

Analysis of the level of satisfaction with patient care in the clinical hospitalization area of a cancer hospital in Guayaquil

*Correspondence:

ggalvan1984@hotmail.com

Address: Av. Pedro J. Menéndez Gilbert y Atahualpa Chávez (junto a la ciudadelita Atarazana) Apt. Postal 090505. Guayaquil-Ecuador. Phone: [593] 437 183 00 EXT. 2218

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Graciela Alejandra Galván Vanegas ¹ * , Miguel Ángel Mañez Ortiz ²

1. Clinical Hospitalization Service, SOLCA- Guayaquil, Ecuador.
2. Faculty of Health Sciences, International University of La Rioja, Spain.

Abstract

Introduction: Quality of care is the relationship between the services provided and obtaining the desired results, focusing on the needs of the patients and optimization of resources. It is opportune to know the level of satisfaction of the users, which consists of the development of the evaluation of the care received. This work aimed to describe the level of satisfaction obtained in the Clinical Hospitalization area of a cancer hospital in Guayaquil.

Methods: This observational study was conducted at the Hospital de SOLCA Guayaquil-Ecuador from March 2021 to March 2022. Patients or relatives in the clinical hospitalization area were included. The variables were sex, type of caregiver, and level of satisfaction (dependent variable on a Likert scale). The sample was probabilistic. An analysis of the quality of the questionnaire with Cronbach's alpha (α) coefficient and the Mann-Whitney U Test is presented. An association analysis between the questions in the questionnaire is used to observe the correlation.

Results: A total of 345 respondents participated, including 19 patients and 326 relatives. Over 56 years in relatives (29.1%) and patients (78.9%). The questionnaire quality was high, with Cronbach's alpha = 1. Overall satisfaction was 4.85 ± 0.41 (out of 5). The lowest qualification was for the bed waiting time with an intrahospital instance of 4.67 ± 0.65 . There was a significant association between the waiting time for bed and room assignment ($R=0.80$, $P<0.001$).

Conclusions: The attention of users can be affected by the presence of critical knots, which are situations that affect the correct functioning of technical, operative, or managerial procedures of an organization, such as the waiting time for hospitalization and the waiting time within the institution for bed assignment.

Keywords:

MESH: Primary Health Care; Quality of Health Care; Patient Satisfaction; Hospitalization.

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Introduction

Quality of care results from the relationship between what the patient or relatives expect to receive depending on their expectations, previous experiences or needs and what they receive

[1]. This leads us to ask ourselves: Is it essential to know our users' satisfaction level to improve the quality of care we provide?

User satisfaction is the positive or negative result of the evaluation carried out by the patient or family member regarding the care received. The continuous increase in the expectations of patients and family members encourages a permanent analysis of the areas for improvement to achieve the maximum level of satisfaction and to involve various actors and factors [2].

In Ecuador, according to the Patient Safety Manual - User, quality of care is a right of each citizen granted by those who provide the service in the different health institutions, which must go hand in hand with patient safety [3]. This subject is of constant concern, from which it is vital to have evaluation methods that allow obtaining direct information regarding the level of user satisfaction. With this study, it is intended to know the story of satisfaction regarding the quality of care received in the area of Clinical Hospitalization from March 2021 to March 2022 through the Satisfaction Evaluation Survey of Users of Hospital Services of the institution, which is carried out on some of those above at the time of hospital discharge.

The purpose of this work is to obtain relevant data that reflect the level of satisfaction perceived by users, which will help us to identify deficiencies, enhance strengths and, in the not-too-distant future, be a starting point for the creation of a quality plan in the clinical hospitalization area.

Materials and methods

Study design

The present study is observational. The source is retrospective.

Scenery

The study was carried out in the Department of Information Management and Productivity of the Hospital SOLCA – Guayaquil, Ecuador. The study period was from March 1, 2021, to March 31, 2022.

Participants

Patients or relatives of patients of legal age admitted to the clinical hospitalization area with the following conditions were included: patients with suspected oncological pathology for confirmation studies, patients with confirmed oncological pathology and superadded infectious processes, patients with confirmed oncological pathology for initiation of chemotherapy, patients with confirmed oncological pathology to receive continuity of oncological treatment (systemic and intrathecal chemotherapy treatments, radiotherapy) and patients with confirmed oncological pathology to improve clinical conditions. Patients with suspected or confirmed hematological pathology, patients for scheduled surgery from the Outpatient Clinic, patients in the exclusive Palliative Care program, and patients with nononcological pathology were excluded.

Variables

The study variables included sociodemographic characteristics, type of caregiver, level of satisfaction (dependent variable), perception of services, and waiting time (independent variables).

Data sources/measurements

The measurements were made from the Satisfaction Evaluation Surveys of Hospital Services Users prepared by the Department of Information Management and Productivity of the Clinical Hospitalization area, using a Likert scale. The information was treated confidentially; no personal data were included that would allow the identification of the study subjects.

Biases

To avoid possible interviewer, information, and memory biases, the principal investigator kept the data at all times with a guide and records approved in the research protocol. Observation and selection bias was avoided by applying the participant selection criteria. All the clinical and paraclinical variables of the period above were recorded. Two researchers independently analyzed each record in duplicate, and the variables were recorded in the database once their concordance was verified.

Study size

The sample was probabilistic, with a confidence level of 95% and a 5% margin of error; the sample was 345 surveys.

Quantitative variables

Descriptive statistics were used. The results were expressed on a scale of means and standard deviation. Categorical data are presented in proportions.

Statistical analysis

Noninferential and inferential statistics are used. For the descriptive analysis, measures of central tendency and dispersion were calculated according to the measurement scale of each variable. Qualitative variables are presented as absolute numbers and percentages; quantitative variables are presented as medians and standard deviations.

Inferential analysis: An analysis of the quality of the questionnaire is presented with Cronbach's alpha (α) coefficient to verify the reliability between the questions, and the Mann-Whitney U Test was used to compare the responses of the same group. An association analysis between the questions in the questionnaire is used to observe the correlation, and the R-value is used to present the correlation. The statistical significance level was $P < 0.05$. The statistical package used was SPSS 23.0 (IBM Corp. Released 2015. IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY: IBM Corp).

Results**Participants**

A total of 345 respondents, 19 patients, and 326 relatives or caregivers participated in the study.

General characteristics of the sample

Sixty-one percent (212) corresponded to the female sex, and 39% (133) corresponded to the male sex (Table [1](#)).

Table 1. Distribution of those responsible for the survey Vs. Sex.

	Women (n= 212) 61.4%	Men (n=133) 38.6%	P
Familiar	202 (62%)	124 (38%)	0.001
Patient	10 (52.6%)	9 (47.4%)	

Age of participants

A higher percentage was observed in the age group older than 56 years, both in relatives (29.1%) and patients (78.9%) (Table 2).

Table 2 . Responsible for the survey vs age.

	Age group (years)			
	< 35 years N=80 (23.2%)	36 to 45 years n=82 (23.8%)	46 to 55 years n=21.2%)	>56 years n=110 (31.9%)
Familiar	79 (24.2%)	82 (25.2%)	70 (21.5%)	95 (29.1%)
Patient	1 (5.3%)	0 (0%)	3 (15.8%)	15 (78.9%)

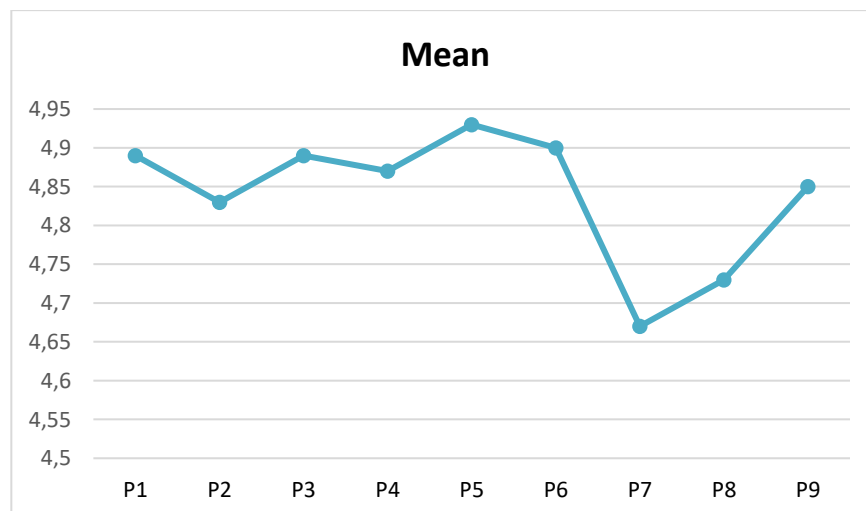
Survey

The survey-based rating method is based on the Likert scale, in which the responses range from 1 to 5. Obtaining an average close to 5 would indicate that, in general, the majority of responses related to the services provided were very satisfactory (Table 3).

Table 3 . Quantitative data from satisfaction questions.

Questions		Min	Max	Half	DS
Service perception	Q1. The hospital service received by the institution.	3	5	4.89	0.344
	P2. Information provided by medical personnel.	1	5	4.83	0.454
	Q3. The treatment received by medical personnel.	2	5	4.89	0.373
	Q4. The treatment received by the nursing staff.	2	5	4.87	0.400
	Q5. The treatment received by the administrative staff.	1	5	4.93	0.316
	Q6. The physical environment (signage, cleanliness, lighting, air conditioning) of the service received.	3	5	4.90	0.317
Wait time	Q7. The waiting time for bed assignment.	1	5	4.67	0.648
	Q8. The waiting time to be located in the room.	1	5	4.73	0.601
Overall Satisfaction	Q9. The overall experience of hospital services received.	2	5	4.85	0.409

Figure 1. Graph of means of satisfaction with medical care.



The scores on the waiting time (P7 and P8) were the lowest means of the questionnaire (Figure 1).

Association analysis

There are high associations between the waiting times for bed and room assignment ($R=0.80$, $P<0.001$); some other strong associations with $R > 0.6$ are presented in Table 4.

Table 4. Correlations between the variables of the questionnaire.

No.=345		P2	P3	P4	P5	Q6	Q7	Q8	Q9
P1	R.	0.528	0.647**	0.515	0.383	0.342	0.286	0.303	0.623**
	P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P2	R.		0.629**	0.429	0.362	0.313	0.315	0.309	0.565
	P		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P3	R.			0.556	0.333	0.336	0.304	0.291	0.586
	P			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
P4	R.				0.403	0.327	0.290	0.320	0.551
	P				<0.001	<0.001	<0.001	<0.001	<0.001
P5	R.					0.250	0.265	0.311	0.432
	P					<0.001	<0.001	<0.001	<0.001
Q6	R.						0.241	0.327	0.435
	P						<0.001	<0.001	<0.001
Q7	R.							0.800**	0.453
	P							<0.001	<0.001
Q8	R.								0.491
	P								<0.001

Q1. The hospital service received by the institution.

P2. Information provided by medical personnel.

Q3. The treatment received by medical personnel.

Q4. The treatment received by the nursing staff.

Q5. The treatment received by the administrative staff.

Q6. The physical environment (signage, cleanliness, lighting, air conditioning) of the service

Q7. The waiting time for bed assignment.

Q8. The waiting time to be located in the room.

Q9. The overall experience of hospital services received.

Table 5. Hypothesis tests

Ask	Proof	Analysis 1	P (Analysis 1)	Analysis 2	P (Analysis 2)	Cronbach's Alpha
P1	udMW	Responsible	0.445	By sex	0.300	1
P2	udMW	Responsible	0.226	By sex	0.259	1
P3	udMW	Responsible	0.528	By sex	0.384	1
P4	udMW	Responsible	0.924	By sex	0.096	1
P5	udMW	Responsible	0.875	By sex	0.606	1
Q6	udMW	Responsible	0.152	By sex	0.041**	1
Q7	udMW	Responsible	0.280	By sex	0.471	1
Q8	udMW	Responsible	0.521	By sex	0.419	1
Q9	udMW	Responsible	0.73	By sex	0.149	1

Q1. The hospital service received by the institution.

P2. Information provided by medical personnel.

Q3. The treatment received by medical personnel.

Q4. The treatment received by the nursing staff.

Q5. The treatment received by the administrative staff.

Q6. The physical environment (signage, cleanliness, lighting, air conditioning)

Q7. The waiting time for bed assignment.

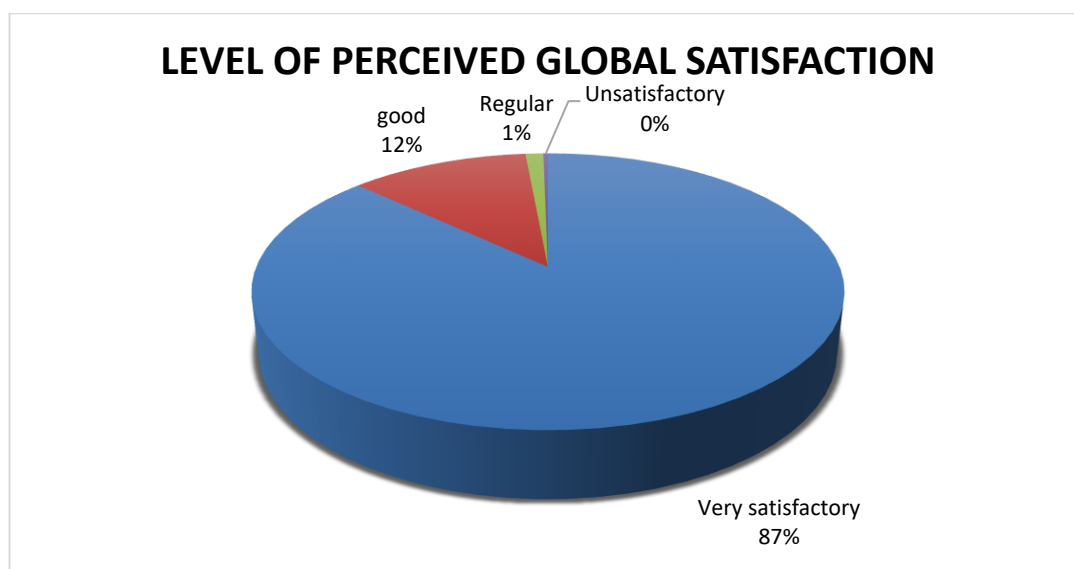
Q8. The waiting time to be located in the room.

Q9. The overall experience of hospital services received.

UdMW: Mann–Whitney U.

In Table 5, we can see that the null hypothesis is preserved except for the one related to the physical environment in which different responses were obtained between men and women.

In the study carried out on all the respondents in terms of perceived global satisfaction, 87% were found to be very satisfactory, 12% good, 1% regular, and 0% unsatisfactory (Figure 2).

Figure 1. Global evaluation of perceived satisfaction.

Discussion

The present work allowed us to evaluate and determine through a Likert-type survey the level of satisfaction of the users of the services offered in the area of Clinical Hospitalization in a cancer hospital in Guayaquil during the period from March 2021 to March 2022 carried out at the time of hospital discharge. This survey was carried out on people who met the inclusion criteria, obtaining a better representation by the female sex by 61% and an average age of 48 years among the participants, demonstrating that 31.9% of users were older than 56 years.

Perceived satisfaction will not only depend on the criteria of the patient who receives care in the health field but also goes beyond just what is related to the patient's recovery, which is why we obtained many surveys that family members answered. Who, in most cases, are the ones who can provide an external opinion on the service provided? For the most part, cancer patients avoid the administrative process and, as expected, are more concerned about what is related to their health. This is where family members intervene to provide insight into other issues related to the quality of care provided [4-7].

Patients with oncological pathologies have criteria that differentiate them, whether recently diagnosed, in treatment, or remission, who have different perceptions or concerns. The minimum points obtained in the surveys correspond to situations in which the pandemic that the planet is still facing affects this type of patient, the same ones who need more excellent care and stricter biosafety measures, situations that in some patients generate disagreements in which you must work.

The survey contemplated nine questions that focus on the perception of the service, waiting for time, and overall satisfaction, which, when using a Likert-type scale, classified the score in a range from 1 to 5, with which of the nine questions formulated in the survey we were able to observe an average between 4.67 related to the waiting time for bed assignment and 4.93, which is close to the maximum value of satisfaction.

To assess the correlation of the questions, Cronbach's alpha (α) coefficient was used, which takes values between 0 and 1, classifying 0 as very low and between 0.8 and 1 as highly reliable. We observe that in the nine questions, we obtained a value of 1, verifying the reliability between them, demonstrating that the higher the correlation, the greater the consistency in the scores. The Mann-Whitney U test, which is a nonparametric test, was used to compare the responses of the same group, observing that the null hypothesis was preserved in the comparison in the category of those responsible for the survey, having a significance > 0.05 , which was the same in the comparison in the gender category that responded to the study except for question 6 corresponding to the distribution of the physical environment in which it rejects the hypothesis having a significance of 0.041.

One of the points discussed in the survey that had the most significant relevance in terms of the improvements to be made was related to the waiting time for the allocation of physical space, obtaining slightly lower levels (92%) than the other points observed and which was also indicated within the observations made by users, this being a starting point on which the organization must work to improve. As a higher percentage of satisfaction, we obtained the perception of the services at 97%, which includes the information and treatment received and the physical environment, prompting us to maintain and improve this perception.

According to the data obtained during the execution of this work, we were able to observe that the quality of care provided in general by the Clínica de Solca Hospitalization area has very high levels of satisfaction (96%), demonstrating the concern on the part of institutional management in providing quality care to users and patients.

At the end of the survey, within the observations made by the respondents, we found disagreements regarding the waiting time for bed assignment, greater control over visiting hours, and information shared with family members. One of the most relevant observations is the request that oncologists make regular visits to hospitalized patients to feel the support of their treating physician [8-10].

Conclusions

Attention to users can be affected by the presence of critical knots, which affect the correct functioning of an organization's technical, operational, or managerial procedures, such as the waiting time for hospitalization and the waiting time within the institution for bed assignment.

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Abbreviations

R: Correlation coefficient.

SOLCA: Society for the Fight against Cancer.

Administrative information

Additional Files

None declared by the authors.

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Author contributions

Graciela Alejandra Galván Vanegas: Conceptualization, formal analysis, research, project administration, writing of the original draft.

Miguel Ángel Mañez Ortiz: Conceptualization, methodology, validation, visualization, writing - review and edition.

All authors read and approved the final version of the manuscript.

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Statements

Ethics committee approval

Not required for observational studies.

Consent for publication

It is not required when images, resonances, or tomographic studies of specific patients are not published.

Conflicts of interest

The authors declare that they have no conflicts of competence or interest.

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