



Original article

Expectations and perceptions of clients concerning the quality of care provided at a Brazilian hospital facility[☆]



Isabel Amélia Costa Mendes, Ph.D, RN^{a,*}, Maria Auxiliadora Trevizan, Ph.D, RN^b,
Simone de Godoy, Ph.D, RN^b, Paula Cristina Nogueira, Ph.D, RN^c,
Carla Aparecida Arena Ventura, Ph.D^b, Claudia Elizangela Bis Furlan, Ph.D, RN^d

^a University of Sao Paulo, Ribeirão Preto College of Nursing (EERP-USP), Director - WHO Collaborating Centre for the Development of Nursing Research, Brazil

^b EERP-USP, Brazil

^c University of Sao Paulo, College of Nursing, Brazil

^d RN at Ribeirão Preto, Brazil

ARTICLE INFO

Keywords:

Quality of health care

Leadership

Health services evaluation

Nursing

Quality management

ABSTRACT

Purpose: To identify the expectations and perceptions of clients concerning the quality of hospital care provided to them and their respective companions at a private Brazilian hospital using SERVQUAL. The SERVQUAL questionnaire can provide information concerning expectations and perceptions of clients. In addition, it is able to identify the participation of frontline employees and how they contribute to the organization's end product (service delivery).

Methods: In total, 172 inpatients for surgical reasons answered the SERVQUAL questionnaire. It consists of 23 pairs of statements, 22 of which are distributed into the dimensions of tangibles, reliability, responsiveness, assurance and empathy. Statement 23 refers to the overall quality of care. Exploratory analysis, internal consistency (Cronbach's alpha) and the kappa Coefficient were calculated using the Statistical Package for Social Sciences and SAS 9.2. Ethical approval was obtained from the Institutional Review Board at the Hospital das Clínicas at the University of São Paulo at Ribeirão Preto Medical School.

Results: Most participants had a bachelor's degree and were over than 60 years old. Cronbach's alpha coefficients indicated good internal consistency ($\alpha = 0.93$) and high levels of agreement were observed (91.10%).

Conclusion: The SERVQUAL questionnaire was sensitive to items in each dimension for which clients' perceptions surpassed their expectations.

Implications for nursing management: The continuous quality assessment of health services is mandatory for nursing leadership. The nursing leadership can further explore the SERVQUAL with a view to better attending to the clients' expectations.

1. Introduction

Health systems in both developed and developing countries have increasingly discussed and explored the quality of healthcare services through evaluations (Rocha & Trevizan, 2009). Evaluations in the health field (Malik & Schiesari, 1998; Nashrath, Akkadechanunt, & Chontawan, 2011; Rocha & Trevizan, 2009) are intended to identify, measure and analyze the outcomes of services and work as tools to promote the improvement of such services and achieve the institution's goals (Malik & Schiesari, 1998, Thawesaengskulthai, Wongrukmit, & Dahlgaard, 2015; Wibawa, Meyliana, Widjaja, & Hidayanto, 2016;

Gholami, Kavosi, & Khojastefar, 2016). In this perspective, quality implies the selection and adoption of several criteria based on evidences that include clients' satisfaction with the care they receive.

The hospital, as a service provider, should strive to surpass the expectations of clients, taking into account not only the work of the nursing and medical staff directly responsible for care delivery, but all the human resources directly or indirectly involved in the care process. Therefore, health institutions should constantly seek to improve their processes and continually assess their results, in addition to the normal structural improvements. Considering that the nursing staff has a constant and closer relationship with patients, these professionals are

[☆] Conflicts: None to declare.

* Corresponding author at: University of Sao Paulo at Ribeirão Preto College of Nursing, Director - WHO Collaborating Centre for Nursing Research Development, Avenida dos Bandeirantes 3900, Campus Universitário, bairro Monte Alegre, CEP 14040-900 Ribeirão Preto, SP, Brazil.

E-mail address: [iamendes@usp.br](mailto:iamentes@usp.br) (I.A.C. Mendes).

<https://doi.org/10.1016/j.apnr.2017.11.024>

Received 1 August 2016; Received in revised form 14 November 2017; Accepted 19 November 2017

0897-1897/ © 2017 Published by Elsevier Inc.

largely responsible for the assessment of clients concerning care delivery, and collect positive or negative results according to the development and delivery of care (Brahmbhatt, Baser, & Loshi, 2011; Kerber, Kirchhof, Cezar-Vaz, & Silveira, 2010; Morais & Melleiro, 2013; Nashrath et al., 2011; Rocha & Trevizan, 2009). Thus, client satisfaction in the health field is a determinant indicator in measuring the quality of care (Al-Borie & Damanhour, 2013; Calixto-Olalde et al., 2011; Gholami et al., 2016; Heidarnia, Riazi-Isfahani, Abadi, & Mohseni, 2014; Kerber et al., 2010; Lafaiete, Motta, & Villa, 2011; Thawesaengskulthai et al., 2015).

In this scenario, nursing adopts quality as a model in which acceptable care meets the expectations of the care recipients and also of health workers themselves. In view of the transformations taking place in the traditional management model, institutions assume that not only should the expectations of the institution and its workers be met, but also that equal weight should be given to the expectations of clients and their family members (Antunes & Trevizan, 2000; Kerber et al., 2010).

The perspective of clients permits assessing care delivery, going beyond aspects related to structure, process and results (Calixto-Olalde et al., 2011; Nashrath et al., 2011). From this perspective, the care provided by the nursing staff needs to be enhanced through compassion, competence, awareness and confidence. These elements act as a differential in care delivery and can contribute to the horizontal relationship between client and professional, positively impacting one's perception concerning the services (Calixto-Olalde et al., 2011).

The subjectivity of research on satisfaction is frequently criticized. Clients do not have concrete indicators in order to evaluate the services they are receiving. Services are intangible and require evaluation during the process of development and delivery, impelling the service provider to keep a close relationship with the user. This study is based on the SERVQUAL, a tool that offers to clients the possibility to evaluate the service by means of concrete indicators of their own perceptions and expectations and not only aspects that the service providers believe are important to offer to the client. The tool permits the identification of potential gaps between clients' perceptions and expectations in terms of five dimensions: tangibles, reliability, responsiveness, assurance and empathy (Parasuraman, Zeithaml, & Berry, 1991). In addition to being able to provide information on the clients' expectations and perceptions, SERVQUAL can identify the participation of employees working on the forefront and how they contribute to the organization's final product (service delivery). These professionals are in direct contact with clients, being responsible for direct action involving consumers and cooperating with managers in decision-making, enabling information regarding a product or service to reach managers, with a view to analyzing the quality of care delivery (Kotler & Keller, 2011). Achieving health service quality is possible when professionals consider the client's expectations and perceptions on the care delivered and understand the need to maintain proper interpersonal relationships with clients, promoting their wellbeing (Kerber et al., 2010; Kotler, Hayes, & Bloom, 2002; Lafaiete et al., 2011). The aim of this study is to identify the expectations and perceptions of clients concerning the quality of hospital care provided to them and their respective companions at a private Brazilian hospital by means of SERVQUAL.

2. Method

2.1. Design

This descriptive, cross-sectional, exploratory study with a quantitative approach was conducted at a private hospital facility located in a Brazilian city.

2.2. Setting and sample

Non-probabilistic sampling was used. A total of 172 clients participated in the study. Inclusion criteria were: clients of both genders,

aged between 18 and 80 years old, who completed middle school, sought the facility for hospitalization due to an elective surgery, and who were hospitalized for a period superior to 24 h, in physical, psychological, and emotional conditions to answer the survey at two moments: at the time of hospital admission and discharge, in order to measure expectations and perceptions.

2.3. Data collection

The SERVQUAL questionnaire was used to collect data during four months. It was originally developed by the Marketing Science Institute (MSI) to assess services, with the main objective of measuring functional quality in diverse service sectors. SERVQUAL has been used to support decision-making that leads to improvement of quality from the perspective of clients, seeking to close gaps between expectation and perception (Parasuraman et al., 1991). With respect to the hospital environment, the use of the SERVQUAL questionnaire is appropriate to assess expected quality and perceived quality from clients' perspectives. Such assessments have been identified in many publications addressing gaps between expectations and perceptions in the dimensions that involve quality, both from the perspective of clients and health workers (Calixto-Olalde et al., 2011; Cruz & Melleiro, 2010; Lee & Yom, 2007). The results of these publications show a need to incorporate and understand service quality, taking into account that all the professionals directly or indirectly involved in care delivery impact the process.

The version used in this study is the same used in a previous study conducted in Brazil (Berezovsky & Hercos, 2006), with the following adaptations, executed to find linguistic equivalence and retain similar meanings in the original and translated versions of the questionnaire: the words "foundation" and "team" were changed to "hospital" and "nursing", respectively. In addition, expectation means "expected care" and perception "delivered care". This questionnaire measures the quality of nursing services using two scales (expectation and perception), both of which comprise five dimensions of quality: tangibles, reliability, responsiveness, assurance and empathy. The questionnaire is composed of 23 pairs of statements: 22 pairs are distributed among the dimensions *tangibles* (items 1 to 4), which refers to aspects of hospital facilities, attitude characteristics of the nursing team and their compatibility with the work environment, and the layout and content of documents delivered to the patients; *reliability* (items 5 to 9), in which the punctuality of hospital procedures is assessed, the availability and interest in responding to the patients' demands, besides precision in the execution of services and procedures, avoiding rework; *responsiveness* (items 10 to 13), related to the exactness of the information offered by the nursing team and the availability to respond to the patients' requests; *assurance* (items 14 to 17), concerning the trust and safety transmitted by the nursing team's behaviors, as well as to an attentive attitude in treating the patients; *empathy* (items 18 to 22), assessing whether the team offers personal care to its patients, prioritizing their interests and needs; while item 23 is exclusively related to the service's overall quality. Next, five statements are presented about characteristics of the care received at the hospital. The participant is asked to distribute 100 points among these five characteristics, according to their level of importance in his/her assessment. The more important the characteristic, the higher the score, making sure that the scores of the five characteristics add up to 100 points. Finally, information on age, marital status, education and reason for hospitalization was added to the questionnaire.

2.4. Data analysis

Exploratory analysis (frequencies) was applied and internal consistency (Cronbach's alpha), Kolmogorov-Smirnov test, Wilcoxon test and Kappa coefficients were calculated, using the Statistical Package for Social Sciences (SPSS) version 15.0 and SAS 9.2®.

Internal consistency was calculated through Cronbach's alpha,

reflecting the levels of covariance among the items. According to Pasquali (1998), values above 0.70 are acceptable as they reflect a high level of internal consistency. To test the normality of the variables' distribution, the Kolmogorov-Smirnov test was applied and, as the variables did not show normal distribution, the Wilcoxon test for related samples was undertaken, comparing the mean expectation and perception scores. Kappa expresses the level of agreement that is not due to chance in comparison to maximum agreement that might occur due to chance (Ludbrook, 2002). The Likert scale was re-categorized to permit calculating the Kappa coefficients, in which 1, 2 and 3 correspond to I disagree; 4 to I do not agree or disagree; and 5, 6 and 7 to I agree. This was necessary because the large range of categories in the SERVQUAL scale generated very low Kappa values.

To relate the 100 points the interviewees assigned to the last five statements with the expectations in each dimension, the average number of points was calculated in relation to the dimension scores. For that, the scores in each dimension were totaled, taking into account the maximum distribution of points in each dimension. For the dimensions with three items (tangibles, responsiveness and assurance) the maximum score was 28, and 35 was the maximum score for those with five items (reliability and empathy). The sum was divided into three ranges of categories for each dimension: scores from 1 to 12 or from 1 to 15 correspond to "I disagree", from 13 to 16 or from 16 to 20 correspond to "I do not agree or disagree," and from 17 to 28 or 21 to 35 correspond to "I agree".

The SERVQUAL questionnaire was validated in Brazil, including sociodemographic data and the users' perception of the expected care, considering five dimensions, with variables grouped into 35 attributes of care (Castellanos, 2002). This reference has been used in several studies to evaluate healthcare services (Pena, Silva, Tronchin, & Melleiro, 2013; Pena & Melleiro, 2012; Calixto-Olalde et al., 2011; Cruz & Melleiro, 2010).

2.5. Ethical approval

The research project received approval from the Institutional Review Board at the *Hospital das Clínicas* at the University of São Paulo at Ribeirão Preto, Medical School. Data were collected after the participants received clarification about the study and consented by signing free and informed consent forms.

3. Results

The clients' sociodemographic characteristics were: 54 (31.40%) were 60 years old or older, most (118/68.60%) were married and 94 (54.65%) had a bachelor's degree. Fifty-seven (33.10%) clients were hospitalized for a surgical procedure in general surgery.

Table 1 presents the internal consistency (Cronbach's alpha) of the

Table 1

Total reliability and reliability of the subscales of the SERVQUAL questionnaire, according to Cronbach's alpha values.

Scales/subscales	Cronbach's alpha
Expectations	0.932
Tangibles	0.701
Reliability	0.772
Responsiveness	0.821
Assurance	0.803
Empathy	0.860
Perceptions	0.937
Tangibles	0.671
Reliability	0.733
Responsiveness	0.931
Assurance	0.852
Empathy	0.907
Total expectations and perceptions	0.936

items in the SERVQUAL questionnaire with regard to the Expectations and Perceptions scales.

Cronbach's alpha values indicated good internal consistency when the values corresponding to the Expectations and Perceptions scales were assessed.

With regard to the Kappa Coefficient, high levels of agreement were observed between expectations and perceptions in all dimensions. The level of agreement regarding Tangibles (items 1 to 4) ranged from 85.5% to 99.4%, for items 2 and 3, respectively. In terms of reliability (items 5 to 9), agreement ranged from 83.1% to 95.9%, for items 5 and 9, respectively. Agreement concerning responsiveness (items 10 to 13) ranged from 84.9% (item 13) to 94.8% (item 12). Agreement in the assurance dimension (items 14 to 17) ranged between 92.4% (item 17) and 98.8% (item 16) of agreement, between expectation and perception. Agreement between expectations and perceptions with regard to empathy (items 18 to 22) ranged from 83.7% (item 20) to 91.9% (item 19). As for overall quality (item 23), agreement between expectations and perceptions corresponded to 95.4%.

A lower level of agreement was observed between expectations and perceptions for the items: tangibles, question 2 (visually beautiful and pleasant physical structures); reliability, question 5 (the hospital complies with scheduled procedures); responsiveness, question 13 (the nursing staff is available to fulfill patient requests); and assurance, question 17 (the nursing staff has appropriate knowledge to answer patients' questions).

The highest levels of agreement between expectations and perceptions were observed for the items: tangibles, question 3 (the nursing staff has well-cared for appearance and outfits, appropriate for the working environment); reliability, question 9 (the hospital presents reports, documents and information regarding the patient without errors); assurance, question 16 (the nursing staff helps its patients).

Greater agreement was observed among clients with regard to question 19 (hospital hours are convenient to patients).

When comparing the clients' mean expectations and perceptions, it was observed that, in the Tangibles dimension, the answer of the clients with lower perception scores was significant ($P < 0.001$), indicating that their expectations were higher. In the opposite sense, in the Reliability ($P < 0.001$), Responsiveness ($P < 0.014$), Assurance ($P < 0.001$) and Empathy ($P < 0.001$) dimensions, the attribution of higher perception scores was significant, indicating that the clients' perceptions exceeded their expectations. What the general quality is concerned, no significant difference was found ($p < 0.985$) in the clients' scores for expectations and perceptions (Tables 2).

Concerning the 100 points the participants assigned at the time of

Table 2

Comparison of mean values between expectations and perceptions of the clients ($n = 172$) in the dimensions of the SERVQUAL questionnaire.

Dimensions	Interval	Median	Average (SD)	P value
Tangibles				< 0.001
Expectations	4.0–7.0	6.5	6.4 (0.6)	
Perceptions	3.5–7.0	6.2	6.2 (0.7)	
Reliability				< 0.001
Expectations	2.8–7.0	6.4	6.3 (0.8)	
Perceptions	3.4–7.0	7.0	6.6 (0.7)	
Responsiveness				< 0.014
Expectations	3.0–7.0	6.2	6.2 (0.8)	
Perceptions	2.0–7.0	7.0	6.4 (1.0)	
Assurance				< 0.001
Expectations	3.0–7.0	6.5	6.4 (0.6)	
Perceptions	2.0–7.0	7.0	6.6 (0.6)	
Empathy				< 0.001
Expectations	2.8–7.0	6.4	6.1 (1.0)	
Perceptions	1.8–7.0	6.9	6.4 (0.9)	
Overall quality				< 0.985
Expectations	3.0–7.0	7.0	6.6 (0.7)	
Perceptions	1.0–7.0	7.0	6.5 (1.0)	

Table 3

Average points assigned by the clients (n = 172) in the dimensions of the SERVQUAL questionnaire according to the ranges of scores.

Variables	Dimensions	N	Average	Standard deviation	Minimum	1st quartile	Median	3rd quartile	Maximum
Tangibles									
I do not agree or disagree	13 to 16	1	12.5	*	12.5	12.5	12.5	12.5	12.5
I agree	17 to 28	171	16.29	6.45	0	10	20	20	30
Reliability									
I disagree	1 to 15	2	25	7.07	20	20	25	30	30
I do not agree or disagree	16 to 20	3	23.33	5.77	20	20	20	30	30
I agree	21 to 35	167	25.25	14	1	20	20	30	90
Responsiveness									
I disagree	1 to 12	1	20	*	20	20	20	20	20
I do not agree or disagree	13 to 16	1	20	*	20	20	20	20	20
I agree	17 to 28	170	17.47	5.89	0	15	20	20	30
Assurance									
I disagree	1 to 12	1	20	*	20	20	20	20	20
I do not agree or disagree	13 to 16	1	20	*	20	20	20	20	20
I agree	17 to 28	170	22.07	12.76	2.5	20	20	20	99
Empathy									
I disagree	1 to 15	2	25	7.07	20	20	25	30	30
I do not agree or disagree	16 to 20	7	15.71	4.26	10	12.5	15	20	20
I agree	21 to 35	163	18.99	8.33	0	15	20	20	80

The asterisk means that it is not possible the calculation of standard deviation of only one response.

the first interview (expectations) according to the degree of importance they assigned to each characteristic concerning the quality of hospital services, we present the averages according to the scores assigned in each domain (Tables 3).

4. Discussion

The dimensions of tangibles, reliability, responsiveness, assurance and empathy delimit the criteria used by service users to judge quality. Tangibles were the dimension that was granted the lowest importance, while reliability was the most important according to the clients' assessment of the service delivered (Parasuraman et al., 1991).

The tangibles dimension assesses the items related to physical structures and human and material resources, which are specific to each healthcare service. As an illustration of this specificity, one study conducted in Mexico at a hospital setting reports that the clients indicated the tangibles dimension as an aspect to be improved (Calixto-Olalde et al., 2011). Similar results were obtained in another study conducted at a Brazilian private hospital using the same questionnaire (Cruz & Melleiro, 2010). Our results show that items in this dimension were well assessed, particularly concerning the physical facilities and appearance of the nursing staff. Nevertheless, results were similar in that the perceptions remain inferior to the expectations when the dimension is analyzed as a whole (Calixto-Olalde et al., 2011; Cruz & Melleiro, 2010). These findings confirm the tendency of clients to better assess dimensions whose criteria are based on products rather than services, revealing that these aspects partially met the expectations of the clients from this specific facility.

The dimension reliability refers to the “safety of care delivered to patients”, which the study participants assessed positively (Barbosa & Melo, 2008). These are aligned with similar studies (Calixto-Olalde et al., 2011; Cruz & Melleiro, 2010) in which clients trusted those providing care during hospitalization.

The responsiveness dimension refers to the availability of the facility in assisting patients in a caring manner (Kotler et al., 2002). The literature shows that responsiveness requires greater attention on the part of the service leadership (Lee & Yom, 2007; Morais & Melleiro, 2013). The study participants perceived the institution where they had been hospitalized as being responsive, demonstrating satisfaction with the care received and reporting they would return if they needed hospitalization again and would “certainly” recommend the facility to a relative/friend. The results found here were positive in terms of responsiveness, especially with respect to the nursing staff, though we

know that the technical quality of the care it delivers is difficult to measure.

In general, perceived responsiveness is related to the way institutions respond to their patients, sometimes choosing to prioritize easy-to-resolve issues at the expense of problems that demand greater involvement/investment. Any questions from clients should be valued, since once the client perceives negative attitudes on the part of the institution, his/her perception concerning service quality will be affected.

In a tertiary hospital in the Maldives, research was developed to explore nurses' and patients' expectations concerning nursing service quality, their perception of nursing service quality performed by nurses, and compared to nursing service quality as perceived by nurses and patients. The dimension with the highest level of agreement between expectation and perception concerning the quality of service was reliability, from the perspectives of nurses and patients. One of the explanations the authors provided for this finding is that nurses were able to keep their performance consistent with hospital norms. The fact that the nurses were responsible for a group of patients made the interpersonal contacts more manageable and characterized by a greater level of responsiveness (Nashrath et al., 2011).

Assurance consists of what the institution conveys to the clients with regard to how services are performed (Kotler et al., 2002). Our study found a high level of agreement between expectations and satisfaction in the dimension assurance. Assurance is identified as the courtesy, knowledge of employees and their ability to convey trust (Pena, Silva, Tronchin, & Melleiro, 2013). This dimension includes the items related to training of the health team and the information provided to users, who desire courtesy, an atmosphere of happiness and positive attitudes toward the events related to hospitalization (Pena & Melleiro, 2012). In studies conducted in Korea (Lee & Yom, 2007) and Mexico (Calixto-Olalde et al., 2011), the participants perceived this dimension better. In a research developed in Brazil, (Cruz & Melleiro, 2010), this dimension achieved satisfaction with a neutral evaluation.

The results of the three studies mentioned above showed that safety obtained a positive evaluation, attending to the users' expectations in two and being neutral in one. In this study, expectation and perception were high when considering the dimension safety.

Individualized care and genuine concern for patients are important attributes to achieve quality. At the facility where the study was conducted, we observed high levels of agreement with regard to the empathy dimension. The attributes related to the empathy dimension are based on the concept of humanization. To welcome the user at the

moment of admission to a hospital means to use effective communication, empathy and compassion, aiming at providing individualized, responsive and integral care (Pena & Melleiro, 2012).

High levels of agreement between expectations and perceptions were observed in this study with regard to the items concerning nursing care. In a study conducted with inpatients and nurses in Korea (Lee & Yom, 2007), which assessed, through the SERVQUAL, the quality of nursing care, client satisfaction, and the clients' intention to use the facility's services in the future, differences were found in all the dimensions between the perceptions of nurses and patients. Nurses valued skillful and accurate services, while clients appreciated a pleasant environment that was relaxing. Nurses also considered it less important to provide encouragement and hope. The performance of nurses never surpassed the clients' expectations. The highest gap was observed in the dimension tangibles and the lowest in empathy. The authors concluded that the performance of the nursing staff was lower than the expectations of clients, indicating poor quality of the nursing care provided (Lee & Yom, 2007).

At the studied hospital, we found high levels of agreement in the dimension empathy. It is important to highlight the meaning of nursing care within a health facility, as members of the nursing team participate in all stages of the treatment, from hospital admission to discharge, directly influencing the users' satisfaction with the care delivered (Pena & Melleiro, 2012).

Nursing workers are expected to be critical, to assess their own actions, and be capable or acknowledging mistakes and successes, while at the same time not losing the motivating enthusiasm toward those around them (Barbosa & Melo, 2008; Djukic, Kovner, Brewer, Fatehi, & Cline, 2012; Jones, 2010). The head nurse needs to maintain good communication and interpersonal relationships with the entire staff and with patients (Wagner, Bezuidenhout, & Roos, 2015). In addition to having knowledge on the environment they deliver care in, they need management skills, leadership, professionalism, competence and innovative attitudes (Jones, 2010; Wong, Cummings, & Ducharme, 2013).

Considering that human resources are the most valuable assets a society and institutions possess, institutions, leaders and proactive nurses should use continuing education strategies to develop, improve and integrate their human capital. This would emphasize the goal of providing service with quality, whether delivering care, recovering or promoting health, or managing nursing services and health education processes (Jones, 2010; Luzinski, 2012; Trevizan, Mendes, Mazzo, & Ventura, 2010).

From this perspective, nurses face a significant challenge of constantly seeking quality of care, which implies, among other strategies, the development of processes to assess the perceptions and expectations of patients. The opinions of clients can be measured using SERVQUAL, a resource that assesses the quality of hospital care through the opinions of clients.

It is important to note that this instrument should be applied more than once. Its first use should be considered as the initial use of an instrument that serves to be used periodically in combination with other forms of assessment (Parasuraman et al., 1991). We emphasize the need to repeat the application of the questionnaire periodically to monitor the quality of care delivery. As a result, data may offer indicators to implement new routines, structural changes, and changes in human resources. The combination of financial, technological, and instrumental resources with power is not enough if the health systems do not function properly, with free-of-cost access, problem-solving capacity, quality, equity and social justice. The increasingly frequent use of the SERVQUAL model to investigate the quality in service companies and particularly in health services strengthens the utility concept of this model for quality diagnosis and strategy correction purposes, always aiming to offer services that respond to the clients' expectations (Ayres, Kamimira, & Oliveira, 2015; Behdioğlu, Acar, & Burhan, 2017; Gholami et al., 2016; Mashhadiabdol, Sajadi, & Kambiz, 2014; Nyandwe, Mapatano, Lussamba, Kandala, & Kayembe, 2017; Peprah & Atarah,

2014; Rezaei et al., 2016; Sihuin-Tapia, Gomez-Quispe, & Ibanez-Quispe, 2015; Thawesaengskulthai et al., 2015; Yin, Huang, Shieh, Yu, & Wu, 2016).

In the complex scenario of health services, nursing is considered the backbone of the sector systems, not only because of its representativeness (nursing workers amount to 75% or more of health workers), but also because of its full-time (24hs) service, coordinating care and serving as a link in the health team (Mendes, Trevizan, Mazzo, Godoy, & Ventura, 2011).

On the one hand, we have health service managers using certain means to reduce operational costs, such as policies intended to reduce time of hospitalization, and strategies to increase the number of patients per nurse. When instruments are used to measure user-satisfaction and verify the quality of services, the main purpose is to achieve hospital accreditation. On the other hand, there are nursing professionals seeking to improve the working environment, aiming for appropriate nurse/patient ratios for the safe and satisfactory performance of their functions. At the same time, consumers are concerned with and attentive to potential mistakes, to their right to quality care, seeking convenient family-focused services with easy access, ensuring their privacy and technically advanced, safe and efficient service provision.

Clients become increasingly interested in knowing about care and health promotion. People are becoming more aware of their rights and duties, and in general, have started to strongly consider health and healthcare as a basic right of the many instead of a privilege of the few (Rocha & Trevizan, 2009). There is a dichotomy between the environment/working conditions the nurses desire and the policies the health facilities adopt.

To manage a service from the perspective of quality of health care, changes need to be adopted and implemented. At the core of these changes, it is essential to transfer the focus of action, centered on disease, to patient-centered health promotion. Therefore, fragmented, individualized and hegemonic practices that characterize disease-focused services (Rigoli & Dussalt, 2003) are avoided and quality is subject to the service philosophy and qualification of human resources.

There are few similar studies in the literature, limiting a profound analysis of how human resources in health can influence the success of reforms idealized and implemented in the sector (Mendes et al., 2011; Rigoli & Dussalt, 2003; Trevizan et al., 2010).

5. Conclusions

This study shows a high level of agreement between the expectations and perceptions of clients at a private hospital, considering the quality of care delivered by means of the SERVQUAL questionnaire. Despite high agreement, however, the institution needs to pay greater attention to the tangible dimension, that is, to details related to the appearance of its physical structure.

The analysis concerning the levels of agreement indicates that the SERVQUAL questionnaire was sensitive enough to capture the items in each dimension in which perceptions surpassed expectations or not. Hence, SERVQUAL collaborated in the assessment of quality of hospital care provided to clients.

The non-random sampling in this study is considered as a limitation. This study's results support the development of further investigations to assess the quality of hospital care at different health institutions focusing on human resources and type of care (public, private), length and aim of hospitalization. At the same time, similar facilities should be assessed, addressing not only clients, but also their companions and nursing professionals.

6. Implications for nursing management

The continuous quality assessment of health services is mandatory for nursing leadership. Instruments capable of diagnosing quality and service levels and which, in addition, grant the managers the benefit of

guiding the leadership targets, favor the incorporation of the quality culture and further the effective achievement of results. Nursing leadership can further explore SERVQUAL with a view to better meeting clients' expectations.

References

- Al-Borie, H. M., & Damanhour, A. M. (2013). Patients' satisfaction of service quality in Saudi hospitals: A SERVQUAL analysis. *International Journal of Health Care Quality Assurance*, 26(1), 20–30. Retrieved from: <https://doi.org/10.1108/09526861311288613>.
- Antunes, A. V., & Trevizan, M. A. (2000). Quality management: Utilization in nursing practice. *Revista Latino-Americana de Enfermagem*, 8(1), 35–44. Retrieved from: <https://doi.org/10.1590/S0104-11692000000100006>.
- Ayres, M. A. C., Kamimira, Q. P., & Oliveira, E. A. A. Q. (2015). Perceived quality of sanitation services in a hospital Tocantins. *Revista Brasileira de Gestão e Desenvolvimento Regional*, 11(3), 252–287. Retrieved from: <http://www.rbgrd.net/revista/index.php/rbgrd/article/view/1974/473>.
- Barbosa, L. R., & Melo, M. R. C. (2008). Relations between quality and nursing care: Integrative literature review. *Revista Brasileira de Enfermagem*, 61(3), 366–370. Retrieved from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672008000300015&lng=enhttps://doi.org/10.1590/S0034-71672008000300015.
- Behdizlu, S., Acar, E., & Burhan, H. A. (2017, Mar 27). Evaluating service quality by fuzzy SERVQUAL: A case study in a physiotherapy and rehabilitation hospital. *Total Quality Management and Business Excellence*, 1–19. Published Online, 1–19. Retrieved from: <https://doi.org/10.1080/14783363.2017.1302796>.
- Berezovsky, A., & Hercos, B. V. (2006). Ophthalmological service quality offered to outpatients of the Public Healthcare System. *Arquivos Brasileiros de Oftalmologia*, 69(2), 213–219. Retrieved from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-27492006000200015&lng=enhttps://doi.org/10.1590/S0004-27492006000200015.
- Brahmbhatt, M., Baser, N., & Loshi, N. (2011). Adapting the Servqual Scale to hospital services: An empirical investigation of patients' perceptions of service quality. *International Journal of Multidisciplinary Research*, 1(8), 27–42. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1069855/>.
- Calixto-Olalde, M. G., Sawada, N. O., Hayashida, M., Mendes, I. A. C., Trevizan, M. A., & Godoy, S. (2011). SERVQUAL scale: Validation in the Mexican population. *Texto & Contexto - Enfermagem*, 20(3), 526–533. Retrieved from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072011000300014&lng=en&nrm=isohttps://doi.org/10.1590/S0104-07072011000300014.
- Castellanos, P. L. (2002). *Comparison between user satisfaction with the services offered at a general hospital and the management's perception of this satisfaction [thesis]*. São Paulo: Fundação Getúlio Vargas, Escola de Administração de Empresas de São Paulo (in Portuguese).
- Cruz, W. B. S., & Melloiro, M. M. (2010). Assessment levels of the user's satisfaction in a private hospital. *Revista da Escola de Enfermagem da USP*, 44(1), 147–153. Retrieved from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342010000100021&lng=enhttps://doi.org/10.1590/S0080-62342010000100021.
- Djukic, M., Kovner, C. T., Brewer, C. S., Fatehi, F. K., & Cline, D. D. (2012). Work environment factors other than staffing associated with nurses' ratings of patient care quality. *Journal of Administration Nursing*, 42(10), 17–26.
- Gholami, M., Kavosi, Z., & Khojastefar, M. (2016). Services quality in emergency Department of Nemazee Hospital: Using SERVQUAL model. *Journal of Health Management & Informatics*, 3(4), 120–126. Retrieved from: <http://jhmi.sums.ac.ir/index.php/JHMI/article/view/272>.
- Heidarnia, M., Riazi-Isfahani, S., Abadi, A., & Mohseni, M. (2014). Cross cultural adaptation and assessing validity and reliability of SERVQUAL questionnaire in hospital service quality. *Research in Medicine*, 38(2), 98–105. Retrieved from: http://pejoushesh.sbm.ac.ir/browse.php?a_id=1339&sid=1&slc_lang=en.
- Jones, R. A. (2010). Preparing tomorrow's leaders: A review of the issues. *Journal of Administration Nursing*, 40(4), 154–157.
- Kerber, N. P. C., Kirchhof, A. L. C., Cezar-Vaz, M. R., & Silveira, R. S. (2010). Right of the citizen and evaluation of health services: Theoretical-practical approaches. *Revista Latino-Americana de Enfermagem*, 18(5), 1013–1019. Retrieved from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692010000500024&lng=en&nrm=iso. ISSN 0104-1169 <https://doi.org/10.1590/S0104-11692010000500024>.
- Kotler, P., Hayes, T., & Bloom, P. N. (2002). *Marketing professional services-revised* (2nd ed.). New York: Prentice Hall.
- Kotler, P., & Keller, K. L. (2011). *Marketing management* (14th ed.). New York: Prentice Hall.
- Lafaiete, R. S., Motta, M. C. S., & Villa, T. C. S. (2011). User satisfaction in the tuberculosis control program in a city in Rio de Janeiro, Brazil. *Revista Latino-Americana de Enfermagem*, 19(3), 508–514. Retrieved from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692011000300009&lng=enhttps://doi.org/10.1590/S0104-11692011000300009.
- Lee, M. A., & Yom, Y. H. (2007). A comparative study of patient's and nurse's perceptions of the quality of nursing services, satisfaction and intent to revisit the hospital: A questionnaire survey. *International Journal of Nursing Studies*, 44, 545–555.
- Ludbrook, J. (2002). Statistical techniques for comparing measures and methods of measurements: A critical review. *Clinical and Experimental Pharmacology and Physiology*, 29, 527–536.
- Luzinski, C. (2012). Advancing the science of nursing, improving the quality of care. *Journal of Administration Nursing*, 42(3), 123–124.
- Pena, M. M., Silva, E. M. S., Tronchin, D. M. R., & Melloiro, M., M. (2013). The use of the quality model of Parasuraman, Zeithaml and Berry in health services. *Revista da Escola de Enfermagem da USP*, 47(5), 1227–1232. Retrieved March 21, 2015, from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342013000501227&lng=en&lng=en (10.1590/S0080-62342013000500030).
- Malik, A. M., & Schiesari, L. M. C. (1998). *Quality management in local services and health care*. São Paulo: Faculty of Public Health, University of São Paulo, Publisher Petrópolis Foundation (in Portuguese).
- Mashhadiabdol, M., Sajadi, S. M., & Kambiz, T. (2014). Analysis of the gap between customer's perceptions and employees' expectations of service quality based on fuzzy SERVQUAL logic (case study: Mofid children's hospital in Tehran, Iran). *International Journal of Services and Operations Management*, 17(2), 119–141. Retrieved from <http://www.inderscienceonline.com/doi/full/10.1504/IJOM.2014.058840>.
- Mendes, I. A. C., Trevizan, M. A., Mazza, A., Godoy, S., & Ventura, C. A. A. (2011). Professional marketing and social visibility in nursing: A strategy to value human resources. *Texto & Contexto - Enfermagem*, 20(4), 788–795. Retrieved from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072011000400019&lng=enhttps://doi.org/10.1590/S0104-07072011000400019.
- Morais, A. S., & Melloiro, M. M. (2013). The quality of nursing care at an emergency unit: The patient's perception. *Revista Eletrônica de Enfermagem*, 15(1), 112–120. Retrieved from: <http://www.revistas.ufg.br/index.php/fen/article/view/15243>.
- Nashrath, M., Akkadechanunt, T., & Chontawan, R. (2011). Perceived nursing service quality in a tertiary care hospital, Maldives. *Nursing and Health Sciences*, 13, 495–501.
- Nyandwe, J., Mapatano, M. A., Lussamba, P. S., Kandala, N. B., & Kayembe, P. K. (2017). Measuring patients' perception on the quality of care in the Democratic Republic of Congo using a modified, service quality scale (SERVQUAL). *Archives of Science*, 1(2), 1–6. Retrieved from <https://www.omicsonline.org/open-access/measuring-patients-perception-on-the-quality-of-care-in-the-democratic-republic-of-congo-using-a-modified-service-quality-scale-ser.pdf>.
- Parasuraman, A., Zeithaml, V., & Berry, L. L. (1991). Refinement and reassessment of the SERVQUAL dimensions. *Journal of Retailing*, 67(4), 420–450.
- Pasquali, L. (1998). Principles of elaboration of psychological scales. *Revista de Psiquiatria Clínica*, 25(5), 27–36. (in Portuguese). Retrieved from: <http://www.hcnet.usp.br/ipq/revista/vol25/n5/conc255a.htm>.
- Pena, M. M., & Melloiro, M. M. (2012). Degree of satisfaction of users of a private hospital. *Acta Paulista de Enfermagem*, 25(2), 197–203. Retrieved from: <https://doi.org/10.1590/S0103-21002012000200007>.
- Peprah, A. A., & Atarah, A. (2014). Assessing patient's satisfaction using SERVQUAL model: A case of Sunyani Regional Hospital, Ghana. *International Journal of Business and Social Research*, 4(2), 133–143.
- Rezaei, S., Matin, B. K., Moradi, K., Bijan, B., Fallahi, M., Shokati, B., & Saeidi, H. (2016). Measurement of quality of educational hospital services by the SERVQUAL model: The Iranian Patients' perspective. *Electron Physician*, 8(3), 2101–2106. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4844475/>.
- Rigoli, F., & Dussalt, G. (2003). The interface between health sector reform and human resources in health. *Human Resources for Health*, 1(9), Retrieved from: <http://www.human-resources-health.com/content/1/1/9>.
- Rocha, E. S. B., & Trevizan, M. A. (2009). Quality management at a hospital's nursing service. *Revista Latino-Americana de Enfermagem*, 17(2), 240–245. Retrieved from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692009000200016&lng=enhttps://doi.org/10.1590/S0104-11692009000200016.
- Sihuín-Tapia, E. Y., Gomez-Quispe, O. E., & Ibanez-Quispe, V. (2015). Satisfaction of hospitalized patients in a hospital in Apurímac, Peru. *Rev Peru Med Exp Salud Publica [online]*, 32(2), 299–302. Retrieved from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1726-46342015000200014&lng=en&nrm=iso&lng=en.
- Thawesaengkulthai, N., Wongrukmit, P., & Dahlgaard, J. J. (2015). Hospital service quality measurement models: Patients from Asia, Europe, Australia and America. *Total Quality Management and Business Excellence*, 26(9–10), 1029–1041. Retrieved from: <https://doi.org/10.1080/14783363.2015.1068596?journalCode=ctqm20>.
- Trevizan, M. A., Mendes, I. A. C., Mazza, A., & Ventura, C. A. A. (2010). Investment in nursing human assets: Education and minds of the future. *Revista Latino-Americana de Enfermagem*, 18(3), 467–471. Retrieved from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692010000300024&lng=enhttps://doi.org/10.1590/S0104-11692010000300024.
- Wagner, J.-D., Bezuidenhout, M. C., & Roos, J. H. (2015). Communication satisfaction of professional nurses working in public hospitals. *Journal of Nursing Management*, 23(8), 974–982. Retrieved from <https://doi.org/10.1111/jonm.12243>.
- Wibawa, J., Meyliana, Widjaja, H. A., & Hidayanto, A. N. (2016). Integrating IS success model, SERVQUAL and Kano model into QFD to improve hospital information system quality. 2016 international conference on information management and technology (ICIMTech). Retrieved from: <http://ieeexplore.ieee.org/document/7930297/>.
- Wong, C. A., Cummings, G. G., & Ducharme, L. (2013). The relationship between nursing leadership and patient outcomes: A systematic review update. *Journal of Nursing Management*, 21, 709–724. Retrieved from <https://doi.org/10.1111/jonm.12116>.
- Yin, S. Y., Huang, K. K., Shieh, J. L., Yu, H. L., & Wu, H. H. (2016). Telehealth services evaluation: A combination of SERVQUAL model and importance-performance analysis. *Quality and Quantity*, 50(2), 1–31. Retrieved from <https://link.springer.com/article/10.1007/s11335-015-0174-4>.