



ASSESSMENT OF THE LEVEL OF SATISFACTION OF BREAST CANCER PATIENTS IN URUGUAY.

Oncology/Radiotherapy

Natalia Camejo*	Department of Clinical Oncology, School of Medicine, University of Uruguay, Montevideo, Uruguay *Corresponding Author
Cecilia Castillo	Department of Clinical Oncology, School of Medicine, University of Uruguay, Montevideo, Uruguay
Guadalupe Herrera	Department of Quantitative Methods, School of Medicine, University of Uruguay, Montevideo, Uruguay
Noelia Strazzarino	Department of Clinical Oncology, School of Medicine, University of Uruguay, Montevideo, Uruguay
Valeria Rodríguez	Department of Clinical Oncology, School of Medicine, University of Uruguay, Montevideo, Uruguay
Dahiana Amarillo	Department of Clinical Oncology, School of Medicine, University of Uruguay, Montevideo, Uruguay
Lujan Cabrera	Departmental Hospital of Soriano - "Zoilo A. Chelle" - U.E 30
Carolina Dörner	Departmental Hospital of Soriano - "Zoilo A. Chelle" - U.E 30
Gabriel Krygier	Department of Clinical Oncology, School of Medicine, University of Uruguay, Montevideo, Uruguay

ABSTRACT

Introduction: Patient satisfaction plays an important role in maintaining health service utilisation, in the continuity of the doctor-patient relationship and in adherence to treatment. **Objective:** Determine the degree of satisfaction of patients treated for breast cancer (BC) in two public university centres in Uruguay and identify areas for improvement. **Materials and Methods:** Multicentre, cross-sectional study using the SERVQHOS questionnaire, adapted to the field of the study of BC. **Results:** A total of 170 patients were surveyed, showing relatively high scores on items related to quality of care, with the highest median score being 3.86 (SD 0.48) for the item: information provided by the nursing staff, and the lowest being 2.76 (SD 0.45) for the item: waiting time for consultation. As for the stand-alone items: 90% were satisfied with the care received, 93.5% would recommend the service, 91.2% think they received the information needed on diagnosis and treatment and were able to express their doubts and complications. However, 10.6% thought that they were under the care of the service for longer than necessary and 8.8% did not know the name of their doctor. **Conclusion:** High scores were found for the items related to objective and subjective quality of care; however, the aspects related to waiting time need to be improved. Reducing waiting time and making the doctor's name known could improve patients' receptiveness and thus their therapeutic behaviour.

KEYWORDS

Surveys; Satisfaction; Breast Cancer

INTRODUCTION

Breast cancer (BC) is the leading cause of cancer death in Uruguayan women, with an incidence of 73.68/100,000 inhabitants and a mortality rate of 20.57/100,000. It is estimated that 1 in 10 women will develop BC in their lifetime⁽¹⁾. In recent years, it has become very important to assess user satisfaction with health services as it is significantly associated with health outcomes. Patient satisfaction has been shown to play an important role in maintaining the use of health services, in the continuity of the doctor-patient relationship, and in adherence to prescribed treatments and to the recommendations of health professionals⁽²⁾. Furthermore, the assessment of patient satisfaction is currently one of the areas of greatest interest in the evaluation of health services, as a strategy for the continuous improvement of the quality of care that health centres provide to users. Several published studies evaluating quality of care in gastro-oesophageal⁽³⁾, breast⁽⁴⁾, colorectal⁽⁵⁾, lung, prostate⁽⁶⁾ and gynaecological^(7,8) cancers have found that patients' satisfaction with the information provided by medical staff about their disease and the course of treatment is a very important factor which influences overall satisfaction. The length of the medical consultation and the professional's ability to establish rapport also play a role, with other decisive factors being the waiting time for a medical consultation, the understanding on the part of the staff caring for the patient, the continuity of care provided, and satisfaction with the nursing team^(9,10). Knowing the degree of patient satisfaction provides information to professionals, managers and administrators about the patient's experience of care, in other words, about the quality of care as perceived by the patient. It therefore enables us to detect areas in the care process that are deficient from the patient's point of view, giving us the opportunity to improve these areas and improve the quality of care. While there are multiple ways of assessing patient satisfaction, the

most frequently used method is the patient satisfaction survey. Most surveys are based on a response structure using a Likert scale, a rating scale used to question a person on their level of agreement or disagreement with a statement. Satisfaction surveys present a multidimensional format that include information on: empathy, type and amount of information provided to the patient and relatives by staff, technical competence of staff, friendliness, trust, accessibility, continuity of care and the overall perceived outcome of care. Examples of such general questionnaires are: the Medical Interview Satisfaction Scale⁽¹¹⁾, the questionnaire created by Hulka et al⁽¹²⁾, VSQ (Visit-Specific Satisfaction Questionnaire) by Ware and Hays⁽¹³⁾, Ware's PSQ (Patient Satisfaction Questionnaire), PJHQ (Patient Judgements of Hospital Quality)⁽¹⁴⁾ or the Patient Experience Survey⁽¹⁵⁾. In Spain, the SERVQHOS⁽¹⁶⁾ questionnaire was developed. This is an adaptation of the SERVQUAL⁽¹⁷⁻¹⁹⁾ survey, an instrument to assess the quality of the hospital setting perceived by clients in the service sector. The patient's assessment of the care received is an important indicator of the performance of a particular service and of the health system in general.

Main Objective

To find out the degree of satisfaction expressed by patients attended for BC at the Hospital de Clínicas and the Hospital Departamental de Soriano and to identify areas for improvement.

MATERIALS AND METHODS

This was a descriptive, cross-sectional, observational study. Patients diagnosed with BC and attended for BC by the Oncology Services of the Hospital de Clínicas and the Hospital Departamental de Soriano, in the period between 1 January 2019 and 31 December 2021, who do not present any impediment to completing the questionnaire, were included.

All the patients signed an informed consent form, by which they agreed to participate in the study, also authorizing the use of the information that resulted.

Data collection was carried out through a thorough study of medical records. Study variables: patient's age at diagnosis and at present; marital status, educational level and treatments performed: surgery, radiation and/or systemic treatment.

Questionnaire

In this study, the SERVQHOS questionnaire (see appendix) was used as an instrument to measure patient satisfaction, slightly modified to adapt it to the setting of the BC study. This questionnaire is an adaptation to the hospital setting in Spain of the SERVQUAL survey⁽¹⁷⁻¹⁹⁾, an instrument that combines the measurement of patient expectations and perceptions in relation to a given service.

The survey is divided into two main sections and an additional section in which patients are given free space to express their suggestions for improvement. We'd like to take this opportunity to thank the patients for their cooperation.

The first block consists of 18 items relating to health care that the patient scores on a Likert scale ranging from 1 ("care was much worse than expected") to 5 ("care was much better than expected").

The second section is made up of several independent questions: a direct question on the patient's overall satisfaction, another referring to their predisposition to recommend the Unit to others (3 possible answers: Definitely, I'm not sure, Definitely not), followed by a question on the opinion of the length of stay, 4 dichotomous yes/no variables in the form of questions and finally an open question in which the patient could make a suggestion or comment on the service received (see appendix).

As mentioned above, a slightly modified SERVQHOS questionnaire was used for this study. In the first part referring to the quality of care, the items referring to the signage for getting around the hospital and the ease of getting to the hospital were eliminated, and questions on the information provided by the doctor and waiting time were added.

Statistical Analysis

The description of the categorical socio-demographic variables, as well as those of the survey, are presented in terms of their absolute and relative percentage frequencies. Quantitative variables (age and Likert scale scores) are presented as mean and standard deviation.

The comparison of the variables was carried out using the t-test for the comparison of scores according to the centre where the patient was treated, time since diagnosis and the person with whom the patient lives. Comparison of scores by educational level was performed using the ANOVA test.

Comparison of the results of the second survey according to centre, time since diagnosis, with whom the patient lives and educational level was done using the chi-squared test. The results of the assessment of time spent in the oncology department were compared by centre using two-tailed comparison of proportions.

In all cases, P-values of less than 0.05 were considered statistically significant. Statistical analyses were performed in R software version 4.1.2.

Ethical Aspects

The study was conducted in accordance with international ethical standards for biomedical research following the MERCOSUR rules on the regulation of clinical trials and the Declaration of Helsinki, and with the research regulations approved by the National Ethics Commission in 2019.

RESULTS

We surveyed 170 patients who attended for consultation between 1 January 2019 and 31 December 2021, of these 77.6% (132) were attended at the Hospital Departamental de Soriano. The median age of the patients was 61 years old. The most frequent age group was 51-60 years, followed by 41-50 and 61-70. Of the sample, 61.2% (104) were married or cohabiting and 17.4% (30) were divorced or separated. With regard to education: 41.8% (71) had completed secondary school

and 9.4% (16) had completed further education. The rest of the data is shown Table 1.

Table 1: Epidemiological and demographic characteristics of the patients included in the study (n= 170).

Variables	n	%
Age (mean, deviation): 61 (10.4)		
Age in years		
Between 20-40	17	10
Between 41-50	45	26.4
Between 51-60	53	31.2
Between 61-70	45	26.4
Between 71-80	10	5.9
Time since diagnosis		
≤ 2 years	25	14.7
> 2 years	145	85.3
Marital status		
Married or living with a partner	104	61.2
Divorced or separated	30	17.6
Widow	13	7.6
Single	23	13.5
With whom they live		
Accompanied	109	64.1
Alone	31	18.1
No data	30	17.6
Source		
Montevideo	132	77.6
Soriano	38	22.4
Educational level		
Uncompleted elementary school	9	5.3
Completed elementary school	30	17.6
Incomplete high school	44	25.9
Completed high school	71	41.8
Tertiary	16	9.4

Regarding the treatment received, all patients received surgical treatment, 108 patients (63.5%) received chemotherapy treatment and 118 (69.4%) patients received hormone therapy treatment.

When comparing the epidemiological and demographic characteristics of the patients attended at the Hospital de Soriano and those attended at the Hospital de Clínicas, the mean age and the distribution by educational level were similar; the mean age of the patients from the Hospital de Clínicas was 62.5 (SD 10.6) and for those from the Hospital Departamental de Soriano it was 60.5 (SD 10.3) $p=0.31$. However, patients from Soriano more frequently lived with a partner and those attended at the Hospital de Clínicas were more frequently single, divorced or widowed, and significant differences were found with respect to marital status (Table 2).

Table 2: Epidemiological and demographic characteristics of the patients attended at Soriano vs. those attended at Montevideo (n= 170).

Variables	Soriano (n=132)		Montevideo (n=38)		P
	n	%	n	%	
Marital status					0.04
Married or living with a partner	88	66.6	16	42.1	
Divorced or separated	21	15.9	9	23.6	
Widowed	15	11.3	8	21	
Single	8	6	5	13.1	
Educational level					0.27
Uncompleted elementary school	6	4.5	3	7.8	
Completed elementary school	20	15.1	10	26.3	
Incomplete high school	33	25	11	29.4	
Completed high school	59	44.7	12	31.5	
Tertiary	14	10.6	2	5.2	

Regarding the treatments received by patients in each centre: there were significant differences in the management of the mammary gland and treatment by radiotherapy. No significant differences were found in the type of axillary surgery, systemic treatment with chemo or HT (Table 3).

Table 3: Treatment received by patients included in the study of those attended in Soriano vs. those attended in Montevideo (n= 170).

Variables	Soriano (n =132)		Montevideo(n=38)		p
	N	%	N	%	
Type of breast surgery					0.04
Sectoral mastectomy	82	62.1	33	86.8	
Total mastectomy	47	35.6	5	13.1	
Bilateral mastectomy	3	2.3	0	0	
Type of axillary surgery					0.48
SLNB	64	48.5	23	60.5	
RL	68	51.5	15	39.5	
Systemic treatment					
Chemotherapy	83	62.9	25	65.8	0.27
Hormonal therapy	94	71.2	24	63.1	0.06
Radiation treatment	113	85.6	37	97.3	0.08

Regarding perceptions, patients were satisfied with the objective and subjective quality. In terms of objective quality, the highest scores were achieved for the items: information provided by the nursing team and information provided by the doctor, with a mean of 3.86 and 3.84 respectively. The item: information provided to relatives had a mean of 3.79. The lowest means were 2.76 and 3.08 for the items covering the consultation waiting time and state of the waiting room respectively. The rest of the data is shown Table 4. In terms of subjective quality, the following stand out: the interest shown by the medical staff and the interest in solving problems (Table 4).

Table 4: Quality as perceived by patients (n=170).

		Likert scale (n, %)			
Variable		Worse (%)	As expected (%)	Better (%)	Mean (SD)
Objective quality	Medical equipment technology (1)	9(5.3%)	120 (70.6%)	41 (24.1%)	3.19 (0.51)
	Staff appearance (2)	9 (5.3%)	37 (21.8%)	124 (72.9%)	3.68 (0.57)
	State of the waiting room (4)	19 (11.2%)	119 (70%)	32 (18.8%)	3.08 (0.54)
	State of the consulting room (5)	10 (5%)	125 (73.5%)	35 (20.6%)	3.15 (0.49)
	Information provided by the doctor (6)	9 (5.3%)	10 (5.9%)	151 (88.8%)	3.84 (0.50)
	Information provided by the nursing team (7)	9 (5.3%)	6 (3.5%)	155 (91.2%)	3.86 (0.48)
	Waiting time in the consulting room (8)	42 (24.7%)	126 (74.1%)	2 (1.2%)	2.76 (0.45)
	Information provided to relatives (17)	9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
	Subjective quality	Interest shown by medical personnel (3)	9 (5.3%)	16 (9.4%)	145 (85.3%)
Interest in problem solving (9)		9 (5.3%)	10 (5.9%)	151 (88.8%)	3.84 (0.50)
Speed of response (10)		5 (2.9%)	131 (77.1%)	34 (20%)	3.17 (0.45)
Willingness to help (11)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
Trust and confidence (12)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
Staff friendliness (13)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
Staff training (14)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
Personalised treatment (15)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
Understanding of needs (16)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)
Interest shown by the nursing staff (18)		9 (5.3%)	17 (10%)	144 (84.7%)	3.79 (0.52)

Regarding overall quality: most patients are satisfied with the care

received (90%), would recommend the hospital without hesitation (93.5%), feel that they received the necessary information about their diagnosis and treatment (91.2%) and that they were able to express their doubts and concerns (91.2%). However, 8.8% of patients did not know the name of their doctor and 10.6% think that they were under the care of the service for longer than necessary. Table 5.

Table 5: Overall quality as measured by overall satisfaction according to SERVQHOS (n=170)

	N (%)
Overall satisfaction with healthcare services	
Very satisfied	7 (4.1%)
Satisfied	153 (90%)
Not very satisfied	6 (3.5%)
Not at all satisfied	4 (2.4%)
I would recommend the Mastology Unit	
Definitely	159 (93.5%)
I'm not sure	2 (1.2%)
Never	9 (5.3%)
Opinion on length of time under the care of the service	
The time needed	151 (88.8%)
More than necessary	18 (10.6%)
Less than necessary	1 (0.6%)
You know the name of your doctor	
No	15 (8.8%)
Yes	155 (91.2%)
Received sufficient information about the diagnosis	
No	15 (8.8%)
Yes	155 (91.2%)
Received sufficient information about treatment	
No	15 (8.8%)
Yes	155 (91.2%)
Was able to express doubts and concerns	
No	15 (8.8%)
Yes	155 (91.2%)

When assessing the quality perceived by patients at each centre, the medical equipment technology scored higher at the Hospital Departamental de Soriano, while the appearance of the staff, the state of the waiting room and consulting rooms was scored higher at the Hospital de Clínicas (Table 6).

Table 6. Comparison of patient-perceived quality scores measured with the Likert scale by centre.

	Centre		P
	Hospital de Clínicas mean (deviation)	Hospital Departamental de Soriano mean (deviation)	
Medical equipment technology	3.66 (0.67)	3.05 (0.36)	<0.001
Appearance of staff	3.11 (0.56)	3.84 (0.46)	<0.001
Staff interest in fulfilling their obligation	3.66 (0.67)	3.84 (0.46)	0.12
State of the waiting room	3.66 (0.67)	2.92 (0.36)	<0.001
State of the consulting rooms	3.71 (0.52)	2.98 (0.35)	<0.001
Information provided by doctors	3.71 (0.65)	3.87 (0.44)	0.16
Information provided by nursing team	3.71 (0.65)	3.90 (0.41)	0.09
Waiting time for consultation	2.11 (0.31)	2.95 (0.27)	<0.001
Staff interest in problem solving	3.66 (0.67)	3.89 (0.42)	0.05
Speed in getting what is needed	3.32 (0.47)	3.13 (0.44)	0.03
Willingness of staff to help	3.68 (0.66)	3.83 (0.47)	0.22
Confidence conveyed by staff	3.68 (0.66)	3.83 (0.47)	0.22
Staff friendliness	3.68 (0.66)	3.83 (0.47)	0.22
Training of staff	3.68 (0.66)	3.83 (0.47)	0.22
Personalised treatment	3.68 (0.66)	3.83 (0.47)	0.22
Staff capacity to understand patients	3.68 (0.66)	3.83 (0.47)	0.22
Information given to relatives	3.68 (0.66)	3.83 (0.47)	0.22
Interest of nursing staff	3.68 (0.66)	3.83 (0.47)	0.22

With respect to the time spent under the care of the service, there was a statistically significant difference between the centres ($p < 0.001$), with patients at the Hospital Departamental de Soriano perceiving having

spent the necessary time to a greater extent (94.7% vs. 68.4% in Hospital de Clínicas) and with patients at the Hospital de Clínicas perceiving having spent more time than necessary (31.6% vs. 4.5% at the Hospital Departamental de Soriano). No other differences between the centres were found in the satisfaction survey.

There were no differences in any of the two survey items for time since diagnosis (up to 2 years or more than 2 years), with whom the patient lives (alone/accompanied) or educational level.

DISCUSSION

It is well known that patient satisfaction plays a major role in maintaining the use of health services, in the continuity of the doctor-patient relationship, and in adherence to recommended treatments and medical indications⁽²⁰⁾. The evaluation of patient satisfaction is currently one of the most important tools in the assessment of health services, as a strategy for the continuous improvement of the quality of care that health centres provide to their users.

In the present study we used the slightly modified SERVQHOS survey and found high levels of overall satisfaction (74.1% of patients were satisfied or very satisfied), and 93.5% would recommend our services without hesitation. The mean scores on most items were high, with the highest weighted dimensions being those related to subjective quality; patients were mostly satisfied with the interest of medical staff and the interest in problem solving. In terms of objective quality, the highest scores were for information provided by the nursing team and information provided by the doctor, aspects in which the nursing and medical team undoubtedly play a decisive role. The information provided by the care team is extremely important. In this context, it is well known that the amount and quality of information received during the course of the disease is closely related to the quality of life of patients with BC⁽²¹⁾.

Dissatisfaction was noted with the waiting time for consultation, the time spent in the department and the state of the waiting room. Efforts are being made to put in place measures to reduce waiting times, such as scheduling patients on a consultation timetable, for example four patients every hour. This could be a solution for the Hospital de Mercedes; however, the situation is more difficult to resolve at the Hospital de Clínicas, as one of the factors that prolongs the waiting time is the delay in receiving the results of the paraclinical humoral assessment done on the same day, which is necessary to coordinate the oncological treatments. We are currently trying to coordinate treatment independently of the results of the humoral paraclinical assessment and to have it confirmed by telephone once the results are known.

With regard to the appearance of the waiting room, it is important to remember that the waiting room is an area in which patients spend time, so it is important to provide a relaxed and reassuring atmosphere. There should be sufficient, comfortable seating and access for patients in wheelchairs. It is worth mentioning that the waiting rooms of both services have recently been refurbished and equipped with air-conditioning units, which will surely improve the comfort of both rooms.

It is noteworthy that 8.8% of the patients did not know the name of their doctor, which is even more striking if we consider that for 85.3% of the patients more than two years had elapsed since the time of diagnosis. This fact could be at least partially explained by the change in the members of the care team inherent to the university environment, where resident doctors rotate every six months in the different centres, although the doctor in charge of the consultation is always the same. In this context, both centres recently emphasised the importance of each of their staff members wearing visible and legible identification, for which a tunic was designed bearing the doctor's name and surname and logo of the institution. In any case, it is important to remember that it is essential to introduce all members of the care team by name, surname and role in the consultation.

In order to prevent memory biases, which occur when there are factors that affect memory recall of details of events or experiences, the satisfaction survey was given after the medical consultation. In addition, patients were reminded of the anonymous nature of the survey before answering it in order to prevent them being influenced when giving their opinion about their satisfaction with the service. Furthermore, using the same methodology in both Services made it possible to control for most of the confounding variables.

However, given that the staff working in the two Services knew that the study was taking place, it should be noted that one bias that may have occurred is attentional bias, which arises when participants in a study change their behaviour when they know they are being observed.

Furthermore, the answers to the last questions of the survey (11-18) are identical, which may be a consequence of "logical error" bias, an error that occurs when the respondent considers that all questions or items should be scored equally.

Our study made it possible to gain an insight into the expectations of the users and will enable us to promote the aspects of the service that were rated favourably, as well as to modify those aspects that were rated unfavourably. The overall score achieved was satisfactory, but there is room for improvement, and it is essential to carry out new surveys in the near future to compare the results and move towards what is truly important: continuous improvement.

CONCLUSIONS

The present study allowed us to find out the degree of satisfaction of patients with BC who were treated in the Oncology Services of the Hospital Departamental de Soriano and the Hospital de Clínicas, which will allow us to strengthen the aspects that were evaluated adequately and to implement strategies to improve the aspects that were evaluated unfavourably, in order to improve the quality of the care provided. High scores were found on the items related to objective and subjective quality of care and most patients would recommend the centre, however, aspects related to waiting time need to be improved and 8.8% of patients did not know the name of the doctor responsible for their care. Reducing waiting time and making the doctor's name known could improve patients' receptiveness and therefore their therapeutic behaviour, which are undoubtedly very important aspects of oncology patient management.

We consider it essential to carry out regular evaluations of the quality of care in order to compare the results and to achieve a process of continuous improvement.

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All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version. Additionally, there are no conflicts of interest in connection with this paper, and the material described is not under publication or consideration for publication elsewhere

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