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METHODOLOGICAL FOUNDATIONS OF NURSING IN THE REHABILITATION PROCESS

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Abstract

For many patients with chronic diseases during the rehabilitation process simultaneously curative and rehabilitative activities necessary to plan and carry out nursing and care activities that are relevant to the individual needs of patients. Assessment of care needs and nursing care plans were made for 60 patients admitted for rehabilitation in the Specialized Hospital for Rehabilitation „St. Mina " Varshets . This is a major methodological approach for providing quality nursing care for patients who have chronic diseases.

Key words*: nursing, rehabilitation process, chronic diseases*

INTRODUCTION

The process of globalisation and the trends for continuous increase of the needs of healthcare in Europe and worldwide predetermine the need to introduce and apply new models for provision of medical care. According to the World Health Organisation (WHO), the mission of the nurse toward society comprises of "... providing help to individuals, families and groups to reach and develop their own physical, mental and social potential and maintain it to the respective level in the complex environment they live, study and work in". This requires nurses to have the necessary skills for independent professional work, communicativeness and team interaction in the planning, organisation and conducting of preventive, treatment and rehabilitation medical care. The efforts shall focus on the development of the ability for adaptation, mobility and efficiency of future nurses in the context of the market economy.

The modern concepts and strategies on nursing show a trend to transfer the focus from the equipment, performance of manipulations and activities prescribed by the physician to the widely humanistic occupation related to providing care for the human and contributing to preserving and recovery of their health. Healthcare specialists are part of the medical team with their specific tasks and professional responsibilities and this is a significant part of the treatment process. Changes in the social role of the nurse have responded to:

- the changing health needs and standards;
- the political, social, cultural and economic changes;
- change in the models of values and priorities.

This makes the control on the activities performed by this part of the staff one of the most important functions of modern management, based on the principle of achieving health for all and involving:

- using modern database for controlling the activities and the staff;
- creating a work environment that would attract and keep qualified staff;
- programmes supporting the best nurses to get higher in the hierarchy of the work place;
- categorisation of care with different remuneration /specialised healthcare/;
- introduction of the so-called "nursing method", i.e. strict application of a systematic approach used for collecting and processing the necessary information and specified through the respective interventions followed by evaluation of results. This will shorten the distance between the nurse and the patient and will give the patient an opportunity to go through the disease period with greater ease.

A new approach for organisation of the activities performed by healthcare professionals in the modern hospital is necessary, along with effective cost control, staff recruitment and motivation, continuous staff training and satisfaction of the needs of medical care (Borisov, V. and co-authors, 2001; Popov, M., 2001; Ivanov, L., 1986).

One of the greatest challenges faced by medical establishments is to learn how to survive and develop in the context of economic restrictions and constant political changes. This provides nurses with new opportunities and challenges. Because of the complexity of health system and increasing requirements to satisfy the needs within the available resources, governments focus increasingly on the development of health policy. Healthcare has become a priority political issue.

The **objective** of this study is to apply a methodological approach in the analysis and assessment of the needs of healthcare for patients with chronic diseases in a specialised rehabilitation hospital and to apply an adequate plan for nursing care.

MATERIALS AND METHODOLOGY

The study was funded by the Council of Medical Science, Medical University – Sofia. The status of 60 patients has been analysed and evaluated upon their admission in "Specialised Rehabilitation Hospitals - National Complex" EAD, "St. Mina" affiliate, town of Varshets in the period between September and November 2013. A plan for nursing care has been developed for these patients based on their needs of care. The nurses were familiarised and trained in advance to work with the prepared forms for nurse evaluation and planning of health care.

The integrated methodological set of tools of the nursing approach was applied in the rehabilitation process for three months by medical nurses who declared their voluntary participation and who had realised the need to introduce the nursing approach in the rehabilitation process.

56.7% of the patients included in the study are women and 43.3 of them are men, at an average age of 62.3 years. All of them were admitted for treatment and rehabilitation on a clinical pathway with an average hospital stay of seven days. 18 patients were admitted under clinical pathway №237 for treatment of diseases of the central nervous system, 14 of which had "Effects of cerebral infarction" as the main diagnosis, three were diagnosed with multiple sclerosis and one was diagnosed with Parkinson's disease. 23 patients were admitted under clinical pathway №241 for treatment of diseases of the peripheral nervous system, 12 of which had diabetic polyneuropathy as the main diagnosis and 11 of which had "damaged nerve roots and plexuses" as the main diagnosis. The remaining 19 patients who participated in the experimental study were admitted under clinical pathway №244 with different diseases of the locomotor system (fig. 1).

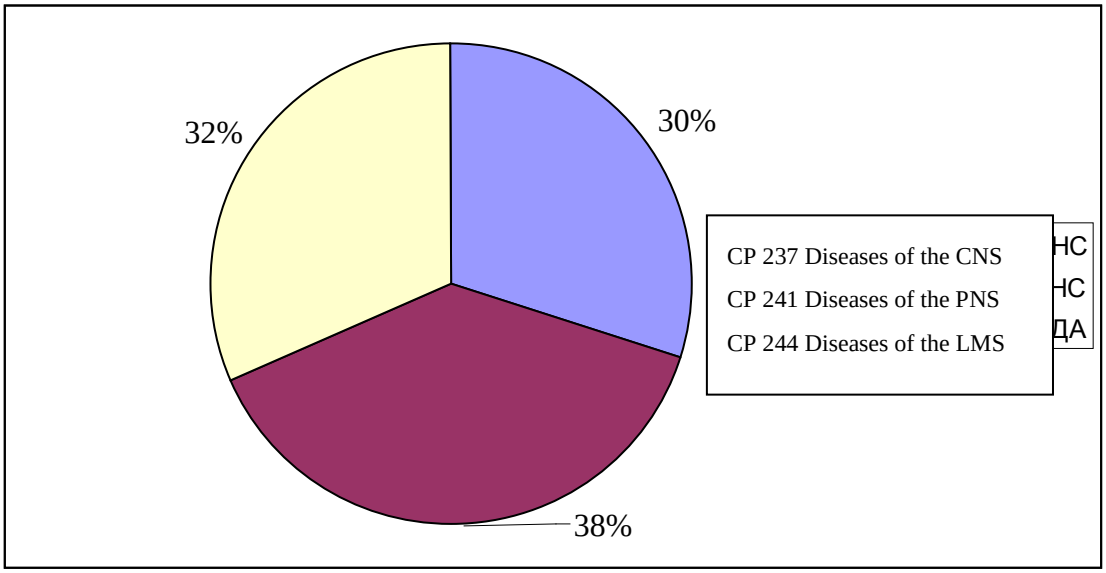


Fig.1 Distribution of patients by clinical pathways

Besides the main diagnosis, for which the patients were admitted under the clinical pathway, they also suffered from a number of additional chronic diseases. The most common comorbidities were cardio-vascular diseases

with 58.3 of the patients being hypertensive and 41.7% reporting IHD. The share of patients reporting diabetes was also high - 33.33%; depression was reported by 21.7%, obesity by 18.3% and 15% of the patients had experienced malignancy. Another 13.3% reported they had COPD and 21.7% reported other diseases.

56.7% of the patients whose status was assessed upon admission were disabled and the other 43.3% did not belong to any specific disability group. From the disabled persons, 23.5% were with defined disability of more than 90% and were admitted accompanied by their assistants, 32.4% had disability between 72% and 89% and 44.1% had disability between 50% and 71%.

The physical activity of these patients was evaluated and it was established that motion is completely independent for only 38.3% of the patients; 43.3% moved by themselves, using aids, where the largest share - 23.3% used a stick, 11.7% used a walker, 5% used forearm crutches and two patients (3.3%) used underarm crutches, as seen on table 5. 10% of the patients were moving by receiving help from a person and an aid, 5% were assisted by a person and 3.3% were severely diseased patients on bed rest.

9 of the patients were admitted with assistants, because they were not capable to help themselves alone, whereas the remaining part needed different level of care provided by nurses.

Regarding feeding, 76.7% of the patients could eat by themselves and 23.3% needed help during eating, of which 15% were supported by their assistants and 8.3% were assisted by the nurse.

A significant share of the patients (76.7%) had a disease that necessitated observing a specific diet. Out of these patients, 39.1% were instructed and observed a specific diet, whereas 60.9% needed training and control to keep the diet.

66.7% of the patients were able to take care of their appearance, which includes hygiene and dressing up, 20% of them were able to do it independently, but also needed help and 13.3% were unable to satisfy these needs by themselves.

The evaluation related to the patient's physiological needs is also an important nursing activity. 86.7% of the patients urinated and defecated by themselves, 3.3% of them had urethral catheter and 10% used diapers and served by their assistants.

The evaluation of vital signs covered examination of respiration, pulse, arterial pressure, blood glucose and temperature.

Respiration was found normal in 76.7% of the patients and 23.3% of them had some deviations. The main complaints of the patients with deviations are: asthma (13.3%) and cough (10%) and 30% of them reported they are smokers.

The pulse was normal in 60% of the patients, 30% had increased heart rate (over 80 BPM) and 10% were with a slow heart rate (below 60 BPM).

The blood glucose was normal for 35% of the patients, 58.3% of them were hypertensive and 6.7% were hypotensive. The hypertensive patients who were able to measure their arterial pressure by themselves were 17.7% and 82.9% needed it to be observed by the nurse in the ward. Among these patients, only 11.4% were instructed how to deal with a hypertension crisis and 88.6% of them needed training.

For 23 patients it was determined that blood glucose measurement is necessary, where 30.4% of them were able to independently use the glucose meter and for 69.6% of them the measurement had to be taken by a nurse.

Regarding the body temperature, there were no patients with deviations. This is probably so because of the fact that these patients have counterindications for physiological procedures.

The data from the evaluation of the measured somatic indicators are presented in table 1.

The status of the patients upon admission to the hospital for rehabilitation was evaluated based on their communication capabilities. Based on the evaluation performed by the nurses, 73.4% of the patients are capable to communicate normally and 26.6% of them had difficulties and needed help to communicate, where 13.3% of them communicated with the help of their assistant and the remaining 13.3% communicated with the help of a nurse.

Table 1 Evaluation of the patients' somatic indicators

Somatic indicators	**status**	**Number of patients**	**Relative share**
1. Respiration	normal	46	76.7%
	disturbed	14	23.3%
	Total	**60**	**100%**
2. Pulse	normal	36	60%
	increased	18	30%
	slow	6	10%
	Total	**60**	**100%**
3. Arterial blood pressure	normal	21	35%
	hypertension	35	58.3%
	hypotension	4	6.7%
	Total	**60**	**100%**
4. Blood glucose	normal	37	61.7%
	deviations	23	38.3%
	Total	**60**	**100%**
5. Body temperature	normal	60	100%
	deviations	0	0%
	Total	**60**	**100%**

Patients who were not capable of normal communication with different disorders: speech disorders – 3.3% (2), vision disorders - 13.3% (8), hearing disorders - 6.7% (4), etc.

After the experimental evaluation of the patient's status upon admission to the hospital for rehabilitation carried out by the nurses, during the next stage planning of the necessary nursing care based on the evaluated health needs was performed. The nursing interventions planned for these patients are presented in Table №2:

Table 2 Activities planned by the nurse

Indicator	Nursing interventions	Number of patients	Relative share
1. Pain	Administration of medication by the nurse	2	3.3%
	Instruction how to deal with pain	35	58.3%
	Total	**37**	**61.6%**
2. Activity	Help for moving to the sectors for the procedures	2	3.3%
	Training to move independently	5	8.3%
	Training to use aids	3	5%
	Total	**10**	**16.6%**
3. Eating	Help for eating	5	8.3%
	Instruction to follow a diet	19	31.7%
	Instructing the relatives on the patient's diet	9	15%
	Total	**33**	**55%**
4. Hygiene care	Basic dressing	2	3.3%
	Dressing to prevent decubitus	2	3.3%
	Aid with the basic dressing	9	15.1%
	changing the underwear of a severely sick patient	2	3.3%
	Instructing the relatives on the patient's hygiene care	2	3.3%
	Total	**17**	**28.3%**
5. Somatic indicators	Monitoring of arterial pressure	29	48.3%
	Instructing the patient how to monitor their arterial pressure and behaviour in the event of hypertension crisis	31	56.6%
	Instructing the patient's relatives how to monitor their arterial pressure and behaviour in the event of hypertension crisis	9	15.1%
	Daily measurement of blood glucose	16	26.7%
	Instructing the patient how to measure blood glucose	16	26.7%

	Instructing the patient about their behaviour in case of hypo- or hyperglycaemia	23	38.3%
6. Communication	Assistance to communicate	8	13.3%
	Communication instruction	8	13.3%

The applied integrated methodological set of instruments of the nursing approach, in which nurses evaluated the patient's status upon admission in the hospital for rehabilitation and planned the necessary nursing interventions resulted in confirmation of the preliminary data from the survey on the health needs of patients with chronic diseases. The first priority is given to instructing the patients on activities necessary to improve their quality of life, followed by technical care = measurement and recording of the somatic indicators and performing a medication therapy and the main (basic) care, such as hygiene, eating and physical activity.

The nurses planned the following types of instructions for patients and their relatives:

1. Instruction how to deal with pain - 58.3% (35)

2. Instructing the patients how to monitor their arterial pressure and behaviour in the event of hypertension crisis - 56.6% (31)

3. Instructing the patients' relatives how to monitor their arterial pressure and behaviour in the event of hypertension crisis - 15% (9)

4. Instructing the patients to observe a certain diet – 31.7% (19)

5. Instructing the relatives on the patient's diet - 15%(9)

6. Instructing the patient about their behaviour in case of hypo- or hyperglycaemia - 38.3% (23)

7. Instructing the patient how to measure blood glucose - 26.7% (16)

8. Instruction on communication - 13.3% (8)

9. Instruction in independent movement - 8.3% (5)

10. Training to use aids - 5% (4)

11. Instructing the relatives on the patient's hygiene care activities - 3.3%(2)

It is evident that the instructive function of the nurse is the leading activity performed in hospitals for rehabilitation. Depending on the planned instructions, each patient needs 2-3 types of instructions on average, i.e. patients need particular information related to their health status.

Conclusion. The results from the integrated methodological set of instruments applied for the analysis and evaluation of nursing in the rehabilitation process give us a ground to argue that this is a method for discovering and satisfying the health needs of patients by means of adequately planned health care. Using the knowledge and skills of nurses who have graduated during the past few years will result in improved operational organisation in hospitals for rehabilitation with a view to increasing the efficiency and quality of the treatment and rehabilitation process for each patient.

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