Service Quality, Satisfaction and PatientLoyaltyin Indonesia

Barkah Rosadi, Willy Arafah , Bahtiar Usman, Hermanto Yaputra

Abstract
Health is one of the main issues in developing countries. The quality of health services indicated by the care index requires an interdisciplinary approach. The integration of marketing concepts as a practical framework for increasing patient loyalty has not received much attention. The purpose of the study is to analyze the effects of service quality on satisfaction and how it impacts on patient loyalty. The patient survey held randomly in the hospital of the Indonesian Army is done randomly to obtain data that will be analyzed using SEM covariant. The success in enhancing patient loyalty,which is indicated by recommendations for prospective patients, can be predicted from the level of satisfaction and health services received. Hospital ability to structure, to provide adequate process both directly and indirectly,and to provide propertreatment determines satisfaction and patient willingness to support the hospital in the programfor improvingservice and community health. Improving the quality of services which includes facilities, budgets, and medical staff is done to promote public health. Patient satisfaction mediates the relationship between service quality and patient loyalty. Further research focuses on dimensions in the health care system and general patients in non-government hospitals.
Keywords: *Service Quality, Satisfaction, Patient Loyalty, Indonesian Army Hospital*

I. INTRODUCTION

The health care system is a problem in every country, including Indonesia. Indonesia's health care index is 61.98, below the world index of 68,894, according to the Healthcare Access and Quality Index / HAQ (2018). Odagiri et al. (2018) highlight the problem of providing basic water needs, sanitation, and hygiene services in Indonesia health service facilities in general. The ability to provide satisfying services is still far behind compared to private hospitals' that are known for their adequate reputation. Health facilities are inadequate. Berwick and Joshi (2005) state that it is complex to operationalize the concept of quality health service. Furthermore,Shafeiet al. (2016) confirm that the concept of service quality in the world of health has not been achieved yet. Golshan, et al.(2019) suggested that attractive physical facilities, equipment, staff, and environmental appearances are the physical dimensions that support service quality.

Improving the quality of services in hospitals is a priority and is not only the hospitals' agenda. Efforts to improve the quality of services require support especially for physical facilities, budgets, and professional medical staff. A quality health care system model can provide satisfaction and mediate the quality and loyalty of patients. Jakóbczyket al. (2019) explained the importance of reforming public health services, namely improving management, structure, and access to services provided by hospitals, as well as facilitating hospital management.

Various factors are important in identifying patient satisfaction and loyalty. Important factors such as quality of service formulated based on the patient's view, determine the continuity of the quality care system in the hospital. Blockeret al. (2011) suggest that customer orientation is crucial in the era of increasingly competitive global markets. Behdioguet al. (2017) assert that service quality presents an important argument in the health care sector because of its vital importance and its serious impact on human life. Singh, A., &Prasher, A. (2017) add that it is also criticalfor hospitals to understand the hopes and needs to survive in a competitive market. The results of the study can be used as a framework for presenting service quality with dimensions developed based on its influence on patient satisfaction and loyalty. Wirtz & Lovelock (2016) argue that a marketing framework focused on creating value in the service economy, understanding consumers, positioning services in competitive markets is essential. The research aims to analyze the effect of service quality on satisfaction and how it impacts patient loyalty.

II. LITERATURE REVIEW

Service Quality

The definition of quality generally involves determining whether service delivery is perceived to meet, exceed, or fail to meet customer expectations (Zeithaml et al. 1996). Zeithaml and Berry define (1988) service quality as the difference in level and direction between consumers' perceptions and expectations, or the extent to

which a service meets or exceeds customer expectations. It is difficult to operationalize the concept of quality health services(Berwick and Joshi, 2005). No text about the quality of health services that can be started without the definition of quality and the implications for our work as health service professionals. Regarding the concept of service quality, Shafeiet al. (2016) mention that the consensus for health organizations, regarding the accurate measurement of service quality as perceived by patients, has not yet been reached. Donabedian (1990), one of the pioneers in understanding the quality approach, discusses various definitions of quality in detail, depending on perspective. Among the conceptual constructs of quality, Donabedian (1980) argues that the balance of health benefits and losses is an important core of quality definitions.

The frequently cited definition of quality developed by IOM (Committee Designing Strategies for Medicare Quality Assurance and Review), Lohr (1990) suggests that service quality is the extent to which health services for individuals and communities can improve desired health outcomes and are consistent with current professional knowledge. Etgar& Fuchs (2009) explain that this is based on the characteristics of the service process and the form of health services needed by patients.The perspective on the concept of service is more dominated by the interests of the company than the formulation of positive concepts for patients. Davis, Mohan & Rayburn (2017) emphasize that health directly impacts the quality of life of consumers which is the most personal and important type of service experienced by them. Yu & Ng (2018) define the perceived quality as the reflection of a patient's practical experience and awareness of the quality of medical services considering the overall process of providing medical services. Amankwah et al. (2019) explain that the concept of service quality is based on customer construction. Amankwah et al. (2019) suggest that service quality from the perspective of facility management refers to excellence in the management of health resource facilities. It is to ensure the best health standards through monitoring and evaluating the standard of health service resources available to ensure patient safetyand achieve patient satisfaction.

Donabedian (1980) argues that health care services are divided into two quality dimensions: technical quality and functional quality. On the other hand, Swain & Kar (2018) identify six main areas of service quality in hospitals: technical quality, procedural quality, infrastructure quality, interactional quality, quality of personnel, quality of social support. George &Sahadevan (2019) put forward the same paradigm. Aagaja and Garg (2010) developed an instrument called PubHosQual to measure perceptions of service quality for public hospitals from the perspective of users (patients). Qi, Prybutok, and Prybutok (2016) endorse that perception measurement provides the best measure of service quality in urgent care. Lee et al. (2010) state that the quality of service in the medical world includes: 1) Structure 2) Process 3) Outcome.

Patient Satisfaction

Back and Lee (2009) explain that the construction of satisfaction is formulated based on affection. Kottler and Keller (2015) describe customer satisfaction as conformity to the expectations of products or services offered by the reality that consumers receive. Sumaedi, et al. (2016) express that satisfaction in hospital service contexts is a patient's feelingswhich are related to the difference between health service provider performance and patient expectations.

However, customer subjectivity makes satisfaction complex enough to understand (Pfannstiel&Rasche, 2017).Luk& Ng (2018) explain that meaning is ambiguous in satisfaction and empirical assessment becomes very difficult. Rosenbusch, Ismail, andRingle (2018) assert that patient satisfaction is a typical subjective measure of the quality of health services."Consumer satisfaction is essential for getting insights about consumer needs and expectations" (Jandavath et al., 2016). Luk& Ng (2018) explain that several studies published have discussed the definition of patient satisfaction. Ambiguity in the meaning of the concept makes it more complex to make empirical judgments. Although patient satisfaction has received much attention in scientific research (Otani et al. 2009; Ye et al. 2017), there is neither accurate nor standard way to assess patient satisfaction.

Patient Loyalty

Understanding of Patient Loyalty focuses on the study of consumer behavior in terms of psychological involvement, favoritism, and a sense of goodwill in certain services. Patient loyalty is a commitment that is held firm to repurchase or re-patronize selected products/services consistently in the future (Faiswal and Niraj, 2011). In other words, customer loyalty refers to a deep consumer commitment to services or products that lead to repeat future purchases (Shirazi et al. 2013). Chang, Tseng, Woodside (2013) generally explain that customer loyalty is very essential for any organization to survive and develop. Kesuma, et al. (2013) put forward that patient loyalty can function as an urge in increasing company productivity. Zhang et al. (2018) suggestthat patient loyalty to the hospital is important for patients in choosinga hospital.

Hypotheses

Satisfaction represents the emotional state of customers which is determined by the quality of service (Zethamal and Bitner, 1988). Lei &Jolibet (2012), Lee, Lee, Kang (2012), Bhakti, et al. (2014), Rama

---

Koteswara, Kondasani, Panda (2015) explain the relationship of values and patient satisfaction in the system quality health services. Lonial andRaju (2015) state that patient loyalty is influenced by satisfaction and value. Yu & Ng (2018) describe loyalty as a type of potential behavioral response resulting from satisfaction. Moreira & Silva (2015) and Ravichandran (2015) illustrate service quality is increasing patient satisfaction and commitment and it impacts patient loyalty. Moreira & Silva (2015) express the quality of services that are reliable and tangible and organizational strategies (functional) to build loyalty. Patient loyalty and patient intention to switch to other service providers are caused by service quality. Quality aspects of health services (e.g. physical environment, customer-friendly environment, responsiveness, communication, privacy,and safety) are positively related to patient loyalty mediated through patient satisfaction. Fatima et al. (2018) explain the relationship between service quality, satisfaction, loyalty. Pfannstiel&Rasche (2017) explain that the high level of the subjectivity of patient satisfaction makes it difficult to be influenced whereas patient satisfaction determines the continuity of service consumption at the same or different hospitals (Salim et al., 2017). Luk& Ng (2018) andKim, et al. (2017) 2017) say that the ability of hospitals to provide quality health services increases satisfaction. The research hypotheses are:

Ha1: Service quality affects satisfaction

Ha2: Patient satisfaction has a positive influence on patient loyalty

III. METHODOLOGY

The patient survey held randomly in the hospital of the Indonesian Army is done randomly to obtain data that will be analyzed using SEM covariant.Service quality measurement refers to Lee et al. (2010) statement which includes facilities, equipment, human resources, effects of treatment on the patient's health status, andnurses as well as doctors. Questionnaires are distributed to patients that are going to be discharged and declared cured. Patient knowledge, patient confidence in the hospital, and treatment process are considered. Patient satisfaction is measured based on Qin et al. (2013) statement with a measurement of overall patient satisfaction involving 1) feeling satisfied with this urgent care consultation 2) feeling satisfied with the performance of emergency care services. Loyalty is measured based on Yu & Ng (2018) statement namely intentions and recommendations and Chang et al (2013) modified version of a scale of three developed by Gil et al. (2007) that is, "If there is a need to seek medical advice, I will think of this hospital first", "If there is a need to seek medical advice, this hospital will be the first choice ", and"the sense of loyal patient of this hospital".The measurement scale is 1.5 with a rating scale. Questionnaires are distributed to 20% of the total number of respondents to minimize data input. Data analysis uses covariant SEM.

IV. RESULTS AND DISCUSSION

Service quality is illustrated to be in the good category with an average of 4.25 on a scale of 1.d 5. A standard deviation of 0.07 for each indicator. The level of hospital patient satisfaction is in the category of high that is 4.28. Patient loyalty is in the same category of 4.29 with a standard deviation of 0.095. Based on the results of data analysis using the Structural Equation Model (SEM) method and with the AMOS spss 23 application processing software, a summary size of the model is obtained.

Table 1.1 Model Assessment Result

Factors	Cut of Value	Assessment Result	Conclusion
Significance of Probability	≥0.05	0.000	Suggested to see other Fit Indices
RMSEA	≤0.08	0.064	Fit
GFI	≥0.90	0.995	Fit
AGFI	≥0.90	0.850	Moderate
CMIN/DF	≤ 2 or ≤ 3	2.076	Fit
TLI	≥ 0.95	0.929	Moderate
CFI	≥0.95	0.844	Moderate
PNFI	>0.6	0.749	Fit
IFI	>0.90	0.845	Fit

The model in this study fulfills the fit criteria for RMSEA cut of values (the index to compensate for Chi-Square in a large sample), GFI, CMIN / DF, PNFI, and IFI values are greater than the value determined as the cut of value model fit. The model is accepted based on the degree of freedom. PNFI values indicate that the definition constructed by the researcher including indicators and definitions is good according to how the terms (variables and indicators) are usually used. Quality has a regression coefficient of satisfaction of 0.318. CR

value of 4.771 meansit is greater than 1.96. The value of p is 0,000 less than 0.05. The effect of service quality on satisfaction is 10.1% and significant. The results of the study are in line with Kim et al (2017) statement. The ability of hospitals to provide quality health services increases satisfaction(Luk& Ng, 2018).

Satisfaction has a regression coefficient value for the loyalty of 0.424. CR value of 4075 means it is greater than 1.96. The value of p is 0,000 less than 0.05. The influence of satisfaction on loyalty by 24% and significant. The results of the study are in line with Lei and Jolibert's (2012) statement who suggest that there is a positive relationship between the quality and loyalty of patients in the Chinese context. Chang et al (2013), Kessler and Mylod(2011), Meesalaa& Paul (2018), Ahmed et al. (2017), and Rostami et al (2018) suggest the same thing. Patient satisfaction (PS) does not fully play a role in mediating Service Quality and Patient Loyalty (PL). SQ still has a direct influence on Patient Loyalty (PL). Specific summaries of analytical procedures to show the position of patient satisfaction in their position as an intervening variable (mediation) uses the Sobel Test approach. The better the service quality is the higher the loyalty is, which also indicates that the patient feels satisfied with hospital services. Patients conduct cognitive evaluations of every aspect of service that is felt. The overall evaluation determines a loyal or disloyal behavior community reference in assessing the quality of hospital services. Efforts to improve facilities still refer to the values expected by patients. Improvement and development of medical instrumentation, development of telecardiology units, development of integrated patient monitoring systems, and development of biosensors are needed while still focusingonthe customer's ability to access health services. The use of medical devices as part of service quality still functions as promoting treatment to educate consumers, which is an important part of hospital work. Patient satisfaction and loyalty are interpreted more broadly on patient awareness in maintaining and improving post-treatment health.

Hospitals as a center for health services build customer loyalty by creating value through relationship management that can increase patient and family awareness about the meaning of health. The hospital not only provides functional benefits following patient expectations but also contributes to the growth of awareness of the importance of maintaining health. Hospitals provide extra benefits that encourage customers to have emotional attachments to the hospital for gaining customer loyalty. Not only for the continuity of the use of health products and services (repeat buying), making referrals (refer to others), and be an advocate for the services they use, but also for helping maintain health for the community. This is based on the typical value characteristics offered by government-owned hospitals.

Research Limitation
The study is conducted only to patients with BPJS (The Indonesian National Health Insurance) insurance membership. This research has not yet discussed the main dimensions of the health care system.

V. CONCLUSION
Service quality has a positive and significant impact on satisfaction and ultimately encourages patient loyalty as indicated by the readiness to adopt a healthy lifestyle after treatment. Further suggested research can focus on dimensions in the health care system and general patients in non-government hospitalstowards the hospital. Evaluation involves patient affection as a dynamic condition that is influenced by the knowledge and experience of getting hospital services.

Patient satisfaction that is formed based on the experience of being treated, gaining knowledge about their diseases, and healthy lifestyles makes patients more loyal. Treatment at the hospital is not only for the function of nursing care to cure, but also to promotea healthy living movement. Hospitals focus on systematic efforts to improve the quality of services in each dimension as stated by Lee et al (2010), including facilities, equipment, human resources. Efforts to improve facilities, especially the use of high technology medical equipmentis a strategic orientation of hospitals. It coincides with the increased customer needs for hospital service systems that effectively encourage hospital management as a health care center by providing high-tech medical devices.

REFERENCES
[1]. Aagja, Jayesh P, dan Renuka Garg. (2010). "Measuring perceived service quality for public hospitals (PubHosQual) in the Indian.
[2]. Amankwah, O., Choong, W.-W., & Mohammed, A. H. (2019). *Modelling the influence of healthcare facilities management service quality on patients satisfaction. Journal of Facilities Management, 17(3), 267–283.*
[3]. Back dan Lee (2009)
[4]. Behdiogu et al (2017)
[5]. Berwick dan Joshi (2005)
[6]. Blocker, Christopher P., Daniel J. Flint, Matthew B. Myers, dan Stanley F. Slater. (2011). "Proactive customer orientation and its role for creating customer value in global markets." Journal of the Academy of Marketing Science 39(2): 216–33.
[7]. Chang, Chia Wen, Ting Hsiang Tseng, dan Arch G. Woodside. (2013). "Configural algorithms of patient satisfaction, participation in diagnostics, and treatment decisions' influences on hospital loyalty." Journal of Services Marketing 27(2): 91–103)
[8]. Davis, Kathryn Simons, Mayoor Mohan, dan Steven W Rayburn. (2016). "Service quality and acculturation: advancing immigrant healthcare utilization."

[9]. Donabedian, A. (1981). "Criteria, norms and standards of quality: What do they mean?" American Journal of Public Health 71(4): 409–12.

[10]. Donabedian, A. The seven pillars of quality. Archives of pathology & laboratory medicine.(1990);114(11):.

[11]. Etgar, Michael, danGalia Fuchs. (2009). "Why and how service quality perceptions impact consumer responses." Managing Service Quality 19(4): 474–85

[12]. Faiswal, A.K. and Niraj, R. (2011), "Examining mediating role of attitudinal loyalty and nonlinear effects in satisfaction-behavioral intentions relationship", Journal of Services Marketing, Vol. 25 No. 3, pp. 165-75.

[13]. Fatima, Taqdees, ShahabAlam Malik, dan Asma Shabbir. (2018). "Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems." International Journal of Quality and Reliability Management 35(6): 1195–1214.

[14]. George, A., &Sahadevan, J. (2019). A Conceptual Framework of Antecedents of Service Loyalty in Health Care: Patients' Perspective. IIM Kozhikode Society & Management

[15]. Gil, R. Bravo, E. Fraj Andrés, dan E. Martínez Salinas. (2007). "Family as a source of consumer-based brand equity." Journal of Product and Brand Management 16(3): 188–99.

[16]. Golshan, Feizy, Tavasoli, &Basiri (2019)

[17]. Healthcare Access and Quality index / HAQ (2018).

[18]. Jakóbczyk et al (2019)

[19]. Jandavath, Rama Krishna Naik, dan Anand Byram. (2016). "Healthcare service quality effect on patient satisfaction and behavioural intentions in corporate hospitals in India." International Journal of Pharmaceutical and Healthcare Marketing 10(1): 48–74.

[20]. Kesuma, Ida, DjumilahHadiwidjojo, Ni Wiagustini, danFatchurRohman. (2013). "Service Quality Influence on Patient Loyalty: Customer Relationship Management as Mediation Variable (Study on Private Hospital Industry in Denpasar)." International Journal of Business and Commerce 2(12): 1–14.

[21]. Kim et al (2017).

[22]. Kotler, Philip, Armstrong,A. danOpresnik., M.,O (2017) Principles of Marketing.NY. Pearson

[23]. Kottler dan Keller (2015)

[24]. Lee,Lee, Kang (2012)

[25]. Lei P, Jolibert A. A three-model comparison of the relationship between quality, satisfaction and loyalty: an empirical study of the Chinese healthcare system. BMC Health Serv Res. (2012);12(1):436.

[26]. Lohr (1990)

[27]. Lonial, P.S. Raju, (2015)

[28]. Luk& Ng (2018)

[29]. Moreira, Antonio Carrizo, dan Pedro Miguel Silva. (2015). "The trust-commitment challenge in service quality-loyalty relationships." International Journal of Health Care Quality Assurance 28(3): 253–66.

[30]. Odagiri *et al*., (2018)

[31]. Otani, Koichiro et al. (2009). "Patient satisfaction: Focusing on 'excellent.'" Journal of Healthcare Management 54(2): 93–102.

[32]. Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985), "A conceptual model of service quality and its implications for future research", Journal of Marketing, Vol. 49, Fall, pp. 41-50.

[33]. Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multi-item scale for measuring consumer perceptions of the service quality", Journal of Retailing, Vol. 64 No. 1, pp. 12-40.

[34]. Pfannstiel, Mario A, danChristophRasche. (2017). Service Business Model Innovation in Healthcare and Hospital Management Service Business Model Innovation in Healthcare and Hospital Management.

[35]. Qin, Hong, Victor Prybutok, dan Gayle Prybutok. (2016). "Quantitative comparison of measurements of urgent care service quality." Health Marketing Quarterly 33(1): 59–77.

[36]. Rao, Rama Koteswara, dan Rajeev Kumar Panda.(2015). "Customer perceived service quality, satisfaction and loyalty in Indian private healthcare." International Journal of Health Care Quality Assurance 28: 452–67.

[37]. Ravichandran, K., Mani, B., Kumar, T., Arun, S. and Prabhakaran, S. (2010), "Influence of service quality on customer satisfaction application of servqual model", International Journal of Business and Management, Vol. 5 No. 4, pp. 117-124.

[38]. Rosenbusch, Jana, Ida Rosnita Ismail, dan Christian Marc Ringle. (2018). "The agony of choice for medical tourists: a patient satisfaction index model." Journal of Hospitality and Tourism Technology 9(3): 267–79.

[39]. Salim et al (2017).

[40]. Shafei, I., Walburg, J., & Taher, A. (2019).Verifying alternative measures of healthcare service quality.International Journal of Health Care Quality Assurance, 00–00.doi:10.1108/ijhcqa-05-2016-0069

[41]. Shirazi, A., Lorestani, H.Z. and Mazidi, A.K. (2013), "Investigating the effects of brand identity on customer loyalty from social identity perspective", Iranian Journal of Management Studies, Vol. 6, pp. 771-772.

[42]. Singh, A., &Prasher, A. (2017)

[43]. Sumaedi, Sik et al. (2014). "The empirical study on patient loyalty: The role of trust, perceived value, and satisfaction (a case study from Bekasi, Indonesia)." Clinical Governance 19(3): 269–83.

[44]. Sumaedi, et al.,(2016)

[45]. Swain, Swapnarag, danNirmal Chandra Kar. (2018). "Hospital service quality as antecedent of patient satisfaction – a conceptual framework." International Journal of Pharmaceutical and Healthcare Marketing 12(3): 251–69

[46]. Wirtz, J.,Lovelock C., (2016) ervices marketing: people, technology, strategy. Eighth edition.New Jersey World Scientific Publishing Co. Inc.

[47]. Ye, Jun, Beibei Dong, dan Ju Yeon Lee.(2017). "The long-term impact of service empathy and responsiveness on customer satisfaction and profitability: a longitudinal investigation in a healthcare context." Marketing Letters 28(4): 551–64.

[48]. Zeithaml VA. Consumer perceptions of price, quality, and value: a means- end model and synthesis of evidence. J Mark. (1988);52(3):2–22

[49]. Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996), "The behavioral consequences of service quality", Journal ofMarketing, Vol. 60 No. 2, pp. 31-46.

[50]. Zhang, Yucheng et al. (2018). "Hospital service quality and patient loyalty: the mediation effect of empathy." Journal of Business and Industrial Marketing 33(8): 1176–86.