

Nursing Education in Controlling of Symptoms in Patients Undergoing Chemotherapy Treatment

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Abstract: *Cancer is one of the leading causes of death worldwide, is the second cause of death after cardiovascular diseases. Cancer treatment is applied to prolong the survival period, to provide a growth control for the cancer cells, to alleviate the symptoms related to the disease and to increase the quality of life. Chemotherapy is a form of the treatment in which patients experience many physical and psychological symptoms. The accurate diagnosis and management of the symptoms experienced by the patients treated with chemotherapy is very important for cancer treatment. Nurses who have more time with the patient, have a positive effect on the success of chemotherapy treatment. The aim of this review is to explain the importance of nursing education in controlling the symptoms experienced by the patients undergoing chemotherapy.*

Keywords: *Chemotherapy; Education; Symptom control; Nursing*

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I. Introduction

Cancer is a major health problem, its prevalence increase in as many developing countries as in developed countries, it is a worldwide problem that does not recognize geographical boundaries, which can be caught by people of all ages in every country (1). Cancer is among the leading causes of death worldwide, is the second cause of death after cardiovascular disease with a rate of 22% (2,3,4). According to the World Health Organization statistics for the year of 2007, it is estimated that cancer-related deaths in 2030 in the world will take the first place in the order of death causing diseases (4,5).

1.1. Cancer Treatment and Chemotherapy

Cancer treatment is the selection of appropriate treatment according to the histological structure of the tumor, the presence or absence of metastasis, and the stage of the disease after the cancer is diagnosed. Cancer treatment is done to extend the survival period, to provide the growth control for the cancer cells, to alleviate the symptoms related to the disease and to increase the quality of life (1,6,7). The main treatment methods of cancer are surgery, radiotherapy and chemotherapy. The treatment methods such as immunotherapy and bone marrow transplantation are also used (6,7).

Chemotherapy is a form of treatment with natural or synthetic chemical, biological agents and hormones which have selective killing effects against proliferating cells (8). Chemotherapy does not only affects not only abnormal cells but also normal cells that grow rapidly, especially bone marrow, hair and mucous membranes, as a result psychological and behavioral problems such as physical bleeding, fatigue, infection, alopecia, stomatitis, nausea, vomiting, diarrhea and loss of appetite and depression occur. (5,9,10). In addition, chemotherapy increases the risk of cardiac, renal, pulmonary, hepatic, reproductive and neurological toxicity can be increased by affecting the organs (1,10). If the symptoms are not properly controlled, the deterioration of the physical and psychological condition and the reduced compliance of the patient to the treatment plan may affect the outcome of long-term cancer treatment. For these reasons, the correct diagnosis and management of symptoms which are experienced by the patients treated with chemotherapy is important for appropriate cancer treatment (11).

1.2. The Control of Symptoms and Nursing Education

It is a sad event to start chemotherapy treatment and it is indicated that most of the cancer patients have a lot of information needs (12,13). Health professionals providing information to prepare the patients for the treatment, to improve their compliance to the treatment, and improve their ability to cope with the disease and encourage them to recovery (14,15). In cancer care, education is given to the patients and their families in therapies, rehabilitation and recurrence. Doctors often inform patients and their families about cancer diagnosis, treatment approaches, risks and benefits of treatments, alternative treatments and disease management (16). Nurses have a responsibility to provide training to the patients and their families on the side effects of the treatment, recognition and grading of side effects, and the minimisation of the side effects (16,17,18). The patient education in oncologic patients is the process of providing the necessary knowledge, skills and attitudes

to the patients, their families and their relatives in order to maintain the functions and independence of the patients with the chronic illness within limits of their disease and their potentials, to cope with the disease and to continue their life actively and efficiently (19). The purpose of the training given to the patients undergoing chemotherapy treatment and their families is:

1. To help the patient and his family to adaptation to the treatment,
2. To help to understand what treatment is done for by the patient,
3. To describe the order of application,
4. To ensure the recognition of the side effects by the patient,
5. To encourage the patients and their family in self-care to minimize the side effects,
6. It is important to make understand the importance of reporting the side effects that need to be reported by the patient (16).

Therefore, the patients and their families should be informed clearly about the treatment schedule, the mechanism of action of drugs, expected therapeutic effect and adverse effects, the management of adverse effects, and the circumstances which necessitate to apply a health facility before the patients are discharged from oncology clinics (1). First, the physical and psychosocial status of the patient, the understanding status of the diagnosis and the understanding status of planned treatment should be assessed. The patients sometimes may not be ready for training or may not understand technical information that is complicated to them. The information about the self-care strategies should be given to the patient at the beginning of the study, it should be maintained throughout the course of therapy with appropriate evaluation and appropriate guidance (20,21). In the training given to the patient before chemotherapy:

1. The purpose of chemotherapy is and how it affects cancer should be clearly explained to the patient,
2. The interval of the treatment protocol administration, duration of treatment, pre-treatment preparation, effective interventions in the control of protocol specific side effects by taking into consideration the protocol is decided to be applied in the treatment, should be explained to the patient.
3. Another medication taken during chemotherapy may affect the results of the treatment, because of that the patient should be informed not to use any other medicines without consulting your doctor during and after the treatment.
4. It is necessary to explain the importance of not using medicines containing multiple vitamins, minerals, antioxidants, and herbal products which are sold in the market in order to increase body resistance, increase appetite and strengthen the immune system without consulting the physician.
5. During or after the treatment, if the following problems are encountered, it is recommended to apply to the nearest health facility to analyze the relationship between these problems and received chemotherapy.
6. The patient should be informed about the importance of feeding during the treatment.
7. The patient should be informed about paying attention to oral health.
8. The patient should stay away from the individuals with influenza and flu.
9. During chemotherapy, the patient should not have a tooth out and a manicure / pedicure without consulting the physician.
10. The importance of sharing feelings with a close friend, spouse or family during treatment should be explained to the patient.
11. The patient and family should be informed about sexual life and contraception when necessary or the patient should be referred to an expert team to receive information.
12. The patient should avoid sunbathing on the days of the treatment, they should be prohibited to go to the swimming pool (10).

Nurses have a key role in patient care because they communicate more frequently and continuously with the patients and their families compared to other health personnel. The approaches including the role of the nurse in education make it easier for the individuals to identify and cope with their psychological and social problems (22). In many studies, it has been emphasized that nurses are indispensable for the systematic evaluation of side effects, giving trainings to manage the side effects and supporting the patients in the patients undergoing chemotherapy (18,22). In a study, an education was given under the leadership of the nurse, it was determined that psychological and procedural anxieties decreased in the patients, and the frequency and severity of nausea also decreased (23). In the study of Wangnum et al., it was determined that there was a decrease in the severity of fatigue and an increase in nutrition scores with the fatigue self-care training given to the patient with chemotherapy treatment (24). When examining the other studies about this subject were analyzed, it was found that the life quality is improved after the training (25), the symptoms that are related to the chemotherapy treatment decrease (22,23,26,27,28,29,30,31). Nurses should help the patients to learn about health care practices to regain and protect their health. Once they have identified the needs of their patients, they should organize the care of the individuals in a way that can address the limitations of the individual and improve his/her existing abilities and include the patient to own care (32).

II. Conclusion

In conclusion, many physical and psychological symptoms are developed in the patients treated with chemotherapy. These symptoms need to be well evaluated and controlled to be successful in cancer treatment. On the other hand, a large majority of the patients receive chemotherapy treatment as outpatient treatment, they stay in hospital for a short time to receive chemotherapy, and the patients experience these symptoms by themselves at home. For this reason, it is very important for patients to be informed about chemotherapy so that they can control these symptoms. The involvement of more nurses in chemotherapy education with the patient undoubtedly affect the success of the treatment positively.

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