

Summary

Chemotherapy is considered primary treatment for cancers for which no effective alternative treatment is less than available or when the alternative treatment is less than optimal. The objective of chemotherapy is to destroy malignant tumor cells without excessive destruction of normal cells. Several types of cancer are now considered curable with chemotherapy. Chemotherapy is used to cure patients, prolonged life, increase the disease-free interval, and palliate symptoms, thus improving the quality of life (*Black, & Hawks, 2009*). Information about quality of life is important for planning treatment, decision making, and the provision of supportive care. Such information is useful for both clinicians and patients, as well as to promote communication between them. Oncology nurses play a critical role in providing this information to patients, so that they can evaluate the balance of risks and benefits associated with treatment (*Ferrancs, 2005*).

The aim of the current study is to improve the quality of life for patient with cancer undergoing chemotherapy, this will be achieved through designing, implementing and evaluating the educational program. To fulfill the aim of the present study, the following research hypotheses were formulated:

H1: The study subjects could have improvement quality of life and physical capabilities in performing their daily living activities.

H2: Reducing the severity of side effects related chemotherapy.

H3: Providing supporting activities including psychological support for both patients and families.

The study was conducted in the clinical oncology unit and outpatient clinic of Benha Teaching Hospital. The study subject included 50 adult patients with the following inclusion criteria; Age > 18 years, Willing to participate in the study, just starting chemotherapy; patient should have been receiving at least one chemotherapeutic agent. And the only exclusion criteria were the presence of any diagnosed chronic disease such as diabetes mellitus, hypertension

Implementing this study required four tools:

1- A patients' assessment sheet was constructed by the researcher. It consist of three parts;- **Part 1:** it is concerned with sociodemographic data of the patients including; patient's name, age, sex, marital status, level of education, etc....., **Part 2:** medical background data sheet. It consisted of question covered the following items;- diagnosis, duration of disease, name of chemotherapeutic agents, the patient's vital signs, body weight, laboratory investigation such as W.B.Cs, Hg., platelet,etc , and present complaints associated chemotherapy. **Part 3:** interviewing questionnaire sheet; to assess of patient knowledge about chemotherapy, side effects, care to overcome these side effects, and relaxation technique to reduce the side effects.

2- Quality of life index scale

The scale was adopted from *ferrel & Grant (2003)* that developed to assess the impact of cancer on the quality of life of cancer patients. This scale modified by the researcher to suitable for cancer patient undergoing chemotherapy. The quality of life scale covered (4) health's dimensions as the following, physical well- being dimension included 10 items, psychological well- being dimension included 14 items, and social

well- being dimension included 9 items, and spiritual well- being dimension included 7 items.

3- karnofsky self- care activities performance

Developed by *Karnofsky, 1999*, was used to measure the patient's abilities to carry out activities of daily living. Karnofsky performance scale consisted of eleven level of performance covering the population's maximum and minimum ability and the grades were ranged from 0 to 100%.

4- Proposed management program.

This program was designed to improve the quality of life for patients and enhance their coping with understand the potential side-effects of the drugs they receiving and learn helpful management techniques that will ensure an effective and manageable (less toxic) chemotherapy experience. It was designed in the form of handout. It consists of two major sections the first one concerned with providing the patient with the essential information about cancer ,causes, treatment, administration of chemotherapy, chemotherapy side effects, nutritional manipulation, and the self care measures that patient could apply to overcome those side effects. This information was provided to the patients, in addition to oral explanation in the form of handouts. This handout describes side effects of chemotherapy on different body systems, and strategies for minimizing these side effects. The second section was concerned with teaching the patient progressive muscle relaxation technique through demonstration and redemonstration in front of patient in addition answering patient's questions and giving feed back.

Program implementation

The program was conducted through five sessions each one range from 30- 45 minutes on individual bases as patients cannot be gathered in the sessions because they didn't come regularly to the unit , and also ,because each patients treated as a unique case based on his needs, condition and personal characteristics.

At the beginning of the first session, patients were oriented regarding the program contents, its purpose and its impact on his condition. Patients were informed about the time of the next session at the end of the sitting.

Each session was started by a summary about what has been discussed in the previous session and the objectives of the new session, using simple Arabic language, also, the session ended by a summary of its contents and feedback from the patients was obtained to ensure that he/ she got the maximum benefit.

Program implemented through a period of 10 months, taking into consideration the time allotted the treatment visits during patients receiving guidance and instructions.

Program evaluation

Effect of the program on patient's condition was done through comparing the pre and post assessment of the patients regarding their knowledge, quality of life scale, and ability to perform the usual daily living activities. This phase was taken two times, immediate evaluation which taken immediately after finish the implementation phase, then after three month, the second evaluation was done.

The main findings of this study were:

- More than half of the study subjects were females, age ranged from 18- 44 years old, majority of subjects were married, less than half were non educated and approximately half of them were did not work.
- As regard to medical data of subjects, the third were treated from breast cancer and another third treated from lymphatic tumors, while majority of subject received 2-6 cycle of treatment.
- Also the results illustrated that there were statistical significant difference, in all vital signs and some investigations as hemoglobin, platelet, and white blood cells, between before, after one month and after three months of the program.
- Concerning the problems related to chemotherapy there were reduced in percentage between before and after the program.
- Regarding knowledge assessment there were significantly better improvement in knowledge scores for chemotherapeutic patients post program than pre program.
- The result of the study showed that there was significant positive correlation between total knowledge and quality of life dimensions (physical, psychological, social, and spiritual) among study subjects after the educational program, there is an improvement in quality of life on consequence with increase knowledge after the program.
- Regarding daily activities the result showed that there were significantly better score of all activities in post program than pre program. These reflect positive effect of educational program in improving the self care for chemotherapeutic patients.

The following are the main recommendations:

- 1- Continues the educational program for patients until finishing the chemotherapy cycles
- 2- Patient's education is very important element in improving patient quality of life so it must be emphasized before chemotherapy treatment initiation and continue after completion of treatment course.
- 3- Using this educational program by all chemotherapy units' out-patients' clinics and in- patients unit, through a simple booklet, and pamphlets with updated knowledge and instructions about chemotherapy.
- 4- Good communication between cancer patients and the health care team is important since it helps patients to express their feeling and alleviate their emotional stress.
- 5- More researches should be done about impact of other chronic diseases such as hypertension or diabetes mellitus on chemotherapeutic patients during treatment course.
- 6- Using educational program on different cancer treatment units to improve quality of life during the treatment.