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## “Clinical Application of Nightingale Theory”

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**Abstract:**

*The first influential thinker to describe nursing values and beliefs, Florence Nightingale based her writings on a mixture of influences (Hegges, 2013, p. 175). She gave seven assumptions in her theory, these philosophical assumptions are identified and serve as the basis for the model development. In the following paper I will analyze the scenario in light of the Nightingale theory, I would cover bed and bedding, ventilation, light and warming and personal cleanliness in my clinical scenario.*

### **1. Introduction**

The first influential thinker to describe nursing values and beliefs, Florence Nightingale based her writings on a mixture of influences (Hegges, 2013, p. 175). Florence Nightingale (1820-1910) the first nursing theorist and the first one to lay the foundation of modern nursing has based her philosophy on spiritualism. Florence Nightingale was deeply rooted in spirituality and profoundly practical, so spiritual pragmatism pervades her ontological foundations (Attewell, 1998), as evidenced by her statements: “Education is to teach men not to know, but to do” (Nightingale, 1873a, p. 576); “The way to live with God is to live with ideals, not merely to think about ideals, but to do and suffer for them” (Cook, 1913, p. 175). Her call from God at the age of 16 launched a lifelong pursuit of these ideals (Bostridge, 2008).

There are seven assumptions of Nightingale's theory. According to (Selanders, 2010, pp 83-84), Seven Nightingale philosophical assumptions are identified and serve as the basis for the model development. These assumptions are natural laws; mankind can achieve perfection; nursing is a calling; nursing is an art and a science; nursing is achieved through environmental alteration; nursing requires a specific educational base; and nursing is distinct and separate from medicine. The impressions of Nightingale's theory metaparadigm of nursing are person; environment, health and nursing are very strongly connected to each other. Here person is a multidimensional being on which a nurse acts and health refers to not only to be well but to use all our strength well. Disease, as per Nightingale (1860) is a process given by nature to clean the body from impurity which has entered into the body because one or more of body's natural need is not fulfilled or one or more of the natural laws are not being applied. Disease actually indicates a want of the body in terms of natural laws, and by making some changes in environment these wants can be satisfied and disease can be cured. According to Nightingale (1860, p.2), all disease, at some period or other of its course, is more or less a reparative process, not necessarily accompanied with suffering: an effort of nature to remedy a process of poisoning or of decay, which has taken weeks, months, sometimes years beforehand, unnoticed. Finally the environment is the mean through which nurse can make alterations to reduce patient suffering and increase healing. As Nightingale (1860,p.2) in notes of nurses says, “If a patient is cold, if a patient is feverish, if a patient is faint, if he is sick after taking food, if he has a bed-sore, it is generally the fault not of the disease, but of the nursing”. So a nurse should identify why patient is having the suffering and which of the nature's law is the need of the patient and how this can be achieved and reduce patient suffering. That is why Nightingale proposed the assumptions that nursing is an art and a science, nursing is achieved through environmental alteration. According to (Selanders, 2010, p 84), “Environment is the umbrella concept in the Nightingale theory of nursing. It was her contention that the environment could be altered in such a manner as to improve conditions so that the natural laws would allow healing to occur”. The 13 sub concepts of environment which are called canons by Nightingale (1860) are actually the conditions which if adequately present in the environment help in healing. These are ventilation and warming, health of houses, petty management, noise, variety of taking food, bed and bedding, light, cleanliness of rooms and walls, personal cleanliness, chattering hopes and advices, and observation of the sick (Selanders, 2010).

While analyzing the scenario in light of the theory I would cover bed and bedding, ventilation, light and warming and personal cleanliness in my clinical scenario.

#### *1.1. Clinical Scenario*

Mrs. Ali, a 75 years old widow, was referred to the community health nurse by her physician, who believes that she is not receiving good care in old age home. Her diagnoses were hypertension, diabetes mellitus and post coronary artery bypass grafting. During the

initial old age home visit, the nurse observed that the roof leaked, walls are dirty and paint less. In one small room there was six senior citizen's living together whereas the capacity is four. There is only one window in room, that was closed and the room is dark and smelly, and had no functioning heat unit.

On assessment the nurse identified that Mrs. Ali was recently discharged from hospital with coronary artery bypass grafting (CABG) and her co-morbid include hypertension and diabetes mellitus. She is obese, looks lethargic and febrile (104 degree centigrade). She complains of pain in her sternal wound with little foul smell greenish discharge. She also complains burning around her Foley catheter. Bed linens were also dirty and wrinkled and she is being given assisted bath only once a week and even her clothes are not changed daily. Further, she had limited activity because she is reluctant to move from bed and participate in her activity of daily living. Mrs. Ali told nurse that she did not have children and her only relative is her sister who lived with her family in another state.

### *1.2. Applying Nightingale's Environmental Theory to the Scenario*

Using Nightingale environmental theory to explain the above stated scenario, Mrs. Ali was the person who required good nursing care; her wound infection was the disease given to her by nature and it is because of lack of personal hygiene. A nurse having this knowledge, and using her artistic abilities should alter Mrs. Ali environment in such a way that her body gets what it wants so that nature's laws will be applicable on her and she would be prevented from disease. Let us analyze this scenario in light of Nightingale's theory, that how Mrs. Ali environment affected her and what were the other determinants that inflated the outcome of the scenario that was the wound infection. According to Nightingale's theory, Mrs. Ali requires good bedding, proper ventilation and light and good personal hygiene but unfortunately all of these determinants were missed in her care she turned up with disease (wound infection). Let us explore how good bedding, proper ventilation and light and good personal hygiene affected Mrs. Ali.

Ventilation and warmth is the first canon of Nightingale's theory in which she has emphasized how a sick person's room should be, for nature to act upon him. The list includes ventilation of room with fresh air, warmth of the room, freshness of night air, avoidance of fumigation and foul smells etc. According to (Allighood and Tommy, 2010, p.75), "Nightingale's emphasis on proper ventilation indicates that she seemed to recognize this environmental component as a source of disease and recovery". Nightingale (1860) has very nicely explained the magnitude of improper ventilation by saying "we nose the murderers in the musty, unaired, unsunned room, the scarlet fever which is behind the door or the fever or hospital gangrene". Commenting on foul smell in houses Nightingale (1860, p.13) commented "during sleep, the human body, even when in health, is far more injured by the influence of foul air...keep the air all night ...as pure as the air without....you must have open windows or ventilations". Bed and bedding be the eighth canon, has also been very well related with patient's health. Nightingale believed that patients who are bed rest deposit their own harmful florae on the bed and if the bedding is not changed frequently, it becomes saturated with these florae, which gets re-entered into patient's body causing more harm. (Nightingale 1860). For this reason Nightingale emphasizes changing bed linens at least every week. According to Nightingale (1860, p.112), "An adult-in-health exhales by the lungs and skin in the twenty-four hours, three pints at least of moisture, loaded with organic matter ready to enter into putrefaction; that in sickness the quantity is often greatly increased, the quality is always more noxious. where does all this moisture go to? Primarily into the bedding and it stays there; because of weekly change of sheets, hardly any other airing is attempted". Now relating personal cleanliness, sixth canon of Nightingale's theory with patient scenario Nightingale (1860, p.133) has compared an unwashed skin of a patient with slow poison as she says that "if she allows her sick to remain unwashed or their clothing to remain on them ... she is interfering injuriously with the natural processes of health... as if she were to give the patient a dose of slow poison". In this canon Nightingale (1960), has very strongly recommended nurses to take care of patient's personal hygiene. Not only this, but she has emphasized on use of soft water and taught methods of effective sponging to patients and even strained, nurses own hand washing to prevent them from getting their patient's disease or infection. As in Mrs. Ali scenario all the above matters were not taken care so she ended up having sternal wound infection, which would have been prevented otherwise.

### *1.3. Determinants*

Let us now explore some determinants which badly affected this scenario. Firstly Mrs Ali is old and weak to take care of her and with increase age body immunity gets low and another important determinant is her surgical procedure (CABG). Coronary artery bypass grafting is a major surgical procedure and with obesity, hypertension, diabetes and increase age person is already prone to wound infection after surgery. Her care taker were also might very busy with other senior citizens that she hardly give enough time to Mrs. Ali personal hygiene and Mrs. Ali hygiene was badly compromised, leading to penetrate her own harmful florae into her body and causing the infection. Moreover, her caretaker might not know the importance of ventilation that's why the window was closed and there were unusual smells in her room and Mrs. Ali went on inhaling injurious fumes resulting in the infected wound.

### *1.4. Hypothesis to Test Nursing Interventions Based on Nightingale's Theory*

The proposition or hypothesis which can be used to test a nursing intervention to change the unpleasant outcome of above scenario can be:

- i. If the environmental measures that Nightingale identifies such as proper ventilation, good self and bed hygiene, are emphasized to patient and family during hospital stay and particularly as discharge teaching.
- ii. If these interventions are given to patient and family printed on a discharge summary, it can prevent patient from getting the wound infection.

- iii. If a community health nurse could do follow up immediately after patient is discharged on importance of proper ventilation and self-hygiene with demonstration for sponging and hand washing techniques, it would prevent infections. With this proposition, we will probably take care of few assumptions of Nightingale's environmental theory, such as natural laws; nursing is an art and a science and nursing is achieved through environmental alteration (Selanders, 2010.).

## **2. Conclusion**

This scholarly application was an eye opening opportunity for me to appreciate how this great nursing leader has combined knowledge of her empirics, arts and ethics to develop such a simple but so general and easy to apply theory with basic concepts in nursing. Today, however advances have been achieved, but the reality and the importance of Nightingale's theory is at the highest rank, and if followed religiously nurses and other care takers at home can easily prevent several disease from occurring.

This writing has encouraged me to make attempts to understand Florence Nightingale's theory in detail. Although this knowledge is there since long, it is very sad to say that I had not learnt and applied that at under graduate level. But now after reading theory in so detail I would say nursing is not only science but also an art.

## **3. References**

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