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Patients' experiences and satisfaction with health care in the Salah Azaiez Institute of Cancer in Tunisia in 2020

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Abstract

Measurement of patient-centered care is a key step to ensure quality of care improvement. The aims of this study were to evaluate the experience of hospitalized patients of Salah Azaiez Institute (SAI) of Cancer of Tunisia in 2020 and to analyze factors associated to the global satisfaction. It was a cross-sectional study. The used questionnaire was derived from the Picker patient questionnaire. Factors associated to the global satisfaction were assessed using Chi-squared and Fisher's exact tests. The present study concerned 200 inpatients of the SAI. The Cronbach's α of the patient experience test (PPE-15) was of 0.82 indicating a good internal consistency. According to results of this study, only 38.5% of the patients were satisfied with their hospitalization. Perception of the quality of the received treatment was good to excellent for 57.0%. Regarding the global organization, 56.5% of the patients found it intermediate and 21.5% perceived it as bad. The highest scores among patient experience dimensions concerned the coordination of healthcare, the respect for patient preference and the physical comfort. However, lowest scores were attributed to the involvement of family and friends, the information and patient education and the emotional support. Unlike socio-demographic factors, patient experience and its dimensions was strongly associated to the global satisfaction. Further studies are recommended to explore patient experience dimensions and other determinants of patient satisfaction in Tunisia.

Keywords

Patient experience, patient satisfaction, cancer healthcare, Tunisia

Introduction

Patient-centered care (PCC) has become an essential indicator of health care quality.¹ Improving healthcare quality has moved beyond providing excellent clinical care and advanced technology, to promote patient-centered quality.^{2,3} PCC was defined by the Institute of Medicine as healthcare that respects and responds to the preferences, needs and values of patients throughout all healthcare decision.^{4,5} It encompasses the individual experiences of a patient, the clinical service, the organizational and the regulatory levels of health care.⁶⁻⁸ According to the World Health Organization, health systems oriented around the needs of patients and communities are more effective, cost less, improve health literacy and patient engagement, and are better prepared to respond to health crises.⁹ PCC can be assessed by patient feedback of their experience often referred to as patient experience (PE) measures. PE is integrally tied to the principles and practice of PCC and constitute a key step to go toward PCC.⁵ It has also been demonstrated that PE is positively associated with patient safety and clinical effectiveness.^{10,11} The Picker Institute and Harvard Medical School defined eight dimensions of

PE: respect for patient preferences and values; emotional support; physical comfort; information, communication and education; continuity and transition; co-ordination of care; involvement of the family and friends and access to care¹²⁻¹⁴ Non-communicable diseases constitute the first leading cause of morbidity and mortality in the world. Cancer is a major health problem that represents the second leading cause of deaths worldwide after cardiovascular diseases. Cancer outcomes can be influenced by many factors related to the cancer type, stage of disease, co-morbid conditions at diagnosis, but also to the quality of healthcare received by the patient.¹⁵ Thus, providing high-quality, safe and effective cancer care relies increasingly upon patient experiences.^{16,17} However, collecting data on PE, in order to improve health care, is still insufficient, especially in low- and middle-income countries.¹⁸ In Tunisia, research about PCC and PE are scarce.¹⁹⁻²¹ Therefore, this study was conducted to study PE in the context of cancer care and its association with global patient satisfaction.

The aims of this study were to evaluate the PE of the hospitalized patients of the Salah Azaiez Institute (SAI) of

Cancer of Tunisia in 2020 and to analyze factors associated to the global satisfaction.

Methods

It was a cross-sectional study conducted among inpatients attending a tertiary care center specialized in cancer in Tunisia, the Salah Azaiez Institute (SAI), between January and March 2020.

Study population

All patients fulfilling the inclusion criteria receiving inpatients service were included during the study. The inclusion criteria were as follows: Patients over 18 years of age; hospitalized at the departments of medicine, surgery and radiotherapy; able to understand the questions and provide clear responses; having already received the medical service and accepted to respond the questionnaire.

The exclusion criteria were patients in postoperative period, not completing the questionnaire, and over 20% missing information in the questionnaire.

Study tool

The questionnaire used in the present study was derived from the Picker patient questionnaire^{22,23} and validated by a local multidisciplinary medical committee of the SAI. The mentioned questionnaire consisted in 29 items divided into three parts: The first part concerned general information about included patients (gender, age, education level, origin and basic health insurance type) and questions about access to health care (length of time to decide to consult the SAI, length of time to access the hospital; Transport cost assessment). To facilitate the interpretation of data, age of participants was categorized into youth (<18 years), young adults (ages 18–35 years), middle-aged adults (ages 36–65 years), and older adults (aged older than 65 years).

The second part of the questionnaire consisted in the Picker Patient Experience questionnaire (PPE-15) which is a valid and reliable tool assessing inpatient experience that has been used to evaluate hospital service quality in many countries.^{24–28} The PPE comprised seven dimensions (information, transmission and patient education, respect for patient preference, emotional support, physical comfort, involvement of family or friends, continuity of medical service and coordination). In order to facilitate comparison, an adjusted score of these dimensions was assessed (over 3). The original version of the PPE test has submitted a translation, back-translation process. Group discussions were performed by the local medical comity of the SAI to verify the adequacy of the translated version. A pretest was also performed to check the clarity and comprehension of the test. A Likert scale score was assigned for each question related to the different domains with varied scores ranging from 1 to 3 (1 for "yes"; 2 for

"yes, sometimes" and 3 for "no"); from 1 to 4 or 1 to 5, (e.g., graded as 1–4 corresponding to 'often,' 'sometimes,' 'never' and 'I don't need to ask,' respectively, with 1 indicating highly unsatisfied and 5 being highly satisfied).

The third part of the questionnaire consisted in an overall evaluation of the organization of the work in the SAI and the perceived quality of the received care. Overall satisfaction was assessed by attributing a score from 0 to 10. In order to facilitate the interpretation of data satisfaction score, which is a quantitative variable, was converted to a qualitative one as follow: patients scoring above the 75th percentile were classified as "satisfied" and patients scoring less than the 75th percentile as "unsatisfied."²⁹

Statistical analysis

We analyzed data using SPSS IBM Statistics version 22. Quantitative data were described using means and standard deviations; qualitative variables were analyzed by percentages. The Chi-squared test (χ^2 test) and Fisher's exact test were used to compare percentages. Internal consistency of the PPE was tested by Cronbach's α and correlations between items of the questionnaire to test internal validity were analyzed with Spearman coefficients. The value of $p < 0.05\%$ was considered statistically significant.

Ethical issues

Approval was obtained from the Institutional Ethics Committee. Verbal informed consent was obtained from each patient. Each patient was visited in the ward and after obtaining verbal informed consent, the study team conducted the interviews maintaining strict confidentiality. All identifiers were removed from collected data and strict confidentiality was maintained.

Results

Socio-demographic profile of the studied population and access to health care at the Salah Azaiez Institute

The present study concerned 200 inpatients of the SAI composed of 43% of males with a gender ratio of 0.75. The modal age group consisted of patients between 35 and 64 years old. Concerning the level of education, most patients (63%) were illiterate or reached primary school level. The socioeconomic level was intermediate for 67.5% of the patients and low to very low for more than the quarter of them (27.5%). The area of residence of the studied population concerned all regions of the country with respectively 33.5% from North-Western Tunisia, 32.0% from the district of Tunis, 26.5% from the North-East and 8% from Center and South Tunisia. Two in three patients took less than one month to decide to consult the SAI. The length of time to access the SAI was more than 1 hour for the majority of patients (70.0%). Transport costs to access the hospital were considered high for more than

half (51.5%) the interviewed patients. The majority of the studied population (97.5%) had health insurance and the most frequent type of insurance was the reduced rate card with a percentage of 67.3% (Table 1).

Overall impression and satisfaction

According to results of this study, 38.5% of the patients were globally satisfied with their hospitalization. The perception of the quality of the received treatment in the SAI was good to excellent for 57.0% of the asked patients

Table 1. Socio-demographic profile of included patients and access to health care of the Salah Azaiez Institute

	Characteristic	Number (n)	Percentage (%)
Gender	Female	114	57.0
	Male	86	43.0
Age group (year)	< 18	2	1.0
	18 - 34	22	11.0
	35 - 64	135	67.5
	≥65	41	20
Literacy	Illiterate	71	35.5
	Primary school level	55	27.5
	Secondary or High school level	55	27.5
	University level	19	9.5
Socio-economic level	High	10	5.0
	Medium	134	67.0
	Low	26	12.5
	Verylow	30	15.0
Area of residence	District of Tunis	64	32.0
	Northeast	53	26.5
	Northwest	67	33.5
	Central	10	5.0
	South	6	3.0
Type of health insurance	Free health care	30	15.1
	National health insurance	25	12.6
	Card with reduced rate	135	67.3
	Other	10	5.0
Length of time to decide to consult the SAI	< 1 month	133	66.5
	1 to 3 months	41	20.5
	>3 months	18	9.0
	Other*	8	4.0
Length of time to access the hospital	<1 hour	57	28.5
	1-2 hour	79	39.5
	>2 hour	61	30.5
	Other*	3	1.5
Transport cost to the hospital	Acceptable	85	42.5
	Medium	103	51.5
	Low	9	4.5
	Other*	3	1.5
Perception of the organization of the hospital	Good	44	22.0
	Medium	113	56.5
	Bad	43	21.5
	Excellent	21	10.5
Perception of the quality of the received treatment	Very good	18	9.0
	Good	75	37.5
	Medium	59	29.5
	Bad	25	12.5
	Verybad	2	1.0
Satisfaction	Unsatisfied	123	61.5
	Satisfied	77	38.5

*Do not know or remember

Table 2. Correlation coefficient between different dimensions and the overall score of the PPE Questionnaire

	Overall score	Information	Emotional support	Respect	Physical comfort	Familyinvolvement	Continuity	Coordinat
Overall score	1							
Information	.648**	1						
Emotional support	.650**	.472**	1					
Respect	.614**	.369**	.377**	1				
Physical comfort	.483**	.398**	.270**	.337**	1			
Familyinvolvement	.664**	.447**	.310**	.279**	.202**	1		
Continuity	.605**	0.109	0.090	0.091	.162*	.269**	1	
Coordination	-.169*	-.287**	-0.111	-.160*	-.247**	-.181*	-.140*	1

** $p < 0.01$ and * $p < 0.05$

and medium for 29,5% of them. Regarding the organization of the hospital, more than the half of the patients (56,5%) found it intermediate and 21.5% perceived it as bad (Table 1).

Dimensions of the PPE questionnaire

The Cronbach's α of the questionnaire was 0.82, indicating a good internal consistency. The correlation coefficient tests showed good structural validity among different dimensions and the overall score (Table 2).

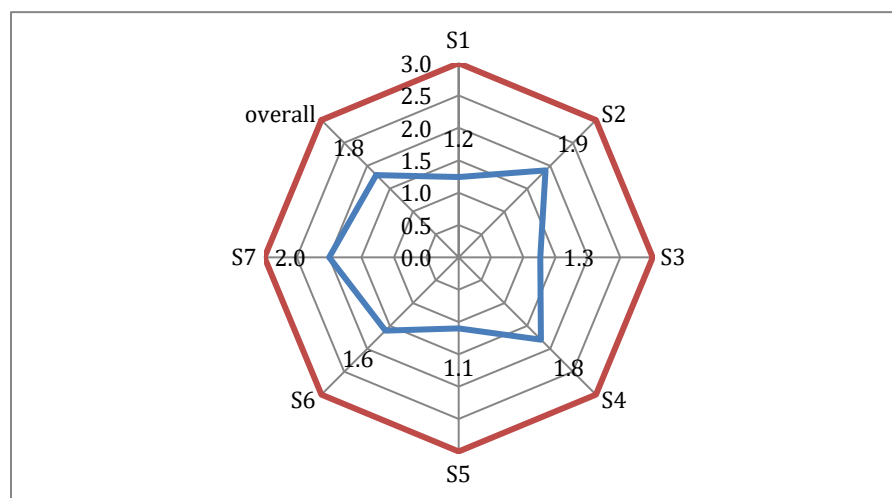
Figure 1 represents scores attributed to each dimension of the PPE questionnaire. Coordination of healthcare, respect for patient preference and physical comfort showed the highest scores with respective values of 2.0, 1.9 and 1.8/3. Lowest scores were attributed to the involvement of family and friends (1.1/3), information and patient education (1.2/3) and emotional support (1.3/3).

Association between items of the questionnaire and global satisfaction

Our study has shown that socio-demographic characteristics were not associated to the satisfaction. However, dimensions of the PPE questionnaire were statistically related to the satisfaction except for the question about being ignored during staff discussions. Concerning access to healthcare, the overall satisfaction was associated to the length of time between home and the hospital ($p=0.02$) and the easy access to the concerned department in the hospital ($p=0.00$) (Table 3, Appendix).

Discussion

Measurement of PCC is a key step to ensure quality of care improvement³⁰ Nevertheless, needs and preferences to incorporate people-centered approaches to health services differ between countries.³¹ In high-income countries,

Figure 1. Score for Each Dimension of Picker Patient Experience Questionnaire

S1. Information and patient education; S2. Respect for patient preference; S3. Emotional support; S4. Physical comfort; S5. Involvement of family or friends; S6. Continuity of medical service and S7. Coordination.

health systems have implemented specialized institutions to monitor patient experiences and perceptions in hospitals.³²⁻³⁴ Thus, many measures were developed to assess the quality of PCC including measures of satisfaction and others of the perceived experiences of patients during their care.¹³ In Tunisia, as well as in many other Arab countries, studies focusing on PE are scarce. Thus, this study was conducted to evaluate the experience of the inpatients of the SAI of cancer of Tunis in 2020 and to analyze factors associated to the global satisfaction.

Results of the current study showed that only 38.5% of the surveyed patients were satisfied indicating a low satisfaction percentage. Concerning PE dimensions, the highest scores concerned the coordination of healthcare, the respect for patient preference and the physical comfort. However, lowest scores were attributed to the involvement of family and friends, the information and patient education and emotional support. We did not find a significant association between socio-demographic characteristics (gender, education level, marital status, service type and insurance type) and satisfaction. In contrast, PE and its dimensions was strongly associated with satisfaction.

In Tunisia, this is the first study that explores dimensions of PE and its association with patient satisfaction.¹⁹⁻²⁰ However, the principal limitation of this study was the small sample size.

The PPE test is a valid and reliable tool to assess inpatient experience and has been used to evaluate hospital service quality in many countries.²⁴⁻²⁸ The Arabic version of the PPE questionnaire used in this study showed good internal consistency and structural validity. This result encourages to perform further validation study of the Arabic version of this questionnaire that would facilitate the regular evaluation of PE in our hospitals.

The current study showed a low proportion of satisfied patients. In fact, a cross-sectional study, in Sahloul University hospital in Tunisia between 2015 and 2016, indicated a percentage of satisfied patients of 67%.²⁰ Another study conducted in Kairouan hospital in center Tunisia reported a satisfaction score of 70%.³⁴ At the international level, a study about 9166 participants representing 106 million non-institutionalized US adults, which categorized the overall satisfaction score as "poor" (0-6 total points), "average" (7-9 total points), and "optimal" (10 total points) revealed that 61.1% of patients reported satisfaction as average and only 28.2% reported an optimal satisfaction. Nevertheless, it is difficult to compare our results to other research that used different methods and measures especially in Tunisia.^{19,20,35,36}

Analysis of the association between socio-demographic characteristics of asked patients and satisfaction did not

reveal any significant difference in this study which is inconsistent with the literature. In fact, researchers targeting the relationship between patients' socio-demographic characteristics and satisfaction have shown conflicting results. Some studies showed that older patients were more satisfied than younger ones³⁷⁻³⁹ while other did not find any association between age and the level of satisfaction.⁴⁰ Many studies have also discussed the relation between gender and satisfaction with healthcare.^{38,41,42} Similarly, some researchers reported that patients with poor financial situation and less educated level were more satisfied with healthcare than those with better financial conditions^{25,26} while others found that patients with lower socioeconomic status were more likely to report poor satisfaction.⁴² Further studies in SAI and in other hospitals with a larger study population would be recommended in Tunisia.

As reported in the current study, PE with its dimensions was very correlated to the satisfaction. This result is in agreement with the literature.^{16,17,43-45} In fact, satisfaction with the process of care is an essential goal of health care providers; however, the way in which care is delivered must be assessed from the patient perspective.²⁵ Hence, detailed questions about specific aspects of patients' experiences would be very useful for monitoring the performance of hospital departments and wards and could point out ways in which healthcare delivery could be improved.^{12, 18, 25}

As for dimensions of PE, the lowest scores were attributed to information and patient education, the involvement of family and friends and emotional support. This result is in line with a scoping review about patient experiences of cancer care, that indicated many gaps essentially with communication and recommended future research focusing on the impact of communication on patient behaviors and relationships.⁴⁶ Communication include clear and timely information, emotional support and opportunities for shared decision-making. These factors contribute to effective and satisfactory health care services.⁴³ It has also been reported that healthcare provider's communication skills and behaviors towards patients are directly linked to patient satisfaction.⁴⁷ Thus, in a narrative review of patient provider communication in oncology, Baile and colleagues stated that certain provider traits perceived by patients such as friendliness, courtesy, empathy and encouragement may increase patient satisfaction.⁴⁸ In Sub-Saharan African countries, several authors suggested to give more attention to PCC in the medical curriculum through techniques like supportive supervision; which is more than only adding some new communication techniques, but is about a specific attitude and belief in what it is to be a physician.⁴⁹ So, it is important to target quality of healthcare communication to improve patients experience and their satisfaction.

Access to health care was also associated, to some extent, to the global satisfaction. The length of time between home and the hospital and the easy access to the concerned department were associated to the overall satisfaction, unlike the transportation cost which was not a determinant factor of the satisfaction. Hence, barriers to access healthcare can be attributable to many factors :structural, financial and personal ones.⁵⁰The quality of the received care seemed to be satisfactory as more than the half of the asked patients perceived it as good to excellent which is a strength point of the quality of care in the SAI. Patients' experiences with the quality of care is an important element for improving the quality of care in hospitals.⁵¹ Patients' perceptions of the quality of care also affect their behavior after discharge.⁵² This was not the case for the global organization of the hospital where the same proportion perceived it as intermediate. patient experience and satisfaction may be determined by both individual and organizational factors.⁵³ Thus, organizational performance has also been reported to play an important role in patient satisfaction and the quality of care.⁵³ More studies are recommended to explore the organizational level in the SAI.

Conclusion

Patient experience is a key strategy to improve patient satisfaction and quality of care in hospitals. Communication of healthcare providers with patients and their family should be improved especially in the context of cancer health care. Further studies are recommended to monitor and explore PE dimensions and other determinants of patient satisfaction in the SAI of cancer in Tunisia.

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Appendix

Table 3. Association between Global Satisfaction and Different Dimensions of the Questionnaire

Factors	Characteristics	Satisfied N (%)	P	
Socio-demographic factors	Gender	Men	57 (46.7)	0.55
		Women	65 (53.3)	
	Age	< 18 years	1 (0.8)	0.71
		18 - 34 years	15 (12.3)	
		35 - 64	78 (63.9)	
		≥ 65	89 (73.0)	
	Literacy	University level	12 (9.8)	0.55
		High school	33 (27.0)	
		Primary school	30 (24.6)	
		Illiterate	47 (38.5)	
	Socioeconomic level	Verylow	18 (14.8)	0.51
		Low	15 (12.3)	
		Meduim	85 (69.7)	
		High	4 (3.3)	
	Region	District of Tunis	45 (36.9)	0.15
		North-est	35 (28.7)	
		North-ouest	37 (30.3)	
		Central Tunisia	3 (2.5)	
		Southern Tunisia	2 (1.6)	
Access to care	Evaluation of the transportation cost to attend the hospital	High	57 (46.7)	0.12
		Acceptable	56 (45.9)	
		Not High	9 (7.4)	
	Length of time to decide to go to hospital	< 1 month	89 (73.0)	0.15
		1- 3 months	21 (17.2)	
		> 3 months	5 (4.1)	
	Length of time between home and the hospital	Don't remember- don't know	7 (5.7)	0.02
		< 1 hour	44 (36.1)	
		1 - 2 hours	46 (37.7)	
		> 2 hours	32 (26.2)	
	Easy access to the concerned department	Don't remember /don't know	0 (0.0)	0.00
Yes		72 (59.0)		
Yes but could be better		24 (19.7)		
No		24 (19.7)		
Patient experience	Receiving clear answers from doctors	Don't know	2 (1.6)	0.00
		Yes, always	61 (79.2)	
		Yes, sometimes	11 (14.3)	
		No	5 (6.5)	
	Receiving clear answers from nurses	I had no need to ask	0 (0.0)	0.00
		Yes, always	38 (49.4)	
		Yes, sometimes	31 (40.3)	
		No	8 (10.4)	
	Receiving conflicting information from staff members	I had no need to ask	0 (0.0)	0.00
Yes, often		4 (5.2)		
Yes, sometimes		2 (2.6)		
	No	71 (92.2)		

Table 3 Association between Global Satisfaction and Different Dimensions of the Questionnaire(cont'd.)

	Being comforted about worries or fears by the healthcare staff	Yes, completely	59 (76.6)	0.00
		Yes, to some extent	9 (11.7)	
		No	5 (6.5)	
		I didn't have any anxieties or fears	4 (5.2)	
	Being ignored during staff discussions	Yes, often	15 (19.5)	0.50
		Yes, sometimes	3 (3.9)	
		No	59 (76.6)	
	Being involved in decisions about care treatment	Yes, definitely	35 (45.5)	0.00
		Yes, to some extent	10 (13.0)	
		No	32 (41.6)	
	Feeling treated with respect and dignity	Yes, always	51 (66.2)	0.00
		Yes, sometimes	19 (24.7)	
		No	7 (9.1)	
	Having confidence / trust in the medical staff	Yes, completely	46 (59.7)	0.01
		Yes, to some extent	7 (9.1)	
		No	17 (22.1)	
		I had no concerns	7 (9.1)	
	Doing everything to help control pain by the medical staff	Yes, definitely	22 (28.6)	0.01
		Yes, to some extent	44 (57.1)	
		No	11 (14.3)	
	Giving sufficient information to the family or someone close	Yes, definitely	20 (26.0)	0.01
		Yes, to some extent	10 (13.0)	
		No	7 (9.1)	
		No family or friends were involved	45 (58.4)	
		My family or friends didn't want or need information	13 (16.9)	
	Receiving clear information about the purpose of the cure	Yes, completely	3 (3.9)	0.00
		Yes, to some extent	16 (20.8)	
		No	45 (58.4)	
		I didn't need an explanation	13 (16.9)	
		I had no medicines	3 (3.9)	
	Being informed about medication side effects	Yes, completely	16 (20.8)	0.00
		Yes, to some extent	35 (45.5)	
		No	31 (40.3)	
		I didn't need an explanation	11 (14.3)	
	Being informed about danger signals to watch for after being discharged	Yes, completely	46 (59.7)	0.00
		Yes, to some extent	7 (9.1)	
		No	17 (22.1)	
Overall impression	Perception of the work organization	Good	30 (39.0)	0.00
		Middle	44 (57.1)	
		Bad	3 (3.9)	
	Perception of the quality of care received	Excellent	13 (16.9)	0.00
		Very good	10 (13.0)	
		Good	37 (48.1)	
		Middle	16 (20.8)	
		Bad	1 (1.3)	