Pielęgniarstwo Neurologiczne i Neurochirurgiczne
THE JOURNAL OF NEUROLOGICAL AND NEUROSURGICAL NURSING

eISSN 2299-0321 ISSN 2084-8021 www.pnn.wshe.pl **Review**

DOI: 10.15225/PNN.2014.3.1.6

The Role of the Nurse in the Treatment of Back Pain

Rola pielęgniarki w leczeniu zespołów bólowych kręgosłupa

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Abstract

The development of civilization has led to the increasing prevalence of spinal problems. Lifestyle in the form of long hours of sitting or standing significantly affect the reduction in spinal mobility and promotes complaint back pain. Its structure is closely related to the functioning of the human being. Back pains are varied in terms of pathogenesis uprising. A common feature is pain that occurs in the lumbar area — the cross and the cross — the hip, with varied backgrounds and character. Treatment is based on conservative methods, such as drug treatment and rehabilitation, and surgery. An important role is played by prevention of backaches distributed among learners and workers. This article aims to highlight the role of nurses over patients with spinal pain syndromes in various stages of treatment. The nurse must take care individually and holistically. It is based mainly on alleviating pain and help the patient because of the temporary reduction in physical activity, which impedes the proper functioning. It is aimed at the comprehensive preparation of the patient and his family for self-care. **(JNNN 2014;3(1):39–43)**
Key Words: spine, back pain, a nurse, rehabilitation, care

Streszczenie

Rozwój cywilizacji doprowadził do coraz częstszych problemów z kręgosłupem. Tryb życia w formie siedzącej lub wielogodzinnej stojącej wpływa znacząco na zmniejszenie ruchomości kręgosłupa i sprzyja dolegliwościom bólowym kręgosłupa. Jego budowa jest ściśle związana z funkcjonowaniem człowieka. Zespoły bólowe kręgosłupa są zróżnicowane pod względem patomechanizmu powstania. Wspólną cechą jest ból występujący w okolicy lędźwiowo-krzyżowej i krzyżowo-biodrowej, mający odmienne pochodzenie i charakter. Leczenie opiera się na metodach zachowawczych, takich jak: farmakoterapia i rehabilitacja oraz leczenie operacyjne. Istotną rolę odgrywa profilaktyka zespołów bólowych kręgosłupa rozpowszechniana wśród osób uczących się i pracujących. Artykuł ma na celu przedstawienie roli opieki pielęgniarki nad pacjentem z zespołami bólowymi kręgosłupa w różnych etapach leczenia. Pielęgniarka ma za zadanie objąć opieką zindywidualizowaną i holistyczną. Opiera się głównie na łagodzeniu dolegliwości bólowych występujących oraz pomocy pacjentowi z powodu jego tymczasowego ograniczenia aktywności fizycznej, która utrudnia mu prawidłowe funkcjonowanie. Ma na celu także wszechstronne przygotowanie pacjenta i jego rodziny do samoopieki. **(PNN 2014;3(1):39–43)**
Słowa kluczowe: kręgosłup, zespoły bólowe kręgosłupa, pielęgniarka, rehabilitacja, opieka

Introduction

The development of civilisation has lead to the increasing prevalence of spinal problems. Lifestyle led in the form of long hours of sitting or standing significantly affects the reduction of mobility and as a result is the reason for back pain. It directly leads to human dependence on the assistance from others and finally to disability.

The spine constitutes the base for the correct posture and motility of the organism. Its structure is closely related to the functioning of the human being. It can

be divided into the following sections: cervical, pectoral, lumbar, sacral, coccygeus. Each section consists of a specified number of vertebrae [1]. The spine is of sinuous shape — cervical and lumbar lordosis and pectoral kyphosis. The spinal curvatures significantly affect the support and amortization function. Apart from bone structures, also a significant role is fulfilled by spine muscles, which are related to biomechanics of the spine. It constitutes the central structure, which controls actions and mobility of both the lower as well as upper limbs. The spine itself has its highest mobility in cervical and lumbar sections. The spine activities fulfill certain functions for the whole organism [2].

Back pains can differ considerably due to the pathomechanism of their emergence [3]. They are located in the lumbosacral and sacroiliac areas. However, despite their similar location, they are differentiated by pain which can be of different origin and nature. Usually, the pain is divided into receptor and non-receptor one. It negative reflection constitutes a different reaction to pain. Being one of the most common reason for discomfort and in consequence the reason for limiting the activity of the young and the middle-aged. Very often the individual perception of pain is conditioned on the spine structure, its environment as well as on the innervation of these tissues. Pain occurs suddenly but is of recurrent nature caused by position changing, lifting or fatigue. Also, the diagnosis and treatment is usually very troublesome mainly due to prolonged and complicated course. Numerous changes in the radiological image, despite chronic or recurrent back pain are difficult to be read or correctly interpreted [4].

There are numerous reasons for back pains. The main reason for pain in the spine being pathological changes of the intervertebral disc resulting from changes in the organism coused various factors [5]. The consequence being close influence on the nervous and kinetic system. However, innervations overlapped in the area of the spine considerably impedes locating the pathological changes.

Treatment is based on differentiating and correct adjustment to an individual patient. Its minor part is defined by surgery treatment which results from the lack of reaction to conservative treatment. It must be confirmed clinically and radiologically. The patient is informed of the necessity to carry out the surgery as well as of its results and possible complications. Rehabilitation is a much safer form which gives the anticipated reaction. It consists of physiotherapy and massages in the ambulatory or stationary form. In this case the treatment is aimed at strengthening the spine condition, reducing or eliminating the pain ailment and preventing the development of the disease [6,7].

Review of the Literature

Nursing care is closely related to the patient treatment period. With an increase in adverse changes in the public health, current nursing procedures should be drawn up. Efforts should be focused on prevention which will help to avoid the long-term treatment of the back pain [8].

It is necessary to focus particularly on the growing up generation. In the case of children and young people, pathological changes in the spine can be avoided, as by means of appropriate education and inculcating proper habits regarding the posture, the quality of health care is directly improved. The nurses having contact with children and with young people but also taking care of those who are professionally active should draw particular attention to the performance of everyday activities [9]. The care of the spine should be started from a proper place for studying and working. These include tools and equipment placed at appropriate height correctly adjusted to an individual user. Heavy objects should be put on the desk within the appropriate distance in order to avoid reaching for them or lifting. The appropriate weight ought to be watched, and therefore the appropriate posture as well. One should also avoid slouching and bending the trunk forward. The computer screen should be quite frequently turned so that the body position could change and prevent excessive overstraining of the muscles stabilizing the spine. In the process of studying or working frequent breaks should be applied for the purpose of loosening and relaxing skeleton muscles, which considerably eliminate muscle tone [10].

However, when it is already too late for prevention, the next step should consist in pain treatment — pharmacology and rehabilitation. At this stage of treatment the nursing care is extremely important. In the course of hospitalization the patient experiences negative emotions resulting from the pathological changes in the spine themselves, diagnosis as well as from the pain. Firstly, hospitalization is a stress caused by the change of the whereabouts, getting acquainted with the topography of the medical ward as well as with other patients and the staff and also by the change of the role the patient is confronted with [11]. At the moment of admission the nurse has to show patience and understanding patient's complex situation. She must help the patient to understand the necessity of hospitalization and to get familiar with the ward. Patients very often refuse to cooperate, however it is the task of the nursing staff to motivate them to the improvement of their general condition as well as to encourage to exercises strengthening the spine [12].

For the purpose of appropriate exchange of data regarding the patient, the nurse has to cooperate within the interdisciplinary team. That creates additional benefits to her, increasing also the quality of the health care performed. The patient has to have sense of security and

respect for human dignity. The approach towards the patient should be individualised and holistic. The nurse ought to make contact with the patient's family which also helps to guarantee the psychophysical care related also to the patient's condition [13]. Immediately, both the patient as well as the patient's family should be involved in the process of treatment and rehabilitation. Before the patient is discharged from hospital, the nurse's task is to prepare the patient to self-care at home. Additionally, the nurse should educate both the patient as well as the patient's family in the field of the primary and secondary prevention of back pain. The education ought to be based on basic issues related to back pain. The patient must know the reasons, the risk of pain recurrence as well as be aware of and follow correct standards of posture and motion [14]. For the purpose of complexity of the care, the nurse should inform of the careful manner of climbing and walking down the stairs, making breaks when driving and in the case of prolonged sitting as well as of equal distribution of weight over the whole back; for example using a backpack instead of a bag. She should also recommend appropriate conditions for comfortable sleep: a semi-rigid mattress adjusted to the physiological curvature of the spine as well as the use of a small pillow filling the angle between the neck and shoulder [15,16].

Another task for the nurse is to mitigate pain symptoms in a patient with the back pain syndrome. Very often the patient so as not to attract one's attention conceals his pain. The ability to observe, correct contact as well as appropriate interpretation enable the introduction of required intervention. The nurse as the contact person at the ward should create atmosphere of professionalism and absolute, overall patient care [17]. Dozing and administration of medicines should be strictly observed compliant with the doctor's instruction and also be documented [15].

In the case of pre-, peri-, and postoperative care, nurses have strictly specified tasks and play a very important role. It usually starts from the preparation of the patient to the surgery which consists of two stages. Further preparation, covering the period of qualification to the surgery until the day preceding the surgery date. It consists in taking blood samples for testing, preparing the patient to lung X-ray, performance of eCG, weighing the patient and drawing up the complete documentation regarding the patient. The period before the surgery is preceded by the proximate preparation consisting in providing psychophysical care to the patient. The team of nurses is supposed to perform the hygienic preparation of the patient to the surgery as well as to prepare the operation theatre itself and also to carry out measurements of vital signs. Also, attention should be paid to the preparation of the patient's digestive tract consisting in discontinuation of meals and drinks on time as well as in emptying the digestive track [18,16]. The psychological preparation consists in creation of conditions for intimacy and silence in the preparation to the operation, assurance of our care and involvement after the operation. Before the operation, one should also make sure that the patient expressed his written consent to being operated on. The patient should feel respect and be convinced that his problems and fears are fully understood. The activities following the operation should also be based on safety ensuring, alleviation of pain symptoms, patient's appropriate position. The nurse is meant to observe, document and intervene in case of possible complications occur. Prevention is based on measurement of vital signs, creation of microclimate conditions in the room, learning breathing exercises, obeying the principles of asepsis and antisepsis, observation and wound care after the operation, controlling filters and drains, setting the appropriate position of the patient, proper care and observance of hygiene rules, early mobilisation. The nursing assistance consists also in caring, therapeutic, rehabilitative, preventive and educational activities. They aim at helping the patient in such basic activities as: washing, feeding, providing conditions for sleeping, facilitating the process of breathing, bandage changing. Whereas the therapeutic function of nursing is connected with physical examination as well as with the participation in additional ones. Rehabilitation measures aim at early mobilisation of the patient as well as cooperation with the physiotherapist. The patient, in order to improve his health condition and achieve full fitness must be encouraged to do exercise which will improve spine mobility as well as strengthen the organism. The preventing measures aim at avoiding possible adverse postoperative consequences. They mainly consist in the prevention of the occurrence of pressure ulcers, contractures and infection. The nurse performing educational activities is supposed to motivate and support patients in the process of treatment as well as to draw the patient's attention to the postoperative wound care [19,20].

Back pains result in the deterioration of physical, social and professional activities. Therefore, the patient care should be closely correlated with his mental condition which can be characterised by anxiety, depression, anger or complete lack of control over one's life [21]. Nursing care constitutes a significant element in coping with difficult situations. The nurse, as the person spending most time with the patient has to inspire patient's confidence. The influence of nursing activities may positively affect the whole treatment by offering the patient competent assistance due to which the perception of the nurse's role is developed [22,23].

Summary

Back pains significantly affect patients' psychophysical condition. The variety of aetiology and very often complicated and lasting treatment affects the patient's attitude to the illness itself. In order to avoid negative consequences of the illness, the qualified nursing staff by means of holistic and individualized attitude creates atmosphere of safety and sense of dignity [24].

Summing up: the nurse plays a significant role in the care of the patient with the back pain syndrome. The nurse fulfils all specified nursing care purposes, which are determined in many standards and forms of care. Pain syndromes negatively affecting patient's comfort, which can interrupt the process of treatment, are reduced or completely mitigated by appropriate attitude of the nursing staff to the individual needs of the patient. Pain relief by appropriate targeting of activities considerably affects further stages of treatment. The physical consequences of back pains also include the limitation of spine mobility as well as the reduction of the patient's physical activity [25]. In such a case the nurse by means of mobilization, encouragement of the patient's family to cooperate as well as education improves the patient's perception of discomfort. Also, the peri-operative period requires from the nurse appropriate attitude and actions. Those include actions typical in the case of limited self-care as well as avoiding postoperative complications. In this regard, observation, control of parameters and the postoperative wound as well as assistance in the performance of basic activities can be very helpful.

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Conflict of Interest: None
Funding: None
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(A — Concept and design of research, B — Collection and/or compilation of data, E — Writing an article, F — Search of the literature)
Received: 23.01.2013
Accepted: 12.03.2013