

Satisfaction of Patients with Cancer at Day Care Units

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Abstract

Background: Cancer patients have an experience of pain and discomfort. Unfortunately, Satisfaction with care is an important influence determining whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with practitioner's. Patient satisfaction with nursing care is considered an important factor in explaining patients' perceptions of service quality **Aim of the study:** this study aimed to assess satisfaction of patients with cancer at day care units. **Research design:** Descriptive study design utilized in this study. **Research setting:** This study conducted in cancer day care unit at Oncology Institute affiliated to Damanhur, El-Beheira Governorate, Egypt. **Research subjects:** A convenient sample of 350 cancer patients. **Study tools:** (1) A structure interview questionnaire record to gather data related to demographic data of patients, medical history, patients' knowledge related to cancer, health problems and needs of patients, (2) Assessing cancer patients' satisfaction at day care units. **Results:** more than half of cancer patient had unsatisfactory total knowledge, less than half of patients not exposed to problems that may occur after chemotherapy, more than two thirds of patient always needs to psychological support, near to two thirds of them were satisfied toward the health care services provided at day care units, there was statistically significant difference between total satisfaction of patients and total health care services $p>0.00$ **Conclusion:** More than one third of cancer patient had unsatisfactory knowledge while less than two third of them had satisfactory knowledge about types of investigation and screening, more than half of cancer patient had unsatisfactory level of total knowledge. **Recommendations:** Developing and application of training program for nurses to update their knowledge and improve their skills regarding different care provided for cancer patients at day care units.

Keywords: Cancer patients, Satisfaction, Day care units.

Introduction:

The term cancer is used to describe a group of malignancies characterized by the presence of tumor masses with a high risk of metastasis. Once it is diagnosed, undoubtedly profound social changes are generated, such as impaired capacity and ability to perform routine activities. Besides, its treatment modalities can deeply affect a patient's nutritional status (Mathiesen et al., 2017).

Cancer is the second leading cause of death in developed countries and is among the three leading causes of death for adults in developing countries. A steadily increasing proportion of elderly people in the world will result in approximately 16 million new cases of

cancer by the year 2030 (World Health Organization, [WHO], 2018).

Cancer is a leading cause of death in countries which affect any part of the human body and people at all ages groups, but the risk for most type's cancer increases with age. Around 25 million of people are living with cancer around the world lung, stomach, liver, colon and breast cancer cause the most cancer deaths each year. The most common worldwide are lung cancers estimated about 1.61 million around the world (12.7%), breast cancer are 1.38 million (10.9%) and colon cancers (1.23 million, 9.7%). The most common causes of cancer death are lung (1.38 million, 18.2% of the total), stomach (0.74 million, 9.7%) and

liver cancers (0.69 million, 9.2%) (Parkin et al., 2015).

Cancer is a major public health burden in both developed and developing countries. About 72% of all cancer deaths in 2007 occurred in low and middle-income countries. Every year about 8,50,000 new cancer cases being diagnosed and about 5,80,000 cancer related death occurs every year. Deaths from cancer worldwide are projected to continue rising, with an estimated 12 million deaths in 2030 (WHO, 2017).

Cancer patients needs such as: family adjusts health care system interaction, stigmas, and need for information, sexuality and life style preservation. It has been found cancer patients have more needs in the area of personal care, control of activities and interpersonal interaction related to the way they are perceived by their families. Nowadays patient's needs have been increasing and have created a biggest necessity of assistance in aspects such as: patient's transportation, home care, daily activities development and cost reduction caused by the disease. When patients and family's needs cannot be support by informal support networks, formal support networks are needed; for example, community organizations and ambulatory care programs. This is a reason why the use of these services will increase in the future (Wen & Gustafson, 2015).

High-quality patient-and-family-centered care is needed to address the problems of both the advanced cancer patients and their informal caregivers, including symptom and side effect management, as well as emotional, psychosocial, and spiritual support. All these aspects of support are typically categorized under palliative care. Mismatched healthcare that is inconsistent with patients and caregivers' needs can increase healthcare expenditure and lead to harmful effects. Therefore, the unmet care needs of patients and informal caregivers should be comprehensively assessed prior to designing and providing tailored palliative care services (Waller et al., 2015).

Nursing care is one of the major components of Health Care Services. Thus, patients have the right to expect quality of nursing care. Nursing staff, who comprise the vast majority of hospital staff, have the greatest contact with patients.. Nurses, rather than physicians, are seen as responsible for the day-to-day activities on a unit. Nurses provide the main connection with patients, act as patient advocate with other care providers, give physical care to patients, and offer emotional support to both patients and families. Patient satisfaction with nursing care is considered an important factor in explaining patients' perceptions of service quality (Staniszewska & Ahmed, 2013).

A day care service offers communal care, with Paid or Voluntary care givers present in a setting outside the user's own home. Individuals come or are brought to use the services which are available for at least 4 hours during the day and return home on the same day". A day care service offers communal care, with Paid or Voluntary care givers present in a setting outside the user's own home. Individuals come or are brought to use the services which are available for at least 4 hours during the day and return home on the same day". "Adult day care services support the social, health, nutritional and daily living needs of adults in congregate settings during daytime hours" (Severson & Pollock, 2017).

Nurses play a central role in a substantial role in the prevention and management of chemotherapy side effects and it is important that nurses have sufficient knowledge and understands the individual treatment options prescribed (Hopman, & Rijken, 2015). The main problems of long-term cancer survivors are in the areas of social/emotional support, health habits, spiritual/ philosophical view of life and body image concerns (Hyphantis et al., 2017).

The community health nurse should identify the factors that contribute to patients to prevent these factors, increased minimum wage, advocate and spokes for patients, improve physical environment (community, home),

teaching avoidances of potentially post-surgery, promoting multi service programs in services and provide health education to patients. There are many points at which the community health nurse can make difference in the lives of patients (Teshnizi, 2018).

Satisfaction with care is an important influence determining whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with practitioner's. There has been increasing interest in patients' satisfaction with nursing care in the past few decades. Patient satisfaction with nursing care is considered an important factor in explaining patients' perceptions of service quality (Wallin, et al., 2015).

Significance of study:

Patients' satisfaction is important in bridging the gap between the actual care given and the care that should have been given. Therefore, it is imperative that we analyze the patients' perceptions of satisfaction with care. Patients' satisfaction is determined by both their expectations regarding the healthcare they are about to receive and their perceptions of past healthcare. Hence, assessment of patients' satisfaction level is now one of the five WHO indicators to improve the quality of healthcare services.

Egypt was completely lacking incidence rates at national level until the results given in the current report were obtained. Available statistics were proportions derived from single or multicenter hospital registries that could not be used for calculation of incidence rates. The published crude and age-standardized incidence rates from that registry are 96.5 and 132.6/100,000 males and 97.3 and 122.1/100,000 females (Abdel-Hamid et al., 2017).

Aim of the study:

The aim of this study was to assess satisfaction of patients with cancer at day care units through:

- 1- Assessing knowledge of patients with cancer related to health care services at day care units.
- 2- Assessing health needs, problems of patients with cancer related to health services at day care units.
- 3- Assessing patients with cancer satisfaction with health care services at day care units.

Research questions:

- 1- What are the health needs and problems of patients with cancer?
- 2- What is the knowledge of patients with cancer about health care services provided at day care units?
- 3- What is the level of satisfaction of patients with cancer about health care services provided at day care units?
- 4- Is there a relation between demographic characteristic, health needs and problems, knowledge and degree of satisfaction of patients with cancer related to health care services provided at day care units?

Subjects & Method:

Research design: Descriptive study design was utilized.

Research Setting: The study was conducted in cancer day care unit at Oncology Institute affiliated Damanhur, El-Beheira Governorate, Egypt, it is the biggest institute in the city. The previous mentioned setting worked only 6 days per week.

Sample size: Convenient sample technique was used. The total sample size was 350, cancer patient's representing 10% of (3530) attending who attended at the previously mentioned settings during the period of five months started from November 2017 to March 2018.

Tools of data collection: Two tools were used for data collection.

The tools were designed by the researcher after reviewing literature in this field; as well as similar researches.

First tool: A structure interview questionnaire, it encompassed four main parts:

Part I: it was related to demographic data of patients with cancer including: age, sex, level of education, job, marital status, and family income.

Part II: Medical history sheet designed to assess patients with cancer' health history including: past and present health history and their family as regarding, incidence of cancer/years, types of cancer complain, discovering the disease, history of other disease, type of surgical cancer operation, symptoms associated with fatigue, Type of family cancer.

Part III: Assess the patients' knowledge related to cancer, it includes the following:

- A- Knowledge of cancer patient about meaning of cancer, causes, symptoms, type of cancer, treatment, complications, method of giving chemotherapy, the main goal of chemotherapy and its side effects.
- B- Knowledge of cancer patient regarding type of investigation performed after surgery & type of screening.
- C- Knowledge of cancer patient regarding types of nutrition for cancer patients.

❖ **Scoring system:** for knowledge items, the correct answers were predetermined according to literature review, a correct response was scored (1) and the incorrect was scored (zero). For each area of knowledge, the score of the items were summed up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. For each area, knowledge was considered satisfactory if the percentage score was more than 60%, average if the percentage score was 50-60% and unsatisfactory if the percentage score was less than 60%.

Part IV: Devoted to assess health problems and needs of patients with cancer it includes practices **in case of side effect that may occur after chemotherapy. It designed to assess two parts:**

Part 1: assessing health problems and practices of patients with cancer related to health care services provided at day care units as regarding chemotherapy was included.

❖ **Scoring system of cancer patient practices:** The score was divided into two categories to assess patients' health problems and practices, and answer was coded as follows: Present: 50% and more. Not present: less than 50%.

Part 2: Assess health needs of patients with cancer related to health care services provided at day care units as the following:

- A- Physical needs and daily activities at day care units.
- B- Psychological needs at day care units.
- C- Need for care and support at daycare units.
- D- Need for sexual activity.
- E- Need for health information about the disease at day care.

Scoring system: Patients' health problems were assessed individually by the researcher against the checklist, the total score was classified into three levels: Always: $\geq 75\%$, Sometimes: 50% - 75%, Rarely: <25

Second tool: Assessing cancer patients' satisfaction regarding health care services at day care units developed by (Alshraideh and Abu Tabar, 2018) and modified by researcher to meet the aim of the study including: Quality of services, Physician quality of care in day care units, Nurses staff care, and environment at day care units.

❖ **Scoring system of cancer patient satisfaction:**

Responses were measured using 3 points Likert scale, Agree, Neutral, and Disagree. A score was given for each response as follows from 1 to 3, Agree =3, neutral=2, Disagree=1. Where by higher score indicated stronger feeling of each item.

The total items were divided into three categories to assess total cancer patient

satisfaction as follows: Agree zero - 75, Neutral 76 - 152, Disagree 153 – 228. The total score for items was categorized into two levels Satisfactory was $\geq 60\%$ & Unsatisfactory was $< 60\%$.

Validity of tool: An opinion sheet was developed by the investigator to assess face and content validity of the suggested tools through experts' opinions, which were assessed through a group of 5 experts from community health nursing department to test validity and applicability of tools.

Reliability of tool: The Alpha Cronbach test was used to measure the internal consistency of the tool (reliability of the used tool or instrument). These show high reliability scores for the following tools: Patients' knowledge tools = 0.966

Patients reported practices tool = 0.813,
Patient satisfaction tools = 0.864

Ethical considerations:

Prior study conduction, ethical approval were obtained from Scientific Research Ethical committee of Faculty of Nursing, Ain-shams University and also, an official permission was obtained from the selected day care center administrators to conduct the study. Each participant informed about the purpose of the study and its significance. They were informed as well, that participation in the study is completely voluntary, as well as they have the right to withdraw from the study at any point without any penalty. Additionally, all participants were assured that their anonymity and confidentiality secured through coding the data. Moreover, participants were informed that the data not reused for any research purposes without their permission.

Pilot study:

A Pilot study was included 10% of the total study subjects (17 patients included in the final study) to evaluate the applicability and clarity of the study tools, assessment of feasibility of fieldwork, identification of a

suitable place for interviewing cancer patients, and to detect any possible obstacles that might face the researcher and interfere with data collection. Necessary modifications were done based on the pilot study findings.

Administrative Design:

An official written letter approval including the title and purpose of the study to conduct this study obtained from the dean of Faculty of Nursing, Ain Shams University to the director of the day care center explaining the aim of the study, and seeking their permission for data collection. Total confidentiality of any obtained information was ensured. In addition, an oral consent was obtained from each participant.

Field work:

Firstly, the researcher introduced her to the patient at day care units and explained the aim and objectives of study to the participants were taken 5 minutes, complete personal data, medical history were taken 10-15 minutes. Assess knowledge of patient about cancer 15-20 minutes and then assess practices and satisfaction regarding services provided at day care unit 15-20 minutes.

The actual field work stated at the beginning of November (2017) and was completed by the end of March (2018). The researcher was available three days weekly Sundays (Sunday, Mondays and Tuesdays) during morning shift from 9:00 am to 2.00pm using the previously mentioned study tools. Average from 7 – 10 cancer patients per day, each interview lasted for 40- 50 minutes, depending on the response of the participants. Oral consent for participation in the study was obtained from every patient for ethical issues.

Statistical design:

The collected data were coded and entered in special format to be suitable for computer feeding. Following data entry, checking and verification process were carried out in order to avoid any errors. Data were analyzed using the statistical package for social

science (SPSS) version 20. The following statistical analysis measures were used:

Data were checked for normality and equality of distribution; data was presented as number and percent. Relations between different qualitative variables were tested. Data were presented in tables and chart. The statistical analysis includes Chi-Square test (X^2), r-test, Proportion probability P value, and alpha Cronbach test.

Significance of results was described as follows:

- Not-significant difference obtained at $p > 0.05$.
- Significant difference obtained at $p < 0.05$.
- Highly significant difference obtained at $p < 0.001$.

Results:

Table (1): shows that, 36 % of the cancer patients aged 30 < 40 years, and 67.7% were male. Regarding to educational level 44.3% were don't read and don't writes, while 31.4% were widow, and 33.7% were private work while 29.2% were house wife. Concerning monthly income 68 % of the studied patients were insufficient income.

Figure (1): As regards total knowledge about type of investigation & screening this figure illustrated that, more than two thirds (64.9 %) of patient with cancer had unsatisfactory knowledge regarding the investigation performed after surgery. while approximately near to two thirds (61.7%) of them had unsatisfactory knowledge regarding the types of screening.

Figure (2): illustrates that, 57.1% of cancer patient had unsatisfactory total

knowledge while 42.9% of them had satisfactory knowledge.

Figure (3): As regards total level of problems regarding health problems that may occur after chemotherapy this figure shows that, less than half of patients not exposed to problems that may occur after chemotherapy.

Figure (4): As regards total level of health needs and problems of patient with cancer this figure shows that, (62.3% & 62.9%) respectively of patient always needs to psychological support & sometimes needs to sexual information, and (52% & 50%) respectively were sometimes needs to physical and daily activities & needs to support during their care. Also 45.2% of them needed always to health information about cancer disease.

Figure (5): this figure shows that, 60% of cancer patient were satisfied toward the health care services provided at day care units, and 40% of the were unsatisfied toward the services.

Table (2): illustrates that there was Statistical significant relation between total cancer patient's knowledge and their total practices at $p < 0.001$

Table (3): illustrates that there was Statistical significant relation between total health needs for cancer patients and their total level of satisfaction at $p < 0.00$.

Table (4): Demonstrates that there was highly Statistical significant relation between total degree of satisfaction of patients with cancer and their total health care services at $P = 0.00$ HS.

Table (1): Distribution of patient with cancer according to their demographic characteristic (n=350).

Demographic Characteristics	No	%
Age/ years		
• <20	49	14.0
• 20 <30	65	18.6
• 30< 40	126	36.0
• > 40	110	31.4
Sex		
• Male	237	67.7
• Female	113	32.3
Educational level		
• Don't read and don't write	155	44.3
• Primary	96	27.4
• Secondary	54	15.4
• High education	45	12.9
Marital status		
• Single	82	23.4
• Married	124	35.4
• Divorce	34	9.8
• Widow	110	31.4
Job		
• Jobless	27	7.7
• Employee	76	21.7
• privateWork	118	33.7
• professional work	27	7.7
• House wife	102	29.2
Family Income		
• Sufficient	112	32.0
• In sufficient	238	68.0

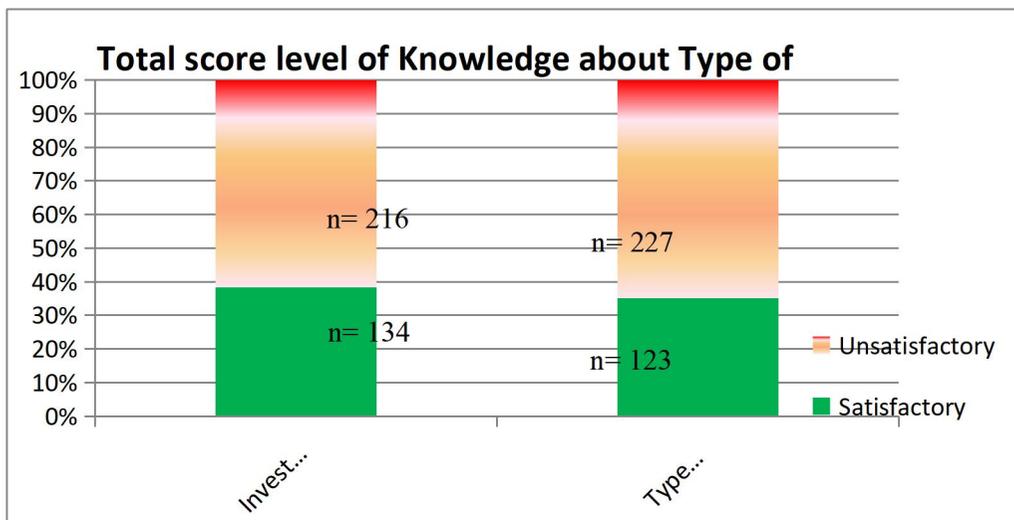


Figure (1): Distribution of patient with cancer according to their total level score knowledge about type of investigation & screening (n= 350).

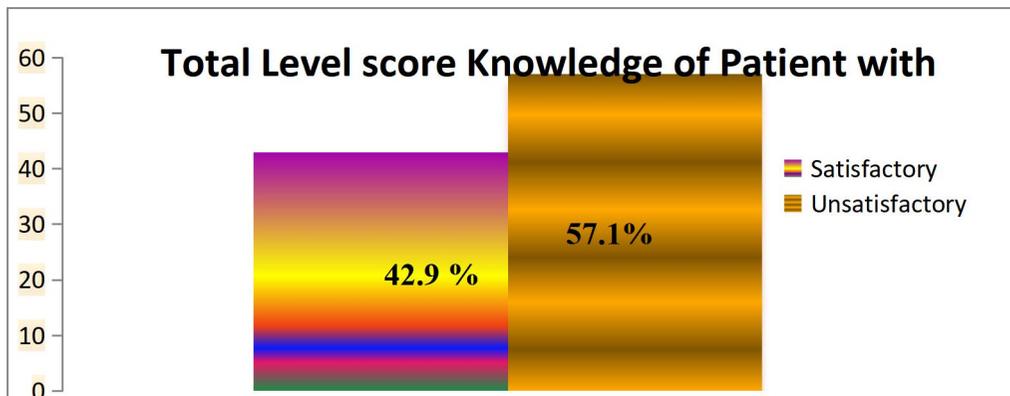


Figure (2): Distribution of patient with cancer according to their total knowledge score level (n= 350).

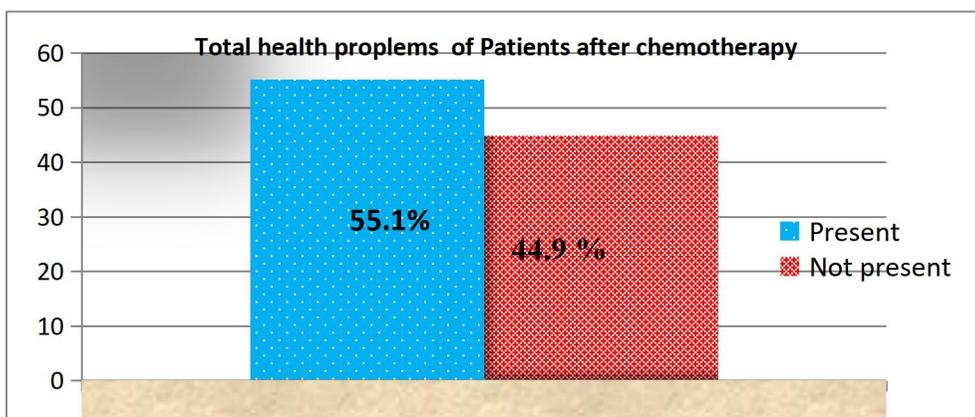


Figure (3): Distribution of cancer patients according to their health problems and practices related side effect of chemotherapy (n=350).

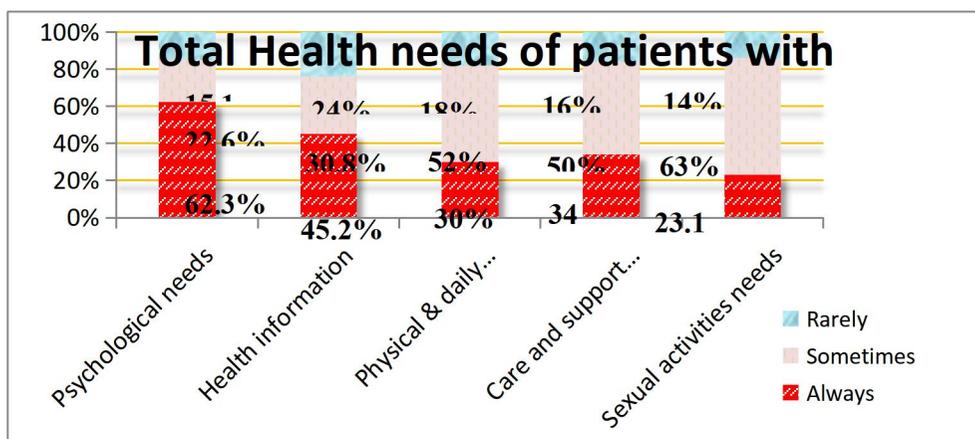


Figure (4): Distribution of Total Health needs of cancer patients (n=350).

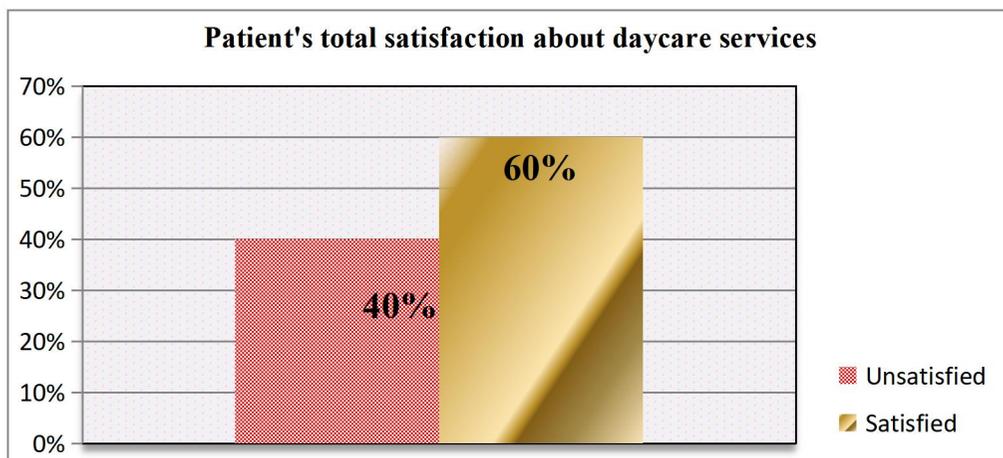


Figure (5): Distribution of studied cancer patient according to their total satisfaction regarding services at Day Care Units (n=350).

Table (2): Relation between total knowledge of patient with cancer and their total practices (N=350)

Item	Total cancer patient practices score	
	r-test	P Value
Total cancer patient knowledge score	2.848*	P=0.001 HS*

Table (3): relation between of total level of patient satisfaction about health care services and their total health needs at day-care units (N=350)

Item	Total level of satisfaction	
	r-test	P Value
Total Health Needs	0.48*	P=0.00 HS*

Table (4): relation between total degree of satisfaction of patients with cancer and total health care services provided at day care units (N=350).

Total health care services		Total level of satisfaction		Total	P value
		Satisfied	Unsatisfied		
quality of medical service	No	223	127	350	*P=0.00 HS
	%	63.7	36.3	100	
Doctor's care	No	190	160	350	*P=0.00 HS
	%	54.3	45.7	100	
Impressive Impact Assessment among day care units	No	112	238	350	*P=0.00 HS
	%	32	68	100	
Nurses care	No	165	185	350	*P=0.00 HS
	%	47.1	52.8	100	
Environment of day care center	No	256	94	350	*P=0.00 HS
	%	73.2	26.8	100	

Discussion:

Patient satisfaction is a key indicator of the care quality in patient cancer treatment in day care unit. Patient's satisfaction is amongst two main elements of care quality which includes respect for, understanding patient requirements and providing services consequently. It is supported by difference between expected and perceived quality, level of perceived service is higher than expected, it is referred to as better service quality and when level of perceived service is lower than expected, it is referred to as worse service quality. Well-designed health care delivery system can reduce re admission, improve quality of life and provide patient satisfaction (Ghiwet, & kidanu, 2014).

According to the present study, more than one third of the cancer patients aged 30<40 years, and more than two third were male. These results are in agreement with **Wiggers, et al., (2015)** who reported in his study about Cancer patient satisfaction with care in Ohio State that around two fifth of the studied patients' age were between 30<40 years, and more than half were males. This study also agrees with the study of **Mahran et al., (2016)** who reported in his study about Oncology Patients Satisfaction Towards Quality Health Care Services at Accredited University Hospital and mentioned that that two fifth of the studied patients' age were between 31<40 years of his study sample and almost half were males. Concerning educational level around less than half were don't read and don't writes, and more than one third were private work with two third had sufficient monthly income. These results are in agreement with **Houts et al., (2018)** who reported in his study about Unmet needs of persons with cancer in Pennsylvania reported that almost two third of cancer patients were employees with about two third had sufficient monthly income .This finding could be related to diseases itself as it causes overheating which may be the main reason for inability to work.

As regards total knowledge about type of investigation & screening illustrated that, more than two thirds of patient with cancer had unsatisfactory knowledge regarding the investigation performed after surgery. While approximately near to two thirds of them had unsatisfactory knowledge regarding the types of screening, nearly two third of cancer patient had unsatisfactory total knowledge while less than half of them had satisfactory knowledge. However, these results were similar to those of **Tadesse, (2015)** who's reported in that study about Knowledge, attitude and practice (KAP) towards screening for cancer disease among Adam University female students, Adama, Ethiopia, Addis Ababa mentioned that lower than 15% of the respondents had satisfactory knowledge about investigation performed post-surgery for cancer patients. From the investigator point of view this finding could be due to decrease educational program in this field.

As regards total level of problems regarding health problems that may occur after chemotherapy this figure shows that, less than half 44.9% of patients not exposed to problems that may occur after chemotherapy while 55.1% had exposed to health problems after chemotherapy

As regards total level of problems regarding health problems that may occur after chemotherapy. Finding that less than half of patients not exposed to problems that may occur after chemotherapy. This finding is in disagreement with **Eom et al., (2016)** whose conduct study about Impact of perceived social support on the mental health and health-related quality of life in cancer patients found that more than half of subjects stated that loss of hair, nausea and vomiting and loss of appetite are most common side effect of it. The difference between the two studies could be related to the sample selection.

As regards total health needs of cancer patients figure (4) shows that, more than two

thirds of patient always needs to psychological support & sometimes needs to sexual information, and more than half of cancer patients were sometimes needs to physical and daily activities & needs to support during their care, while less than half of them needed always to health information about cancer disease; this finding is in the same line with **Jand, et al., (2018)**, cancer patients needs to psychological support more frequent when find difficult to control the situation due to physical or emotional reasons, cancer patients can feel despondent, depressed, or anxious; they can also fear to the expansion of the cancer or that the treatments. In addition, patients tend to report unsatisfied needs when either the disease or their treatments impose restrictions to daily activities, and particularly when their financial resources are reduced.

The current study findings revealed that less than half of cancer patients' had satisfied regarding daycare services **figure (6)**. These findings disagree with similar studies done by **Duke, et al., (2017)**, who studied Evaluation of a revised instrument to assess the need of men diagnosed with cancer, and found that the highest level of dissatisfaction was among unit structure followed by nursing staff, and physicians. **The researcher believe that**, the daycare units and hospitals needed to facilitate admission routine, develop unit structure like comfortable beds, clean bathroom, good ventilation, and bell to facilitate nurse calling and increase number of nurses.

Regarding the relation between total cancer patient's knowledge and their total practices, **table (2)** revealed that, there was statistical significant difference between patients' knowledge and practices regarding cancer disease at $p < 0.001$. This result was supported by **Sayed et al., (2016)**, who that patient's knowledge had an impact on their practices which help them in practicing health behaviors regarding their disease. It could be due to with practice, knowledge grows as a result of long period of cancer patients' experience.

As regards to relation between total health needs for cancer patients and their total level of satisfaction **table (3)**, revealed that, there was statistically significant difference at $p < 0.001$. This finding was in accordance with the studies of **Wingate et al., (2017)** & **Gates et al., (2016)**, which suggest that psychologic, daily living and information issues are important to oncology patients, and it may reflect changing attitudes toward this aspect of patient morbidity. In addition, cancer patients indicate the magnitude of their need (low, moderate, or high) provides us with a direct categoric measure of the relative importance of one need item against others.

Lastly, table (4) reflects that highly Statistical significant relation between total degree of satisfaction of patients with cancer and their total health care services at $P=0.001$. This was agreed with **Khaleel & Al-Hussein (2015)** who studied the Assessment of Patients Satisfaction Regarding nursing care provided at general hospitals in Saudia Arabia. As its study illustrated that there was a significant positive correlation between patients' satisfaction and health care services.

Conclusion:

In the light of the study findings, it can be concluded that, More than one third of cancer patient had unsatisfactory knowledge while less than two third of them had satisfactory knowledge about types of investigation and screening, more than half of cancer patient had unsatisfactory level of total knowledge.

Recommendations:

These study findings were supported the study hypotheses. Based on the findings of the present study, it was recommended that:

1. Development and application of training program for all nurses to update their knowledge and improve their skills and different care provided for cancer patients at day care units.

2. Counseling sessions should be offered to cancer patients, and their caregivers about disease, its treatment, and side effects.
3. Identifying the specific health care needs in cancer patients, is an important step towards satisfying of these needs, and the supportive care must cover all aspects that a patient might request, in order to face the impact of cancer and its treatment at day care units.
4. Encourage responsible authorities in hospital to facilitate admission routine, develop unit structure like comfortable beds, clean bathroom, good ventilation, and bell to facilitate nurse calling and increase

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