



بسم الله الرحمن الرحيم



**Shendi University**

**Faculty of Graduate Studies and Scientific Research**

**Master Degree in Nursing Sciences**

**Research about:**

**Assessment of Cancer Patient Undergoing  
Chemotherapy Knowledge Regarding Home  
Self Care in Tumor Therapy and Cancer  
Research Center Shendi 2016**

A thesis submitted as partial fulfillment requirement of  
M.S.c in medical surgical nursing sciences.

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# الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

﴿ إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ كَانَتْ

لَهُمْ جَنَّاتُ الْفِرْدَوْسِ نُزُلًا ﴾

صدق الله العظيم

سورة الكهف- الآية (107)



# Dedication



*To those*

*Who give me the best of life without payment*

*Happily, I would like to dedicate this simple attempt to,,,,,*

*The one who have taught me how to be a valuable member of the  
community*

*‘MY FATHER’*

**To essence of life and meaning of humanity**

*‘MY MOTHER’*

**To who share with me all moments of happiness and sadness  
and made me happy at time of sadness**

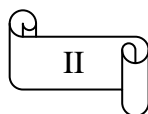
*“My lovely family”*

**To who gave me sense of everlasting warmth and beauty**

*“My best friends”*

*I thank to my all friends and colleagues those who make me feel friendship and  
share with me the all burden of carrying out this research.*

*Especial thanks:*



# ***Acknowledgment***

*All thanks to Allah from the start to the end.....*

*And pray for Prophet Mohammed peace be upon him*

*I would like to acknowledge the contribution of my*

*Supervisor:*

***Us: Elssayed Osman Elssayed***

*Who guide me throughout my way and helped me to make*

*this research as accurate and useful as possible.*

*And I'm grateful to my friends and all those who*

*contributed their time and helped me.*

*My thanks also extend to my college and my teachers*

## ملخص الدراسة

أجريت هذه الدراسة الوصفية في الفترة ما بين أكتوبر - ديسمبر 2016م في مركز علاج الأورام وأبحاث السرطان.

لتقييم معرفة مرضى السرطان الذين يستقبلون العلاج الكيميائي بشأن الالتزام بالعناية المنزلية بأنفسهم.

وشملت الدراسة على أربعين مريضا تم اختيارهم عن طريق العينة المتيسرة و تم جمع البيانات عن طريق الاستبيان الذي يتكون من تسعة عشر سؤالاً وتم تحليل البيانات باستخدام برنامج الحزم الإحصائية للعلوم الاجتماعية والطرق الإحصائية اليدوية المبسطة.

أظهرت الدراسة أن الغالبية (95%) من مجتمع الدراسة يلتزمون بأخذ الجرعات الكيميائية بانتظام، ونصف مجتمع الدراسة (50%) تظهر الآثار الجانبية للعلاج الكيميائي عندهم في تساقط الشعر والغثيان بنسبة (20%) وأظهرت أيضا أن (60%) من المرضى يحتاجون المساعدة للقيام بنشاطاتهم اليومية.

وأوصت الدراسة بإنشاء برامج تعليمية لزيادة مستوى العناية الشخصية لدى مرضى السرطان الذين يأخذون العلاج الكيميائي وإعطائهم نشرات تثقيفية محتوية إرشادات للعناية المنزلية مصممة بواسطة رئيس التمريض وموافقة الطاقم العامل تعطى لأي مريض أثناء وبعد كل دورة علاج كيميائي.

## **Abstract**

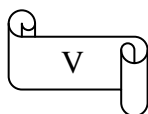
This descriptive cross sectional study was conducted in tumor therapy and cancer research center, done to assess knowledge of cancer patients receiving chemotherapy regarding home self care in the period extended from October to December 2016.

The study included (40) patients who have been selected conveniently, the data was collected by using structured questionnaire which composed of (19) questions and analyzed by SPSS and simple manual statistical method.

The study showed that majority (95%) of study group are compliance to their chemotherapy and the incidence of side effect of chemotherapy hair loss (50%) nausea and vomiting (20%) and (60%) of study group need assistance to do their daily activity and (92.5%) of study group received clear counseling about chemotherapy side effect and home self care.

The study recommended that there is need for education program to increase the level of self care among patients had chemotherapy, encourage patients to take a more active role in their care.

Providing frequent leaflets containing guide line for home self care designed by head department and staff agreement given to each patient during and after each cycle.



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# *Chapter One*

*Introduction*

*Justification*

*Objectives*

## 1.1. Introduction

Cancer can affect any age group, however most cancer occur in people over 65 year of age .over all men experience a higher incidence of cancer than women. At least 930,000 American are diagnosed each year with cancer affecting one of various body sites.

Cancer incidence is higher in the industrlized nation of the world and in the industrial sectors of more developed countries.

Cancer is second only cardiovascular disease as leading cause of death in the United States. Each year more than 472,000 americans die of malignant process. In the United States in order of frequency, the leading causes of the cancer death include cancer of the lung, colorectal area and prostate in men, and cancer of the lung, breast and colorectal area in the women. <sup>(1)</sup>

In Sudan the reported cases have increased from 303 in 1967 -6303 in 2010 .the top most common cancer in both sexes are breast ,lymphoma ,leukemia, esophagus and colorectal cancers, an estimated 12.7 million new cancer cases occurred in 2008 of which about 715,000 new cancer cases resulted in 542,000 deaths in Africa attributed to both aging and population growth and adoption of life styles associated with economic development such as smoking ,health dieting and lack of physical activity. <sup>(2)</sup>

Treatment of cancer patients should be based on realistic and achievable goals for each specific type of cancer. <sup>(1)</sup>.

Cancer is often treated with some combination of radiation therapy, surgery, chemotherapy.

Pain and symptom management are an important part of care palliative care is particularly important in those with advanced disease. <sup>(3)</sup>.

Chemotherapy is the use of anti neoplastic drug to promote tumor cell death by interfering with cellular functions and reproduction.

Chemotherapy may be combined with surgery or radiation therapy or both to reduce tumor size preoperatively, to destroy remaining tumor cell post operatively or to treat some form of leukemia.

Goal of chemotherapy is to eradicate enough of the tumor so that the remaining tumor cell can be destroyed by the body immune system. <sup>(1)</sup>

This study is conducted to assess knowledge of cancer patient undergoing chemotherapy regarding home self care.

### **1.3. Justification**

Improve home self care in chemotherapy patient which lead to decrease complication of chemotherapy treatment.

Patient receiving chemotherapy without teaching from nurse about treatment and side effect there can lead to deteriorate health of the patient.

Teaching patient self care help to identify learning needs of the patient and family member because the diagnosis of cancer and treatment overwhelm the patient and family.

Previous study found an 50 - 90% of patient with cancer wish to die at the home.

There has been down ward trend in home self deaths, falling from 31% to 18% between 1974 and 2003.

If the trend continuous, under10% of deaths will occur at home by 2030. <sup>(4)</sup>

This study is conducted to assess knowledge of cancer patient undergoing chemotherapy regarding home self care.

## **1.2. Objectives**

### **1.2.1. General objective:**

To assess knowledge of cancer patient undergoing chemotherapy regarding home self care.

### **1.2.2. Specific objective:**

1. To assess knowledge of patient about chemotherapy side effects.
2. To identify patients knowledge regarding self care.

## **2. Literature review**

### **2.1. Definition:**

Cancer is disease process that begin when an abnormal cell is transformed by the genetic mutation of the cellular DNA.<sup>(5)</sup>

*Cancer is group of diseases involving abnormal cell growth with the potential to invade or spread to other part of the body.*<sup>(6)</sup>

### **2.2. Etiology of cancer:**

The cause of cancer may be chemical, physical, biological. Chemical carcinogenesis may take place following exposure to carcinogens, which may be occupational (for example, bladder cancer caused by exposure to nitrosamines); environmental (for example, exposure to cigarette smoke); or dietary.<sup>(7)</sup>

Major physical causes include exposure to ultraviolet or ionizing radiation whereas biological causes include infection with oncogenic viruses, which can trigger mechanisms that lead to the deregulation of genes critical for the growth and survival of malignant tissue.<sup>(8)</sup>

### **2.3. General signs and symptom:**

General signs and symptoms include weight loss –fever –fatigue –pain –skin changes. Specific signs and symptoms include change in bowel habits or bladder function, sores that do not heal, un usual bleeding or discharge, thickening or lump in breast or other parts of the body, indigestion or trouble swallowing, nagging cough or hoarseness.<sup>(7)</sup>

### **2.4.Diagnosis:**

#### **2.4.1.Physical Examination:**

Done by the doctor for clinical staging of cancer, your doctor checks you over in the same way but may perform additional procedures.<sup>(6)</sup>

### **2.4.2. Blood Tests:**

- Include routine blood counts, blood chemistries this investigation is made by complete history and examination and lab test according to the place of malignant, tests including (biopsy –CT scan –ultra sound biochemical screening ).
- Tumor marker tests:to assess the effect of cancer treatment by measuring certain proteins in the blood .endoscopic is another test being used to detect tumors and help in diagnosing GI cancer. <sup>(7)</sup>

### **2.5. The types of cancer:**

Cancer types can be grouped into broader categories. The main categories of cancer include:

Carcinoma - cancer that begins in the skin or in tissues that line or cover internal organs. There are a number of subtypes of carcinoma, including adenocarcinoma, basal cell carcinoma, squamous cell carcinoma, and transitional cell carcinoma.

Sarcoma - cancer that begins in bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissue.

Leukemia - cancer that starts in blood-forming tissue such as the bone marrow and causes large numbers of abnormal blood cells to be produced and enter the blood.

Lymphoma and myeloma - cancers that begin in the cells of the immune system.

Central nervous system cancers - cancers that begin in the tissues of the brain and spinal cord. <sup>(8)</sup>

### **2.6. Treatment for Cancer:-**

There are three main types of treatment for cancer which are surgery; radiation and chemotherapy.



### **2.6.1.Surgery:**

Can be curative to remove the entire tumor. skin cancers and well defined tumors with out metastasis can be removed without any additional intervention.

The goals of surgery have also expanded to include prophylaxis, diagnosis, treatment, reconstruction and palliation.

Prophylactic surgery aims to remove tissues or organs that are likely to develop cancer. <sup>(9)</sup>

### **2.6.2. Radiation:**

Radiation is used commonly in the treatment of cancer for control or palliation, or it can be curative if the disease is localized.

Radiation may be used to kill the tumor, to reduce its size, to decrease pain or to relieve obstruction. <sup>(10)</sup>

## **2.7. Chemotherapy:**

### **2.7.1. Definition:**

Chemotherapy is chemical therapy that uses cytotoxic drugs to treat cancer. Cytotoxic drugs can be used for cure, control, or palliation for cancerous tumors. <sup>(9)</sup>

Chemotherapy is the use of anti cancer drugs to treat cancer.

It can stop the growth of tumor in the breast and kill cancer cells that have spread to other parts of the body.

Chemotherapy may be given after surgery (called adjuvant chemotherapy). Or before surgery known as( neoadjuvant chemotherapy). <sup>(11)</sup>

- Chemotherapy disrupts the cell cycle in various phases by interrupting cell metabolism and replication.
- Its also work by interfering with the ability of the malignant cell to synthesize vital enzymes and chemicals.
- Most chemical treatment involves combinations of drugs in specific protocols given over varing periods of time. <sup>(10)</sup>

## **2.7.2. Administration of chemotherapy:**

Chemotherapy may be taken by mouth or injected in to the muscle or injected in to vein. Chemotherapy usually starts with 4to 12weeks after surgery.

It's commonly given on 21or 28 day cycle.

The length of the treatment period lasts from 3 to 6 months. <sup>(11)</sup>

## **2.7.3. Side effect of chemotherapy:-**

Chemotherapy side effect include :nausea, vomiting, fatigue, neuropathy, neutropenia ,diarrhea, constipation, hair loss, mouth sores (mucositis) .

### **1-Nausea and vomiting:**

When chemotherapy enter the body sensors in the digestive system and brain defect its presence as foreign substance.

In complex series of signals among the brain and the mouth ,stomach ,small intestine and blood stream ,the medication stimulates the vomiting center in the Brain .

### **Treatment of nausea and vomiting:**

Your doctor will decide which drugs to prescribe based on the type of chemotherapy are getting and how much nausea and vomiting might be expected .sometimes patient receive anti nausea drugs intravenously through needle inserted into vein .

### **Coping with nausea and vomiting:**

- eat and drink slowly.
- avoid sweet, fried or fatty foods, as well as foods with strong odors .
- be sure that you fully understand your doctors and nurses instructions for taking anti nausea medicines.
- wear loose-fitting clothing that does not bind or add stress to your body.
- rinse your mouth often to eliminate any bad taste.
- ask your nurse or doctor about proper nutrition

-be sure that you are drinking enough fluids

-find out from your doctor if any other medicines you may be taking require special precautions.

## **2- Fatigue:**

Feeling tired –really tired may be tied to number of factors:-

-cancer treatment

-the cancer itself

-the emotional aspects of coping with cancer and cancer pain.

-anemia (low level of red blood cells).

## **Treatment of fatigue:**

To determine whether there is an underlying physical cause ,your doctor may order a blood test to find out if your red blood count is abnormally low.

## **Coping with fatigue:**

- Take several short naps or breaks in comfortable chair rather than in bed

- Take walks or do some other type of exercise if possible .

- Save your energy for things you find most important .

- Talk to an oncology social worker or oncology nurse .

## **3- Mouth sores (mucositis):**

Radiation treatments for head and neck cancer and some types of chemotherapy because sores inside the mouth and on the mucous lining of the throat and digestive tract.

## **Maintaining oral health:**

- Visit your dentist before treatment .

- Choose soft brush for brushing your teeth

- If tooth paste irritates your mouth use amixture of half tea spoon of salt with four cups of water .

- Gargling may also help.

- Drink plenty of fluids.

#### **4-Nerve damage (neuropathy):**

Some people on chemotherapy experience numbness or tingling in their hands and feet.

#### **Management of nerve damage:**

- Its important to tell your doctor as soon as possible if you experience these types of side effects .

- Nerve damage is temporary ,it will usually get better but it can take time .

If you have neuropathy ,take extra caution when handling hot ,sharp or dangerous objects and use hand rails on stairs and in the tub or shower.

#### **5- Neutropenia and infections:**

The term (neutropenia)refers to an unusually low number of neutrophils in the blood ,which can lead to fever (febrile neutropenia).

#### **Treatment of infections:**

- Doctors use three main types of medications to treat the effect of neutropenia:
  - antibiotics for bacterial infectios, anti fungal drugs for fungal infections found in the throa or lungs .

#### **Preventing infection:**

- avoid people with cold, bronchitis, pneumonia, or other infectious disease
- take care of your skin and avoid scratches or abrasions.
- be careful when doing activities, that could lead to injury or infection .
- cook food thoroughly at proper temperatures.
- pay attention to food product aspiration dates.

#### **5- Diarrhea:**

Defined as two or more loose stools per day, diarrhea may be caused by certain chemotherapy drugs .

### **Management of diarrhea:**

- high protein foods such as eggs (well cooked), lean meat, fish, poultry.
- low fat milk, use lactose-free dairy products .
- replacing lost fluids and salts .
- drink plenty of fluids such as water.
- administer intravenous fluids if diarrhea is severe.

### **6- Constipation:**

Defined as fewer than three bowel movements a week.

Management of constipation:-

- Eat plenty of dietary fiber .
- Drink plenty of fluid .
- Make exercise apart of your every day schedule .

### **7- Hair loss:**

Not all anti cancer medicines cause hair loss.

Hair loss is often one of the more frustrating aspects of cancer treatment .

Coping with hair loss:

- many people who lose their hair after cancer treatment .to coping with this made the following:
- wear some kind of head covering such as scarf ,turban, hat or wig.
- if you choose to wear wig, consider buying one before all of your hair falls out.(12)

### **2.7.5. Management of clients receiving chemotherapy:**

- in addition to providing the above nursing interventions, nurses help identify manage toxic effect or side effects of the drugs and provide psychosocial support.
- .-careful assessment and monitoring of the clients signs and symptoms, including appropriate laboratory tests, alert the nurse to the onset of toxicity.
- During chemotherapy, a number of psychological issues that can cause moderate to severe emotional distress may arise.

-the need to plan activities around chemotherapy treatments and their side effects can impair the client's ability to work, manage ahouse hold or care for family members ,function sexually, or participate in social and recreational activities. <sup>(10)</sup>

## **3.Methodology**

### **3. 1. Study design:**

This descriptive cross sectional hospital based study conducted in Shendi city in tumor therapy and cancer research center to assess knowledge of patients undergoing chemotherapy about home self care in period extended from October to December 2016.

### **3. 2. Study area:**

This study will be conducted in Sudan, river Nile state, Shendi town which is situated on the east bank of the Nile River 172 Km northeast of Khartoum and covering area of 38 squares.. The town consider as a center of Jaaliin tribe and important historic trading center. It is principal suburb on the connects Al-Matamma. Majority of population profession is farming and trading beside other.

### **3.3. Setting:**

This study was conducted in tumor therapy and cancer research center which located in the river Nile state in Shendi town. The center was established in 2016 and contain the following departments: chemotherapy unit, radiotherapy unit, brachy radiotherapy unit.

### **3.4. Study population:**

Cancer patient's receiving chemotherapy.

#### **-Including criteria:**

Any cancer patient treated by chemotherapy.

#### **-Excluding criteria:**

Any cancer patients no received chemotherapy.

### **3.5. Sampling:**

The study group was chosen using convenience sampling from all cancer patients

### **3.6. Sample size:**

Forty patient Were included in this study .

### **3.7. Data collection tools:**

The data collected by the structure interview sheet filled by researcher based on reviewing of literature, it consist of three section the first section contain (1-6)question designed to collect demographic data, the second section (7-12 ) question designed to collect knowledge regarding chemotherapy, and third section (13-19 ) question designed to collect knowledge of patients regarding self care.

### **3.10. Data collection technique:**

The data was collected using structure interview sheet questionnaire during morning shift by asking patient

### **3.9. Data analysis technique:**

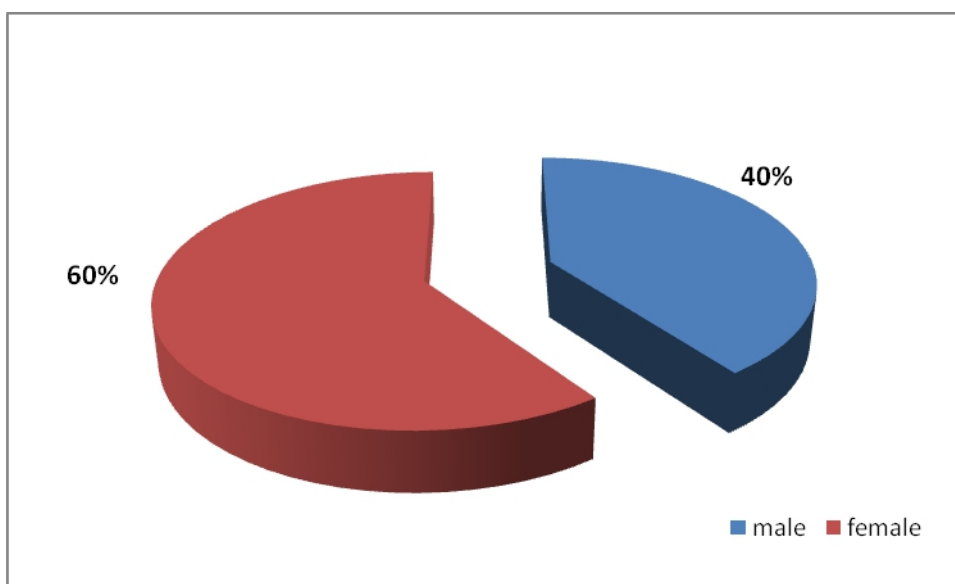
The collected data will be analyzed by using computer program statistical package for social sciences (SPSS version 20) and data was presented of figures and tables.

### **3.10. Ethical consideration:**

The permission has been approved from faculty board of research to conduct the study, a written permission was taking from original director of hospital then chemotherapy unit also permission was taken from the head nurse. The purpose of the study was explained verbally and clearly in simple Arabic language to the participants and then verbal consent has been taken from each participant and they told they have right to withdrawal from this study when she or he need and his rejection not affect their care by the nurses.

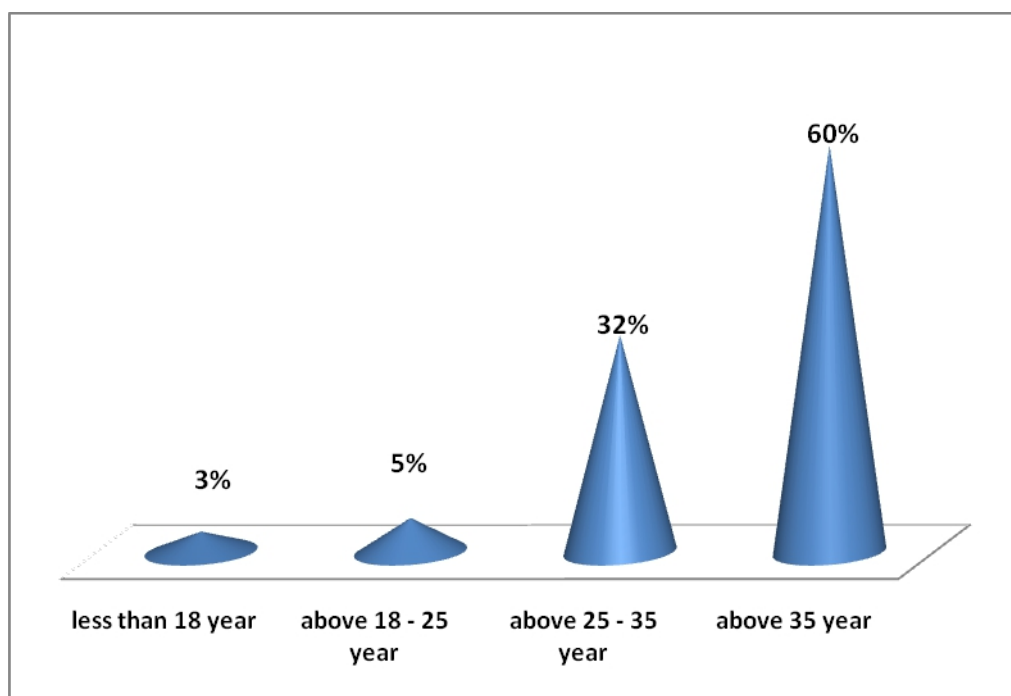


## 4. Results



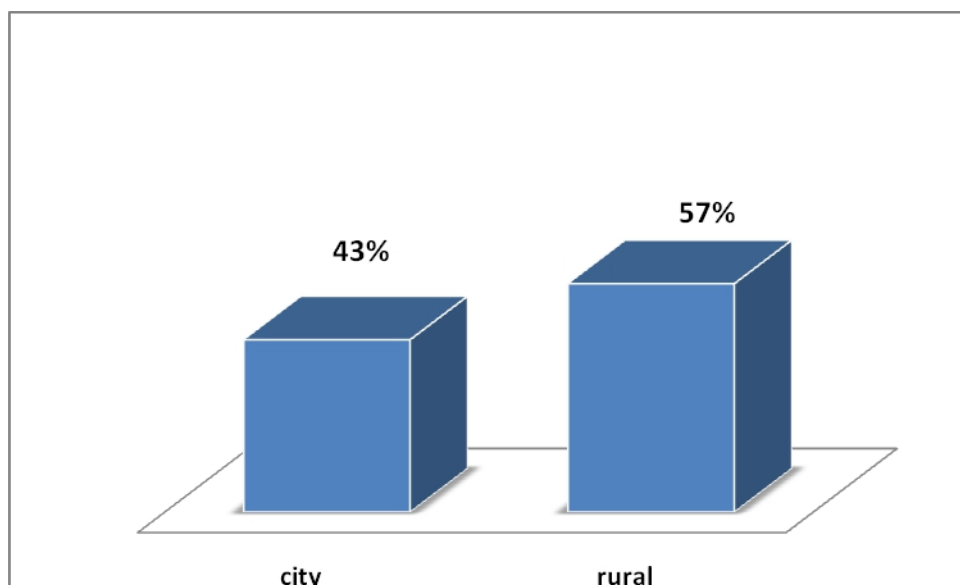
**Figure no (1): Distribution of study group according to their sex.**

**Figure (1)** showed that 60% of study group are female while 40% are male.



**Figure no ( 2 ) :distribution of study group according to their age.**

**Figure (2)** showed 3% of study group their age less than 18 year while 5% their age above (18 – 25 year) ,32% their age above (25 – 35 year) and 60% above 35 year.



**Figure no (3): Distribution of study group according to their residence.**

**Figure (3)** showed that 57% of study group residence in rural and 43% of study group residence in city.

**Table no (1): Distribution of study group according to their social status:**

Social status	Frequency	Percent
Un married	8	20%
Married	31	77.5%
Divorced	1	2.5%
Total	40	100%

Table (1) showed that (20%) of study group were un married, (77.5%) were married and (2.5%) were separated.

**Table no (2) Distribution of study group according to their educational level:**

<b>Educational level</b>	<b>Frequency</b>	<b>Percent</b>
Illiterate	20	50%
Khalwa	2	5%
Primary	8	20%
Secondary	5	12.5%
Universal	5	12.5%
Total	40	100%

Table (2) showed (50%) of study group their educational level were illiterate, (5%) was khalwa, (20%) were primary, ( 12.5 %) were secondary and (12.5%) were university.

**Table no (3): Distribution of study group according to their occupation:**

<b>Occupation</b>	<b>Frequency</b>	<b>Percent</b>
Employee	6	15%
not employee	27	67.5%
free work	7	17.5%
Total	40	100.0%

Table (3) showed (15 %) of study group their occupation were employee, (67.5%) were not employee and (17.5%) was free work.

**Table no (4): Distribution of study population according to their duration of chemotherapy:**

<b>Duration of chemotherapy</b>	<b>Frequency</b>	<b>Percent</b>
Less than month	5	12.5%
Above month	11	27.5%
6 month – year	21	52.5%
Above year	3	7.5%
Total	40	100%

Table (4) showed (12.5%) of study group their duration of chemotherapy management less than month, (27.5%) above month ,(52.5%) (above 6 month – year) and (7.5%) above year.

**Table no (5): Distribution of study group according to their duration between dose:**

<b>Duration between dose</b>	<b>Frequency</b>	<b>Percent</b>
15 days	8	20%
21 days	29	72.5%
Month	3	7.5%
Total	40	100%

Table (5) showed (20.0%) of study population their duration between dose 15 day,(72.5%) their duration between dose 21 day and (7.5%) their duration between dose one month.

**Table no (6): Distribution of study group according to their route of administration:**

<b>Route of administration</b>	<b>Frequency</b>	<b>Percent</b>
Oral	2	5%
Iv	38	95%
Total	40	100%

Table (6) showed (5%) of study population their route of chemotherapy administration were oral and (95%) of them were iv administration.

**Table no (7): Distribution of study group according to their compliance of chemotherapy dose:**

<b>Item</b>	<b>Frequency</b>	<b>Percent</b>
Compliance	38	95%
Not compliance	2	5%
Total	40	100%

Table (7) showed (5.0%) of study group were not compliance about chemotherapy treatment and most of them (95.0%) were compliance about chemotherapy.

**Table no (8): Distribution the chemotherapy side effect occurred among patient:**

Side effect	Frequency	Percent
Fatigue	2	5%
Nausea and vomiting	8	20%
Hair loss	20	50%
Mouth sores	5	12.5%
Pain	5	12.5%
Total	40	100%

**Table (8)** showed (5%) of study group their side effect were fatigue, (20%) were nausea and vomiting, (50%) were hair loss, (12.5%) were mouth sores and (12.5%) were pain.

**Table no (9): Distribution of study group according to their action regard side effect:**

Action regard side effect	Frequency	Percent
Seek medical care	24	60%
Treat it at home	8	20%
Do no thing	8	20%
Total	40	100%

Table (9) showed (60%) of study group their action regard side effect were seek medical care, (20%) treat it at home and (20%) were do nothing.

**Table no (10): Distribution of study group according to their patient daily activity:**

Daily activity	Frequency	Percent
Depend on your self	6	15%
Need some assistance	24	60%
Complete depend on your family	10	25%
Total	40	100%

Table (10) showed (15%) of study group were do the daily activity depend on your self (60%) need some assistance and (25%) completely depend on others.

**Table no (11): Distribution of study group according to their action regard hair care:**

Hair care	Frequency	Percent
Keep it short	36	90.0%
Use specific shampoo or soap	4	10%
Total	40	100.0%

Table (11) showed (90%) of study group their action regard hair care keep their hair short and (10%) use specific shampoo or soap.

**Table no (12): Distribution of study group according to their action regard skin care:**

<b>Skin care</b>	<b>Frequency</b>	<b>Percent</b>
Un exposure to sun light	10	25%
Daily cleaning	30	75%
Total	40	100%

Table (12) showed (25%) of study group their action regard skin care un exposure to sun light and (75%) daily cleaning.

**Table no (13): Distribution of study group according to their patient follow up to their teeth:**

<b>Teeth follow up</b>	<b>Frequency</b>	<b>Percent</b>
Follow up	8	20%
No follow up	32	80%
Total	40	100%

Table (13) showed (20%) of study group were follow up their teeth and most of them (80%) were no follow up:



**Table no (14): Distribution of study group according to their oral care:**

<b>Oral care</b>	<b>Frequency</b>	<b>Percent</b>
Use usual brush or toothpaste	36	90%
Use specific brush or toothpaste	4	10%
Total	40	100%

Table (14) showed (90%) of study group their action regard oral care use usual brush or tooth paste and (10%) use specific brush or toothpaste.

**Table no (15): Distribution of study group according to their patient self esteem:**

<b>Self esteem</b>	<b>Frequency</b>	<b>Percent</b>
Sensitive	8	20.0%
co-operative	28	70.0%
Isolated	4	10.0%
Total	40	100%

Table (15) showed (20%) of study group were sensitive, (70 % )were co-operative and 10% were isolated

**Table no (16): Distribution of study group according to their patient counseling:**

<b>counseling</b>	<b>Frequency</b>	<b>Percent</b>
Clear	37	92.5%
Not clear	3	7.5%
Total	40	100%

Table (16) showed (7.5%) of study group were received not clear counseling and most of them (92.5%) were received clear counseling about chemotherapy treatment.

## 5-1 Discussion

Cancer is group of diseases involving abnormal cell growth with the potential to invade or spread to other part of the body <sup>(6)</sup>.

The present study reveal that:

About the age of study group most of them with percentage (60%) over 35year, most of them (60%) were female ,more than half (57.5%) from rural area half of them (50%) were illiterate and most of them (67.5%) were not employee . this study showed majority of them (77.5%) of patient were married.

In addition to more than half of patient (52.5%) the duration of chemotherapy administration (6month – year) and most of them (72%) of patient their duration between chemotherapy dose 21days and less than quarter (20%) 15days.

In the other hand the majority of patient (95%) their route of chemotherapy administration is intravenous this agree with literature review (Chemotherapy may be taken by mouth or injected in to the muscle or injected in to vein) <sup>(11)</sup>.

The majority of patient (95%) compliance with chemotherapy treatment. In addition the half of patient (50%) suffering from hair loss and less than quarter (20%) suffering from nausea and vomiting, about more than half of patient (60%) seek medical care when they feel with sign of side effect.

About most of the patient (60%) need some assistance when doing daily activity and less than quarter (20%) complete depend on their family. This related to side effect of chemotherapy such as fatigue, nausea and vomiting this agree with literature review ( when chemotherapy enter the body sensors in the digestive system and brain defect its presence as foreign substance.

The study showed that most patient (90%) keep their hair short and less than half (10%) use specific shampoo or cream. This agree with literature review (chemotherapy causing hair loss in most patient, patient need to psychological

support to cope with hair loss by wear some kind of head covering such as scarf, turban, hat or wig).<sup>(12)</sup>

In addition to near most patient (75%) dealing with daily cleaning regard skin care to remove toxic from the skin and promote comfort and less than half (25%) un exposure to sunlight.

In the other hand majority of patient (90%) use usual brush or toothpaste and more than half of patient (80%) do not follow up your teeth, this agree with literature review. They are poor attitude regarding self care related to lack of knowledge and psychological disturbance and fatigue ability (During chemotherapy, a number of psychological issues that can cause moderate to sever emotional distress may arise)<sup>(10)</sup>

About most of patient (70%) co-operative with disease. Because they are potential threat to patient self esteem, this agree with literature review (the need to plan activities around chemotherapy treatments and their side effects can impair the client's ability to work, manage a house hold or care for family members, function sexually, or participate in social and recreational activities).<sup>(10)</sup>

Majority of patient (92.5%) received clear counseling about chemotherapy treatment and home self care.

## **5-2 Conclusion**

The study concluded that majority of patient compliance with chemotherapy and more than half seek medical care when feel with signs of side effect and less than half treat it at home also less than half patient they feeling sensitive and isolated result from disturbance body image and lack of self esteem and majority of patient received clear counseling about chemotherapy side effect and home self care.

### **5-3 Recommendations**

The study recommended that the following recommendations are required to be implemented:

1. There is need for educating program about side effect of chemotherapy and how to manage them if occur at home and continuous containing guideline for home self care designed by head department and staff agreement given to each patient during and after each cycle.
2. To conduct further studies about home self care of patients undergoing chemotherapy.
3. Give psychological support for each cancer patient receiving chemotherapy there is including (education and behavioral training and individual psychotherapy).

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