CUSTOMER SATISFACTION RESEARCH IN ITALIAN HOSPITAL

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Abstract: *Customer satisfaction surveys allow healthcare organizations to analyze patients' perceptions of employees behaviors and service quality in order to identify strengths and weakness of the healthcare service. Patients expectations are rapidly changing and variables interacting in a satisfaction survey are numerous, so the capability of health care organization to meet customer needs is more and more a determinant factor to achieve competitive advantage. The satisfaction survey has been carried out (October-December 2012) in a hospital in Naples, with the use of a questionnaire and a notebook. Since it deals with a Paediatric hospital the sample consists of 532 interviewees represented by patients' parents. The questionnaire focuses on four main quality dimensions as follows: administrative acceptance; comfort; doctor-patient relationship; nurse-patient relationship. A number of responders have been very positive for the professional and human skills of medical and nursing staff. The main critical issues are: the waiting time for the ambulatory visit; the level of hygiene and cleanliness in hospital rooms, and the communication and signals to access ambulatories.*

Keywords: *Customer satisfaction; hospital; survey; health care service; quality.*

1. Introduction

The organization capabilities to meet patients' expectations can contribute to the success of organizational action. The ability of organization to achieve and keep high levels of customer satisfaction is a key element for the competitive advantage, in consideration of the changing customer expectations and the numerous variables interacting in a satisfaction survey.

Customer satisfaction has attracted vast interest from researchers, policy makers and practitioners during the last two decades. Most of these stakeholders consider customer satisfaction analyses important tools to increase organisations' ability to gain, retain and satisfy customers through creating and sustaining good long-lasting relationships with customers.

The role of the organization is to reduce the gap between what patients expect and what they receive from the service delivery. Analysis of the perceived quality of health services allow to identify critical factors reducing the patient satisfaction and to understand the links between patients' needs,

decision making, management responsibilities and performance. The lack of data on the perceived quality may in fact be an obstacle to investment plans for the reduction of the costs of quality problems. Quality problems include also cases of patients who don't go to the fixed appointment, patients stopping treatment because they aren't satisfied of service quality, or dissatisfied patients who tell others their negative experience, with the consequent loss of credibility, of income for the hospital, and with a waste of time to handle complaints. If complaints are not positively resolved, legal costs increase (Øvretveit, 2004).

Customer satisfaction surveys allow monitoring patients' perceptions of health operators' behavior in the relationship with patient. Healthcare organizations can thus meet demands and expectations of their target and improve their care, by allocating resources in a more functional way and introducing improvement actions in the critical areas. The effective and appropriate use of economic resources and the enhancement of know-how are the main aims of a hospital providing a quality service (De Simone, 2013). The paper discusses an experience of customer satisfaction in Italian paediatric hospital, presenting the main survey findings.

2. Methods

The patient satisfaction survey, carried out in Italian paediatric hospital (Naples), was aimed to monitor patients' perception of health services quality and of behavior of medical and nursing staff, in order to identify strengths and possible critical areas of the service.

Since it deals with paediatric hospital, the detection is indirect, based on the satisfaction of children' parents.

The sample consists of unit type which, according to an expert, have the most frequent characteristics in the population (non-probabilistic form). The survey was conducted in six ambulatories (Audiology and Phonetics, Axiology and Endocrinology, Cardiology, Laboratory of voice, Orthopaedics, and Orthotics) and five inpatient units (Pneumology, General Paediatrics, Emergency Paediatric, Systematic Paediatrics, Immunology), that are considered the most significant of the hospital.

It's opted for a mixed approach that combines qualitative and quantitative methods to assess quality perceptions of health services, taking into account the opinions of patients' parents.

Qualitative research was conducted with the use of participant observation, a search strategy in which the researcher is inserted in a direct manner and for a period of time in a particular social group, by establishing a relationship of personal interaction with its members in order to describe the actions and understand their motivations. The information and data observed by the researcher are recorded in the notebook.

To reduce the subjectivity of data, participant observation has been integrated by the quantitative method, the administration of the questionnaire. The survey questionnaire is based on the following quality dimensions: administrative acceptance; comfort; doctor - patient relationship; nurse - patient relationship. The questionnaire examines the organizational and interpersonal aspects rebuilding the patient path within the structure. Two questionnaires were drafted on the level of satisfaction of young patients' families, respectively for ambulatories and paediatric units. The questionnaire is based on two fundamental assumptions: a) the patient's parent can properly assess the service quality, even if indirectly; b) the overall satisfaction may be assessed by few final items. The questionnaire includes structured questions, with possible closed-response items, dichotomous (yes/no, agree/disagree), on a semantic differential scale and on Likert scale ranging from 1 "not satisfied" to 5 "very satisfied".

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The questionnaire was structured according to a multidimensional evaluation of customer satisfaction with succession to "inverted funnel", from the detailed aspects until the overall assessment.

Data have been collected during three months, from October to December 2012, with the traditional PAPI (Paper and Pen Interview) technique, by administering questionnaires to a sample of 532 children' parents. The clear exploitation of the survey aims motivated the respondents to share a quality process, with good face validity[1]. In addition, there is an internal consistency or agreement level between questionnaire items. The reliability was assessed by Cronbach's Alpha coefficient[2], equal to 0.791 and 0.816, respectively for the questionnaire paediatric outpatients units and inpatients units. The anonymity of the interviewee has reduced the social desirability mechanisms[3].

3. Main findings

Data analysis of socio-cultural characteristics showed the profile of the typical patients' parent: an Italian mother (approximately 86 percent of the sample of respondents), of Italian nationality and resident in the Campania region (more than 90 percent of the sample), aged between 25-40 years (73 percent), housewife with secondary school diploma (40 percent), who already knows the hospital and has just lived a care experience in the hospital (almost 70 percent).

Tables 1 and 2 display the values of the items examined for the full sample, respectively ambulatories and inpatient units.

Table 1 – Items of the perceived quality in ambulatories: average values, moda and deviation standard

Items	Average values[4]	Moda[5]	Std. deviation[6]
Hospitality and administrative acceptance			
Kindness of the staff	4,31	5,00	0,85
Clarity of the received information	4,16	5,00	1,02
Waiting time for the first visit	3,72	5,00	1,23
Internal signals and communication	3,04	3,00	1,41
Comfort			
Hygiene of ambulatory rooms	4,48	5,00	0,74
Hygiene of ambulatory waiting rooms	3,36	3,00	1,14
Time in waiting room	3,04	3,00	1,32
Physician - patient relationship			
Kindness	4,62	5,00	0,67

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[1] The apparent validity of a questionnaire refers to how the questions are relevant and persuasive for subjects responding.

[2] Cronbach's Alpha coefficient: values > 0.90: excellent reliability, values between 0.90 and 0.80: good reliability, values between 0.80 and 0.70: good reliability, values between 0.60 and 0.70: sufficient reliability values <0.60: low reliability.

[3] The social desirability is the evaluation (socially shared) of individual behaviour in a specific cultural context. If a behavior is strongly linked, positively or negatively, to a specific cultural context, the responses can be strongly distorted. This is the case of the interviewee who may be reluctant to explicit his opinions that he considers undesirable and he may be tempted to give the best possible image of himself, even if not true. The dynamics of this kind of behavior is quite understandable in front of a stranger asking him.

[4] The values used to assess the level of satisfaction of respondents are from 1 (very dissatisfied) to 5 (very satisfied).

[5] The "moda"of a phenomenon is the mode with the highest frequency, the score obtained most frequently by respondents.

[6] The standard deviation is a measure of the dispersion of the score around the average value. A low standard deviation indicates that the scores are concentrated around the mean and that the levels of satisfaction of the respondents are homogeneous, on the contrary a high standard deviation indicates that the level of satisfaction of the respondents isn't homogeneous.

Clarity of the received information	4,57	5,00	0,70
Professional skills	4,73	5,00	0,52
Availability to listen	4,30	5,00	0,92
Respect of the schedule time	4,10	5,00	1,04
Nurse - patient relationship			
Kindness	4,22	5,00	1,04
Professional skills	4,37	5,00	0,88
Health care	4,28	5,00	0,95
Human relationship with the patient	4,55	5,00	0,78
Availability to listen	4,27	5,00	1,02

Table 2 - Items of the perceived quality in inpatient units: average values, moda and deviation standard

Items	Valori medi	Moda	Deviazione std.
Hospitality and administrative acceptance			
Kindness of the staff	4,16	5,00	1,08
Clarity of the received information	4,05	5,00	1,02
Waiting time (from emergency to care unit)	4,00	5,00	1,23
Respect of privacy	4,35	5,00	1,41
Hospitalization procedures	4,61	5,00	0,74
Comfort			
Hygiene of unit rooms	3,30	3,00	1,76
Hygiene of beddings	3,69	5,00	1,34
Hygiene of room toilet	3,23	3,00	1,40
Food quality	3,84	4,00	1,06
Quite and privacy in the room	3,95	5,00	1,16
Physician - patient relationship			
Kindness	4,52	5,00	0,71
Clarity of the received information	4,22	5,00	0,98
Professional skills	4,64	5,00	0,68
Availability to listen	4,26	5,00	1,09
Respect of the schedule time	4,15	5,00	1,08
Nurse - patient relationship			
Kindness	4,18	5,00	1,01
Professional skills	4,13	5,00	1,04
Quick intervention	3,93	5,00	1,29
Human relationship with patient	4,45	5,00	0,91

The lowest values are always more than level 3 ("sufficiently satisfied") and there aren't notable differences in respondents' ratings in ambulatories and inpatient units.

A higher level of satisfaction of children' parents results for professional capabilities of medical staff, and for the quality of nurse-patient relationship, both in ambulatories and inpatient units. For professional capabilities of medical staff, patients' parents express only a positive evaluation (78 percent of the sample very satisfied, 18 percent satisfied and 4 percent "enough satisfied"), and none of them give a negative judgment. In addition, the medical staff is generally kind and helpful to listen to patients' requests. The quality of nurse-patient relationship is positive, with 84 percent of the sample "between satisfied and very satisfied", 13 percent "satisfied" and almost 4 percent "between dissatisfied and very dissatisfied".

The less appreciated aspects concern: the communication and internal signposting to get ambulatories; the waiting time for the ambulatory visit; and the hygiene and cleanliness of toilets in hospital rooms. These critical aspects have a high standard deviation, index of not homogeneity of the respondents' satisfaction level in the outpatient clinics and inpatient units (tables 1 and 2).

With regard to signposting, compared to a positive evaluation expressed by 38.5 percent of respondents, 25.9 percent is sufficiently satisfied and 35.5 percent dissatisfied or very dissatisfied. With regard to the waiting time for the ambulatory visit, the responders are quite satisfied for about 35 percent and totally unsatisfied for more than 30%. For the cleanliness and hygiene of the toilets, a negative assessment is expressed by 27 percent of respondents, of which about 19 percent is very dissatisfied. The tables 3-5 show the level of satisfaction of children's parents for the three mentioned aspects.

From proposals indicated by the respondents, the quality of the service should include: the need for a parking area in agreement with the hospital; and the creation of new entertainment areas for the young patients or the improvement of the existent ones.

Table 3 The Contingency Table. Level of satisfaction for "Communication and internal signposting"

		Communication and internal signposting					Total
		Very dissatisfied	Dissatisfied	Sufficiently satisfied	Satisfied	Very satisfied	
AMBULATORIES	Orthotics	5	4	11	12	19	51
	Cardiology	8	6	12	8	14	48
	Audiology and Phonetics	16	7	5	10	7	45
	Axiology and Endocrinology	20	18	7	4	3	52
	Laboratory of voice	7	7	24	7	2	47
	Orthopedics	4	5	19	10	20	58
Total		60	47	78	51	65	301

Table 4 The Contingency Table. Level of satisfaction for "Waiting time for the ambulatory visit"

		Waiting time					Total
		Very dissatisfied	Dissatisfied	Sufficiently satisfied	Satisfied	Very satisfied	
AMBULATORIES	Orthotics	2	6	9	14	20	**51**
	Cardiology	2	2	7	11	26	**48**
	Audiology and Phonetics	2	0	21	13	9	**45**
	Axiology and Endocrinology	7	7	19	3	16	**52**
	Laboratory of voice	0	1	12	14	20	**47**
	Orthopedics	10	4	14	13	17	**58**
Total		**23**	**20**	**82**	**68**	**108**	**301**

Table 5 - The Contingency Table. Level of satisfaction for "Hygiene and cleanliness of hospital room toilets"

		Hygiene and cleanliness					Total
		Very dissatisfied	Dissatisfied	Sufficiently satisfied	Satisfied	Very satisfied	
PAEDRIATIC UNITS	Pneumology	3	5	12	15	17	**52**
	Paediatric Emergency	23	6	6	4	2	**41**
	General Paediatrics	0	1	11	12	17	**41**
	Immunology	13	2	16	4	9	**44**
	Paediatrics Systematic	5	4	20	12	12	**53**
Total		**44**	**18**	**65**	**47**	**57**	**231**

4. Overall expectations on health care service

As emerges from the last section of the questionnaire on overall satisfaction, a significant number of respondents expressed a positive assessment of the overall health service delivered by the hospital. About 90 percent of the full sample estimates as adequate the health care received and would recommend the hospital to other people.

Patients' satisfaction (ps) refers to the perception of the health service to satisfy patients' expectations, in terms of the health problems solutions, interpersonal relationships and environmental comfort. The perceived quality of a service can therefore be the gap between the expected service (expectations) and perceived service. The response to the question "if the whole health service received at the hospital disappoints, mirrors or exceeds patients' expectations" is expressed on a semantic differential with the assignment of a value ranging from -5 to +5: the value -5 corresponds to: *the health service disappoints the expectations*; the value 0 corresponds to: *the health service reflects expectations*; the value +5 corresponds to: *the health service exceeds expectations*. If the service perception is higher than expectation, the value of ps is positive and the patient is satisfied. If the perception of the service is equal to the expectation, the value of ps is in equilibrium, being equal to 0. If the perception of the service is lower than expectation, the value of ps is negative and the patient is dissatisfied.

More than 68 percent of respondents (398/532 responders) consider the health service exceeds expectations (Figure 1). For about 6 percent (16/532) the service provided by the hospital disappoints expectations. 25 percent (118/532) are neither surprised nor disappointed by the service

quality, even if they express a very high level satisfaction for almost all the analyzed items. As reference paediatric hospital in Southern Italy, the citizens expect a high-quality clinic service. Regarding to the ways of knowledge of the hospital, 57 percent of the full sample address at the hospital because they already knew the hospital by own, 29 percent through the attending physician and specialist suggestions, 13.5 percent on the advice of relatives or friends, and only 0.5 percent with the use of the website.

5. Swot analysis of the hospital

The patients' satisfaction survey, through patients' perceptions on the level of satisfaction of the health service, is a first step to reflect on the behaviour of the medical and nursing staff and redesign internal processes according to patients' needs, to enhance the factors contributing to create value and to analyze the critical factors reducing this value.

With information and data collection, it can be useful to identify strengths and weaknesses being endogenous to the system, as well as opportunities and threats that are exogenous to the system which can affect both positively and negatively the system (Fig. 1).

The main strengths of the analyzed hospital are: professional capabilities and interpersonal skills of the medical and nursing staff; effective informal communication ("passaparola"); good reputation; uniqueness of health activities in the catchment area.

The main problems are related to: partial utilization of the electronic communication (web site); inefficient internal communication (signposting); lack of motivation of the nursing staff; waiting time for the ambulatory visit; lack of hygiene and cleanliness of the inpatient units; lack of cleanliness of the hospital rooms; lack of facilities dedicated to entertainment for young patients.

Although the parents are aware of the importance of these secondary aspects, they are disappointed by interpreting this lacks as a carelessness of the hospital in respect to patients.

Figure 1 – *Swot analysis*

S-trenghts	*W-eaknesses*
Professional skills	Hygiene and cleanliness in hospital rooms
Humanisation of medical and nursing staff	Waiting time for the ambulatory visit
Informal communication (passaparola)	Communication and signals to access ambulatories
O-pportunities	*T-hreats*
Educational activities to enhance excellence and corporate image	Reduction of funding
Website to improve external communication	

6. Conclusion

Customer satisfaction survey is aimed to reduce the number of unsatisfied patients of the health service delivered by the hospital, by identifying the possible improvement actions. Not always what determines the services dissatisfaction is what, positively, creates satisfaction. If the waiting rooms are dirty and the chairs are insufficient, the patient will be disappointed, on the contrary a clean waiting room and an adequate number of chairs are not factors that determine patients' satisfaction. When there are service standards perceived as minimal or "hygienic" factors, what can affect patents' satisfaction, for example, is an adequate and customized communication by the staff (Herztberg, 1966). If the patient is totally dissatisfied the "hygienic" factors (i.e. basic aspects perceived as minimum necessary) are inadequate. It's for this reason that the lack of cleanliness of the waiting rooms and toilets is a crucial aspect on which the hospital has to intervene.

The weaknesses of the hospital emerging from the survey are limitations to consider and factors to convert. As well as it's essential to increase the number of satisfied customers, it can be more important to reduce the unsatisfied customers.

Another weakness is the law motivation of the nursing staff (Esposito, 2013). An adequate human resource management, based on the involvement in decision-making, in setting goals and providing feedback on the achieved results (management by objectives), can enable staff motivation.

The professional capabilities of medical staff are considered the main strength of the hospital, whose enhancement can be achieved through national and international conferences and seminars. Skills enhancement can contribute to strengthen the image and organizational identity.

The new forms of electronic communication can engender the process of building hospital identity. In addition, the positive "passaparola", generated by satisfied customer, engenders a better organizational image. Positive communication of satisfied customers is a source of motivation and produces a good organizational climate (De Simone, 2013).

The improvement of the website can allow the enhancement of professional skills. Effective informal communication must be complemented by an electronic communication (De Simone, 2011).

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