Cancer Patients' Satisfaction with Health Care Services Provided by National Cancer Teaching Hospital Professionals

[1]B. M. Naeamah, [2]F. W. Khudair

[1&2] Community Health Nursing, Faculty Of Nursing, University Of Kufa, Iraq.

majidbaneen36@gmail.com

Abstract Cancer is a group of diseases characterized by uncontrolled growth and spread characterized by uncontrolled growth and spread of abnormal cells. The study was carried out by choosing 250 patients who visited the National Cancer Teaching Hospital were chosen for a non-probability sampling technique (purposive sample) based on standards for treatment, follow-up, or both. The study's results showed that significant partial satisfaction with care among patients is consistent with our hypothesis about hospital healthcare services. Medical services and public facilities are among the most important things that determine and affect people's satisfaction. Women are more likely to get cancer and breast cancer is the most common type.

1. INTRODUCTION

The detection and treatment of cancer became unfavorably pandemic, and it is a significant global public health issue. Fear and reduced access to care caused delays in diagnosis and treatment, which may cause a temporary decrease in the incidence of cancer followed by an increase in the prevalence of advanced-stage disease. As a result, the death rate rises.(1) Cancer is a worldwide issue for which there is, regrettably, no global answer. In the Greek language, the word "CANCER" refers to a crab, which Hippocrates and Galen believed a tumor resembled. Malignant neoplasm is the medical term for a group of various disorders (2). The term "cancer" refers to a collection of connected disorders. All forms of cancer cause some body cells to start dividing rapidly and spread to neighboring areas.(3)

Every year, 56.2 million people die in the world, according to the World Health Organization (WHO). Cancer kills 7.6 million of these people. Every year, 3.2 million people die in Europe, with cancer accounting for 1.7 million of these fatalities. (4). Current cancer classification is provided by the American Joint Committee on Cancer/Union International Central Cancer (AJCC/UICC) and strictly relies on tumor characteristics, such as the extent of the primary tumor (T), the involvement of regional lymph nodes (N), and the presence of distant metastases (M) (TNM staging).(5)

Patients' satisfaction with nursing care has emerged as the most important predictor of overall satisfaction with hospital care, and it is an important goal for any healthcare organization. Measuring patients' satisfaction with nursing care has the potential to improve nursing service quality by simplifying the development of care standards while monitoring both outcomes and patients' perceptions of quality.(6) .

Objective of the Study

To find out the association between the level of Patients' satisfaction and their sociodemographic data and health history

2. MATERIALS AND METHODS

2.1 Ethical Considerations and Administrative Agreements

All official permission has been obtained, the approval of the Nursing College of the University of Kufa, and the Ethics Committee of the Faculty of Nursing to conduct the study. The approved and authorized official authorities for the commencement of the study. These permissions are the most basic requirements to be adhered to, while the consent for collecting the patient's data was conducted with full privacy and respect for the participant's values and dignity. Furthermore, formal approval from the Ministry of Planning and the Central Council for Statistics is required to approve

the study questionnaire and protect the researcher's and participants' rights. Al-Najaf Al-Ashraf Health Directorate and National Cancer Teaching Hospital also consented to conduct interviews with each subject of the study. Finally, the researchers got subject permission from the patients after explaining the study's aim and obtaining informed consent. Participants' confidentiality is preserved, and the patients are informed that their participation is entirely voluntary, and they are not compelled to take the survey or answer the interview questionnaire topics.

2.2 Design of the Study

A descriptive design survey study was conducted at the National Cancer Teaching Hospital and was conducted on groups of patients in the National Teaching Cancer Hospital. Face-to-face patient interviewing techniques are used in the current work to fill out questionnaires.

2.3 Sample of the Study

A non-probability sampling technique (purposive sample) of 250 patients were selected who attended the National Cancer Teaching Hospital based on criteria for treatment, follow-up, or both.

2.4 Including Criteria

The study sample was selected using the following criteria for specifying the study subjects included in the study.

1- All participants are diagnosed with different stages of cancer disease undergoing different treatment stages, such as chemotherapy, radiation, and other types of treatments, with no associated chronic diseases except cancer, and are participating in the study voluntarily.

2- All definitive participation diagnoses of cancer are based on the information contained in the medical records, having been diagnosed with cancer for six months or more.

3- All participants are over the age of 18 years, and because the study focuses on adult healthcare services' satisfaction and because the investigation needs subjective measures, patients must be alert and free of any changes in consciousness.

4- The patient or their family disclosed no history of psychological problems.

2.5 Data Collection methods

The data has been collected through the utilization of the adapted and developed questionnaire after the validity and reliability are estimated. The data was gathered using two techniques structured questionnaire and an interview with the subjects who were individually interviewed at the National Teaching Hospital of Cancer and obtained their verbal

agreement to participate in the study with the right to refuse or withdraw participation and confidentiality of the information. Arabic version of the questionnaire is used. All subjects included in the study sample are interviewed in the same way. The data collection process has been performed from December 7th to March 4th, 2023. The interview with each patient takes (20-25) minutes to complete the interview.

2.5 Statistical Analysis

The present study's data were analyzed using the Statistical Package of Social Sciences (SPSS) version (26). The following statistical data analysis approaches are used in order to analyze and evaluate the results of the study:

A) Descriptive Statistical Means

This includes measurement of the following:

1. Frequency (F)

2. Percentage: the formula used to compute the percentage is: % =

3. The Mean: is the arithmetic average of the distribution. The formula used to compute the Mean is: (Plichta & Kelvin, 2013).

$$\bar{x} = \frac{\sum x_i}{n}$$

4. Standard deviation (Sd.)

It was used to compare between the study group with control group before applying for the interventional program and the study group with the control group after applying the educational program. It also compared pre with post of the program for the study and control groups. The basic formula for the sample standard deviation is (Rentala, 2019).

$$s = \sqrt{\frac{\sum f(x - \bar{x})^2}{n - 1}}$$

B) Inferential Analysis

The purpose of using this type of statistical data analysis was to determine the level of acceptance or rejection of the research hypothesis, and it includes the following:

1. One-way analysis of variance (ANOVA): is a statistical method used to test the equality of three or more group means. It is used when you have a single categorical independent variable (also known as a factor) and a continuous dependent variable. The null hypothesis for one-way ANOVA is that there is no significant difference between the means of the groups. The alternative hypothesis is that at least one group's mean differs from the others. The formula for one-way ANOVA is:

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$F = (SSbetween / (k - 1)) / (SSwithin / (n - k))$

3.12. Rating and Scoring

The researcher uses the following manner for rating and scoring the study instrument scales:

To assign scores of patient satisfaction, the researcher used a point system, such as:

Strongly Disagree = 1

Disagree = 2

Uncertain = 3

Agree = 4

Strongly agree =5

The patient satisfaction overall assessment categorized by used three level responses:

Unsatisfied = 1-2.32.

Partially Satisfy = 2.33-3.66.

Satisfy = 3.67-5

3. RESULTS

Table (4-1): Distribution of Demographical Characteristics for Study Sample

Variables	Responses	Frequency	Percent
Age Group	<= 20	9	3.6
	21 – 28	32	12.8
	29 – 36	30	12
	37 – 44	38	15.2
	45 – 52	52	20.8
	53 – 60	55	22
	61+	34	13.6
	Total	250	100.0
Mean + SD		45.44±13.91	
Gender	Male	107	42.8
	Female	143	57.2
	Total	250	100.0
Residency	Rural	63	25.2
	Urban	187	74.8
	Total	250	100.0
Marital Status	Single	31	12.4
	Married	175	70.0
	Divorced	5	2.0
	Widowed	29	11.6
	Separated	10	4.0
	Total	250	100.0
Level of Education	Unable to read and write	21	8.4
	Read and Write	12	4.8
	Primary School	50	20.0
	Secondary School	38	15.2
	Intermediate School	38	15.2
	Institute	38	15.2
	Collage and Above	53	21.2
	Total	250	100.0
Occupation	Employed	69	27.6
	Free Job	67	26.8
	House Wife	101	40.4
	Retied	13	5.2
	Total	250	100.0
Family Monthly Income	Less than 300000	94	37.6
	301000 – 600000	79	31.6
	601000 – 900000	34	13.6

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	901000 – 1200000	13	5.2
	1201000 – 1500000	28	11.2
	1501000 and more	2	0.8
	Total	250	100.0

Table (4-2): *Distribution of Clinical Characteristics for Study Sample*

Variables	Responses	Frequency	Percent
Family History	Yes	104	41.6
	No	146	58.4
	Total	250	100.0
Type of Treatment	Chemotherapy	234	93.6
	Radiation	16	6.4
	Total	250	100.0
Site of Cancer	Lung	33	13.2
	Breast	85	34.0
	Prostate	19	7.6
	Bowel	17	6.8
	Other Type	96	38.4
	Total	250	100.0
Stage of Tumor	Progressive	31	12.4
	Non-Progressive	219	87.6
	Total	250	100.0
Type of Hospital Room	General Room	125	50.0
	Private Room	125	50.0
	Total	250	100.0
Frequency of Hospitalization	Several Admission	249	99.6
	First time	1	0.4
	Total	250	100.0
Duration of Admission	<= 3	218	87.2
	4 – 6	26	10.4
	7 – 9	6	2.4
Mean + SD		2.41±1.42	

Table (4-3): *Relationship between Overall patients' satisfaction and Their Clinical Characteristics*

Factor	Patient Satisfaction	df	F	Sig.
Family History	Overall measurement	1	0.397	0.5293 NS
	Public Services	1	0.131	0.717 NS
	Medical Services	1	0.422	0.516 NS
	Nursing Services	1	0.831	0.362 NS
	Pharmacy Services	1	0.434	0.510 NS
	Laboratory Services	1	1.681	0.195 NS
Type of Treatment	Overall measurement	1	3.643	0.057 NS
	Public Services	1	2.138	0.144 NS
	Medical Services	1	6.782	0.009 S
	Nursing Services	1	0.218	0.640 NS
	Pharmacy Services	1	3.960	0.04 S
	Laboratory Services	1	0.040	0.841 NS
Site of Cancer	Overall measurement	4	8.763	0.257 NS
	Public Services	4	4.251	0.002 S
	Medical Services	4	1.546	0.189 NS
	Nursing Services	4	5.500	0.000 S
	Pharmacy Services	4	6.158	0.000 S
	Laboratory Services	4	6.473	0.000 S

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Stage of Tumor	Overall measurement	1	0.488	0.485 NS
	Public Services	1	0.426	0.514 NS
	Medical Services	1	0.821	0.365 NS
	Nursing Services	1	1.345	0.247 NS
	Pharmacy Services	1	3.491	0.062 NS
	Laboratory Services	1	3.799	0.052 NS
Type of Hospital Room	Overall measurement	1	2.630	0.106 NS
	Public Services	1	7.205	0.007 S
	Medical Services	1	0.033	0.855 NS
	Nursing Services	1	0.386	0.534 NS
	Pharmacy Services	1	7.724	0.005 S
	Laboratory Services	1	0.232	0.630 NS
Duration of Admission	Overall measurement	8	0.203	0.990 NS
	Public Services	8	0.839	0.568 NS
	Medical Services	8	0.121	0.998 NS
	Nursing Services	8	0.239	0.983 NS
	Pharmacy Services	8	1.142	0.335 NS
	Laboratory Services	8	0.409	0.914 NS

4. DISCUSSION

Discussion of Demographic Data of Patients Sample (Table 4.1)

The present result shows that most participants were in age groups ranging (53-60) years, constituting (22%) of the sample. According to epidemiological studies, cancer can interpret this result as common in this age group due to many factors, such as low immunity and chronic diseases that participate in the development of cancer. This result agrees with a study conducted by (7) entitled Patient Satisfaction with Health Care Services; An Application of Physician's Behavior as a Moderator; they show age mean (22.4%) and age associated with satisfaction .

With regard to gender, the result of the current study shows that more than half (57.2%) of the patients were female. The interpretation of this result is that breast cancer is the most common cancer in women due to hormonal and environmental reasons. Cancer This result is consistent with the study conducted by.(8)

With regard to residence, the current study shows that the majority of the sample lives in urban areas (74.8%), and This result is due to the presence of the cancer hospital in the center of the city, and it is natural that it is more visited by urban residents, or perhaps city residents are more susceptible to cancer because of the pollution experienced by cities. This result is consistent with a study conducted by (9) which showed the urban average (68 %) and accommodation is related to satisfaction.

With regard to the educational level and marital status, occupation and family monthly income this result showed that about (21.2%) were university graduates and above, and the majority of the sample (70.0%) are married and indicates that more than one- third of the studied sample is most likely housewives (40.4%). Further, over two-thirds (37.6%) have an income associated with a monthly salary (less than 300 thousand). This result matches to Characteristic of the majority of our community. This finding is consistent with agreement.(10,8)

Discussion Distribution of Clinical Characteristics for Study Sample (Table 4.2) presents data that provides insight into the medical characteristics of the participants in the study.

Regarding family history, the study results show that more than half had no family history study subjects (58.4%). The reason is that most of the patients were unaware of their sick history before they were diagnosed with cancer. Even some of them did not visit the doctor periodically. This indicates that there is no sick history for them. These results agree with the Satisfaction of Breast Cancer Patients with Nursing Care at Rizgari Teaching Hospital in Erbil City (9) whose results indicated that the majority of the study subjects.(%68)

Regarding Type of treatment, Type of Hospital Room, Frequency of hospitalization, and duration of admission, the results show that type of treatment chemotherapy (93.6%) is the highest among cancer patients, The reason is that the tissues that make up the breast are more likely to turn into cancerous cells, and breast cancer is the most common type of cancer due to hormonal and environmental reasons the results show that type of hospital Room General Room and Private Room (50.0%) The proportions were equal, and the results show that the frequency of hospitalization Several Admission (99.6%) and the percentage of the length of stay

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in the hospital was more than three days is the highest percentage (87.2%) This result agrees with.(9)

In terms of site of cancer type and stage of tumor non-progressiveness, the study participants have their cancer progressed to a high level. This uses the study sample comprising patients who developed cancer for 6 months or a year. It shows that sample two -third (38.4%) is breast cancer, and the second third (34.4%) is another type and the stage of non-progressiveness of the tumor (87.6%). These results agree with earlier published results.(11) . Results discussion Relationship between Overall patients' satisfaction and their Clinical Characteristics table   (11-4)

The results of the study showed that there is a statistically significant positive relationship between the patient's satisfaction with the type of treatment and the location and stage of cancer with the health services provided to them, and this means that patients with non-progressive breast cancer were females who received chemotherapy on the other hand. There were no statistically significant differences in the satisfaction of patients who were hospitalized in both the general and private wards. The study agreed with related studies, including (12,13) The study revealed that most of the participants gave a partial satisfaction rating to the pharmacy, followed by the reception/registration services, then the doctors' services, with the mean ratings just slightly above average, with the pharmacy and reception/registration .

This finding is similar to that of a study on patient satisfaction in primary health care services, which indicated that half of the participants and 81.2% of the participants were satisfied with the level of service received by the pharmacy in the two centers studied. Another study on satisfaction and correlates of patients' satisfaction with physicians' services in primary health care centers found that a high level of customer satisfaction correlates well with a good relationship with the physician, which boosted the loyalty of patients – a factor of importance and vital for patient satisfaction.

5. CONCLUSION

The patients' satisfaction with the National Cancer Teaching Hospital. A survey has been distributed to 250 patients, and the data is collected and analyzed. The main highlights of this study can be summarized in the followings

1. Medical services and public facilities are among the most important things that determine and affect people's satisfaction.

2. Women are more likely to get cancer and breast cancer is the most common type.

6. RECOMMENDATIONS

Providing early detection and surveillance system for all women aged 40 and more such as a positron emission tomography (PET) scan to detect breast cancer in its early stages to ensure a greater chance of living for them. As a result of the large number of factors that help develop this disease in our society recently, surveillance systems must be available for all before reaching this sensitive age stage.

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