

Case Report

Application of Environmental Theory in Practice: Approach to Holistic Patient Care

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Keywords

• Nightingale; Holistic patient care; Canons of nursing; Environment; Application

Abstract

Florence Nightingale is considered as the pioneer of nursing. Nurses have been looking upon her actions and work to guide their practice. Nightingale has provided 13 canons of nursing which when applied to nursing practice yields positive outcomes for patients. This environmental theory of nursing and amazingly environment has been playing a pivotal role in improving the care of patient. This paper presents a case on which Nightingale's canons have been applied and described in detail. It is highlighted that holistic patient care is essential to achieve better health outcomes and how every aspect of life can play a pivotal role in health and healing. The hypotheses and recommendations provided will be helpful for medical professionals to understand the basic demand of patients and improving their environment to yield motivation and improved health outcomes.

INTRODUCTION

Health is an abstract concept, which varies from a person to person. It might be something physical to a person and for another it would be something being in mental stability. Florence Nightingale, the lady with the lamp, wrote a book titled Notes on Nursing in which she described health as the outcome of physical, and environmental wellbeing and is not only the absence of disease, and disease is considered as a process of repairing, and it is natural which is happening to remedy the fatal processes going on in the human body [1]. Several things are in relation to the situation and not the individual. Being diagnosed with any illness brings with it a bunch of worries, questions and hopes for recovery. Nurses are the shine of hope in the patient's life but their inattention to even smaller things that affects the life of patients in the hospital demeans this shine. In order for a human being to survive, self-care needs along with the needs of optimistic self-image, healthy environment and need of social support should be met. Nurses play a vital role in helping to regain the state of physical wellness and mental stability promoting early recovery for patients who are in their weakest point of life. Holistic nursing care addresses patient's physical, mental, emotional, and spiritual needs, and the healing of a patient is affected by the patient's surrounding environment [2].

CASE REPORT

Once there was a case identified of a 25-year-old male patient admitted in surgical ward under care of plastic surgery after a bike versus bike road traffic accident. He was diagnosed with degloving injury of the right leg; the patient had no known co-morbid and was addicted to smoking. After the reparative surgery he was received in the special care unit on a very busy

evening shift. On arrival, he was extremely tachycardic, heart rate ranging from 125 to 130 beats per minute, suggestive of post-operative pain, extensive surgery and need of cigarettes. After talking to patient's father it was identified that the patient used to work in a garment industry and is the only bread earner of the family and they are living hand to mouth. On investigation the patient had the pain score of 8 on 10, and was very restless and was continuously asking for food. Since the special care unit is a closed small place having 5 critically ill patients needing close observations, the monitors are beeping continuously and communications between patient and nurse and nurse to nurse can be heard easily. Multidisciplinary teams are visiting the patients, creating a challenge for post-operative patients to rest who are very sensitive to noise at that stage. On assessment, the patient had dressing on the right leg and compression stockings to prevent deep vein thrombosis on the left leg, patient was very unkempt, had long and dirty nails and bruises after road traffic injury.

Soon after the patient was awake and alert he was kept on soft blenderized diet, despite the fact that he was extremely hungry he did not complete the food provided to him. The nurse witnessed it, and upon asking, she came to know that the patient did not like this food. After getting confirmation from the primary doctor, the patient was allowed to have home food or food of his choice. Moreover, during the night hours when the patient was sleeping, he was asked if he wanted to have the sponge but the patient refused because he had fear of pain and wanted to sleep, so rather than alleviating the patient's pain and giving proper counseling the nurse wrote that patient refused for sponging. Next morning the patient asked the nurse to change his clothes and bed sheets as he was not comfortable and felt

smelly to which the nurse responded that this is not the time for changes and this will be done during night hours. While doing the dressing, it was assessed that patient's wound was excessively oozing, contaminating whole bed sheets and he had developed first degree bedsore because of all the dirty sheeting and being in the same position for almost 10 hours. After the dressing, all the soaked gauzes and tapes were dumped in the dustbin near patient's bed. During hands-off, it was communicated to log roll the patient every 2 hours and same teaching was given to patient's father to ensure the continuity of care.

However, within a day or so patient became continuously febrile with chills, not settling even after cold sponges, started receiving high dose antibiotics and ultimately increased his stay in the special care unit. Even after several investigations, the source of fever was not identified and the heart rate did not come back to normal. Nevertheless, on the 6th day of febrile episodes it was found that patient had also developed sore on the left leg under compression stockings which were not removed since day 1, which was the source of infection that led to de-vascularization of the lower leg, that ultimately increased the burden of treatment.

DISCUSSION

Nursing has faced many challenges; from caring for the sick to striving for societal acceptance, it has seen it all. Florence Nightingale, one woman of the 19th century, following her spiritual beliefs and thoughtful image about the actual nursing, changed the position of nursing from that of a service to a profession [3]. Florence Nightingale truly believed that nursing was her calling from the divine, and sufferings of patients are merely not due to the process of disease but is way beyond than this; which could be reduced by the nurses only after placing the sufferers in the finest state for nature to intervene upon them making sure all the physical and psychosocial needs of patients are met [1]. However, in the above scenario the nurse missed to observe the role of environment of the patient leading to inevitable outcomes by neglecting the important aspect of care.

Conferring to Nightingale, the purpose of nursing is to help the patients retain their "vital powers" by altering the environment in their favor [4]. She believed that nursing was a mixture of art and science, while medicine is purely science, and nurses are supposed to adhere to the scientific plan while not ignoring the artistic part [5]. It was illustrated that there were three important tenets of philosophy of Nightingale, "healing, leadership and global action" [6]. The most basic and primary was healing and the other two were secondary to healing [6]. In the above scenario the disease diagnosed is the nature's reparative process and if the nurse efficiently alters the environment, the repairing would be done smoothly and would be beneficial. Nightingale wanted to describe general rules for nursing practice in order to make this theory applicable as well as descriptive [7].

There were 4 essential metaparadigms of Nightingale's theory: "human, environment, health and nursing" [5]. This indicates that patient, environment, nursing and health are all interrelated for an holistic approach. Nursing observations are concentrated on environmental influences on patient's well-being which could be manipulated by nurses. Referring to the above scenario, the nurse was just concerned with the

completion of tasks rather than identifying patient's needs, which ultimately altered his process of recovery. Throughout her writings, Nightingale extensively focused on the point that nurses should not be servants to medical prescriptions, instead should apply this science in an aesthetic manner. Major assumptions of Nightingale's theory were that "nursing is separate from the medicine, nurses should have educational basis, environment is important for patient's recovery, nurses should alter the environment, nursing is a calling and nursing is both an art and science" [4,8]. Additionally, Nightingale signifies nursing way advance than the medicine administration or routine works; she thinks it should be based on the proper use of 13 canons of environmental theory as illustrated by her. "Ventilation and warming, health of houses, petty management, noise, variety, taking food and what food, bed and bedding, light, cleanliness of rooms and walls, personal cleanliness, chattering of hopes and advices and the observation of the sick" are the canons of Nightingale's environmental theory which must be completed to support healing [1].

The environment, as considered by Nightingale the focus of her theory, is badly affected in the above-mentioned scenario. As mentioned above the special care is a closed room, having one door and two glass windows that does not open which results in poor ventilation for patient, and if the patient is on the corner bed, then he/she might not even get natural lightning. The affected canons of the environment theory here are light and ventilation. The most important nursing consideration is to maintain the air that the patient inhales to be as equally clean as it is outside, and without this every intervention is insignificant [1]. Furthermore, she elaborated that the air inside might be polluted with filth and would be poisonous to the patient, however, in the identified case there was no source of ventilation from the outside, and even the need of nature's light was affected as curtains are always drawn on windows to protect patient's privacy.

Noise is any unwanted sound that deranges the peaceful state of mind. Nightingale describes noise as anything that wakes a patient from continuous sleep, and is a cruel deficiency of care imposed on the sick. Postoperative patients are more sensitive to noise as they are recovering from the effects of anesthesia and are fairly between sleep and alertness. In the above-mentioned scenario, beeping of the monitors, and chats between patient and nurse and nurse to nurse clearly disturbed the post-operative patient. However, no efforts were made by the nurse to resolve this issue. Moreover in a special care unit, multidisciplinary teams are visiting the same patient or other patients, creating much disturbance for a patient to sleep. Also, the patient was awoken during his sleep cycle to ask for the bath, and upon understanding the patient's fear of pain the nurse did not care to counsel the patient and disturbed his sleep.

Another canon neglected in the aforementioned scenario is that of personal cleanliness. The patient's bedding was not changed for almost 10 hours. The patient did not get a bed bath and was unkempt due to which he developed a sore, and his stockings were not removed within 6 days of admission. Nightingale believed that patients verbalize greatest amount of relief and satisfaction while they are cleaned and properly dried [1]. Moreover, the dirty dustbin with soaked gauzes was kept

at patient's bedside badly affecting the cleanliness of the room and polluting the entire patient area. The nurse however showed an exemplary effort by identifying the patient's food needs, and advocated for the patient to allow him to have home food putting forward the best intervention aiding towards healing.

Dissecting the case, it is also noticed that the nurse was not able to observe the sick and identify his deteriorating condition, which led to the outcome that was most undesirable. Furthermore, the canon of petty management was fulfilled as the nurse communicated important interventions to be done to the following nurse and also the family ensuring continuity of care even when she won't be there. Not neglecting the psychological, social and economic determinants that were severely affecting patients healing. Economically, the patient was the patient was the only bread earner of the family now lying on the hospital bed, and thus he was stressed financially. He only had his old father who himself was striving with the burden of expenses. Socially, he had no other family support; he had no friends because of his smoking addiction. Psychologically, he was experiencing nicotine withdrawal symptoms, such that his basic needs were ignored, and he was at a verge of losing his leg. It has been shown that psychological aspects considerably impact the consequences of physical illnesses [9]. Likewise, in the above scenario most of the health determinants were not met leading to an undesirable outcome.

Holistically, the holistic approach has two significant characteristics. Firstly, it treats each person as a separate individual, both socially and biologically. Secondly, it is multidimensional, leading to a rather naive view on health and disease. These two aspects affect the nurse-patient interaction and thus health outcomes. A nurse being capable in terms of approaching the patient, interpreting health in various people, situations and environments, and determining his/her actions in order to promote health and prevent diseases [10].

HYPOTHESES AND RECOMMENDATIONS

Nurses play an essential role in the lives of patients in the hospital. In order to ensure healthy recovery of patient some below mentioned propositions or hypotheses could be followed so that patients do not end up in a scenario similar to the one discussed above. These hypotheses will indicate the nursing interventions, which could be done to assure positive health outcomes. (A) Silence boards and individualized alarm parameters and adjust the volumes of phones. (B) Removal of compression stockings at night. (C) Bed baths should be given in early morning. (D) Allow the patient to experience sunlight under the supervision of nursing personnel. (E) Vanilla extract soaked cotton balls in patient area to deodorize. (F) Social groups should be formed to enhance psychological well-being. (G) Workshops on development of critical observation should be done. (H) 2 hourly log turning clock should be pasted on each critically ill patient's bedside.

Noise control will promote quicker recovery by giving less psychological and physiological stresses to patient and is the finest method to sustain health or rehabilitate [11]. Subsequently, silence boards and reducing the alarm and telephone volumes can provide a peaceful environment; also individualizing the

alarm parameters can avoid irrelevant alarm sounds. Nurses can also encourage visitor control in special care units to avoid unnecessary noise. In addition, it should be ensured that compression stockings of every patient should be removed for whole night. Lotion should be applied so that covered parts of body are exposed to air reducing the risk of sores. Besides, bed bath timings should be changed to morning hours so that patient could experience undisturbed and peaceful sleep. Semi critical patients, at least every alternate day should be allowed to witness greenery and sunlight under supervision of the nurse with cardiac monitors. Exposure to sunlight can impact favorably upon the health of sick patients for better [12].

Furthermore, vanilla soaked cotton balls or other aromatherapy should be used before and after dressings with the considerable enforcement on early dustbin cleaning which was the source of polluting the patient's room air as witnessed in the above scenario. Importantly, social groups should be made among the patients undergoing same stress and procedures in order for them to learn from the experiences, and one to one counseling could be done by expert professionals to instill the motivation to overcome the challenges. Besides, staff should be trained to identify early warning signs patient gives to save the patients from an adverse outcome as missed in the above scenario. Moreover, log-turning clocks should be pasted on bedside so that each patient is turned preventing the development of pressure sores. Moreover, holistic care is the heart of nursing and totally surrounds it. Holistic care should be achieved by inculcating motivation and education in nurses. If nurses can empathize and look at a whole picture can better incorporate holistic care and thus achieve quality in caring and improving health of patients [13].

CONCLUSION

In a nutshell, this paper could be seen as a mind and eye opener. Theories are always considered abstract and were limited for the class discussions only. However, after this clinical application in the above mentioned critical incident it is understood that nursing theories are part of everyday care and tasks as theories guide practice. In this incident if the nurse had applied no less than basic principles of the environmental theory the results may have been different. It is taught that we had to apply the theories in our nursing practice but in the practical situation we became so task oriented that we forgot that these theories are inculcated in our routine work, so if done consciously it can yield abundant results of both art and science of nursing. Now there is a clear idea of importance of applying nursing theories in practice, as we nurses are the agents who can bring holistic approaches in patient's life. We as a nurse never think of altering the environment and ventilation and light as our core responsibility above administration of medications and other tasks. However, this paper can make this awareness that how nurses can bring a change in patient's recovery after altering the surroundings ultimately inhibiting the avoidable consequences.

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