного здоров'я учасників бойових дій, визначити необхідні реабілітаційні напрямки, роль та завдання медичної сестри/медичного брата у складі мультидисциплінарної реабілітаційної команди.*

Nurses constitute the largest cohort of health care workers and are considered a valuable resource of the medical system [1]. The modern concept of nursing development emphasizes equal partnership in teamwork. The nurse is regarded a highly qualified specialist - a partner of the doctor and the patient, capable of independent work as part of a single team [2].

The role of a nurse is gradually changing and involves an equal partnership with a doctor, teamwork "doctor-nurse", orientation to patient needs, provision of continuous care, support for chronic diseases, preventive services, etc., that is, the functional responsibilities of mid-level specialists are being updated [3].

At the current stage, the main principles of the world concept of nursing are considered to be two independent, interconnected professions that complement each other - medicine (studies pathological processes, diseases that develop against their background, methods of influencing these pathological processes) and nursing (studies the individual's reaction to illness).

Nursing, which is currently based only on practice, is gradually adopting a new philosophy and developing as a profession. A different psychology of the nurse is being formed, who plays the role of a specialist - a partner of the doctor and the patient, capable of independent work within a single medical team and who bases her professional activity on a patient-centered approach [4-6].

Nursing care is based on the nursing process, which consists of a number of stages - nursing examination, identification of patient problems (with the formulation of a nursing diagnosis), planning and implementation of nursing intervention, and assessment of its effectiveness [7-9]. An essential component of this process is the rehabilitation of patients, which is of particular importance due to the high need for such care for combatants.

Rehabilitation is a complex process that cannot be limited to just one specialist. In order to restore a person's movement skills, restore their ability to self-care, and regain their ability to work and rest, a whole team of specialists is needed. This format of care involves the work of a so-called multidisciplinary rehabilitation team [10-11].

The help of a group of specialists is mandatory in inpatient conditions in the post-acute and long-term rehabilitation periods. If necessary, the multidisciplinary format of rehabilitation care can be used in the acute rehabilitation period and outside the hospital. It is not an innovation of the Ukrainian medical system - this is how rehabilitation works in all developed countries that follow WHO recommendations.

Medical services for effective rehabilitation are provided by various specialists, including physical and rehabilitation medicine doctors, who are responsible for organizing the work of multidisciplinary teams and implementing an individual rehabilitation plan. The task of these specialists is to develop, together with other team members, the most effective route for a person's recovery; physical therapists, who help patients restore lost motor functions of the body; occupational therapists, who work to restore people's household, social, and work skills of people after injuries or illnesses; speech and language therapists – specialists who have expertise in communication and swallowing disorders; prosthetists-orthetists who select prostheses, manufacture, adjust and assemble prosthetic and orthopedic products and their elements; psychologists, psychotherapists – help restore a person's mental health; rehabilitation nurses – work under the guidance of a physical and rehabilitation medicine doctor, together with physical therapists and occupational therapists according to a drawn up individual rehabilitation plan; assistants of physical therapists and occupational therapists – participate in the provision of rehabilitation care, in particular the implementation of an individual rehabilitation plan under the guidance of a physical therapist.

The main task of such a team is to maximize the restoration of mental and physical functions of a person [12-14]. Because it is them and their needs that are in the center of attention. Both short-term and long-term

rehabilitation goals are set and adjusted to the individual needs of each patient. First, the multidisciplinary rehabilitation team analyzes them from different angles, and then processes them at the maximum level of their professional capabilities. Thus, the goal is to investigate the role of a nurse in a multidisciplinary rehabilitation team.

Material and methods. The study was conducted on the basis of a crisis center with beds for military personnel of the Chernivtsi Regional Psychiatric Hospital and the rehabilitation department of the Chernivtsi Regional Clinical Hospital with a total of 89 people, including 20 female respondents and 69 male respondents. For a detailed clinical, anamnestic and empirical study, 56 combatants (46 men and 10 women) with post-traumatic stress disorder (PTSD) were selected. All respondents had experience of 6 to 12 months in an active combat zone.

The work used a psychodiagnostic method using the Patient Health Questionnaire (PHQ-9) as a screening tool (further in-depth diagnostics is recommended if the score is 10 or more points); Mississippi Posttraumatic Stress Disorder Scale (military version) (T.M. Keane, J.M. Caddell. K.L. Taylor, 1988). The 30 questions of the scale form three main scales that correlate with three groups of PTSD symptoms: 11 questions of the first scale describe the symptoms of the "intrusion" group, 11 symptoms of the second scale describe the symptoms of the "avoidance" group, 8 questions of the third scale describe the symptoms of "arousal". The remaining five questions describe symptoms related to guilt and suicidal tendencies. The results are evaluated by summing the points, the final indicator allows to identify the degree of impact of the traumatic experience suffered by the individual. The items included in the questionnaire fall into 4 categories, three of which correspond to DSM criteria: 11 are aimed at identifying symptoms of intrusion, 11 - avoidance, and 8 questions relate to the criterion of physiological arousal. Five other questions are aimed at identifying feelings of guilt and suicidality; the Hospital Anxiety and Depression Scale (HADS, A.S. Zigmond, R.P. Snaith, 1983) for identifying and assessing the severity of depression and anxiety in general medical practice. The advantages of this technique are its ease of use and processing (filling out the Scale usually takes 2-5 minutes), which allows us to recommend it for use in general somatic practice for the initial detection of anxiety and depression in patients. The questionnaire is used for persons aged 17 and over. The Hospital Anxiety and Depression Scale contains 14 items, each of which has 4 answer options, reflecting the degree of increase in the corresponding symptomatology.

The data of clinical observations were statistically processed on a personal computer ACER Intel® Core™ i3-7020 CPU @ 2.30GHz in the operating system Windows 10 using the programs "Microsoft Office Excel" and "STATISTICA 10". The averaged data are given as M±m, where M is the arithmetic mean value, m is the error of the arithmetic mean. The normality of the distribution of indicators was assessed using the Shapiro-Wilk W-test. To reveal the statistical difference between indicators in groups distributed normally, the Student's t-criterion of reliability was used, the degree of significance - r. The probability of the difference between relative values was determined by the Fisher's angular transformation method (Pφ).

Results. Acute stress reaction (F43.0) is a transient disorder of serious severity that develops in people without obvious mental disorders in response to stress. Acute stress reaction of mild (F43.01), moderate (F43.02) and severe (F43.03) levels are distinguished.

We analyzed the structure of post-stress disorders among the contingent of combatants (Table 1). The nosological structure of post-stress disorders in combatants is represented by PTSD (F43.1), acute stress reaction (F43.0) and adjustment disorders (F43.21, F43.22, F43.23).

Table 1

The structure of post-stress disorders among the combatants contingent

Nosology	Men (n=69)	Women (n=20)
Acute stress reaction (F43.0) F43.01 F43.02 F43.03	7 2 3 2	2 1 1 0
PTSD (F43.1)	46	10
Adjustment disorders (F43.2) F43.21 F43.22 F43.23	16 3 8 5	8 3 3 1

Among the entire combatants cohort, PTSD was the most common (62.9%), acute stress reaction was registered in 10.1% of individuals, and the rest (26.9%) had adjustment disorders (F43.21- 3.3%, F43.22 - 8.9%, F43.23 - 6.7%).

The nosological structure of post-stress disorders in combatants depending on gender is presented in Figure 1. PTSD prevailed among both male and female individuals, acute stress reaction occurred with the same frequency, and adaptation disorders were more often registered in women.

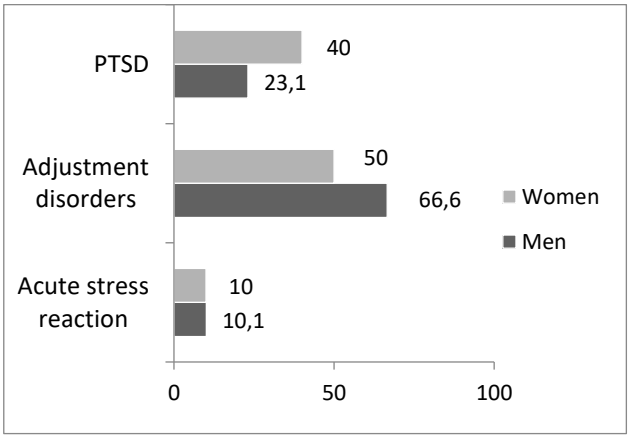

Fig. 1. Nosological structure of post-stress disorders in combatants depending on gender (%)

Of the 56 combatants who were surveyed using the PHQ-2 questionnaire, 56 (100%) were found to be indicated for further questioning, with higher scores indicating higher levels of depression and anxiety. In this study, 10 points were taken as the cutoff, since scores on a scale of 10 or more points require determination of the probable diagnostic status. Among combatants, moderate and severe degrees of anxiety and depression prevailed (minimum 0-4 points, mild 5-9, severe >10) (Fig. 2). According to the results of the study, a low level of anxiety (less than 40 points) was found in 8.9% of combatants, reduced (40 - 78 points) - in 10.7%; medium (79 - 117 points) - in 14.2; increased (118 - 156 points) - in 50.0%; high (more than 156 points) – 17.8%.

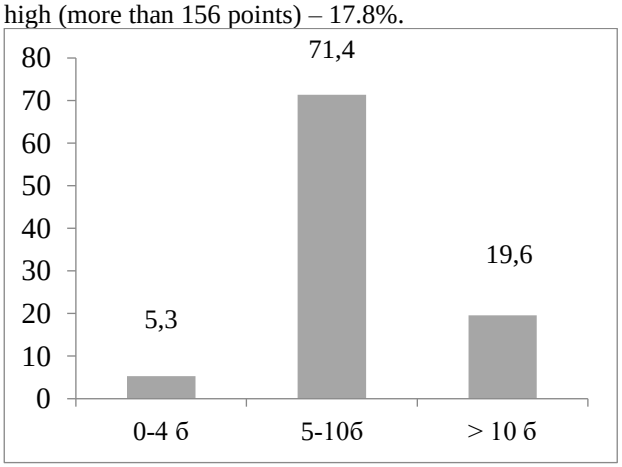

Fig. 2. Degrees of anxiety and depression in combatants (%)

The rehabilitation nurse's role is vital since they spend more time with the patient than any other specialist in various aspects of their life, thus getting a complete picture of the organization of stress management and monitoring compliance with the stages of rehabilitation measures.

The rehabilitation process involves interaction between specialists of the rehabilitation department in developing a rehabilitation program in order to restore temporarily lost functions of the patient or to adapt the patient to new living and/or working conditions as a result of completely lost functions. The efforts of specialists of the rehabilitation department (physiotherapist, physiotherapist, psychologist, social educator, speech therapist, occupational therapist, nurse) are aimed at maximally restoring the patient's ability to self-service, work, communicate, and relax.

We have identified the functions of a nurse as part of the following teams:

1. To identify medical, psychological, spiritual, social, including household problems of a patient with PTSD.

2. To independently conduct a directed psychological conversation with the combatants.

3. To be able to collect a nursing history of the disease and life in patients with signs of PTSD, to assess the psychological state of the patient with the formulation of the conclusion of the experimental psychological examination.

4. To determine the type of PTSD and the types of patient reactions to the disease.

5. To form an adequate attitude towards the disease in the patient, taking into account age, and to support him throughout the entire treatment and diagnostic process.

6. Differentiate the psychological characteristics of patients with PTSD, determine the need for psychological correction, taking into account the individual characteristics of the patient and age.

7. Give psycho-hygienic advice to a patient with clinical manifestations of PTSD.

8. Develop tactics for communicating with patients and their relatives, taking into account the principles of nursing ethics and deontology.

9. Peculiarities of communication with parents of children with PTSD.

10. Assess and correct the relationship between a patient with PTSD and medical personnel.

11. Be able to implement measures of primary psychoprophylaxis of emotional burnout syndrome in a medical environment.

12. Identify and assess risk factors for the health of the patient and their family members, advise on reducing their impact on health.

13. Implement measures to restore the adaptive capabilities of patients, taking into account their psychophysiological state, teach adaptation to limited capabilities, self-service and self-care.

14. Advise the patient and their family on organizing dietary nutrition, compliance with the recommendations of the medical and health-improving regimen prescribed for the period of recovery of the body.

A multidisciplinary approach to organizing rehabilitation not only makes the nurse an active participant in the treatment and rehabilitation process, but also places high demands on them - to prevent, alleviate, reduce or minimize the problems and difficulties that arise in the patient during the rehabilitation process. The focus of the nurse's actions depends on the problems the patient has. The implementation of the nursing process in the rehabilitation of patients is a necessary condition for the implementation of professional care, as it allows to improve the quality of nursing care and has a positive effect on the patient's quality of life related to health.

Conclusion. Based on the conducted research, it was established that no global task in the field of health care can be solved without coordinated and systematic efforts to maximize the potential of nursing and increase its role within the framework of interdisciplinary medical teams. The study made it possible to compare the state of psycho-emotional health of combatants, to determine the necessary rehabilitation areas, the role and tasks of a nurse as part of a multidisciplinary rehabilitation team.

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