Original Research

Studying physical and emotional aspects of self-care among patients with cancer referred to the chemotherapy ward of Shiraz Namazi Hospital.

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ABSTRACT:

Introduction: Being diagnosed with cancer is a painful experience for affected persons as well as their relatives. Both disease and it's complication create a variety of symptoms that influence the way of self-care and facing patients with this matter in their prognosis.

Objective: This research has been carried out with the aim to study the way of self-care and knowledge of patients under Chemotherapy regarding the physical and emotional aspects of self-care.

Materials and Methods: This is a descriptive-analytical study and research population was consisting of patients under Chemotherapy referred to the Namazi Hospital among which, 134 persons were selected randomly.

Results: Results indicated that, 101 cases (75.4%) were women with mean age of 46.8 years. Most of samples (64 persons, 47.8%) were illiterate. 113cases (84.3%) were married. Majority of samples (64 cases, 47.8%) were diagnosed with cancer and 72.4% of them used multi-drug treatment. 52.2% of samples had little knowledge about chemotherapy complication and 53.0% of them had no specific source of obtaining information. There was a statistically significant relation between physical care score and level of education $P < 0.0004$).

Discussion: According to the results of this research, educating cancer patients about self-care is very important and nurses should have more emphasis on teaching programs in order to promote quality of life (QOL) and knowledge of chemotherapy patients.

INTRODUCTION AND OBJECTIVE:

Cancer is a potential risk factor for mortality and creates important difficulties in different personal, familial and social aspects of patient's life Heidary, (2009). Patients with cancer experience various behavioral alterations including depression, weakness, sleep disturbance and cognitive dysfunction. These behavioral Co-morbidities become apparent throughout the process of diagnosis and treatment of cancer and can remain as such during individual's life time Guadagnolo, (2009). Cancer is the third main cause of death in Iran. The standardized prevalence rate is 98-110 per 100000 among both females as well as males. The male to female standard ratio is 1:12. The most prevalent type of cancer among women and men is Breast cancer and Stomach cancer respectively. The mortality rate due to cancer is estimated to be 41.1-65 per 100000 for both sexes Ingenta contennect cancer incidence and mortality in Iron (2009).

According to the data issued by Ministry of Health, cancer is the most common cause of death in Iran after Cardio-Vascular diseases and accidents MH, Somi *et al.,* (2009). In the US alone, it is estimated that 2008 a total of 565,650 patients will have died from cancer, whereas 1,437,180 will have been diagnosed. Thus, despite undeniable advancements in early diagnostics and progress in reducing morbidity through therapeutic efforts (Deisboeck, 2009).chemotherapeutics are the most effective treatment for metastatic tumors Gottesman *et al.,* (2002)

Patients with cancer have many problems in maintaining the style and quality of their life and are confronting with psychological complication like fearing and physical complication like pain and weakness. Therapeutic side-effects and treatment failure cause many difficulties and consequently death of the patients. Most of patients can adapt themselves with disease based on social, cognitive and emotional resources depending upon their situation before illness, social and economical

security and familial relation Html patient empowerment through supportive care (2009). Promoting self-care is an attitude that should be created and supported from early part of life. Health behaviors such as Breast Self Examination (BSE) can help empowering women in order to take responsibility and control over their health promotion Karayurt *et al.,* (2008). Cancer diagnosis often creates a crisis because, person is facing with various complication in relation with disease and it's treatment such as death, the circumstance of continuity with disease and uncertain future. Cancer and it's treatment causes morbidities and undermines the quality of life among survivors Mantazeri *et al.,* (2009).

Many studies have been carried out in relation with the effects of physician-patient communication on self-care behaviors. Self care program with the aim to promote knowledge and skill of patient for managing the facts of facing with disease and self-care in normal living environment includes important skills in relation with disease, treatment and prevention of complication.

Recognition of disease symptoms, medication use, management of physical and emotional stresses, self-monitory activities, exercise, diet, smoking abandonment, non consumption of alcohol and social and familial support are some of the examples of self-care. These programs will prepare and empower patients to care their health. Patients should undertake the basic role and main responsibility of caring their own health Arar *et al.,* (2006).

MATERIALS AND METHODS:

This sectional and descriptive-analytical study has been carried out with the aim to survey physical and emotional aspects of self-care among patients with cancer under chemotherapy in Shiraz Namazi Hospital during 2007-2008. Research population was consisting of patients with different types of cancer who were under chemotherapy among which 134 patients were selected randomly. Data were collected using a questionnaire

consisting of two parts. First part included some questions regarding demographic information of samples and second part contained questions about the importance of periodic examinations to determine the complication of regime therapy drugs doing such examinations, and also knowledge of patients about prevention of side effects, emotional problems resulted from chemotherapy and management methods of such side effects. According to the patient responses to the questions of second part of the questionnaire, its grading and score varied between zero to 20. Collected data were analyzed using SPSS software, descriptive (mean, frequency) ANOVA and t-test were found out.

RESULTS:

According to the results of this research, patients were aged between 16 to 79 with a mean of 46.8 years. Majority of the samples (101) were women (75.4%) and only 33(24.6%) of them were men. Concerning education, majority of the samples (64 cases, 47.8%) were illiterate, 34 cases (25.4%) had high school education, 25 cases (18.7%) studied up to the level of primary and guidance and just 11 cases (7.0%) had degree of diploma or more one hundred thirteen (84.3%) of samples were married, 16 cases (11.9%) unmarried and 5 cases (3.7%) were widow / widower or divorced.

Eighty seven (64.9%) of samples were housewives, 23 cases (17.2%) had free job, 17(12.7%) were clerks, four cases (3.0%) were unemployed and three cases (2.2%) were students. Breast cancer with sixty four cases (47.8%) were the most cancer diagnosed followed by Colon and Rectum cancer with twenty eight cases (20.9%), Lung cancer with 20 cases (14.9%), Lymphoma and Leukemia with seven cases (5.2%), Uterine and Ovary cancer with six cases (4.5%), Bone cancer with five cases (3.7%) and Brain cancer with four cases (3.0%). Tables 1 to 3 show the frequency distribution of samples according to demographic characteristic and diagnosis type.

The number of referrals for chemotherapy varied from first with twenty persons (15.0%) to 22nd reference with one case (0.8%). The maximum referring times belonged to fourth time with 23 cases (17.3%) of referrals. Ninethy seven persons (72.4%) positioned under multi-drug regime-therapy and 37 cases (27.6%) were under uni-drug regime-therapy.

In response to the question that whether they have done periodic examinations (blood, urine, stool, etc.) for the diagnosis of chemotherapy side effects, one hundred ten cases (82.1%) gave positive, 21 cases (15.7%) gave negative and three cases (2.2%) had no answer for this question. But, among those who had

Table 1: Frequency distribution of subjects' responses to the questions on physical aspects of self-care

Questions	Frequency		(%) percent	
	correct answer	wrong answer	correct answer	wrong answer
Do you consider the instructions or tips related to nutrition, in order to prevent chemotherapy complications?	105	29	78.9	21.6
How do you prevent the constipation?	44	90	32.8	67.2
What is your procedure to care for your mouth and teeth?	31	103	20.4	79.6
Which one of procedures do you follow to prevent urinary complications?	29	106	20.9	79.1
What are the local symptoms to be reported in case of intravenous injection?	33	91	32.1	67.9
Is it necessary to avoid pregnancy during the treatment?	46	89	33.6	66.4
What are the symptoms of medication sensitivity?	28	106	20.9	79.1
What are the proceedings necessary to keep the skin healthy during chemotherapy?	13	121	9.4	90.3
What do you do for preventing alopecia?	24	110	17.9	82.1

Table 2: Frequency distribution of subjects' responses to the questions on mental manifestations experienced during chemotherapy

questions	frequency		(%) percent	
	Yes	No	Yes	No
Do you feel constant stiffness of your body?	53	81	39.6	60.4
Do you experience disturbing mind?	99	35	73.9	26.1
Are you often irritable?	88	46	65.7	34.3
Are you able to control your disturbance?	39	95	29.1	70.9

Table3: Frequent distribution of subject kind of cancer

Kind of cancer	No. of Cases	Percentage
Breast cancer	64	47.8
Colon and rectomic	28	20.9
Brain.c	4	3
Lymphoma& leukemia	7	5.2
Bane. C	5	3.7
Uterus and ovaryc	6	4.5
Lung . c	20	14.9
Total	134	100

given positive answer, 87 persons (64.9%) did these examinations as to obey physician prescription and were not aware of importance and reason of doing such examinations.

In response to the question about "Which symptoms do you consider to be important in your physical condition that, inform your physician"?, seventy cases (52.2%) mentioned one or several physical symptoms such as fever, ecthyma, sore throat, colour change of stool and other symptoms related to chemotherapy drugs. One hundred twelve samples (83.6%) considered fatigue to be the most important side effect of chemotherapy and 75 cases (56.0%) mentioned resting as an effective factor to avoid such symptom.

In response to the question on what points should be observed to reduce side effects of chemotherapy related to the nutrition, one hundred five persons (78.4%) had selected correct answers such as avoidance from eating so spicy foods, reducing food volume and increasing times of eating, avoiding raw meat and vegetable and using anti-emesis drugs.

Finally in response to the question on "What to do to prevent constipation"? ninethy cases (67.2%) had no correct information or had incomplete information.

One hundred three persons (79.6%) had no knowledge about necessary cares of mouth and teeth and 106 cases (79.1%) were unaware of preventing side effects of chemotherapy. Eighty nine cases (66.4%) did not know that, they should prevent pregnancy during chemotherapy and 132 (98.5%) of them did not know

about the duration of pregnancy prevention. Ninety one persons (67.9%) had no knowledge that, the intravenous injection site should be controlled and what symptoms in this relation should be reported. One hundred six persons (79.1%) did not recognize the symptoms of drug sensitivity and 121 cases (90.3%) did not know what to do for caring their skin during chemotherapy.

About the Alopecia complication, Twenty persons (14.9%) mentioned their reaction, as to wear a hat or using a wig, 35 cases (26.1%) got anxious, 55 cases (41.0%) avoided looking at the mirror and finally 24 persons (17.9%) exposed themselves to others sight. One hundred ten persons (82.1%) did not know what to do for caring themselves about such complication.

Majority of samples (71 cases, 53.0%) did not have specific source to obtain information regarding self-care and 50 of them (37.3%) had mentioned physician as their information source. The total scores of self-care about physical symptoms varied from minimum of 3 to maximum of 16 with the mean of 8.8 cases.

Concerning the psychological aspects of self-care, the following results were obtained; in response to the question whether they feel that, their body is continuously hard, 50 cases (37.3%) gave positive answer, 81 cases (60.4%) gave negative answer and three of them (2.2%) have not given any answer. Ninety nine samples (73.9%) experienced disturbing thoughts, 88 cases (65.7%) felt that, they are irritable and only 39 persons (29.1%) were able to control their anxiety.

In response to the question that, what do you do when you are anxious and worried, 109 persons (81.3%) were not aware of appropriate reactions such as making themselves busy, expressing their feelings and other suitable stress controlling methods.

Concerning their relationship with others, 109 cases (81.3%) mentioned seclusion impatience for making relation with others and unnecessary to have relation with others. 71 samples (53.0%) were often angry, 39 cases (29.1%) did not accept that their life is pleasurable, 58 persons (43.3%) had difficulty in decision making and 35.8% of them had feeling of disappointment and worthlessness.

The scores of knowledge about emotional aspects of self-care in chemotherapy ranged between 6 to 20 with mean of 15 that are higher than scores of knowledge about physical aspects of self-care in chemotherapy.

There was significant statistical relation between obtained scores from physical aspects and education level (P< 0.004) meaning that, the knowledge about physical aspects of self-care in chemotherapy increased with increase in educational level.

Furthermore, there was significant statistical relation between obtained scores from physical aspects of self-care in chemotherapy and the number of referrals for chemotherapy (P<0.001) and the knowledge of patients had increased with increase in the number of referrals.

DISCUSSION AND CONCLUSION:

This research was carried out on subjects aged between 16-79 with mean of 46.8 years and majority of them were women. In the study done by Montazeri et-al. (2008) and Sheibani et al., (2009), the mean age of samples were 43.4 and 55 years respectively (Sheibani 2009). But the age of participants in the study of Sadler et al., (2007) were above 40 years.

It seems that, the age of cancer incidence in our country is lower than that of other countries and has been reduced to the beginning of middle age. This change could be due to the changes in life style.

The mean age of samples in the research done by Okibia was 29.13 years Okobia et al., (2006) and in the research of Montazeri, it was 54.1 years (Mantazeri, 2009).

The majority of samples in this research (47.8%) were illiterate and married (84.3%). Merchant et al.., (2007) in their study observed that, most participants were single and educated Madlin et al., (2008). Rezaianzadeh (2009), in his study observed that, 18.0% of samples were illiterate and 82.0% of them were married Rezaianzadeh et al., (2009). The difference in the education level and marital status is attributed to socio-economic differences among various societies.

Breast cancer ranking 47.8% was the most prevalent among research samples followed by Colon and Lung cancer. Somidet et al., (2009) in their study showed that, the 5 most common cancers in women are Stomach, Breast, Colorectal, Anus and Bladder cancers (Somim et al., 2009). In Iran, Lung cancer is one of the five leading tumors and it´s incidence rate is increasing among men and women Hosseini et al., (2009). Breast cancer is the main and prevailing diagnosis among cancers in developing countries and is estimated to be 10.0% in developed countries like USA and Europe. The incidence of Breast cancer in Iran is reported to be 6.7% Rezaianzadeh et al., (2009). Approximately, 50000 of new cases of cancer are adding every year to the patients population in Iran.

Digestive system (Stomach, Esophagus, and Colon) is the most involved organ ranking 38.0% among all cancers in women Mohebbi et al., (2008). Screening possibilities, doing diagnosis tests, medical examinations, level of knowledge in the society, socio-economical differences and cultural factors in different societies are effecting these amounts.

In the present research, there was a statistical significant relation between referral times and knowledge of patients in relation with physical aspects of self-care (P<0.001). Times of referring will be resulted in obtaining information from physician, nurse, books and other patients and media. Sadler (2007) came into conclusion that, knowledge about Breast cancer is associated with the guidelines for screening to women having health problems and adventured for their Breast cancer therefore, early diagnosis of this type of cancer is very important Sadler *et al.,* (2007).

The results of studies in Nigeria indicated that, the knowledge of women in relation with Breast cancer is low and only few numbers of participants responded correctly to the questions regarding the symptoms of Breast cancer (Cokobia) Okobia *et al.,* (2006).

Motlhews *et al.,* (2006) observed that, 20.0% of samples positioned at a poor health situation and had lots of problems in relation with treatments Matthews *et al.,* (2006). Other studies showed that, there are knowledge limitation regarding aspects of therapeutical-biologic of cancer and also low use of screening services among study population Mcmullin *et al.,* (2008). Guadagnolo *et al.,* (2009) observed that, there is little knowledge in relation with screening tests among Americans Guadagnolo *et al.,* (2009).

In present research, the majority of samples (72.4%) followed multi-drug regime therapy. Regime therapy depends upon the type of diagnosis and physician opinion that was so variable, but the important point was the high drug side effects among patients. Gotlordo (2008), Ladish (2009) and Modlio (2008) in their studies observed that, majority of patients followed multi-drug regime-therapy and suffered from side effects of drugs Gottardo *et al.,* (2008) Lidosh and Stratakis (2009) Claudio (2007).

The results of present study in connection with the physical aspects of self-care were an evidence of low knowledge in relation with doing periodic examinations.

44.9% had lack of knowledge and chemotherapy side effects were reported in 47.8% of samples. The score of knowledge about physical aspects of self-care was associated with Chemotherapy complication. Digestion, teeth, mouth, skin, alopecia and urinary complication were prevalent among patients. There was statistical significant difference between the score of physical aspect of self-care and education level (P<0.004), number of referral times for Chemotherapy (P<0.001) and marriage status (P<0.001).

The results of study carried out by Rezaian (2009) indicated that, 18.0% of samples had low education, 9.0% were single and the rate of 5-years survival was associated with disease stage and diagnosis type Rezaianzadeh *et al.,* (2009). Parter *et al.,* (2009) in their research observed that, patients who placed at a low level in relation with self-care, reported the highest physical complication resulted from chemotherapy Parter *et al.,* (2008). Arar *et al.,* (2006) in their study found that, 76.0% of patients encountered with physical distress and disease symptoms Arar *et al.,* (2006). Merchant *et al.,* (2007) in their research carried on 1100 patients found that, most of participants were unmarried and participated women have low knowledge about screening tests Merchant *et al.,* (2007).

Cancer diagnosis in patients causes disorder in their useful function, Co morbidity and cognitive disorders Somim *et al.,* (2009). In the present research, the score of knowledge about emotional aspects of self-care were between 6 to 20 with the mean of 15 and no significant statistical relation was observed between the study variables and these scores. Montazeri (2008) observed that, the Quality of life (QOL) in patients with Breast cancer is an important matter that should be considered carefully because, it creates important information in relation with therapeutical decisions and a part of QOL is related with emotional aspects and feelings of patients about disease, treatments and its complication Montazeri (2008). According to Yang

(2008), cancer diagnosis raises the level of stress and confronting method of this stress is effective on QOL Html patient empowerment through supportive care (2009). Patients suffering from cancer often have some difficulties in their life style that resulted in emotional complication. According to Rosenbaun, emotional complication deeply effects the patients somatic Rosenbaum *et al.,* (2009).

Claudio *et al.,* (2007) by self-evaluation from patients with cancer concluded that, screening examination have been so useful from the view point of patients. Anxiety, fear, lack of knowledge, distress and lack of self-confidence are among barriers which cause patients not to receive necessary treatment and drug side effects can not be prevented Claudio *et al.,* (2007). Awadalla *et al.,* (2007) observed that, effective methods to create motive and promotion of QOL of patients with cancer have led to an increase in their longevity. Married patients with higher level of education and better occupation have higher QOL therefore, by emotional and social support; the quality of life of patients could be increased.

FINAL CONCLUSION:

Self-care is an important factor in presenting health cares by health team and this team should teach different aspects of self-care (physical-emotional aspects) to patients in order to promote their health and increase their QOL. Paying attention to the self-care will cause the screening tests of early diagnosis of cancers and effective treatments resulting in the increment of longevity and QOL of patients with cancer. Most of researches have emphases on the need for cancer screening programs, public education and knowledge regarding cancer diagnosis and health education to the health providers Sadjadi *et al.,* (2009); Goa *et al.,* (2002).

The most important knowledge deficit problem about early diagnosis of cancer is the confronting circumstance with disease and its therapeutical side effects Karayurt *et al.,* (2008); Mantazeri *et al.,* (2009); Okobia *et al.,* (2006); Merchant *et al.,* (2007); Mcmullin *et al.,* (2008).

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