

An impact of Quality Health Care Services on Oncology Patient Satisfaction at University Hospital

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Abstract: Background: Patient satisfaction has become an important point in the assessment of the quality of care, which is increasingly required by accreditation agencies in the monitoring of quality of hospital care. Moreover, satisfaction with care may influence patient compliance to the treatment and consequently, impact on disease outcome (Nguyen et al, 2014). **Aim:** Identity patient satisfaction level in oncology setting regarding Healthcare services at University Hospital. **Design:** Quantitative descriptive correlational study. **Setting:** Medical; surgical and gynecology wards (male and female) at King Abdulaziz University Hospital. **Subjects & Methods:** Total number of nonrandomized convenience samples were 123 oncological patients who admitted to the above-mentioned setting. Oncology patient who is oriented and conscious included in the study. **Tool:** Data was collected by structured interview questionnaire for measuring patient satisfaction level toward health care services. **Results:** Study was done on 123 Oncology patients from medical, surgical and gynecology units at King Abdulaziz University Hospital. Jeddah, Saudi Arabia. Most common patients' age were ranged from 41 to 50 years. 41.5% of studied sample complains of leukemia. About 47% treated with chemotherapy followed by surgery. Highly statistically significant relations were observed in the total level of patient's satisfaction and care received from the physicians to the patient at $p = .000$. Studied samples satisfied from the knowledge and experience they give about illness; Information about medical tests; and information was given about treatment at (mean = 4.67). **Conclusion:** highly statistically significant relations were observed in the total levels of patient's satisfaction, and care received from the nurses and physicians to the patient. The studied patients were satisfied from the knowledge and experience which given them about an illness; Medical tests; the way of the nurses carried out the physical examination; the way of handled nursing care and their human qualities. While, the interest to patient personally was low satisfaction. [Mahran, S.M Al Nagshabandi, E. **An impact of Quality Health Care Services on Oncology Patient Satisfaction at University Hospital.** *Nat Sci* 2016;14(3):1-8]. ISSN 1545-0740 (print); ISSN 2375-7167 (online). <http://www.sciencepub.net/nature>. 1. doi:[10.7537/marsnsj14031601](https://doi.org/10.7537/marsnsj14031601).

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1. Introduction

Quality indicators focused on the process or outcome of patients care, and quality indicators for the structure of oncology patients' care were rare. Transparent information about the quality of care is considered important for health care providers who seek to realize improvements in quality. In addition to the previous inventory of existing indicators, interviews with patients, relatives, and caregivers provided input for the development of the draft set. Patient satisfaction with service quality is becoming an increasingly important tool for providers to demonstrate patient focus and differentiation in the healthcare setting, as well as enhance patient experience. Furthermore, providers are using this information to make important decisions regarding operational and treatment plans (Akin et al. 2010). In addition, information about the quality of care can be used by patients or relatives who want to make a well-founded choice of a health care provider. Furthermore, external parties such as governments

and health care inspectorates attach great importance to information about the quality of care from individual health care providers (Claessen et al, 2012).

The first hospital was set up in England in the 1960s. The aim was to miss out on ineffective high-tech medicine for patient-centered care and provide appropriate treatment of critically ill and terminal cancer patients. Having trained as a nurse, social worker and doctor, Cicely Saunders launched the hospice and palliative care (PC) movement which is now known all over the world. She is best known for introducing the concept of total pain management and addressing of encompassing physical, psychological, social, spiritual and practical problems (Clark, 1999 & Howard, 2001). Patient satisfaction has become an important point in the assessment of the quality of care, which is increasingly required by accreditation agencies in the monitoring of quality of hospital care. Moreover, satisfaction with care may influence patient compliance to treatment and consequently, impact on disease outcome (Nguyen et al, 2014).

According to Xiao (2008) & Hekkert, (2009), many studies have investigated the determinants of inpatient satisfaction with care. Although regular ambiguity among the findings of these studies, there is a general agreement that satisfaction is predicted by factors that can be categorized as intrinsic such as (structure, process, and outcome of care) or extrinsic as (patients' characteristics) to the care received.

Previous work was done by Miaskowski, et al (2014) they concluded that identification of the high-risk group of patients based on an evaluation of their experiences with the most common signs and symptoms associated with cancer such as pain, fatigue, sleep disturbance, and depression) and its treatment.

The Institute of Medicine defined 6 aims on which to re-engineer health care delivery systems. It posited that health care should be safe, effective, patient-centered, timely, efficient, and equitable. The report did not include patient satisfaction as one of its dimensions of quality and specifically noted that the decision to omit satisfaction ratings was purposeful because they did not consider it an adequate measure.

In Jordan (2012) study was conducted to "identify the difference between the dimensions of quality of health service in public sector hospitals relative to private hospitals and their impact on patient satisfaction", the researcher recommended to continue to work hard by those responsible for public sector hospitals in upgrading the quality of health service and continue the process of development and modernization, especially in the area training of human resources and upgrading of staff (Zamil; Areiqat & Tailakh, 2012).

The Kingdom of Saudi Arabia (KSA) has witnessed huge progress in socio-economic development over the last 30 years. The country has committed vast resources to improving medical care for its citizens, and it earned 26th place according to the WHO ranking of the world's healthcare systems (WHO) World Health 2000 <http://www.photius.com/rankings/health>.

Aim of the study

Identify oncological patient satisfaction level in oncology setting regarding Healthcare services at University Hospital.

Subjects and Methods

1-Technical Design

Research design: Qualitative descriptive correlational study.

Setting: This study conducted in Medical, surgical and gynecology wards (male and female) at King Abdulaziz University. This hospital affiliated to King Abdulaziz University. It is one of the first Hospitals in the eastern Mediterranean region to implement health care accreditation.

Subject. The total number of nonrandomized convenience samples were 123 oncological patients. Patients were included in the study from the mentioned above setting. Excluded unconscious and disoriented patient. Their age ranged from <20->71years.

Tools of data collection

Data was collected by structured interview questionnaire this questionnaire to measure patients' appraisal of hospital doctors and nurses, as well as aspects of care organization and services. It was adopted from Brédart, et al (2005). An International prospective study of the EORTC cancer in-patient satisfaction with care measure (EORTC IN-PATSAT32). It consisted of two parts: Part I: Demographic Data: Include information about the oncological patient such as age, gender, and. Part II: It consisted of 32 items satisfaction with care questionnaire to measure patients' appraisal of hospital doctors and nurses, as well as aspects of care organization and services.

2. Operational Design

The operational design includes preparatory phase, content validity, reliability, pilot study, and field work.

Preparatory Phase

It includes reviewing of literature, different studies and theoretical knowledge of various aspects of the problems using books, articles, internet, periodicals and magazines.

Content Validity

Face validity and content validity of the instrument have been taken into account. Validated tools were used from published research for Brédart, et al (2005). With title "An International prospective study of the EORTC cancer in-patient satisfaction with care measure (EORTC IN-PATSAT32)".

Reliability

It refers to the consistency of an instrument's ability to measure an attribute. It can be measured by three estimates: stability, internal consistency, and equivalence (Polit & Beck, 2004). Sorra & Nieva, (2004) stated that all dimensions were shown to have acceptable levels of reliability (defined as Cronbach's alpha equal to or greater than .60). The most popular method of testing for internal consistency in the behavioral sciences is coefficient alpha. Coefficient alpha was popularizing by (Cronbach, 1951).

Scoring system:

Scoring system was ranged from 1 to 5 scores. (1=Poor 2=Fair 3=Good 4=Very good 5=Excellent.

Administrative and Ethical consideration:

Before data collection, the necessary approval obtained from the ethics committee King Abdulaziz University Hospital. Subjects were given both a

written and verbal explanation of the research study. A verbal agreement to participate in the research was taken.

Pilot study

A pilot study was carried out to assess tools clarity and applicability. It applied on ten% of studied sample from the selected departments. Those samples which shared in piloting stage were excluded from the main subjects of the study. Data collected from the pilot study were analyzed and necessary modifications were done prior to the final application of the study tools.

Field work:

The present study was carried out within three months started from the 1st Mayo to the 31th July 2014. The data was collected by the researchers themselves through interviewing patients and their families for the collection of demographic data, and completion of structured interview questionnaire sheet. The time required to complete the questionnaire was about 30-45 minutes.

3 Statistical Design:

Collected data was arranged, tabulated and analyzed according to the type of each data.

Scoring system: Scoring system was ranged from 1 to 5 scores. (1=Poor 2=Fair 3=Good 4=Very good 5=Excellent).

Statistical analysis:

Data was collected and entered into a database file. Statistical analysis was performed by using the SPSS 20 computer software statistical package. Data was described by summary tables. Differences in categorical variables between more than two groups (e.g., specialty) were assessed using ANOVA. The alpha error level was set at 0.05, with $p < 0.05$ being considered statistically significant.

Results

Oncology patients included in this study were 123 patients from medical, surgical and gynecology wards (male and female) at King Abdulaziz University Hospital. Table (1) depicted that the most common patient age among studied samples were ranged from 41 to 50 years. 57.70% were Female while 39.8 % had the secondary school, followed by 36.6 had Bachelor's degree and only one had Master's degrees whereas the majority of studied oncology patients 85.4% were married; about one-third studied sample 37% worked as the house wife, whereas 30.9 had the private job. 41.5% of studied sample complaints of leukemia while only 5 had cancer in lungs. About 47% treated with chemotherapy followed by surgery. Few of them were treated by radiotherapy.

Table (1) Showed demographic data for studied sample regarding to age, gender, level of education and marital status (n=123).

	Frequency	percentage
Age		
< 20-30	19	15.4
31-40	18	14.6
41-50	33	26.8
51-60	29	23.6
61-70	15	12.2
>71	9	7.3
Gender		
male	52	42.3
Female	71	57.7
Level of education		
diploma	6	4.9
master	1	.8
Bachelor	45	36.6
Secondary	49	39.8
Preparatory or less	22	17.9
Marital status		
single	18	14.6
married	105	85.4

	Frequency	percentage
Job		
government	19	15.4
private	38	30.9
house wife	46	37.4
other	20	16.3
Diagnosis		
leukemia	51	41.5
un known	13	10.6
cancer in breast	24	19.5
cancer in bladder	9	7.3
cancer in lungs	5	4.1
cancer in colon	17	13.8
other	4	3.3
treatment		
chemotherapy	57	46.3
radiotherapy	10	8.1
surgery	39	31.7
other	17	13.8

Table (2) illustrated that there were highly statistically significant relations were observed in the total level of patient's satisfaction, and care received from the physicians to the patient at $p = .000$. Also, the studied samples satisfied from the knowledge and experience they give about the illness; Information about medical tests; and information given about

treatment at (mean= 4.67, 4.60). Moreover, the attention paid to the interest of the patient personally was also the highly significant difference at $p=0.000$ with the level of satisfaction at mean = 4.12.

Regarding the level of satisfaction toward the care received from the nurses observed at table (3). The finding illustrated total highly statistically significant relations were observed at $p= .000$. Furthermore, The way of the nurses carried out the physical examination (took temperature, felt pulse); The way of handled nursing care (during giving the medicines, performed injections, and Their human qualities (politeness, respect, sensitivity, kindness,

patience) were scored high as satisfying factors at mean = 4.4715. However, the interest they showed to patient personally was low satisfaction at mean=3.90.

In relation to services and care organization received during a hospital stay, the finding indicated that total highly statistically significant relations were cleared regarding services & care organization at $p= .000$. The exchange of information between caregivers; the kindness and helpfulness of the technical, reception, laboratory personnel? And the information provided on your admission to the hospital were scored high as satisfying factors at mean = 4.24.

Table 2 indicated that the level of satisfaction toward the care received from the doctors to oncology patient during his hospital stay.

		Mean	Std. Deviation	t	df	Sig. (2-tailed)
x1	1 Their knowledge and experience of your illness?	4.67	.623	83.091	122	.000
x2	2 The treatment and medical follow-up they provided?	4.59	.638	79.838	122	.000
x3	3 The attention they paid to your physical problems?	4.56	.655	77.263	122	.000
x4	4 Their willingness to listen to all of your concerns?	4.26	.676	69.941	122	.000
x5	5 The interest they showed in you personally?	4.14	.739	62.093	122	.000
x6	6 The comfort and support they gave you?	4.20	.720	64.583	122	.000
x7	7 The information they gave you about your illness?	4.60	.721	70.750	122	.000
x8	8 The information they gave you about your medical tests?	4.60	.674	75.679	122	.000
x9	9 The information they gave you about your treatment?	4.61	.697	73.350	122	.000
x10	10 The frequency of their visits/consultations?	4.50	.853	58.568	122	.000
x11	11 The time they devoted to you during visits/consultations?	4.45	.870	56.671	122	.000
total		4.4708	.56761	87.355	122	.000

Table 3 indicated that the level of satisfaction toward the care received from nurses to the oncology patient during his hospital stay.

II.	II. The way they carried out your physical examination.	Mean	Std. Deviation	t	df	Sig. (2-tailed)
x12	"The way they carried out your physical examination (took your temperature, felt your pulse...)"	4.41	.868	56.426	122	.000
x13	13 The way they handled your care (gave your medicines, performed injections,)?	4.44	.841	58.537	122	.000
x14	14 The attention they paid to your physical comfort?	4.30	.888	53.435	121	.000
x15	15 The interest they showed in you personally?	3.90	.794	54.539	122	.000
x16	16 The comfort and support they gave you?	4.04	.834	53.752	122	.000
	III. During your hospital stay, how would you rate nurses, in terms of					
x17	17 Their human qualities (politeness, respect, sensitivity, kindness, patience,)?	4.4715	.89007	55.717	122	.000
x18	18 The information they gave you about your medical tests?	4.20	1.063	43.844	122	.000
x19	19 The information they gave you about your care?	4.25	.929	50.786	122	.000
x20	20 The information they gave you about your treatment?	4.22	.966	48.243	121	.000
x21	Their promptness in answering your buzzer calls?	4.04	.824	54.397	122	.000
x22	The time they devoted to you?	4.03	.799	55.979	122	.000
total		4.2103	.73040	63.930	122	.000

Table 4 indicated that the level of patient's satisfaction toward the services & care organization received during hospital stay.

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
x23	23 The exchange of information between caregivers?	4.15	.993	46.128	121	.000
x24	24 The kindness and helpfulness of the technical, reception, laboratory personnel?	4.17	.989	46.754	122	.000
x25	25 The information provided on your admission to the hospital?	4.24	1.003	46.936	122	.000
x26	26 The information provided on your discharge from the hospital?	3.91	.967	44.863	122	.000
x27	27 The waiting time for obtaining results of medical tests?	4.02	1.048	42.506	122	.000
x28	28 The speed of implementing medical tests and/or treatments?	4.04	.987	45.413	122	.000
x29	29 The ease of access (parking, means of transport...)?	3.98	1.116	39.587	122	.000
x30	30 The ease of finding one's way to the different departments?	3.85	1.061	40.278	122	.000
x31	31 The environment of the building (Cleanliness, spaciousness, calmness...)?	3.77	1.144	36.576	122	.000
total		4.0163	.88062	50.581	122	.000

Multiple Comparisons

Tukey HSD

(I) unit1	(J) unit1	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
female medical	medical m	-.30500*	.12827	.049	-.6094-	-.0006-
	surgery	.53576*	.13554	.000	.2141	.8574
medical m	female medical	.30500*	.12827	.049	.0006	.6094
	surgery	.84077*	.15295	.000	.4778	1.2037

*. The mean difference is significant at the 0.05 level.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Age					
Between Groups	3.838	7	.548	1.271	.271
Within Groups	49.596	115	.431		
Total	53.434	122			
Units					
Between Groups	10.909	2	5.454	15.392	.000
Within Groups	42.525	120	.354		
Total	53.434	122			
Gender					
Between Groups	.391	1	.391	.893	.347
Within Groups	53.043	121	.438		
Total	53.434	122			
Marital status					
Between Groups	.348	1	.348	.793	.375
Within Groups	53.086	121	.439		
Total	53.434	122			
Level of education					
Between Groups	9.305	4	2.326	6.221	.000
Within Groups	44.129	118	.374		
Total	53.434	122			

*. The mean difference is significant at the 0.05 level

Multiple Comparisons

Tukey HSD

(I) level of education	(J) level of education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
diploma	master	-.90934-	.51164	.392	-2.3268-	.5081
	Bachelor	-1.38692-*	.28828	.000	-2.1856-	-.5883-
	Secondary	-1.35647-*	.28710	.000	-2.1519-	-.5611-
	Preparatory or less	-1.23763-*	.30297	.001	-2.0770-	-.3983-
master	diploma	.90934	.51164	.392	-.5081-	2.3268
	Bachelor	-.47758-	.44192	.816	-1.7019-	.7467
	Secondary	-.44712-	.44116	.849	-1.6693-	.7751
	Preparatory or less	-.32828-	.45165	.950	-1.5795-	.9230
Bachelor	diploma	1.38692*	.28828	.000	.5883	2.1856
	master	.47758	.44192	.816	-.7467-	1.7019
	Secondary	.03046	.12626	.999	-.3193-	.3803
	Preparatory or less	.14930	.15909	.881	-.2914-	.5900

* The mean difference is significant at the 0.05 level.

Multiple Comparisons

Tukey HSD

(I) types of treatments	(J) types of treatments	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
					Lower Bound	Upper Bound	
dimension2	chemotherapy	radiotherapy	-.00969-	.21956	1.000	-.5818-	.5624
		surgery	.42608*	.13308	.009	.0793	.7729
		other	.24726	.17698	.504	-.2139-	.7084
	radiotherapy	chemotherapy	.00969	.21956	1.000	-.5624-	.5818
		surgery	.43577	.22700	.225	-.1557-	1.0273
		other	.25695	.25522	.746	-.4081-	.9220
	surgery	chemotherapy	-.42608-*	.13308	.009	-.7729-	-.0793-
		radiotherapy	-.43577-	.22700	.225	-1.0273-	.1557
		other	-.17882-	.18612	.772	-.6638-	.3062
	other	chemotherapy	-.24726-	.17698	.504	-.7084-	.2139
		radiotherapy	-.25695-	.25522	.746	-.9220-	.4081
		surgery	.17882	.18612	.772	-.3062-	.6638

* The mean difference is significant at the 0.05 level.

Discussion

Oncology patients included in this study were 123 patients from medical and surgical units (male and female wards) at King Abdul Aziz University Hospital. The findings showed that the most common patient age among studied samples were ranged from 41 to 50 years. Little above fifty percent were Female, while about third studied sample had secondary school, followed by the Bachelor's degree and only one had Master's degrees whereas majority of studied oncology patients were married; about one-third studied sample worked as housewife, approximately forty –two percent of studied sample complaints of leukemia while only five had cancer in lungs. About fifty percent treated with chemotherapy followed by surgery. Few of them were treated by radiotherapy. This finding respected by Pita-Fernández, et. al. (2013) Understanding the characteristics associated to

quality of life may help clinicians to identify patients at risk for poor quality of life, as well as to plan medical, psychological or social interventions to improve the patient's well-being. Gender, age, income, education level, and social network have been identified as general determinants of quality of life in colorectal cancer survivors.

Highly statistically significant relations were observed in the total level of patient's satisfaction, and care received from the physicians to the patient during his hospital stay at $p=.000$. Also, the studied samples satisfied from the knowledge and experience they give about the illness. ; Information about medical tests; and information given about treatment at (mean= 4.67, 4.60). Moreover, the attention paid to the interest of the patient personally was also a highly significant difference at $p=0.000$ with the level of satisfaction at mean 4.12. This finding inconsistency

with Claessen (2012) concluded that the quality aspects relatives considered most important were dying peacefully, getting help in good time in acute situations, and personal attention. Aftercare was the aspect with the highest priority for quality improvement. Also this results respected by Zamil, Areiqat & Tailakh, (2012) turned out that aftercare had the highest 'need for improvement' as reflected in the scores for the aspects 'being informed about the possibilities of aftercare' and 'final conversation or discussion in which the care and treatment were evaluated.

Regarding the level of satisfaction in relation to the care received from the nurses to the patient during his hospital stay. The finding illustrated that in the table (2) highly statistically significant relations were observed in the total level of patient's satisfaction, at $p = .000$. Furthermore, there were some factors reported highly satisfied to patients such as The way of the nurses carried out the physical examination (took temperature, felt pulse...); The way of handled nursing care (during giving the medicines, performed injections, and Their human qualities (politeness, respect, sensitivity, kindness, patience) at mean = 4.4715. However, the interest they showed to patient personally was low satisfied to them. Those findings supported by Claessen, et. al (2014) their research study about Measuring patients' experiences with palliative care, their findings indicated that almost half of the patients answered that they 'never' or 'sometimes' received support from care providers when they were feeling depressed. At the same time, The other 'need for improvement' scores in the same way as 'Politeness of the caregivers', 'respect for the patient's life stance' and 'receiving medical aids soon enough' are examples of care aspects with a relatively low priority for quality improvement. This finding asserted by Zamil, Areiqat & Tailakh, (2012) their findings concluded that response of the to their needs and provide the service to him instantly, as well as permanent desire among staff in providing service to the patient has received the lowest arithmetic mean between dimensions of quality of service in public sector hospitals, it might cause by the lack of training and experience of hospital personnel in dealing with the requirements of patients where this reflects the capacity of staff to apply the principle of orientation towards the client (Customer oriented).

Regards, the services& care organization received during a hospital stay, the finding indicated that highly statistically significant relations were cleared in the total level of satisfaction at $p = .000$. The exchange of information between caregivers; the kindness and helpfulness of the technical, reception, laboratory personnel? And the information provided on your admission to the hospital were scored high as

the satisfying factor at mean = 4.24. This finding congruent with Zamil, Areiqat & Tailakh, (2012) Their study showed that there were statistically significant differences in the impact of health service quality on patient satisfaction in private sector hospitals against public sector hospitals in favor of private sector hospitals as shown through the results that averages of the five quality dimensions in private hospitals is higher than the average dimensions of quality in public sector hospitals.

Conclusion

Data of this study was collected by structured interview questionnaire this questionnaire to measure patients' appraisal of hospital doctors and nurses, as well as aspects of care organization and services. It is an International prospective study of the EORTC cancer in-patient satisfaction with care measure (EORTC IN-PATSAT32). This instrument gives health care professionals insight into care aspects with the highest priority for quality improvement. So the researchers concluded that there were a lack of training and experience of hospital personnel (physician and nurses) in dealing with the patients' needs. Patients reported low satisfied factors in relation to the attention paid to the interest of the patient personally.

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