

Explore Adult Oncology Patients' Experiences and Perceptions with Chemotherapy Treatment in Saudi Arabia

Saati HS*

King Saud Bin Abdulaziz University for Health Sciences, College of Nursing, Jeddah, Saudi Arabia

Abstract

The patients worldwide prefer to know their diagnosis, prognosis, treatment options, and the likelihood of treatment success, and this is true for cancer, which brings about a complex range of both objective (external) and subjective (internal/psychological) implications. While the vast majority of patients preferred to know the truth about the diagnosis and prognosis of their malignant disease, attitudes towards disclosing this information to their families and/or seeking support differed considerably among genders, with significantly more women than men sharing their diagnosis and prognosis with their families. The objective of this article is to provide crucial information about the patient experience, knowledge, and attitude towards the cancer diagnosis and chemotherapy treatment. Another significant contribution of the study is that it will determine the role of oncology nurses in supporting cancer patients in Saudi Arabia.

This is an exploratory study assessing the experience, using questioner to explore the knowledge and attitudes of adult Saudi Oncology patients with regard to their cancer diagnosis and treatment and highlighting the role of oncology nurses in supporting the patient experience of chemotherapy at two hospitals in Jeddah, Saudi Arabia. The findings of this study are used to guide healthcare professionals and oncology nurses, in their approach for delivering care to cancer patients and establishing a patient-centered approach to oncology services.

Keywords: Chemotherapy; Cancer Diagnosis; Oncology

***Correspondence to:** Howaida Shaker Saati, King Saud Bin Abdulaziz University for Health Sciences, College of Nursing, Jeddah, Saudi Arabia; E-mail: saatih@ksau-hs.edu.sa

Citation: Saati HS (2020) Explore Adult Oncology Patients' Experiences and Perceptions with Chemotherapy Treatment in Saudi Arabia. *Prensa Med Argent*, S2:008. DOI: <https://doi.org/10.47275/0032-745X-S2-008>.

Received: June 20, 2020; **Accepted:** July 28, 2020; **Published:** August 01, 2020

Introduction

Cancer is among the leading causes of morbidity and mortality worldwide. It has been estimated that 14 million new cases and 8.2 million cancer-related deaths occurred in 2012 alone (WHO, 2015). In Saudi Arabia, the total number of cancer cases reported by the Saudi Cancer Registry in 2006 was 8,054. Despite these sobering statistics, many malignancies have a high chance of cure if detected early and treated adequately [1,2].

Chemotherapy stops or slows the growth of cancer cells, but it is also associated with side effects. Usually, such toxicities subside during the first weeks of treatment, and certainly after chemotherapy is over. Depending on the disease stage at diagnosis and individual patient characteristics, chemotherapy can have a wide range of responses, from partial response to complete remission, and can help ease symptoms with fewer requirements for aggressive interventions during the palliative care stage [3]. While chemotherapy can be costly, intensive, and taxing on the patient, it has been shown to improve the quality of care [3].

There are different routes for delivering chemotherapy, including oral, subcutaneous, topical, intravenous, intrathecal, intraperitoneal, and intra-arterial. Chemotherapy treatments are given in cycles, with a schedule determined by different factors such as tumour type; whether chemotherapy is used to cure, control, or ease symptoms;

type of chemotherapy administered; and individual body response (NCI, 2016). The number of chemotherapy cycles is pre-determined for a newly diagnosed patient. However, in the case of a patient who has shown disease progression (tumour recurrence) or has advanced (metastatic) disease, 2 or 3 cycles are given initially to determine response to chemotherapy. After which, if no major tolerability issues are detected, chemotherapy can be continued for as long as responses are maintained.

A systematic review conducted by Aljuaid M, et al. (2016) in King Abdullah Medical City to determine the main problems facing clinical practice in university hospitals in Saudi Arabia and the main directions of improvement in quality of care revealed that communication between patients and healthcare professionals is a key barrier to establishing a patient-centred mindset of care in Saudi hospitals.

Assessing and incorporating patient-related outcomes in measurements of clinical effectiveness, or patient satisfaction as a factor underlying decision-making, are some of the recommendations made by the authors for improving the quality of care delivered in Saudi hospitals [4].

Most patients worldwide prefer to know their diagnosis, prognosis, treatment options, and the likelihood of treatment success, and this is especially true for cancer, which brings about a complex range of both objective (external) and subjective (internal/psychological)



implications. A prospective survey using a questionnaire distributed to 332 Saudi cancer patients who received oncological care at King Fahd University Hospital, Al-Khobar district, showed that patients wanted access to and disclosure of cancer information, and rejected the idea of therapy without disclosure of its benefits and adverse effects. While the vast majority of patients preferred to know the truth about the diagnosis and prognosis of their malignant disease, attitudes towards disclosing this information to their families and/or seeking support differed considerably among genders, with significantly more women than men sharing their diagnosis and prognosis with their families [5].

This study will provide crucial information about the patient experience, knowledge, and attitude towards the cancer diagnosis and chemotherapy treatment. Another significant contribution of the study is that it will determine the role of oncology nurses in supporting cancer patients in Saudi Arabia.

Literature Review

The Nurse-Patient Relationship in Oncology Care

Cancer care requires a comprehensive understanding of the patient, and nursing care comprises not only the clinical aspects of care, but also the emotional implications [6]. The Research Center for Quality Care found that, while the majority of patients were satisfied with the level of care received on the chemotherapy wars, 10.8% felt that nurses did not adequately listen to or respect their opinions, or failed to spend enough time with them [7]. A similar study revealed that poor communication between nurses and patients resulted in decreased quality of care, poor outcomes, and dissatisfaction with the health care system [8].

Factors Influencing Patients' Experience of Cancer Treatment

Recent studies show that religious beliefs influence medical decisions, such as the use of chemotherapy and other life-saving treatments, as well as patients' perceptions of treatment effectiveness and their concept of self-efficacy in managing the treatment experience and any emerging side effects.

More than 60 studies to date have examined the role played by religion in helping patients to cope with various medical conditions such as diabetes, kidney disease, cancer, HIV/AIDS, and other severe or terminal illnesses. Patients in these studies commonly indicate that religious beliefs and practices are powerful sources of comfort, hope, and meaning, particularly when coping with a medical illness [9].

A study conducted via semi-structured interviews with 39 Muslim breast cancer survivors found that spirituality was the primary source of psychological support among participants. Despite the fact that almost all participants attributed their cancer to the will of God, they were also actively engaged with their medical treatment [10].

Another factor that was found to impact patients' views, understanding and acceptance of chemotherapy was their level of education. Four studies examined this association in relation to patients' preference for chemotherapy, either as monotherapy or in combination with other therapeutic options [11-14]. It was found that, in the adjuvant setting, educated women were significantly more likely to choose chemotherapy, hormone therapy, and other combination therapies [14].

One of the factors shown to increase the likelihood of receiving chemotherapy is social support or the presence of partners/significant others. Studies on this topic agreed with the findings of Grunfeld and colleagues (2001) in that patients' level of social support was an

important factor in the joint patient-clinician decision-making with regard to chemotherapy [15,16]. Indeed, Du X, et al. (2001) reported that married women were more likely to receive chemotherapy than unmarried women. Unmarried women might receive chemotherapy less often due to their expressed concerns over post-operative assistance and transportation or cost of treatment, or because of a doctor's decision to avoid such discussions.

Taken together, these studies reveal a wide range of elements influencing patients' views on, and experience of chemotherapy, but data on this topic remain scarce and there is a need to contextualize such findings to the Saudi oncology services.

Objectives of the Study

The overall aim of this research is to characterize the experience, knowledge, and attitude with regard to cancer and chemotherapy among Saudi adult oncology patients, as well as the role of the oncology team, particularly oncology nurses, in supporting patients undergoing chemotherapy. These objectives summarize as following:

- Patients' understanding of the nature of their disease, their cancer diagnosis and treatment plan.
- The influence of culture and religion on patients' perception and acceptance of diagnosis and cancer treatment.
- The level of family support throughout the chemotherapy treatment journey Patients' experiences pre- and post-chemotherapy concerns, needs, communication preferences-with an emphasis on the patient interaction with the oncology health team.
- The role of oncology nurses in ensuring the overall quality of care and support needed by cancer patients before and after chemotherapy.

Research Questions

More than 60 studies to date have examined the role played by religion in helping patients to cope with various medical conditions such as diabetes, kidney disease, cancer, HIV/AIDS, and other severe or terminal illnesses. Patients in these studies commonly indicate that religious beliefs and practices are powerful sources of comfort, hope, and meaning, particularly when coping with a medical illness. On other hand, the proposed work in this article aims to answer the following questions:

- What are the experiences, knowledge, and attitudes towards the cancer diagnosis and chemotherapy treatment among adult Saudi patients, their families or carers, their support network, and society at large?
- How are these experiences and perceptions affected by patients' interaction with the oncology health team, and the oncology nurse in particular?
- What are the patients' suggestions for improving the quality of care provided in both the outpatient and inpatient setting, and the overall experience of chemotherapy?

Materials and Methods

The research objectives when achieved through using Survey method that is done by using questionnaire, which was filed by patient after signing the consent form as part of research ethical considerations. The questionnaire has been designed to assess patient demographics



and history of cancer, level of understanding and cultural perceptions surrounding the cancer diagnosis, and knowledge of available cancer treatments.

Data were analyzed using the Statistical Package for Social Sciences. Patient-reported measures including demographic parameters and various pre-specified cancer-related outcomes will be determined from the answers to the questionnaire by using descriptive statistics. A threshold of 0.05 for the P-value will be used to denote statistical significance and Cronbach's alpha factor will be used for reliability testing.

This is a cross-sectional study to assess the experience, knowledge and attitudes of adult Saudi oncology patients with regard to their cancer diagnosis and treatment, and highlighting the role of oncology nurses in supporting the patient experience of chemotherapy at Jeddah, Saudi Arabia. The findings of this study will be used to guide healthcare professionals, and oncology nurses, in their approach to delivering care to cancer patients and establishing a patient-centred approach to oncology services.

Study Area/Setting: outpatient patient's chemotherapy treatment area at two hospitals in Jeddah Saudi Arabia.

Study Subjects: Saudi Adult oncology patient who receive chemotherapy at oncology center.

Study Design: cross-sectional study.

Sample Size: Covenant sample with total 360 patients divided into (3 groups of patients). (Table 1)

Table 1: Ovenant sample with total 360 patients divided into (3 groups of patients).

Total Number of Sample (360)					
120 at the beginning		120 at the middle		120 at the end	
60	60	60	60	60	60
Male	Female	Male	Female	Male	Female

Sampling Technique: Covenant sample with total 360 patients divided into (3 groups of patients) 120 for each group (60 male/60 female)

- Group A = 120 patients who are at the beginning of their chemotherapy cycles (start 1-3 chemo cycles).
- Group B = 120 patients who are at the middle of their chemotherapy cycles (between 4-8 chemo cycles).
- Group C = 120 patient who are at the end of their chemotherapy cycles (between 9-13 chemo cycles or more).

Data Collection Methods, Instruments, and Measurements

The survey was conducted using a questionnaire, which was filed by the patient after signing the consent form as part of research ethical considerations. The questionnaire has been designed to assess patient demographics and history of cancer, level of understanding and cultural perceptions surrounding the cancer diagnosis, and knowledge of available cancer treatments. Data were analysed using the Statistical Package for Social Sciences. Patient-reported measures including demographic parameters and various pre-specified cancer-related outcomes were determined from the answers to the questionnaire by using descriptive statistics. A threshold of 0.05 for the P-value was used to denote statistical significance and Cronbach's alpha factor was used for reliability testing.

Data Management and Analysis Plan

Data were analysed using the Statistical Package for Social Sciences. Patient-reported measures including demographic parameters and various pre-specified cancer-related outcomes were determined from the answers to the questionnaire by using descriptive statistics. A threshold of 0.05 for the P-value was used to denote statistical significance and Cronbach's alpha factor were used for reliability testing.

Results

The article clarifies that Chemotherapy is a treatment that can last for weeks or even months, and it is very natural that during this period you feel many feelings that extend from anxiety and depression and reach emotion and frustration. There are many ways in which you can relieve these feelings during treatment, including joining a support group or talking about your feelings to your friends and loved ones or to a specialized psychotherapist. From Table 2, it was shown that the increased cancer incidence for younger age 49 years then the incidence number is decreases by ages 75 and more.

Each type of chemotherapy drug may cause different side effects and affect each patient differently. Therefore, cancer patients are often unaware of how they will be affected by chemotherapy until treatment begins. As some patients are fortunate enough to experience very mild side effects, others are more affected. However, the side effects are usually temporary, and disappear as soon as chemotherapy is completed. From table 3 which show the Cancer history and presentation, we see that

Table 2: Demographic data.

Age group	%
20-24	27
25-29	29
30-34	38
35-39	47
40-44	43
45-49	50
50-54	18
55-59	15
60-64	12
65-69	9
70-74	6
75 +	6
Total	360

Table 3: Cancer history and presentation& its corresponding chart.

Cancer history and presentation	Total%
Carcinoma	78%
prior history of cancer	11%
prior history of radiation therapy for cancer	20%
undergo surgery for other types of cancer	25%
when did you first experience symptoms within 1 year	90%
Experience fatigue symptoms	80%
symptoms progress Moderately	53%
pain experience	82%
Trying to control these symptoms before seeking medical advice from a clinician	77%
Family encouraged to go to the doctor	75%
undergo any particular tests	98%
adequate support and information were available at the time of diagnosis	95%
Fair level of understanding of the nature of the disease	77%
Fair level of understanding of the treatment prescription, recommendation	70%



this Table refers to The Cancer history and other treatment history, patients experience with cancer symptoms before diagnosis and their level of understanding of the nature of the disease and their level of understanding of the treatment prescription, recommendation was given, it shows that there were adequate support and information were available at the time of diagnosis (95%).

Chemotherapy can destroy healthy cells in the body, especially those that divide quickly, such as:

- Bone / blood marrow cells: This may lead to fatigue and weaken the immune system, which may increase the risk of infection.
- Hair follicle cells, which may lead to hair loss.
- Cells in the digestive system, which can lead to nausea, vomiting, constipation, and stomach pain due to chemotherapy.
- Genital cells, as loss of sexual desire and sterility in men are a common side effect of chemotherapy.

From table 4 which illustrate the attitudes towards and support during diagnosis and treatment, we assure that this Table highlights the oncology patients' attitudes towards and support during diagnosis and chemotherapy treatment were emphases in the importance of religious beliefs (91%) and family support during diagnosis and treatment (80%), the influence of Saudi culture and level of support that is given by society to support oncology Saudi patients (80%), also it shows the increased needs for health awareness (94%) and health services (97%) to meet the unique needs for these patients.

On other hand, Table 5 presents the Healthcare setting and interactions with the oncology team highlights that patients were not always gaining access to contact within the health team (68%), and there was a sever need to receive psychological support during their chemotherapy treatment (93%).

Finally, with regards to the experience of chemotherapy, Table 6 presents oncology Patients experience of chemotherapy and the need to have psychological preparation before chemotherapy which was low (58%), the high level of response regarding experiencing side effect and late side effects, and coping issues with chemotherapy side effects were also finned (82%).

As a final conclusion from our achieved results, we found that the cancer incidence for younger age increases till the middle age 49 years then the incidence number is decreases by ages 75 and more. The Cancer history and other treatment history was presented, patients experience with cancer symptoms before diagnosis and their level of understanding of the nature of the disease and their level of

Table 4: Attitudes towards and support during diagnosis and treatment.

Attitudes towards and support during diagnosis and treatment	%
Religious beliefs	91%
Family support	80%
Adequate understanding and acceptance of a cancer diagnosis in Saudi culture	85%
Fair level of support that is given by society to patients with cancer in Saudi culture	65%
Fair level of the understanding for the importance of chemotherapy in Saudi culture	71%
Good level of support that is given by society to patients undergoing chemotherapy	80%
The health awareness regarding cancer among Saudi individuals should be improved	94%
Health services and capabilities provided to Saudi cancer patients should be improved	97%

Table 5: Healthcare setting and interactions with the oncology team.

Healthcare setting and interactions with the oncology team	4%
Healthcare professional's involvement in patients care	91%
Comfortable in asking for advice by health team	86%
Patients are not always gaining access to contact within the health team	68%
Oncology nurse approachable and accessible but they are under time pressure	77%
I have not asked for psychological support, but I feel I need to receive it	93%
I do not feel my concerns have been listened to properly	73%

Table 6: Experience of chemotherapy.

Experience of chemotherapy	5%
Physical preparation ahead of chemotherapy	89%
Psychological preparation ahead of chemotherapy	58%
Frightening experience of receiving chemotherapy	86%
Positive response for experience side effects	96%
Negative response regarding coping with chemotherapy side effects	87%
Lifestyle advice by oncology team to help to manage treatment side effects	94%
Receive medication to help manage or reduce the side effects of chemotherapy	96%
Negative response regarding side effects disappears a few weeks after starting chemotherapy	73%
Confirm experience late side effects of chemotherapy	78%
Use specific medications to cope with these side effects	82%
The importance of regular monitoring after stopping chemotherapy	88%

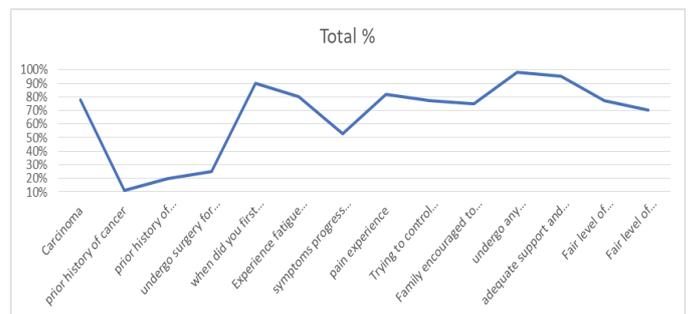


Figure 1: Cancer history and presentation and its corresponding chart.

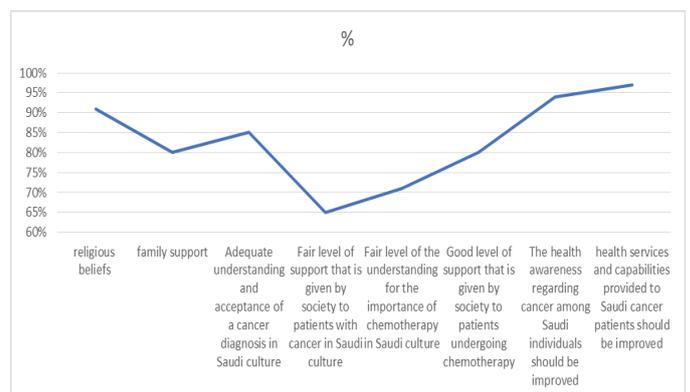


Figure 2: Attitudes towards and support during diagnosis and treatment.

understanding of the treatment prescription, recommendation were given, it shows that there were adequate support and information were available at the time of diagnosis (95%).

The oncology patients' attitudes towards and support during diagnosis and chemotherapy treatment were emphases in the

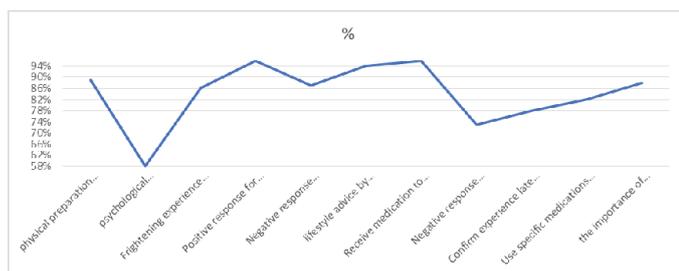


Figure 3: Experience of chemotherapy.

importance of religious beliefs and family support during diagnosis and treatment, the influence of Saudi culture and level of support that is given by society to support oncology Saudi patients. Healthcare setting and interactions with the oncology team highlights that patients were not always gaining access to contact within the health team, and there was a need to receive psychological support during their chemotherapy treatment.

Patients experience of chemotherapy were presented in the study and the need to have psychological preparation before chemotherapy, the high level of response regarding experiencing side effect and late side effects, and coping issues with chemotherapy side effects were also finned.

Conclusion

Cancer is among the leading causes of morbidity and mortality worldwide. It has been estimated that 14 million new cases and 8.2 million cancer-related deaths occurred in 2012 alone [17]. In Saudi Arabia, the total number of cancer cases reported by the Saudi Cancer Registry in 2015 was 12,038 cases overall cancer was more among women than men; it affected 8,565 (52.8%) females and 7,645 (47.2%) males. Also, reported among Saudi nationals, 3,504 among non-Saudi, and 142 of unknown nationality (SCR report 2015) [18-21].

Despite this sobering statistic, many malignancies have a high chance of cure if detected early and treated adequately. According to this important fact, the overall aim of this research is to characterize the experience, knowledge, and attitude with regard to cancer and chemotherapy among Saudi adult oncology patients, as well as the role of the oncology team, particularly oncology nurses, in supporting patients undergoing chemotherapy. We have achieved several objectives defined by:

- Patients' understanding of the nature of their disease, their cancer diagnosis and treatment plan.
- The influence of culture and religion on patients' perception and acceptance of diagnosis and cancer treatment
- The level of family support throughout the chemotherapy treatment journey Patients' experiences pre- and post- chemotherapy-concerns, needs, communication preferences-with an emphasis on the patient interaction with the oncology health team.
- The role of oncology nurses in ensuring the overall quality of care and support needed by cancer patients before and after chemotherapy.

Finally, the major findings of this article show that religious

beliefs influence medical decisions, such as the use of chemotherapy and other life-saving treatments, as well as patients' perceptions of treatment effectiveness and their concept of self-efficacy in managing the treatment experience and any emerging side effects.

References

1. Jatoi I (2011) The impact of advances in treatment on the efficacy of mammography screening. *Prev Med* 53: 103-104.
2. Tabár L, Vitak B, Chen TH, Yen AM, Cohen A, et al. (2011) Swedish two-county trial: Impact of mammographic screening on breast cancer mortality during 3 decades. *Radiol* 260: 658-663.
3. Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, et al. (2010) Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med* 363: 733-742.
4. Aljuaid M, Mannan F, Chaudhry Z, Rawaf S, Majeed A (2016) Quality of care in university hospitals in Saudi Arabia: a systematic review. *BMJ* 6: e008988.
5. Al-Amri A (2010) Saudi cancer patients' attitudes towards disclosure of cancer information. *Middle East J Cancer* 1: 175-180.
6. Skilbeck J, Payne S (2003) Emotional support and the role of clinical nurse specialists in palliative care. *J Adv Nurs* 43: 521-530.
7. Zamanzadeh V, Rassouli M, Abbaszadeh A, Nikanfar A, Alavi-Majd H, et al. (2014) Factors influencing communication between the patients with cancer and their nurses in oncology wards. *Indian J Palliat Care* 20: 12-20.
8. Bonds DE, Zaccaro DJ, Karter AJ, Selby JV, Saad M, et al. (2003) Ethnic and racial differences in diabetes care: The insulin resistance atherosclerosis study. *Diabetes Care* 26: 1040-1046.
9. Koenig HG (2002) An 83-year-old woman with chronic illness and strong religious beliefs. *JAMA* 288: 487-493.
10. Harandy TF, Ghofranipour F, Montazeri A, Anooosh M, Bazargan M, et al. (2010) Muslim breast cancer survivor spirituality: coping strategy or health seeking behavior hindrance?. *Health Care Women Int* 31: 88-98.
11. Ashing-Giwa KT, Padilla G, Tejero J, Kraemer J, Wright K, et al. (2004) Understanding the breast cancer experience of women: a qualitative study of African American, Asian American, Latina and Caucasian cancer survivors. *Psychooncol* 13: 408-428.
12. Grunfeld EA, Ramirez AJ, Maher EJ, Peach D, Young T, et al. (2001) Chemotherapy for advanced breast cancer: what influences oncologists' decision-making?. *Br J Cancer* 84: 1172-1178.
13. Mitchell J, Lannin DR, Mathews HF, Swanson MS (2002) Religious beliefs and breast cancer screening. *J Womens Health* 11: 907-915.
14. Peele PB, Siminoff LA, Xu Y, Ravdin PM (2005) Decreased use of adjuvant breast cancer therapy in a randomized controlled trial of a decision aid with individualized risk information. *Med Decis Making* 25: 301-307.
15. Du X, Goodwin JS (2001) Patterns of use of chemotherapy for breast cancer in older women: findings from medicare claims data. *J Clin Oncol* 19: 1455-1461.
16. Morimoto L, Coalson J, Mowat F, O'Malley C (2010) Factors affecting receipt of chemotherapy in women with breast cancer. *Int J Womens Health* 2: 107-122.
17. World Health Organization (WHO) (2015). Cancer. Available at: <http://www.who.int/mediacentre/factsheets/fs297/en/>
18. Karmali MA, Goglio AD (1994) Recent advances in verocytotoxin producing escherichia coli infections. Elsevier Science, Amsterdam, The Netherlands.
19. Fakhr-Movahedi A, Salsali M, Negharandeh R, Rahnavard Z (2011) A qualitative content analysis of nurse-patient communication in Iranian nursing. *Int Nurs Rev* 58: 171-180.
20. National Cancer Institute (NCI). Cancer treatment. Available at <http://www.cancer.gov/about-cancer/treatment/types/chemotherapy>. Last accessed June 2016.
21. Tay LH, Hegney D, Ang E (2011) Factors affecting effective communication between registered nurses and adult cancer patients in an inpatient setting: A systematic review. *Int J Evid Based Health* 9: 151-164.