Patients' satisfaction on service quality provision in Champasack provincial hospital

Chansy PHOMPHITHAK[1], Soulichanh LUANGSOMBATH[2], Somphane SYSAVATH[3], Sisouphanh HOMESOMBAT[4], Ammalin PHOTHILADTH[5]

Champasack provincial hospital, Lao PDR

[1]Corresponding author:
Chansy Phomphithak, Nursing Unit, Champasack college of health sciences, email: chansy2015@outlook.co.th, Tel: +856 020 28855454

[2]The Office of Education and Sports, Naxaythong District, Vientiane Capital
[3]University of Health Sciences
[4]Champasak College of Health Science
[5]Champasak University

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Abstract

Satisfaction surveys are increasingly being suggested as a means to understand the service expectations and perceptions of patients in hospitals. The objectives of the study was to measure the patients' satisfaction in service quality provision in Champasack provincial hospital. The survey conducted at Pakse City, provides useful information on the determinants of patient satisfaction across the five dimensions of service quality (SERVQUAL), namely tangible, reliability, responsiveness, assurance and empathy, comprised comprising 23 items for measuring both expected and perceived scores. From the study, patients highly expected services from hospital officials. They needed respected and compromised matter in treatment. They also acquired privacy in treatment and directly diagnosed their health with doctors who specialized in the field. They required staffs to look after and could deal with problems they are received treatment in the hospital. They needed doctors to explain their symptoms and the way how to cure. Also, they indicated that comfort and visual appearance of physical facilities and availability of well-maintained are potential to respond the requirement in service quality.

Key words:
Patients, Service quality, SERVQUAL, Satisfaction, Treatment

1. Introduction

In recent years, findings in developed countries on quality healthcare delivery have increasingly influenced developing nations in assessing the quality of their healthcare systems. Outcomes have received special prominence as a measure of quality healthcare (WHO, 2012). For patients, "quality" means how well the service is provided and not if the actual service is technically superior. It can be considered as one of the desired outcomes of care and therefore information on patient satisfaction is required to assess the quality and planning of healthcare management (Turner and Pol 1995, Naidu 2009, Alrubaiee 2011). In addition, Zineldin (2006) defines satisfaction as an emotional response. Although service quality and consumer satisfaction have specific common features, satisfaction is generally perceived as a wider concept, while service quality assessment focuses on the dimensions of the service (Zeithalm and Bitner, 2003). Patient satisfaction is defined as an assessment of a discrete dimension of health care (Linder-Pelz 1982, Hills and Kitchen 2007).

Studies in healthcare have indicated that patients' satisfaction has gained greater importance, specifically in developing countries. It is both a service quality indicator and a quality component. Strong healthcare systems enable healthcare providers to deliver better quality and value to patients (Radhika et al, 2007; Camgoz-Akdag & Zineldin, 2010). Again, patient satisfaction has become the latest trend of study. It has been realized, that in order to have a better competitive advantage or best practice in the healthcare industry, the perception of patients for quality has to be measured deeply and the quality strategies should be set as priority by management of healthcare facilities (Camgoz-Akdag & Zineldin, 2010). Donabedian (1996) argued very early that the quality of care provided can be calculated based on patient satisfaction. Patient satisfaction is seen as one of the most important dimensions of service quality and a key success indicator in healthcare (Pakdil and Harwood, 2005). Similarly, according to Chilgren (2008), the definition of quality can simply be referred to as patient satisfaction. To evaluate and improve the quality of care provided is important to investigate in the context of health care. Patient satisfaction, that is, the degree of congruency between patient expectations of ideal care and their perceptions of real care received is a significant indicator of the quality of care (Dominique M, Thomas VP, 2002).

Patient's satisfaction is influenced by a number of factors and according to Peprah (2014), the following factors play a critical role in the satisfaction of patients; the attitudes of nurses toward patients, the capacity to deliver prompt service without wasting time, ability to disseminate information to patients and the availability of up-to-date equipment. Others include the hospital's ability to render reliable service, the patience of the doctor to clearly explain what was wrong with patients before giving treatment, providing patients with detail information about their medication, and attractiveness and cleanliness of the hospital. Dansky and Milles (2007) state that from a management perspective, patient satisfaction with healthcare is important for various reasons. First, satisfied patients are more likely to maintain a consistent relationship with a specific provider. Second, by identifying sources of patient satisfaction, an organization can address system weaknesses, thus improving its risk management. Third, satisfied patients are more likely to follow specific medical regimens and treatment plans. Patient satisfaction measurement adds to important information on system performance, thus contributes to the organizations total performance index.

Patient satisfaction is the level of satisfaction that a patient experiences after using a health facility. It is important as a measure of quality of care, because it reflects the difference between the expected service and the perception or actual experience of the service. Actual experiences or perceptions of the service are influenced by the various dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy.

- The physical appearance, the equipment, the personnel and in-house communications in the hospital (tangibles)
- The ability of the hospital to provide clinical and support services with certainty and to an expected standard to patients (reliability)
- The willingness of the staff to provide services and the promptness with which services were delivered to patients (responsiveness)
- The extent to which the knowledge and courtesy of staff convey trust and confidence in patients (assurance)
- The extent to which the staff provide individual and attention to patients (empathy). Zeithaml *et al* (1990:51)

However, empirical evidence related to patients' satisfaction in the context of health care, has found that patients were not satisfied about nutritional status, length of hospital stay,

cost related to long stay in hospital, hygiene, health care facilities, and supply of medicines from the hospital pharmacy. In addition, hospital environment also impacts on patients' health during their recovery in the hospital. Therefore, researchers are interested in measuring the patients' satisfaction in service quality provision in Champasack Provincial Hospital.

2. Materials and Methods

2.1 Research Setting

The location of conducting the study is Champasack Provincial Hospital where it provides healthcare service and treatments to patients in the south areas. The target group of this study was 200 patients who receiving the services of the hospital. They were selected by randomly.

2.2 Data Collection

The measurement tool applied to gather information was a combination of the aforementioned SERVQUAL questionnaire as well as demographic questions and two questionnaire relating to expected and perceived satisfactions. The SERVQUAL instrument developed by Parasuraman et al (1985) was initially used to measure service quality and bring their service quality model into reality. The instrument is in the form of a research questionnaire. In addition, the SERVQUAL instrument to be suitable for research for many reasons: reliable in a number of different service settings and widely used for measuring service quality (Buttle, 1994). This questionnaire identifies five underlining component of service quality, namely tangible, reliability, responsiveness, assurance and empathy, comprised comprising 23 items for measuring both expected and perceived scores (Parasuraman et al., 1990). The questionnaire was comprised of mostly Likert-scale questions (1-5) and other closed questions. It was administered through Google form and by hard copy to reach parts of the patients who are unable to access to the internet.

2.3 Data analysis

Data collected was entered into Statistical Package for Social Sciences (SPSS) software used for analysis.

$$\text{Customer satisfaction index} = \frac{\text{average score on each question x average weighting}}{\text{Total counts in each question}}$$

To determine perceived quality of services, the gap score (GS) for variable was computed using the formulae: perception score minus the expectation score. The presence of a positive gap score meant that expectations were met or exceeded and a negative score implied that expectations were not met. Using SPSS, Principal component analysis was performed to establish impact of variables on perceived quality of services.

3. Results

This section described the findings of the study on perceived quality of services in Champasack Provincial Hospital. Detailed analysis of the data, interpretation and explanation of the results with regard to objectives are provided in the following.

3.1 Patient satisfaction index

Satisfaction index was applied to indicate the level of patients' satisfaction. The index was derived from a mean aggregate score of the five quality dimensions of SERVQUAL model measured using a 5-likert scale namely: tangibles, reliability, responsiveness, assurance and empathy. The results of analysis are shown in Table 1.

Table 1: patient satisfaction index

Satisfaction Index	Percentage
Tangibility	42%
Reliability	56%
Responsiveness	60%
Assurance	51%
Empathy	55%
Patient Satisfaction Index	52%

3.2 Quality perception of services

3.2.1 Tangibility of services

Perceived quality of service tangibility was measured applying perceived quality gap score. The illustration of a positive gap score means that quality expectation (s) was discovered or exceeded and a negative score infers that the quality expectation(s) was not met. In the survey, it showed that participants needed hospital staffs should well-groom and good at communication with patients. Also, they needed hospital provided enough medical instruments for treat patients. As a result, they did not have to transfer to another hospital that caused them difficulties. While, cleaning and quiet patient room were also their tangibility in the services. Results of analysis showed that quality expectation for tangibility was not met (GS=-0.03).The results of analysis are illustrated in Table 2.

Table 2: Quality perception on tangibility of services

Tangibles	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
Hospitals should provide sufficient medical instruments and medical supplies to patients.	4.32	4.41	-0.09
Physical facilities such as building should be visually appealing, clean and comfortable.	4.24	4.32	-0.08
Hospital staffs in hospitals should look clean, well groomed and good communication.	4.49	4.39	0.1
Patient rooms should be quiet, pleasant and accord privacy	4.22	4.26	-0.04
Mean Score	**4.31**	**4.34**	**-0.03**

The principal components method of extraction was done to determine variables (component(s)) which accounted for the greatest variation in perceived quality of service tangibility. Result of the analysis indicated that comfort and visual appearance of physical facilities and availability of well-maintained and modern equipment were the two main aspects of tangibility of services. The results of analysis are displayed in the Table 3.

Table 3: Principal component analysis for tangibility of services

Tangibility	Initial Eigen values		
	Total	Variance (%)	Cumulative (%)
Hospitals should provide sufficient medical instruments and medical supplies to patients.	2.649	66.225	66.225
Physical facilities such as building should be visually appealing, clean and comfortable.	.521	13.020	79.245
Hospital staffs in hospitals should look clean, well groomed and good communication.	.478	11.957	91.201
Patient rooms should be quite, pleasant and accord privacy	.352	8.799	100.000

3.2.3 Reliability of services

Perceived quality of service reliability was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met. The study found that participants required staffs to look after and could deal with problems they are received treatment in the hospital. They needed doctors to explain their symptoms and the way how to cure. Additionally, efficiency in services was their preference and their expectation in the service. The results of analysis are shown in Table 4.

Table 4: Quality perception on reliability of services

Reliability	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
Hospital should perform services and procedures properly the first time without mistakes or errors.	4.24	4.31	-0.07
Hospital should provide services within the time promised in the service delivery charter.	4.12	4.14	-0.02
Hospital should submit legible patient reports, documents and information and without errors.	4.22	4.27	-0.05
Hospital staffs should show sincere interest to solve it when a patient has a problem.	4.34	4.28	0.06
Doctors/nurses should explain health conditions, diagnosis and treatment in a precise and comprehensible way.	4.28	4.26	0.02
Mean Score	**4.24**	**4.25**	**-0.01**

The principal components method of extraction was done to determine variables (component(s) which accounted for the greatest variation in perceived quality of service reliability. The results of analysis are illustrated that participants needed hospital to perform their responsibility in correct time in their services. Informing treatment document to them was the choice that they preferred. They needed to follow-up their treatment procedure. Results of analysis showed that quality expectation for reliability was not met (GS=-0.01).This result showed in the Table 5.

Table 5: Principal component analysis results for reliability of Services

Reliability	Initial Eigen values		
	Total	Variance (%)	Cumulative (%)
Hospital should perform services and procedures properly the first time without mistakes or errors.	3.183	63.661	63.661
Hospital should provide services within the time promised in the service delivery charter.	.664	13.280	76.940
Hospital should submit legible patient reports, documents and information and without errors.	.542	10.849	87.789
Hospital staffs should show sincere interest to solve it when a patient has a problem.	.340	6.799	94.588
Doctors/nurses should explain health conditions, diagnosis and treatment in a precise and comprehensible way.	.271	5.412	100.000

3.2.3 Responsiveness of the services

Perceived quality of service responsiveness was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met. Participants highly expected hospital officials to assist them and informed the time of service available. Therefore. They did not have to stay too long in the queue and waited time for services. The results of analysis are shown in Table 6.

Table 6: Quality perception on responsiveness of the services

Responsiveness	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
At the hospital, hospital staffs should inform patients exactly when service will operate.	4.11	4.23	-0.12

Hospital staff should be willing to help patients.	4.60	4.38	0.22
Waiting time for admission or in queue in hospital should be short.	4.27	4.24	0.03
Waiting time for daily services at the hospital should be short	4.26	4.24	0.02
Mean Score	**4.31**	**4.27**	**0.04**

The principal components method of extraction was done to determine variables (components) which accounted for the greatest variation in perceived quality service responsiveness. Informing operation time in the hospital was essential because patients did not need to wait for time and stayed in queue with tiredness. Moreover, offering assistance to patients while they were staying in the hospital was their requirement in the service. The result for responsiveness of services was shown in the table 7.

Table 7: Principal component analysis results for responsiveness of services

Responsiveness	**Initial Eigen values**		
	Total	**Variance (%)**	**Cumulative (%)**
At the hospital, hospital staffs should inform patients exactly when service will operate.	2.783	69.583	69.583
Hospital staff should be willing to help patients.	.531	13.264	82.848
Waiting time for admission or in queue in hospital should be short.	.420	10.501	93.349
Waiting time for daily services at the hospital should be short	.266	6.651	100.000

3.2.4 Assurance of services

Perceived quality of service assurance was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met. From the study, patients highly expected services from hospital officials. They needed respected and compromised matter in treatment. They also acquired privacy in treatment and directly diagnosed their health with doctors who specialized in the field. Furthermore, abundant knowledge of treatment was patients' expectation. They really needed specialized doctors to cure them in hospital. The results of analysis are shown in Table 8.

Table 8. Quality perception on assurance of services

Assurance	**Expectation Score (E)**	**Perception Score (P)**	**Gap Score (P-E)**
Staff should be polite, courteous and respected manner to patients at the hospital.	4.48	4.34	0.14
Health staffs should be capable to handle patients' problems.	4.29	4.25	0.04
Patients should feel secure and feel confident when receiving treatment.	4.25	4.29	-0.04
Hospitals should provide adequate privacy during treatment.	4.30	4.22	0.08
Health staffs should have good knowledge to answer patients' questions correctly	4.27	4.28	-0.01
Mean Score	**4.31**	**4.27**	**0.04**

The principal components method of extraction was done to determine variables (component(s) which accounted for the greatest variation in perceived quality of service

assurance. The five service assurance variables were entered into SPSS software. The PCA technique was used to extract the variables using un-rotated factor solution based on their initial eigenvalues and percentage of variance explained by the variables. The analysis used perceived customer scores were used. Result of the analysis indicated that patient confidence with the services was the main aspect of service delivery. The results of analysis are shown in the table 9.

Table 9: Principal component analysis results for assurance of services

Responsiveness	Initial Eigen values		
	Total	Variance (%)	Cumulative (%)
Staff should be polite, courteous and respected manner to patients at the hospital.	3.418	68.356	68.356
Health staffs should be capable to handle patients' problems.	.515	10.300	78.656
Patients should feel secure and feel confident when receiving treatment.	.386	7.714	86.369
Hospitals should provide adequate privacy during treatment.	.361	7.220	93.589
Health staffs should have good knowledge to answer patients' questions correctly	.321	6.411	100.000

3.2.5 Empathy of services

Perceived quality of service empathy was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met. Results of analysis showed that quality expectation for empathy was not met (GS=-0.02). The results of analysis are shown in Table 10.

Table 10. Quality perception on empathy of services

Empathy	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
Hospitals should operate at suitable times to patients	4.21	4.22	-0.01
Doctors and nurses should listen to patients intentionally.	4.44	4.35	0.09
Hospitals should have people to attend and assist patients who need assist.	4.29	4.23	0.06
Hospital staff should be able to understand specific needs of patients.	4.01	4.14	-0.13
Doctors/nurses should spend enough time with each patient.	4.08	4.18	-0.1
Mean Score	**4.2**	**4.22**	**-0.02**

The principal components method of extraction was done to determine variables (component(s) which accounted for the greatest variation in perceived quality of service empathy. The five service empathy variables were entered into SPSS software. The PCA technique was used to extract the variables using un-rotated factor solution based on their initial eigenvalues and percentage of variance explained by the variables. The analysis used perceived customer scores were used. Result of the analysis indicated that hospital required to inform time of service available. Thus, they could use services in the correct time without time-consuming. The results of analysis are shown in the table 11.

Table 11: Principal component analysis results for empathy of services

Responsiveness	Initial Eigen values		
	Total	Variance (%)	Cumulative (%)
Hospitals should operate at suitable times to patients	3.122	62.437	62.437
Doctors and nurses should listen to patients intentionally.	.649	12.981	75.418
Hospitals should have people to attend and assist patients who need assist.	.493	9.854	85.272
Hospital staff should be able to understand specific needs of patients.	.396	7.925	93.197
Doctors/nurses should spend enough time with each patient.	.340	6.803	100.000

3. Discussion

Patient satisfaction measurement provides an important parameter for assessing quality of healthcare indicators which are not well reflected by other service statistics such as patient data, waiting times and consultation times. The study revealed a satisfaction index of 52% which implied that about half of the patients were satisfied with the perceived quality of the services. Patient satisfaction level influences patients' decisions on health service utilization, future recommendations and choice of service delivery points. Dissatisfied patients bypassed a facility for another one perceived to offer quality services irrespective of the distance (Nezenega et al., 2013). A study conducted by Nezenega et al. (2013) in Southern Ethiopia to assess patient satisfaction with tuberculosis treatment revealed a satisfaction index of 90% which was higher than the 56% reported in this study.

Perceived quality of health services influence patients' satisfaction with service delivery. Patient perception of quality is the perception of patient needs and expectations being met (Hu et al., 2011). Visual appearance and modernization of available infrastructure and facilities such as building and equipment had been found to impact perceptions of customers on their expectations for services available in a health facility (Wanjau and Wangari, 2012). Well maintained and visually appearing facilities are presumed to be a mark of quality. Proper maintenance and use of modern technology influences choices of customers for their preferred service providers (Hutchinson et al., 2011). Additionally, Lack of adequate comfort and privacy, which is a key aspect of health service delivery, in patient rooms in the hospital impacts negatively service quality perceptions. Lack of sound proof consulting rooms and use of open wards resulted in patients feeling uncomfortable with the privacy and hence confidentiality of their information. Many patients felt that the waiting time for the services was unnecessarily long. Timeliness of services was important especially for patients who were critically ill, in pain or had other obligations to undertake after being attended (Halwindi et al., 2013). Longer waiting time, (i.e. longer time than those indicated in the service delivery charter) experienced when seeking services in the facility was shown to negatively impact on the perceived quality of services.

4. Conclusion

Health care providers are expected to be sincere in helping patients solve their problems. Patient satisfaction with the perceived quality of service has been linked to the subjective feeling of the customers in relation to their experiences during production and consumption of the service products. Explaining and communicating provider intentions and interventional outcomes such as explaining diagnosis and treatment plans, their purposes and outcomes has a positive effect on customer perceptions. This requires service providers to create a good rapport that makes patients feel comfortable and confident with the process.

Proper communication, patient respect and client-provider relationship boost patients' confidence with the services offered which improves the perceived quality of service delivery and patient satisfaction. Knowledgeable providers are important in providing highly valued treatment therapies associated with good health outcomes. Knowledgeable providers increase the confidence of patients when consuming services. Patient privacy is a primary concern for patients when seeking health care. Patients trust health professionals with their problems and conditions and therefore expect the staff to protect the trust and confidence. Factors within the formal health system influence patient satisfaction perceived quality of health services provided. Length of waiting time was an important aspect which influenced patient satisfaction. Shorter waiting time in public facilities and consultation duration in private facilities increased patients' satisfaction. Patients prefer facilities that are prompt in service delivery within the service charter. Time spent when seeking health services is an important aspect which influences patients' decisions on choice service delivery facilities.

6. Conflict of Interest

We certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

7. Reference

Buttle, F. 1994. 'What's wrong with SERVQUAL?', Working Paper No. 277, Manchester Business School, Manchester.

Camgoz-Akdag H., Zineldin M. & Vasicheva V., (2011). Measuring, evaluating and improving hospital quality parameters/dimensions – an integrated healthcare quality approach. International Journal of Health Care Quality Assurance, 24(8), 654- 662.

Chilgren, A (2008), "Managers and the new definition of quality", Journal of Healthcare Management, 53 (4)

Cleary PD, McNeil BJ. Patient satisfaction as indicator of quality care. Inquiry. 1988; 25:25-36.

Dansky, K.H. & Miles, J. (2007). Patient satisfaction with ambulatory healthcare services: Waiting time and filling time. Hospital Health Service Administration, 42,165–167

Dominique M, Thomas VP. Scale to measure patient satiafaction with physical therapy. Phys Ther. 2002;82(7):682-691.

Donabedian A. (1996), The Effectiveness of Quality Assurance, International Journal for Quality in Health Care, 8 (4), pp. 401-407

Entezari Asl M, Motamedi F. Satisfaction with emergency medical referrals to hospitals of medical sciences, 1379. Journal of Ardabil University of Medical Sciences. 2003;2(48):20-27.

Halwindi H., Siziya S., Magnussen P., Olsen A. (2013). Factors perceived by caretakers as barriers to healthcare for under-five children in mazabuka district, Zambia. ISRN Tropical Medicine, Article ID 905836: 1-10.

Hills R1, Kitchen S. (2007), Toward a theory of patient satisfaction with physiotherapy: exploring the concept of satisfaction, Soc Sci Med., 23(5):243-54

Hutchinson L., Do M., Agha S. (2011). Measuring client satisfaction and the quality of family planning services: a comparative analysis of public and private health facilities in Tanzania, Kenya and Ghana. BMC Health Services Research, 11(203): 1- 17.

Linder-Pelz, S. (1982), "Toward a theory of patient satisfaction", Social Science and Medicine, 16 (5), pp. 577- 82

Nezenega S., Gacho M., Tafere E. (2013). Patient satisfaction on tuberculosis treatment service and adherence to treatment in public health facilities of Sidama zone, South Ethiopia. BMC Health Services Research, 13(1): 110-121.

Pakdil, F., and Harwood, T. (2005). "Patient Satisfaction in a Preoperative Assessment Clinic: An Analysis Using SERVQUAL Dimensions". Total Quality Management, 16 (1, 15–30).

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. 1985. A conceptual model of service quality and its implications for future research. Journal of Marketing, 49:4, 41-50.

Peprah, A. (2013). Health Care Delivery in Sub-Saharan Africa: Patients' satisfaction and perceived service quality, A case study of Sunyani Regional Hospital in Ghana. LAP LAMBERT Academic Publication, Germany.

Radhika, V., Assaf, R.R., & Al-Assaf, A. F. (2007). Making patient safety and quality improvement act of 2005 work. Journal for Healthcare Quality Assurance, 12(4), 12-25.

Turner, P. and Pol, L. (1995), "Beyond patient satisfaction", Journal of Health Care Marketing, 15 (3), pp. 45-53.

Wanjau N., Wangari A. (2012). Factors Affecting Provision of Service Quality in the Public Health Sector: A Case of Kenyatta National Hospital. International Journal of Humanities and Social Science, 2(13): 114-125.

World Health Organization (2012). Patient Safety Research a guide for developing training programmes. Geneva: World Health Organization.

Zeithaml, V. and Bitner, M.J. (2003), Services Marketing: Integrating Customer Focus across the Firm, 3rd ed., McGraw-Hill, New York, NY.

Zeithaml, V., Parasuraman, A. & Berry, L.L. 1990. *Delivering quality service: balancing customer perceptions and expectations*. New York: The Free Press.

Zineldin, M. (2006), The quality of health care and patient satisfaction: and exploratory investigation.