

# ORIGINAL ARTICLE

# THE EFFECTS OF SERVICE QUALITY ON PATIENT'S SATISFACTION IN PUSAT KESIHATAN MASYARAKAT (PUSKESMAS)

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ABSTRACT - Service quality is a form of patient assessment of the level of service received with the expected level of service. Satisfaction is a feeling of pleasure or disappointment that someone feels after comparing with the services provided. Patient satisfaction with the quality of health services is needed because it causes patients to be loyal to check their health at health care institutions. This study aims to determine the effect of service quality on patient satisfaction at Puskesmas ISO, and Non-ISO certified viewed from five dimensions of service quality, tangibles, reliability, responsiveness, assurance, and empathy. Data were collected using questionnaires, and samples were taken by purposive sampling in patients who were treated at Puskesmas who had met the requirements of 600 people, namely 300 people from Puskesmas ISO and 300 people from Non-ISO. Data were analysed by using simple linear regression test and multiple linear regression with the help of Amos version 22 software. The results of bivariate tests at Puskesmas ISO, all dimensions namely tangibles, reliability, responsiveness, assurance, empathy and quality of service influence patient satisfaction, while in Puskesmas Non-ISO all dimensions of service quality and service quality do not affect patient satisfaction. The key findings demonstrates quality of service in Puskesmas ISO is better and has an impact on patient satisfaction. This research's implication offers a guideline on issues of increasing patient satisfaction with the guality of health services, and it is essential for regulatory agencies to examine and improve the quality of public health services.

# INTRODUCTION

In the current era of globalization, market demands are increasing and the level of competition is getting tougher. Companies are required to operate more effectively and efficiently to produce high-quality products consistently. Companies that are able to meet these demands will be able to survive and win global competition. One way to become a competitive company is to follow the quality management system suggested in the ISO 9001: 2008 standard. To answer the demands of the community for quality services in health care institutions such as Puskesmas, stakeholders are expected to always pay attention to accreditation in accordance with Republic of Indonesia Minister of Health Regulation number 46 of 2015 on Puskesmas Accreditation and others as well as ISO 9001 certification for quality management systems.

According to Parasuraman, Zeithaml, and Berry in Lupiyoadi (2013: 216) there are five main dimensions that are relevant to explain service quality known as service quality (servqual), namely, tangible (physical evidence), reliability (reliability), responsiveness (responsiveness), assurance (assurance), and empathy (empathy). The five dimensions of service quality are the key to increasing patient satisfaction. The service system needs to be supported by quality services, adequate facilities and ethics or manners. The quality of service provided by an organization to consumers is one indicator that determines customer satisfaction with what is given by the organization. If the quality of services provided to consumers is good, it will make consumers think the organization has been professional in providing its services. Patient satisfaction is defined as the patient's response to a discrepancy between the level of prior importance and the actual performance he feels after use. Patient satisfaction is the core of patient-oriented marketing. Satisfying and quality service will shape patient loyalty, and satisfaction is closely related to " word of mouth ", an indication of the quality of service in a community health centre can be reflected in the patient's perception of health services received.

The main problem in this study is to examine the five dimensions of tangibles, reliability, responsiveness, assurance and empathy service quality, which can provide satisfaction to patients at ISO and Non ISO, Puskesmas. Research conducted in Palu City revealed that the level of patient satisfaction at Puskesmas ISO was higher than that of Puskesmas non-ISO public (Lasa, 2012). The scope of this research is to examine the effect of service quality from five dimensions including direct evidence, reliability, responsiveness, assurance and empathy for patient satisfaction at Puskesmas ISO and Non ISO in Banda Aceh, Aceh, Indonesia. The research locations were Puskesmas ISO 9001 2008 certified covering Kopelma Darussalam, Kuta Alam, Baiturrahman and Non ISO including Batoh, Meuraxa, Ulee Kareng in Banda Aceh. The respondents in this study were 600 patients divided into two groups, namely Puskesmas ISO 300 patient and Non ISO 300 patients.

## **ARTICLE HISTORY**

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# **REVIEWS ON SERVICE QUALITY AND PATIENT SATISFACTION**

# Quality

# **Understanding of Quality**

Quality according to Goetsh and Davis (1994) is a dynamic condition that relates to products, services, people, processes, and environments that meet or exceed expectations. According to Lovelock and Wright (2005), quality covers every aspect of a company and is actually an emotional experience for customers. Customers want to feel happy with their purchases, feel that they have got the best value and want to make sure that their money is well spent, and they feel proud of their relationship with a company that has a high quality image.

Gerson (2004) posits, quality is whatever customers consider quality. Meanwhile, Kotler (2005) defines quality as the overall nature of a product or service that influences its ability to satisfy expressed or implied needs. Feigenbaum (1995), suggests quality as the overall characteristics of products and services which include marketing, engineering, manufature and maintenance, where the products and services in use will be in accordance with the needs and expectations of customers.

Gasperz (2005) defines quality in two main terms, namely that quality consists of a number of product features, both direct privileges and attractive features that meet customer desires and thus provide satisfaction with the use of the product, the second quality consists of everything that is free from deficiencies or damage. Therefore, it can be seen that an item or service will be judged to be of quality if it can meet consumer expectations of the value of the product given to the consumer. This means that quality is one of the factors that determine customer satisfaction assessment.

# **Quality Aspects**

There are three aspects in terms of achieving a quality product or service. The three quality aspects are (Mitra Amitava, 1993):

- 1. Quality of Design, is a condition that at least must be owned by a product or service in order to meet customer satisfaction. At least the product or service must have at least what the customer wants.
- 2. Quality of Conformance, that manufacturing products or services must be in accordance with the standards that have been chosen or determined in the design.
- 3. Quality of Performance, focuses on the operation of the product when actually used or services at the time of service, which can satisfy the customer as shown in Figure 1.



Figure 1. Quality Aspects (Mitra Amitava, 1993)

# Service

# The Understanding of Service

Service according to Zein (2009) is a word that for service providers is something that must be done well. According to Gronroos (in Ratminto, 2005), service is an activity or series of activities that are invisible (inaccessible) that occur as a result of interactions between consumers and employees or other things provided by service providers intended to solve customer / customer problems. Services according to Lovelock (2002) are defined as economic activities that create and provide benefits to customers at certain times and places, as a result and action to realize desired changes in themselves or on behalf of recipients of these services. This is inter-connected with the socio-economic contexts, thus socio-economic contexts are so intertwined that they are distinguishable but indivisible (Pillai and Ahamat, 2018).

While the notion of service according to Kotler (2003) is that every action or activity that can be offered by one party to another party is basically intangible and does not result in any ownership. According to Kotler (2000), well-managed

service organisations share certain common practices, namely a strategic concept, a history of top management commitment to quality, high standards, systems for monitoring service performance and customer complaints and an emphasis on employee satisfaction. In addition, according to Wilson et al. (2008), successful service organisations share certain common themes such as commitment to employee investment and trust-based relationships as well as value-driven leadership. Similarly, Seth, Deshmukh and Vrat (2005) report that if internal customers are dissatisfied, it will be difficult to establish satisfactory quality service for external customers. Owing to the globalisation of services as well as increased competitive demands, the involvement of top management and leadership is becoming increasingly vital in rendering excellent services.

# **Service Quality**

## **Understanding Service Quality**

Parasuraman et al. (1990) state that service quality is defined as how far the difference between reality and customer expectations for the services they receive. Kotler (1997) suggests, service quality is the ability of companies to provide services of higher quality than their competitors consistently. Lewis & Booms (in Tjiptono, 2012) view, service quality as a measure of how well the level of service provided is able to meet customer expectations. This can be interpreted the quality of service is determined by how the ability of certain companies or organizations to meet needs that are in accordance with what is desired or expected by customers / visitors. Zeitham and Bitner (2003), said the quality of service (service), is the expected level of excellence and control of the level of excellence to meet customer desires.

Service quality refers to an approach shaped by an enduring overall assessment of a firm's performance. Service quality can be a way of achieving success among competing services Since service is an intangible good, the only way to understand and administer service quality is by studying how a customer perceives it. The service quality is measured by measuring the expectations of the customer before the receipt of the service and his perception i.e. his experience after the receipt of the service. High administration quality is viewed as a key to succeed in aggressive administration markets. Numerous scientists have demonstrated that administration quality saw by clients will specifically impact clients' fulfillment, and also their trust in the administration firm (Aydin & Özer, 2005). In the writing, elements adding to administration quality in human services administration are perplexing and there is no agreement among analysts. SERVQUAL scales created by Parasuraman et al. (1988) have offered critical advances to the comprehension and estimation of saw administration quality.

SERVQUAL has been used in numerous sectors. The scale has also been applied to the health care field in numerous studies (Brown and Swartz 1989; Carman 1990; Babakus and Mangold 1992; Headley and Miller 1993; O'Connor, Shewchuk et al. 1994; Lam 1997; Lee, Delene et al. 2000). Its application to health care service quality demands an adaptation of the instrument (Carman 2000), e.g., 12 extra questions have been placed in the instrument in addition to original 22. The six dimensions named particularly applicable to healthcare are (1) nursing care, (2) accommodations, (3) physician care, (4) food service, (5) preparation for discharge, and (6) outcome (health status after hospitalization). A study in the context of a Turkish hospital by Kara et al. (2005) underlines that SERVQUAL should be used with 6 dimensions instead of the 5 that Parasuraman et al. Has summarized (1988). In addition to tangible, reliability, responsiveness, assurance and empathy, their study includes courtesy. Here, courtesy refers to the kind behavior of employees to the customer.

## **Dimensions of Service Quality**

According to Parasuraman, Zeithaml and Berry (1988) service quality means the customer's overall judgment of the excellence of the service or the difference between one's expectation and the actual service performed. According to Parasuraman et.al in 1990, the quality of services (services) are grouped into 5 dimensions, namely:

- 1. Direct Proof (Tangible), namely: as a facility that can be seen and used by the company in an effort to meet customer satisfaction, such as office buildings, office equipment, employee appearance and others.
- 2. Reliability, namely: the ability to provide services to customers in accordance with what is expected, such as the ability to occupy appointments, problem solving skills and the ability to minimize errors.
- 3. Responsiveness, that is as responsiveness, wants to listen and respond to customers in an effort to satisfy customers, for example: being able to provide information correctly and precisely, not showing a pretentious attitude and being able to provide help immediately.
- 4. Assurance, namely: the ability of employees to generate trust and confidence in customers through knowledge, politeness and respect for customer feelings.
- 5. Concern / Empathy, namely: the ability or willingness of employees to give personal attention, such as being friendly, understanding needs and caring for their customers.

The works of Parasuraman et al., (1988), Zeithaml et al., (1990), Vargo and Lusch (2004), and Lovelock and Gummeson (2004) among others counteracted the arguments behind the service quality revolution. The studies were largely of the opinion that some services are tangible, homogeneous, and separable. For instance, Vargo and Lusch (2004) argued that products cannot be more homogenous than services as both. require human judgement while consumers/users have heterogeneous opinions regardless of the relative homogeneity or heterogeneity of products or services. Parasuraman et al., (1988) and Zeithaml et al., (1990) after several trials that involved executive and focus group interviews, came up with five determinants of service quality (see Table 1).

Determinants	Explanations	
Tangibles: Appearance of p	physical facilities	
	1. Up-to-date appearing equipment	
	2. Visual appealing physical facilities	
	3. Well dressed and neat-appearing staff	
	4. Visual appealing materials associated with service	
Reliability: Ability to perform	n service dependably and accurately	
	5. Doing something by certain times promised	
	6. Showing sincere interest in solving problems	
	7. Performing the service right at the first time	
	8. Providing service at the time promised	
	9. Insisting on error-free records	
Responsiveness: Willingne	ss to help and provide prompt service	
	10. Telling you exactly when services will be performed	
	11. Giving your prompt service	
	12. Willingness to help	
	13. Never being too busy to respond to requests	
Assurance: Knowledge and	d courtesy of employees	
	14. Confidence instilling behaviour	
	15. Feeling safe in your transactions	
	16. Being consistently courteous	
	17. Having the knowledge to answer questions	
Empathy: Caring attention	the firm provides its customers	
	18. Giving you individualized attention	
	19. Having convenient operating hours	
	20. Giving your personal attention	
	21. Having your best interest at heart	
	22. Understanding your specific needs	

Table 1	. Dete	rminants	of	service	auality

Source: (Parasuraman et al., 1988 and Zeithaml et al., 1990)

# Service Quality Measurements

Estimation of administration quality has been led in different administration associations and in distinctive administration areas, the SERVQUAL model proposed by Parasuraman et al. (1988) has been utilized as a part of a wide mixed bag of studies to surveys both the client's administration desires and impression of the supplier's execution (Zarei et al., 2012; Ladhari, 2009; Pakdil & Aydin, 2007). As indicated by Parasuraman et al. (1985), the SERVQUAL scale was in light of the fifth crevice and the first ten measurements were further united into five measurements of administration quality to be specific Tangibles, Reliability, Responsiveness, Assurance and Empathy. Tangibles Appearance of physical offices, hardware, representatives and correspondence materials from an administration organization. Unwavering quality: An administration organization's capacity to perform the guaranteed administration constantly and precisely. Certification: representatives' learning and conduct about civility. Responsiveness: An administration organization is willing to help clients and give dependable administrations. Empathy: An administration organization gives mind and individualized regard for its clients, and in addition having advantageous working hours (Parasurman et al (1985).

# **Patient Satisfaction**

# Understanding of Patient Satisfaction

Satisfaction is a form of one's feelings after gaining experience with service performance that has met expectations (Gerson, 2004). Satisfaction is a feeling of pleasure or disappointment that arises after comparing between perceptions of the performance or results of a product or service and expectations (Kotler, 2007). Satisfaction according to Oliver (2001) is the achievement / fulfillment of what is expected by someone of an item or service. Technically, satisfaction as a form of customer evaluation of a product or service that can arise dissatisfaction (dissatisfaction) when the results of a product

or service cannot meet needs (needs) and expectations (expectations). Furthermore, dissatisfaction will arise when the results of a service or not can meet customer needs and expectations.

Customer satisfaction according to Guiltinan, namely "A buyer" is considered to have a reasonable value for customers. This means that customer satisfaction is a consequence of comparisons made by customers that compare between levels of perceived benefits to the benefits expected by customers. Whereas according to Pasuraman, Zeithaml, & Berry, suggests that customer satisfaction is the feeling of the customer towards one type of service that he gets. Gibson's opinion (1987), which can be concluded that someone's satisfaction (worker, patient or customer) means fulfilling desired needs obtained from the experience of doing something, work, or getting certain treatment and getting something according to the desired needs. The term satisfaction is used to analyze or evaluate results, comparing the desired needs that are set. Kotler (2007), defines that patient satisfaction is the level of one's feelings after comparing the performance (or results) that he feels compared to his expectations.

Consumer loyalty is characterized as a client's general assessing of the execution of an offering to date (Gustafsson, Johnson & Roos, 2005) and is seen as the way to an organization's prosperity and long haul intensity (Hennig-Thurau & Klee, 1997). The fulfillment additionally serves as a judgment that an item or administration highlights, or the item or administration itself, gives a pleasurable level of utilization related satisfaction (Oliver, 1997). In less specialized terms (Zeithaml & Bitner, 2003) made an interpretation of this definition to imply that fulfillment is the client's assessment of an item or administration as far as whether that item or administration has lived up to their needs and desires. Inability to address the issues and desires is expected to result in disappointment with the item or administration.

Aboagye (2011) study showed that, fulfillment is for the most part saw as a more extensive idea though benefit quality concentrates particularly on measurements of administration. Moreover, saw administration quality is a segment of consumer loyalty and that, fulfillment is impacted by view of administration quality, item quality and cost and in addition situational elements and individual components. In conclusion, Service quality is an engaged assessment that mirrors the client's view of dependability, affirmation, responsiveness, compassion and unmistakable. Consumer loyalty is controlled by item and administration highlights, shopper feelings, impression of item and administration quality, and value (Zeithaml et al 2009).

## Factors influencing customer perceptions

According to Zeithaml et al. (2009), there are four factors that influence customer perceptions and expectations, namely as follows:

- 1. What customers hear from other customers (word of mouth to mouth communication). Where this is a potential factor that determines customer expectations.
- 2. Customer expectations depend on individual characteristics where personal needs.
- 3. Past experience (past experience) in using services can also affect the level of customer expectations.
- 4. Communication with external parties (external communication) from service providers plays a key role in shaping customer expectations.

#### Puskesmas

The Puskesmas is the district / city health technical service unit that is responsible for carrying out health development in a region. Puskesmas as the first strata health service center organizes first-level health service activities in a comprehensive, integrated and sustainable manner, which includes health services per person (private goods) and public health services (public goods). Puskesmas carry out activities including public health efforts as a form of health development effort.

# **RESEARCH METHODOLOGY**

In this study, the aim is to measure the relationship between the five dimensions of service quality and patient satisfaction. Hence, the research is to analyse the effect of service quality on patient satisfaction in Puskesmas ISO 9001 2008 ISO and Non ISO in Banda Aceh. The conceptual framework work area the variables in this study were divided into two independent variables consisting of, tangibles (EXV1), reliability (EXV2), responsiveness (EXV3), assurance (EXV4) and empathy (EXV5) while the dependant variable is patient satisfaction (ENDV).

# **Conceptual Framework**





# **Research Sites**

This research was conducted in Aceh province in the Banda Aceh city area at a Puskesmas under the supervision of the Banda Aceh city health office consisting of 3 ISO certified community health centers including Baiturrahman, Kuta Alam, Kopelma Darussalam and 3 ISO certified health centers including Meuraxa, Ulee Kareng and Bathoh. The research sites are demonstrated in the below figures for research clarification.



Figure 3. Research location (a) Aceh province (b) Republic of Indonesia (c) Banda Aceh city

# **Research Hypothesis**

- Ho: There is no influence on the quality of services from the direct evidence dimension to patient satisfaction at Puskesmas ISO and Non ISO in Banda Aceh.
   Ha: There is an influence on the quality of service from the dimension of direct evidence to patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
- Ho: There is no influence on the quality of service from the dimensions of reliability to patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
   Ha: There is an influence of service quality from the dimensions of reliability towards patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
- Ho: There is no influence on service quality from the dimensions of responsiveness to patient satisfaction at Puskesmas ISO and Non ISO in Banda Aceh.
   Ha: There is an influence of service quality from the dimensions of responsiveness to patient satisfaction at Puskesmas ISO and Non ISO in Banda Aceh.

- 4. Ho: There is no influence on the quality of service from the guarantee dimension to patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
  Ha: There is an influence on the quality of service from the guarantee dimension of patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
- Ho: There is no influence on the quality of service from the dimension of empathy to patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
   Ha: There is an influence on the quality of service from the dimension of empathy to patient satisfaction in Puskesmas ISO and Non ISO in Banda Aceh.
- 6. Ho: There is no effect of direct evidence, reliability, responsiveness, assurance and empathy simultaneously on patient satisfaction at Puskesmas ISO and Non ISO in Banda Aceh.

Ha: There is the influence of direct evidence, reliability, responsiveness, assurance and empathy simultaneously on patient satisfaction at Puskesmas ISO and Non ISO in Banda Aceh.

According to Sugiyono (2014) the notion of purposive sampling is a technique of sampling data sources with certain considerations. Hence, the number of samples to be used in this study as many as 600 people consisting of 300 people at Puskesmas ISO certified consisting of 100 respondents at Puskesmas Baiturrahman, 100 respondents at Puskesmas Kuta Alam and 100 respondents at Puskesmas Kopelma Darussalam. While, another 300 respondents at Puskesmas Non-ISO certified consisting of 100 respondents at Puskesmas Meuraxa, 100 respondents at Puskesmas Ulee Kareng and 100 respondents at Puskesmas Batoh. The inclusion criteria, namely: those who were respondents in this study only those aged 15 years and over, willing to be respondents, able to read and write and seek treatment at the Puskesmas more than 5 times, demonstrating their close relationship with the research context. In the reliability test with 30 patients in seeing the language transfer on the questionnaire, the results of the Cronbach alpha value of all the tested variables were above 0.6 so that it can be concluded that all variables in this study passed the reliability test according to the Table 2 below this.

	Table 2. Reliability statistics							
No	Number of variables	Number of item questions	Cronbach's Alpha					
1	Tangibles	4	0.736					
2	Reliability	5	0.742					
3	Responsiveness	3	0.907					
4	Assurance	4	0.856					
5	Empathy	4	0.827					
6	Patient satisfaction	16	0.892					

Primary data is processed in 2016

## Validity of the Measurement Scale

According to Gregory (2000) content validity shows the extent to which questions, assignments or items in a test or instrument are able to represent the overall and proportional behaviour of the sample subject to the test. This means that the test reflects the entire content or material being tested or that should be mastered proportionally. Validity according to Arikunto (2013) is a measure that shows the level of validity or validity of an instrument. Validity testing is done to ascertain how well an instrument is used to measure the concept that should be measured. A questionnaire is said to be valid if a person's answer to the question contained in the questionnaire is consistent or stable over time. Validity is measured using Pearson Product Moment Correlation (Sudjana, 2005).

Comparing the calculated r-value with the r table value can do this validity test. The calculated r-value is taken from the SPSS Cronbach Alpha output in the Correlated Item-Total Correlation column. While the value table is taken using the formula df = n - 2 (Ghozali, 2005). Namely df = 30-22 = 28, resulting in a r table value of 0.306 based on the results of a questionnaire test of 36 questions on 2 variables consisting of service quality variables consisting of five dimensions including direct evidence 4, reliability 5, responsiveness 3, guarantee 4, and empathy 4 questions as independent variables (X) and variable patient satisfaction as the dependent variable (Y) consists of 16 questions. The number of questions from the two 36 question variables obtained results from 0.471 - 0.939 so Because the overall value of r counts all indicators tested positive and greater than the r value of table 0.306, it can be concluded that all the items in this study are valid according to Table 3 (validity test results attached).

	•				
No	Variable quality of service & patient satisfaction	Value con	Value of		
		Low	High	r table	
1.	Tangibles	0.632	0.797	0.306	
2.	Reliability	0.471	0.837	0.306	
3.	Responsiveness	0.919	0.939	0.306	
4.	Assurance	0.779	0.894	0.306	
5.	Empathy	0,700	0,909	0.306	
6.	Patient satisfaction	0.415	0.801	0.306	

Primary data is processed in 2016

# **RESULTS AND DISCUSSION**

Testing the hypothesis in this study is valid if it is based on valid data or information, and information will be valid if obtained from quality data. The data used in the study will contain outliers if the data is biased and not quality. Descriptively based on the mean and standard deviation (with the help of SPSS version 22) where all research indicators have a mean value greater than the standard deviation, so that all indicators do not contain data outliers. Therefore, all indicators used in this study are worth analyzing to prove the hypothesis. To detect whether the data is categorized with outliers or not, we use a standard value of 3.29. This means, data that is greater than 3.29 or smaller than -3.29 is considered outlier data - data is out of the ordinary. In SPSS, sort the Z value data with Ascending, to see if the data is greater than 3.29 or smaller than - 3.29 in this study data there are no outliers.

## **Sample Characteristics**

Population representation is an important parameter as stated by Tuckman (1988) in Setyosari (2007: 147) referred to as, an acceptable level of probability. To determine the number of samples to obtain a representative sample, the determination of the sample must be based on several factors. These factors include the type of research, the hypothesis, the number of variables studied, the importance of the results of the study, the way of data collection, the level of accuracy of the results, and other factors such as time, cost, and energy available (Ruseffendi & Sanusi, 1994: 92). Gay (1981) in (Ruseffendi & Sanusi, 1994: 92) says that for descriptive research, the minimum sample is 10% - 20% of the population. For correlational research at least 30 subjects (people). For experimental research, at least 30 people are grouped. Mc Millan and Schumacher (1984) in (Ruseffendi & Sanusi, 1994: 92) argue that for correlational research, a minimum sample of 30 people. Whereas for comparisons it takes at least 10 people in each sample group, in this study fulfilled the requirements based on the existing theory, with the number of patients 600 people divided into two groups, namely 300 people at Puskesmas ISO and 300 people at Puskesmas Non ISO.

# The Effects of Tangibles on Patient Satisfaction

Based on the results of data analysis at the Puskesmas ISO, bivariate test results of the influence of tangibles on patient satisfaction CR value = 5.376 > 1.96 with a P value = 0.000 < 0.05 means that the dimensions of tangibles affect patient satisfaction. This means that the quality of services in the form of tangibles consisting of cleanliness, infection control, availability of facilities, health education and supporting facilities owned by Puskesmas ISO have a significant influence on patient satisfaction. Thus, if the quality of services in the tangibles dimension increases, patient satisfaction will increase as well. According to the results of SEM analysis the first indicator chosen by respondent in this tangibles form is cleanliness and infection control, meaning that cleanliness and prevention of infection are important for patients in their satisfaction. The second indicator is the availability of good equipment in the service process, the third indicator is sufficient information from supporting facilities so that patients can easily get it, and the fourth is the delivery of things needed by patients in accordance with the disease by health workers.

Whereas the results of the bivariate test in the tangibles dimension at the Puskesmas Non-ISO obtained the CR value = 1.007 < 1.96 with a P value = 0.314 > 0.05 meaning the tangibles dimension did not affect the satisfaction of the participants. According to the results of SEM analysis, the first indicator respondents chose to form tangibles was the availability of good equipment in the service process, the second indicator chosen was hygiene and infection control, then the third indicator was the delivery of what patients needed in accordance with the disease by health workers. The fourth is enough information from supporting facilities. The results of the multivariate tests of Puskesmas both ISO certified and Non-ISO tangibles dimensions have an effect on patient satisfaction. This research is in accordance with the research conducted by Faris (2014) in 183 patients in government-owned health services in Al-Baha province, Saudi Arabia with a cross-sectional study method in which the results of the study showed in the whole regression analysis. This demonstrates a significant impact on the quality of care on patient satisfaction (p = 0,000), where tangible was in second place with  $\beta = 0.198$  after empathy. Further research was conducted by Taufik, et al. (2016), in 106 inpatients in six Puskesmas hospitalized in Jaya Pura district where the results showed that the most dominant dimensions related to patient satisfaction compared to dimensions another is tangibles. The quality of health services in Puskesmas Jaya Pura district has a direct relationship with tangibles (P = 0.019 < 0.05) and patient satisfaction, while others are reliability (P = 0.768>

0.05), responsiveness (P = 0.217 > 0.05), assurance (P = 0.780 > 0.05) and empathy (P = 0.211 > 0.05) did not significantly affect patients in Puskesmas Jaya Pura district.

If viewed from the results of research from the two health care institutions namely Puskesmas ISO and Non-ISO, the standard set out in ISO has a significant impact in this case tangibles which are physical facilities that are easy to be seen by consumers for services provided and facilities that available at the institution. When one service institution will be ISO certified then all physical facilities along with officers have been prepared in accordance with the standards set out in the ISO, so that the services provided at Puskesmas ISO and Non-ISO will certainly show different things to consumers who use these facilities because they will provide more comfort in the services provided.

Even though the tangibles dimension at Puskesmas Non-ISO at bivariate test did not affect patient satisfaction but the multivariate test had an effect on patient satisfaction, it meant that the physical appearance at Puskesmas Non-ISO was not very lacking but the physical appearance did not have the standard applied at Puskesmas ISO such as room cleanliness, comfortable waiting room, clear supporting facilities information, adequate medical equipment, neat and friendly officers and others who are considered by patients to have fulfilled their expectations therefore patients as consumers are satisfied.

The above opinion is in accordance with the opinion of Tjiptono (2012), physical evidence relating to the physical appearance of service facilities, equipment, human resources, and corporate communication material. Furthermore, Yazid (2005) said that tangibles could include the appearance of facilities or physical elements, equipment, personnel and communication materials that aim to strengthen the impression of the quality of services offered to consumers. Likewise the opinion conveyed by Amir (2005) indicates that customer satisfaction is the extent to which the benefits of a product are felt in accordance with what is expected by the customer. Thus it is necessary to improve the quality of services from the tangibles dimension at Non-ISO according to the expected standards, such as Puskesmas ISO so that the satisfaction of patients treated at the Puskesmas Non-ISO can be increased.

## The Effects of Reliability on Patient Satisfaction

Based on the results of data analysis at the Puskesmas ISO, the results of the bivariate test of the effect of reliability on patient satisfaction CR value = 3.249 > 1.96 with the value of P = 0.001 < 0.05 means that the reliability dimension affects patient satisfaction. This means that the quality of service in the form of reliability consists of the suitability of the time needed from the time of registration until the examination, the time required for overall service in accordance with the wishes of patients, health workers in the Puskesmas have determined the correct diagnosis for patients, Puskesmas organization.

Having patient health records and working hours of Puskesmas is in accordance with the needs of patients at Puskesmas ISO, which has a significant influence on patient satisfaction. This means that if the service quality reliability dimension increases, patient satisfaction will increase as well. According to the results of SEM analysis, the first indicator chosen by the respondents in the establishment of reliability is that health workers in Puskesmas have determined the correct diagnosis for patients, meaning that the reliability of the officers in handling patient conditions is important in patient satisfaction. The second indicator is that Puskesmas working hours are in accordance with the wishes of patients, the third indicator is Puskesmas has a patient health record document, the fourth is the suitability of time needed from registration to the examination and the fifth time required in the overall service as desired patient.

While the results of the bivariate test of reliability dimensions in the Puskesmas Non-ISO can be obtained by the value of CR = 0.168 < 1.96 with the value P = 0.866 > 0.05, which means that the reliability does not affect the satisfaction of participants. According to the results of SEM analysis the first indicator respondents chose to form reliability is the time suitability from registration to examination, the second indicator chosen is that the time needed for overall service in Puskesmas is in accordance with the patient's wishes, then the third indicator is working hours Puskesmas is in accordance with the fourth place is that Puskesmas has patient health documents, and the fifth health worker in Puskesmas has determined the correct diagnosis of the patient. The multivariate test results in Puskesmas ISO reliability dimensions affect patient satisfaction while in Puskesmas Non-ISO the reliability dimension does not affect patient satisfaction.

This research was supported by research conducted by Vinasithamby & Velnampy (2011), in 250 patients in 5 hospitals in Jaffana District, Sri Lanka, and found that the dimensions of reliability and responsiveness were the dimensions of the service quality that had the strongest relationship with patient satisfaction. In addition, other studies conducted by Hamed, et al. (2015) on e-Commerce business customers in Libya found that reliability dimensions have a direct positive effect on perceived service quality and patient satisfaction. Although the results of the bivariate and multivariate tests at Puskesmas Non-ISO reliability did not affect patient satisfaction, it meant that the services provided at Puskesmas Non-ISO were very poor but were not in accordance with ISO standards so improvements were needed to be improved in accordance with ISO standards so patients could feel the services provided in accordance with his expectations both of the skills of the officer who handles the patient, as well as the use of time in serving and documenting the patient's treatment can be well documented.

This is in accordance with the opinion of Baltussen, Haddad & Sauerborn (2002), who says reliability is a skill to provide promised and reliable service. In addition, Choi et al (2005) say perceived quality in the context of patient experience becomes reliability of patient criteria and stated differences between the perceived quality and actual quality and concluding that it actually makes him reliable more precisely felt. According to Kotler and Keller (2009) "Reliability related to the ability of the company to provide services as promised reliably and accurately. Furthermore, Kotler and Keller (2009) also state the attributes that exist in this dimension of reliability such as providing services according to promise, responsibility for handling customers for service problems and providing timely services. So accurate service is

very influential on customer satisfaction including having employees who are reliable in their field, so customers will feel satisfied with the company or institution that provides services.

# The Effects of Responsiveness on Patient Satisfaction

Based on the results of data analysis at Puskesmas ISO, the bivariate test results of the effect of responsiveness on patient satisfaction, CR value = 4.402 > 1.96 with a P value = 0.000 < 0.05 means that the dimensions of responsiveness influence patient satisfaction. This means that the quality of service in the form of responsiveness consisting of health workers who handle it has enough competence in accordance with the needs of patients, officers have provided prompt and appropriate services, officers provide services in a friendly and courteous manner to patients at Puskesmas ISO have a significant influence on satisfaction patient. Thus, if the quality of service dimensions of responsiveness increases, patient satisfaction will increase as well. According to the results of SEM analysis, the first indicator chosen by respondents in forming the responsiveness is that health workers who handle already have competencies in accordance with the patient's needs, meaning that the indicators of staff competency in handling patients are the main things that give satisfaction to patients. The second indicator is that officers provide fast and appropriate services and the third indicator is that Puskesmas officers always provide friendly and polite service.

While the results of the bivariate test of the responsiveness dimension at Puskesmas Non-ISO obtained the value of CR = 0.139 < 1.96 with a value of P = 0.890 > 0.05 meaning that responsiveness did not affect the satisfaction of participants. According to the results of SEM analysis, there are two indicators that are selected as important by the respondents in forming the dimension of responsiveness, namely the officers have provided prompt and precise service, and the Puskesmas officers always provide friendly and polite service to patients. Furthermore, the last indicator is that health workers who handle already have competencies in accordance with the needs of patients, meaning that in the Puskesmas Non-ISO, competency is not more important than the other two indicators. The multivariate test results of both Puskesmas ISO and Non-ISO certified have responsiveness effect on patient satisfaction.

The results of this study are supported by research conducted by Ioannis, E., C. & Constantine, L. (2009), on 1000 mothers who have given birth to children for five years in Greece. The data in this study were analysed using SEM, the results showed that good service quality improved patient satisfaction, namely responsiveness (16.15) tangibles (14.82), reliability (14.89), assurance (15.10) and empathy (16.01) and if seen from the dimensions of service quality, the quality of responsiveness that gives the highest value of satisfaction can be interpreted that hospital personnel who work attentively and have their own initiative, work quickly and according to the needs of patient needs can increase satisfaction.

Other research conducted by Ahmadi, K., S. Et al (2016), at two government hospitals and three private hospitals in Tehran with 500 patients as respondents to hospital responsiveness which became patient expectations on aspects of nonmedical care that led in patient satisfaction, the results of a regression analysis of approximately 65% of the variance in satisfaction can be explained by the dimension of responsiveness, where 7 of 8 independent dimensions have a positive impact on patient satisfaction and conclude that hospital responsiveness has a strong effect on overall patient satisfaction. When viewed from the research carried out at Puskesmas ISO and National Non-Health Education Centre ISO quality standards from ISO certification have affected patient satisfaction with the institution from the responsiveness dimension where institutions can provide services performed by officers in accordance with their profession who are considered capable or skilled in taking action against patients, officers in providing services are always friendly and polite, and services are received quickly and precisely. Thus patients as consumers in the health industry feel safe and comfortable so that they will provide satisfaction to the service provider institutions.

Although the results of the bivariate test at Puskesmas Non-ISO the dimensions of responsiveness did not affect patient satisfaction but in the multivariate test the dimension of responsiveness influencing satisfaction did not mean that the services provided at Puskesmas Non-ISO were very good because they still needed to conform to ISO standards so patients could feel service given in accordance with his expectations so that it is necessary to continue to improve services in accordance with the desired patient generally such as competency of officers in handling patients must be improved and always friendly and polite so patients are comfortable in receiving services because consumers who come to health care institutions generally require treatment of their condition which means that consumers or customers in anxious state are also different from customers in institutions outside of health, therefore the expertise of officers in dealing with their customers is very necessary so that they can provide satisfaction with the customer.

This demonstrates the crucial function of human capital in hospital ecosystem. The human capital is shaped by social equity hence the well being of individual and the community (local or global) increases institutional-individual relationship (Ahamat, 2017). This is very much relevant from the point of view of the role of the nurse. The opinion above is supported by the opinion of Griffin (2003) which states that the higher the responsiveness in the eyes of customers, the greater their trust in the company so that loyalty will be created. Furthermore, according to Supranto (2011), responsiveness is the desire or ability to help and provide services that are fast, responsive, timely to customers. An officer's responsiveness to health services will affect one's impression of obtaining satisfaction after receiving service.

#### The Effects of Assurance on Patient Satisfaction

Based on the results of data analysis at Puskesmas ISO, the results of the bivariate test of the effect of assurance on patient satisfaction CR value = 2.967 > 1.96 with P value = 0.003 < 0.05 means that the assurance dimension affects patient satisfaction. This means that the quality of service in the form of assurance consists of evaluating patients for the services provided by all Puskesmas officers, patients feeling safe and comfortable with the services available at

Puskesmas, all the actions taken by the officers creating trust in Puskesmas, officers always guide patients during Puskesmas has a significant influence on patient satisfaction. Thus, if the quality of assurance dimension services increases, patient satisfaction will increase as well. According to the results of the SEM analysis, the first indicator chosen by the respondents in forming the assurance dimension is that patients feel safe and comfortable with the services available at Puskesmas. The second indicator is the patient's assessment of the services provided by all Puskesmas officers, then the two indicators are simultaneously selected, namely all the actions taken by the officers give rise to trust in Puskesmas and the officers always guide patients during Puskesmas.

While the results of the bivariate dimension of assurance dimensions at Puskesmas Non-ISO were obtained CR = 0.953 < 1.96 with P = 0.340 > 0.05, which means that assurance does not affect the satisfaction of participants. According to the results of the SEM analysis the first indicator respondents chose to form the assurance dimension is the patient's assessment of the services provided by all Puskesmas officers, the second indicator chosen is that patients feel safe and comfortable with the services provided by all Puskesmas officers, the third indicator is all actions what was done by the officers gave rise to trust Puskesmas and the fourth indicator, the officers always guided patients during Puskesmas. The multivariate test results in both Puskesmas, namely those that are Puskesmas ISO and Non-ISO assurance dimensions have no effect on patient satisfaction.

This research is supported by research conducted by Taufik et al. (2016), in 106 inpatients at six Puskesmas hospitalized in Jaya Pura district where the results of the study showed that the assurance dimension of the quality of health services in Puskesmas, Jaya Pura district had no effect on patient satisfaction with P = 0.780 > 0.05. Furthermore, other studies were almost the same as those conducted by telecommunication customers by Anwar & Ali (2016) at 400 respondents to see the quality of service to patient satisfaction which results that all dimensions of service quality, namely tangibles, reliability, responsiveness, assurance and empathy affect customer satisfaction. This means that if the customer's expectations or in this case the patient is in accordance with what he receives from the service, it will certainly lead to satisfaction with the institution that provides the service.

When viewed from the research conducted at the ISO National Education Centre and National Education Centre for Puskesmas ISO Quality Standards the ISO certification has not had a strong impact on patient satisfaction with the institution from the assurance dimension where the institution has not been able to guarantee the services performed by officers to the patient means that the service provided to patients have not fulfilled patient expectations so that patients do not yet have complete satisfaction with service institutions even though bivariate assurance in Puskesmas ISO influences consumers but multivariate does not have an effect, thus it is still necessary for Puskesmas ISO to improve service guarantees for patients, especially those directly related with patients starting from the patient coming to completion while in Puskesmas Non-ISO must improve more so that the patient's expectations of the assurance dimension can be fulfilled so as to provide satisfaction and trust patients to service providers because the higher assurance in the eyes of customers or in this case patients, the more trust they will have in the institution which results in patients being willing to get their health checked into Puskesmas, the end result of which is a healthy community and country.

According to Bitner, et al. (1994), said frontline personnel is an important source of information, because they are directly dealing with customers. The same thing is said by Morgan & Hunt (1994), trust is a key variable in developing the desire to maintain long-term relationships that will affect satisfaction and loyalty. Other forms of collateral are guarantees for employees who have personality behaviours that are good at providing services, of course, it will be different from employees who have character or character that are not good at providing services (Margaretha, 2003). From this opinion it can be concluded that officers who provide direct services to patients from the beginning of the patient's arrival to completion are very important in guaranteeing the patient's trust in the institution.

## The Effects of Empathy on Patient Satisfaction

Based on the results of data analysis at Puskesmas ISO, bivariate test results have an empathy effect on patient satisfaction, CR value = 3.378 > 1.96 with a P value = 0.000 < 0.05, meaning that the empathy dimension affects patient satisfaction. This means that the quality of service in the form of empathy, which consists of officers giving good attention individually to patients, officers correctly understand the needs of patients who need it; officers show sincerity in resolving patient problems, officers notify time of examination for patients at Puskesmas ISO has a significant to patient satisfaction. Thus if the service quality of the empathy dimension increases, patient satisfaction will increase as well. According to the results of the SEM analysis, the first indicator chosen by respondents in the empathy formation was that the officers showed seriousness in solving the patient's problem, meaning that the indicator of solving the patient's problem by the officer was the main thing that gave satisfaction to the patient. The second indicator is that the officer gives good attention individually to the patient and the officer understands correctly the needs of the patient.

Whereas the results of the bivariate test on the empathy dimension in Puskesmas Non-ISO obtained the results of CR = -2.150 < 1.96 with a value of P = 0.032 > 0.05 meaning that empathy did not affect the satisfaction of the participants. According to the results of SEM analysis, the first indicator chosen by the respondents in forming the empathy dimension was that the officers understood correctly the needs of the patients who were needed. The second indicator chosen was that the officers gave good attention individually to the patient, the third indicator, and the officer showed seriousness in solving the patient's problems. Furthermore, the last indicator is the officer notifying the patient of the examination time. In Puskesmas Non-ISO the seriousness of the officers in solving problems is not important but understands the necessary needs more closely.

The multivariate test results at Puskesmas ISO in the empathy dimension had an effect on patient satisfaction while Puskesmas Non-ISO empathy dimensions did not affect patient satisfaction. The results of this study are supported by a study conducted by Olgun, K. et al (2014) in 369 patients who faced various services in the health industry in Turkey, the results showed that the empathy and assurance dimensions were positively related to customer satisfaction. Furthermore, Khasimah, & Wan (2016) conducted a research on 273 outpatients in private health cares industries in Malaysia. The results of the study show that the dimensions of empathy, tangibles and assurance have a relationship with patient satisfaction and the intention of the offender.

When viewed from the research carried out at Puskesmas ISO and Non-ISO quality standards from ISO certification have an impact on patient satisfaction with the institution from an empathy dimension where the institution can provide services in the form of individual attention to patients, understanding patient needs, resolving patient problems and each action always tells the patient to be felt by the patient as a great caregiver's attention to the patient can meet the patient's expectations, giving rise to satisfaction with the service provider institution. Whereas in Puskesmas Non-ISO even though the empathy dimension has no effect on the bivariate and multivariate tests, it does not mean that the indicators on the empathy dimension are very bad but do not meet the standards according to Puskesmas ISO criteria, therefore better preparation is needed to be able to improve Puskesmas ISO certified, which is of course the concern of all parties is not only Puskesmas officers but also policy makers.

According to Lupiyoadi (2006) empathy is giving sincere and individual or personal attention given to customers by trying to understand consumer desires. Where a company is expected to have understanding and knowledge of customers, understand customer needs specifically, and have a comfortable operating time for customers. According to Parasuraman (in Lupiyoadi & Hamdani 2001), empathy is attention by giving a sincere and individual attitude or personal given by the company to customers such as the ease of contacting the company, the ability of employees to communicate with customers and the company's efforts to understand customer wants and needs. Where a company is expected to have understanding and knowledge of customers, understand customer needs specifically, and have a comfortable operating time for customers. Whereas Zoeldhan (2012) said that empathy in a service is a concern, seriousness, sympathy, understanding and involvement of parties concerned with the service to develop and carry out service activities in accordance with the level of understanding and understanding of each party. Empathy requires the mutual understanding of each other between employees or those who serve and who are served or consumers in order to create a balance or harmonious relationship within the company.

## The Effects of Service Quality on Patient Satisfaction

Based on the results of data analysis at Puskesmas ISO, the bivariate test results influence the variable quality of service on patient satisfaction CR value = 4.585 > 1.96 with a value of P = 0.000 < 0.05 means that the quality of service variables affect patient satisfaction. This means that if overall service quality consisting of tangibles, reliability, responsiveness, assurance and empathy dimensions will increase patient satisfaction at Puskesmas ISO. When viewed from the multivariate test, there are four out of 5 dimensions, namely tangibles, reliability, responsiveness, and empathy, representing the overall quality of service influencing satisfaction. So it can be concluded that the quality of service at Puskesmas ISO has an effect on patient satisfaction.

While the results of data analysis on Puskesmas Non-ISO obtained bivariate test the effect of service quality variables on patient satisfaction CR = -0.571 < 1.96 value with P = 0.568 > 0.05 means that service quality variables do not affect patient satisfaction. Judging from the multivariate test, only the dimensions of tangibles and responsiveness that represent the quality of service have an effect on patient satisfaction. So it was concluded that the quality of service in Puskesmas Non-ISO as a whole has not been able to provide satisfaction to patients. This research is supported by research conducted by Musbashra et al. (2017), in 171 patients at Willindon hospital, Lahore, Pakistan, the results of regression analysis showed that service quality had a positive and significant effect on patient satisfaction and negatively affected intention perpetrator. Furthermore, research conducted by TH. A. Radito (2015) in 150 patients at Puskesmas, Mantrijeron who were ISO certified, the results obtained were that the quality of service affected the satisfaction of Puskesmas patients with P = 0.01 < 0.05.

When viewed from the quality of services available at Puskesmas ISO and Non-ISO, it is clear that the quality of services with ISO standardization can meet patient expectations in the use of these health care facilities either from Puskesmas physical facilities, officers who serve patients, use of time in services, competency of officers in carrying out actions and others that according to customers in this case patients have been able to fulfil their expectations so as to provide satisfaction. While the service quality in Puskesmas Non-ISO still needs to be improved in accordance with the standards required in ISO certification considering ISO standardization has shown an impact on patient satisfaction because the quality of service itself is said to be good if what patients or customers feel is as expected. Thus it can be concluded that the quality of Puskesmas ISO certified services can meet the overall expectations of patients while the quality of service at Puskesmas Non-ISO is still in line with patient expectations so it is still very important for Puskesmas management and staff and other policy makers to be able to improve Puskesmas ISO certified.

This is in accordance with the opinion of Barlow (2010) who said that the better the quality of services provided, the better the image of the service in the eyes of consumers. Furthermore, Gronroose (2007) states that service quality includes function quality, technical quality, outgoing quality and company reputation. Quality of function emphasizes how service is carried out, consisting of dimensions of contact with consumers, attitudes and behaviour, internal relations, appearance, ease of access, and service mindedness. Service mindedness of hospital organizations could be developed through appropriate entrepreneurial orientation.

A recent study demonstrated on 105 private hospitals in Indonesia, it is evidenced that entrepreneurial orientation of hospital organizations in Indonesia proved has a significantly positive influence on organizational performance in the disruptive environment condition (Dewi and Ahamat, 2018). Nevertheless, this study examines the function of hospital's business model innovation in the context of organization's performance. The hospital's business model innovation is influenced by the entrepreneurial orientation and the strength of collaboration between management with physicians, who can jointly improve organizational performance (Dewi and Ahamat, 2018). While, the collaboration role between management and hospital employees are crucial to enhance the service quality and patient satisfaction in Puskesmas.

While the technical quality of output quality perceived by consumers, including price, timeliness, service speed, and output aesthetics. The reputation of the company is reflected in the company's image and reputation in the eyes of consumers. Thus, based on this opinion, it can be said that the service quality of an organization is said to be good if all the elements in it can meet the expectations of its customers so that it can provide satisfaction to the service provider institutions. In health care institutions this is very important considering the customer is a patient who needs treatment for the condition of the illness, if the patient is satisfied with the services provided by health care institutions, of course the patient will easily come back to check their health so that the expected end result is not only satisfaction patients but general public health, this is what makes one of the differences in the health industry with other health industries.

# CONCLUSION

The results of this study in the bivariate test were obtained: in Puskesmas ISO all service quality variables included: tangibles, reliability, responsiveness, assurance and empathy had an effect on patient satisfaction while in Puskesmas Non-ISO all service quality variables did not affect patient satisfaction. In the multivariate test, the results obtained at Puskesmas ISO tangibles, reliability, responsiveness and empathy variables affected patient satisfaction, whereas in Puskesmas Non-ISO, tangibles and reliability variables that affected patient satisfaction. This research can be an additional academic study in studying variable variables that influence patient satisfaction in health care institutions, especially basic level services so that things that can improve the quality of services can be learned so as to increase patient satisfaction both at Puskesmas ISO certified and the Puskesmas Non-ISO. Policy makers in the regions certainly need to know the quality of services produced by health care institutions both those that increase and those that become obstacles so that they can make policies in an effort to improve the quality of services such as Puskesmas that are not ISO certified. improve the quality of services such as Puskesmas that are not ISO certified. improve the quality of health services for the community better and of course the hope of achieving a healthy community.

Research limitations are weaknesses of studies that can affect results. This research was only carried out at Puskesmas in Banda Aceh, in the future it was hoped that it could involve Puskesmas in other districts as a comparison in looking at the quality of services and patient satisfaction. In addition, in this study the respondents used were patients who went to Puskesmas ISO and Non-ISO in the future. It was hoped that Puskesmas management and staff could be involved in seeing the obstacles that become obstacles in achieving good quality services that have an impact on patient satisfaction.

Furthermore, this study only uses a questionnaire as an expected data collection tool in the future can be supplemented by interviews with patients, management and Puskesmas staff and field observations so as to produce more complete data for analysis. It is recommended here that one of the ways to progress management inquiry or research, is to challenge the traditional methodologies and to use scientific approach in observing, measuring, analyzing, and concluding management phenomena (Ahamat, 2014). This could be achieved by using qualitative research strategies. Employing structured interviews and personal observation driven to the discovery of key emerging themes, which may not have been uncovered as explicitly if only non-qualitative approaches had been applied (Ahamat, 2019).

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