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## RESEARCH ARTICLE

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**The Effect of Internal and External Factors to The Number of Visits in Sanitation Clinic of Public Health Center of Poncol Magetan Regency**

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**ABSTRACT**

The Sanitation Clinic program has been introduced and implemented since 2003. But in many places the program does not run well, and is not managed properly, leaving a lot of problems. In some places sanitation clinic activities are conducted without any purposes, and merely administration activity without doing real action. The objectives of the study were to analyze the internal and external factors of the tangible, reliable, responsive, assurance, and emphathy together, and and to find which factor is the most dominantly in influencing the number of sanitation clinic visits. The study was an analytic survey research, it was focused to explain how and why of certain situation. Based on the period of data collection, this study belongs to cross sectional study. Methods of data analysis was using multiple regression method to see whether there is a relationship and the closeness of the relationship of each independent variable to dependent variable, and the relationship between variables in the study. The result of standardized Coefficients Beta from the five dimensions of service quality stated that the assurance dimension (X4) has the largest standardized Coefficients Beta value of -0.007. There was a significant influence jointly between internal and external factors (tangible, reliable, responsive, assurance, and emphathy) on the number of visits. Insurance dimension is the most dominant dimension of the number of visits in Sanitation Clinic in Public Health Center of Poncol, Magetan Regency.

**Keywords:** Internal factors, External factors, Sanitation clinic

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**INTRODUCTION**

Health is a human right and an investment for the nation's development. For that purpose, the development of health must be conducted comprehensively and continuously, with the aim to increase awareness, willingness, and ability to live healthy for everyone to realize the highest level of public health<sup>(1)</sup>.

In the effort to achieve the development of public health as a whole, then National Health System is formed. The implementation of health services is carried out in various levels, starting from the household level, public level, the first level of public service named the Public Health Center, the first referral level and the advanced referral level, namely Hospital type A, B, C, D which are provided with adequate facilities. At the level of the first public health service known as "Puskesmas", it is a kind of service place located in every district and is the leading edge of health care. Functionally, "Puskesmas" is the Center for Public Health Development which is also responsible for fostering the role of the community in seeking individual health or providing comprehensive and integrated services<sup>(2)</sup>.

The purpose of health development pursuant to the Law of the Republic of Indonesia Number 36 of 2009 on Health Chapter II Article 3 is to raise awareness, willingness, and healthy living capability for everyone to realize the highest degree of public health, as an investment for human resources development in order to be productive both socially and economically<sup>(3)</sup>.

The prevention of diseases caused by environmental factors is still have some problems. One of the problems is the absence of integrated efforts to eradicate environmental-based diseases with environmental sanitation efforts. Environmental-based disease is still become a public health problem in Indonesia. This is reflected in the high number of incidents and visits of people with several diseases to public health services<sup>(4)</sup>.

Sanitation Clinic as one of health service in "Puskesmas" that integrates curative effort, promotive and preventive, having role such as information center, facilitator referral center in environment health and environment based diseases such as Acute Respiratory Infection, pulmonary tuberculosis, diarrhea, malaria, Dengue Hemorrhagic Fever (DHF), food poisoning, worms, and health problems due to poisoning chemicals and

pesticides. Four factors that can affect the health quality are environment, behavior, heredity and health services. Environment has a very big influence in influencing health quality<sup>(1)</sup>.

Some of the obstacles that may be encountered in the implementation of sanitation clinics are as follows:

1. The limited number personnel in Public Health Center to handle sanitation clinic program, so this activity has not become the priority of Public Health Center.
2. Limited coverage of sanitation clinics to foster existing villages in the Public Health Center area due to the breadth of the area, geographical conditions, and limited transportation.
3. Limited funds for sanitation clinic activities.

The number of patient visits to the sanitation clinic at Public Health Center (Puskesmas) is influenced by several factors. There are two dominant factors that have great influences. The first one is the internal factors such as human resources, rate policy, marketing, and types of comprehensive sanitation services. The second one is external factors, including distance and location, socioeconomic, and consumer behavior. These two factors are very potential in affecting the number of visits<sup>(4)</sup>.

The Sanitation Clinic program has been introduced and implemented since 2003. But in many places the program does not run well, and is not managed properly, leaving a lot of problems. In some places sanitation clinic activities are conducted without any purposes, and merely administration activity without doing real action<sup>(1)</sup>. Since the Sanitation Clinic was established in 2003, it has never been evaluated in the implementation of Sanitation Clinic activities at the Public Health Centers in Magetan Regency.

## METHODS

The design of this study was classified as an analytical survey research because the research is directed to explain how and why about a certain situation. While based on data collection reiod/time, this study belongs to cross sectional study. The risk factor and the impact measured according to circumstances or status at the time of observation<sup>(4)</sup>. In practice, this study uses observations, questionnaires and interviews. The unit of analysis of this research is Sanitation Clinic at Poncol Public Health Center, Magetan Regency. Sources of information in this study were patients, patients / clients of Sanitation in July 2016.

The population were patients, patients / clients who came to visit Sanitation Clinic. The sample was taken from the population who came at working hours. Sampling technique was done by using total sampling method.

Dependent variables (Y) was number of visits in Sanitation Clinic. Independent variables were internal (human resources, rate policy, facilities and infrastructure, social marketing / health promotion, and type of services) and external factors (consumer behavior, distance of house with providers, and competitors). X1 = Tangible, X2 = Reliability, X3 = Responsiveness, X4 = Assurance, X5 = Empathy<sup>(5)</sup>.

The techniques used in the collection of primary data is conducted by interviews using questionnaires on patients, patients / clients. The collected questionnaires will be checked to ensure that the questions in the questionnaires are all answered and then processed. Interviewer, is a researchers team assisted by students.

Quantitative data processing is done by recode the data according to the existing category in the definition of operational variables, then perform a descriptive analysis to determine the frequency distribution of the observed variables. Model analysis using multiple regression method to see whether there is relationship and closeness of each independent variable to dependent variable, and the relationship between variables in research<sup>(6)</sup>.

## RESULTS

The dependent variable in this study is the number of visits to the Sanitation Clinic, while the independent variables in this study are internal and external factors which include: 1) Human Resources of Sanitation Clinic, 2) Rate/Tariff Policy, 3) Facilities and Infrastructure, 4) Health promotion, 5) Type of Sanitation Clinic services namely internal factors and external factors that include 1) Consumer Behavior, 2) Distance of house with provider, and 3) Competitors. Then internal and external factors in this study were observed and researched based on what perceived by the Sanitation Clinic's visitors from the dimensions of X1 Tangible, X2 Reliable, X3 Responsive, X4 Assurance, and X5 Empathy.

Before conducting regression test, t-test is firstly done to determine the relationship between each independent variable with the dependent variable, whether the hypothesis statement is true. The statistical test t basically indicates how far the influence of an individual explanatory variabel in explaining the dependent variable. As for the procedure as follows:

- a. Determining Ho (null hypothesis) and Ha (alternative hypothesis).
- b. By viewing the print out of computer through SPSS for windows program, it is known that t-count value with significance value of t value.
- c. If significance of t value <0,05 then there is significant influence between independent variable to dependent variable.
- d. If significant value of  $t > 0,05$  hence no significant influence between independent variable to dependent variable meaning Ho accepted and reject Ha, at significance level  $\alpha = 5\%$ . However, if the value of t sig <0.10 then there is a significant influence on the significance of  $\alpha = 10\%$ . The results are as follows:

Table 1. The result of T-test

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error	95% CI of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Score of Internal & External Factors – Score of Visits	54.320	8.174	1.635	50.946	57.694	33.228	24	0.000

Based on table 1, the results of t-test statistics for hypothesis test obtained p-value = 0.000, so it can be said that there was a significant influence of internal and external factors on the number of visits in Sanitation Clinic of Public Health Center Poncol, Magetan Regency.

The regression coefficients for tangible variables (X1) and empathy (X5), show a positive influence on the number of visits. The regression coefficients for the variable raliabel (X2), responsive (X3), and insurance (X4), show no significant effect on the number of visits.

Table 2. The results of regression test

Coefficients <sup>a</sup>										
Model		Unstandardized Coefficients		Standardized Coefficients		95,0% Confidence Interval for B		Collinearity Statistics		
		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	5.830	0.574		10.158	0.000	4.686	6.973		
	Tangibles	-0.499	0.211	-0.295	-2.372	0.020	-0.919	-0.080	0.579	1.728
	Reliability	-0.021	0.187	-0.014	-0.111	0.912	-0.394	0.352	0.578	1.729
	Responsiveness	-0.114	0.208	-0.078	-0.546	0.587	-0.528	0.301	0.435	2.296
	Assurance	-0.010	0.207	-0.007	-0.047	0.963	-0.422	0.403	0.431	2.320
	Empathy	-0.445	0.165	-0.323	-2.691	0.009	-0.774	-0.115	0.623	1.606

a. Dependent Variable: Patient Visits

Adjusted R Square= 0.291, F test= 7.484, Sig. F test= 0.000

Based on table 2, the calculation of linear regression equation obtained as follows:  
 $Y = 5.830 + (-0.499) X1 + (-0.021) X2 + (-0.114) X3 + (-0.010) X4 + (-0.445) X5 + \epsilon$   
 (0.020 \*\*) (0.912 \*) (0.587 \*) (0.963 \*) (0.009 \*\*)

Information:

\*\* = Significance  $\alpha < 0,05$ , then it is stated significant

\* = Significance  $\alpha > 0.05$ , then it is not significant

Test of t to determine the influence of each independent variable to the dependent variable. If the significance value  $\alpha < 0.05$  then it can be said that there is a significant influence between independent variables with individual dependent variables and vice versa if the significance value  $\alpha > 0.05$  then there is no significant effect.

- The tangible variable (X1) indicates that standardized coefficients beta is (-0.295) at a significant level of 0.020. The significance value of 0.020 < 0.05 means that Ho is rejected and Ha is accepted, then the tangible variable significantly affects the number of visits.
- The reliable variable (X2) shows that standardized coefficients beta of (-0.014) at a significant level of 0.912. Value significance of 0.912 > 0.05 means Ho accepted and Ha rejected then the reliable variable does not significantly affect the number of visits.
- The responsive variable (X3) shows that standardized coefficients beta of (-0.078) at a significant level of 0.587. Value significance of 0.587 > 0.05 means Ho accepted and Ha rejected then the responsive variable does not significantly affect the number of visits.
- Variable Insurance (X4) indicates that standardized coefficients beta of (-0.007) at a significant level of 0.963. Value significance of 0.963 > 0.05 means Ho accepted and Ha rejected then the insurance variable does not significantly affect the number of visits.

- e. The emphasis variable (X5) shows that standardized coefficients beta of (-0.323) at a significant level of 0.009. The significance value of  $0.009 < 0.05$  means that  $H_0$  is rejected and  $H_a$  is accepted, then the tangible variable significantly affects the number of visits.

This test is used to determine whether there is a significant influence between independent variables togetherly to the dependent variable. Testing this hypothesis using F test to determine whether internal and external factors of tangible, reliable, responsive, assurance and empathic dimension have positive and significant effect on the number of visits.

Assessment is done to significant value  $< 0.05$  then  $H_0$  is rejected and  $H_a$  accepted which means that independent variables togetherly influence significantly to dependent variable. If the value of significance  $> 0.05$  then  $H_0$  accepted and  $H_1$  is rejected means that independent variables togetherly do not significantly affect the dependent variable.

Based on the calculation of regression analysis obtained that the value of F arithmetic amounted to 7.484 with a significant value of 0.000. This shows that the significant value  $0.000 < 0.05$  then  $H_0$  is rejected and  $H_1$  accepted. This means that togetherly independent variables of internal and external factors that include tangible, reliable, responsive, assurance, and emphatic dimensions have a positive and significant effect on the number of visits in the Sanitation Clinic.

Coefficient of Determination ( $R^2$ ) is done to find out how big contribution of independent variable influence to the rise and fall of dependent variable. If the value of  $R^2$  close to 1, then this indicates that the independent variables togetherly affect the dependent variable, so that the model used can be said good. Based on the calculation of regression analysis can be seen the value of Adjusted R Square of 0.291. This shows that the number of visits in the Sanitation Clinic is completely explained by the tangible, reliable, responsive, assurance, and empathic variables of 29.1% of the rest of 70.9% explained by other variables outside the research model. Based on the result of standardized Coefficients Beta of the five dimensions of service quality stated that the insurer dimension (X4) has the largest standardized Coefficients Beta value of -0.007. It states that the insurance dimension is the most dominantly influential dimension to the number of visits in the Sanitation Clinic.

## DISCUSSION

Togetherly independent variables include tangible, reliability, responsiveness, assurance, and empathy have positive and significant influence on visit number at the Sanitation Clinic. Assurance dimension is the dominantly most influential dimension to the visit number of Sanitation Clinic visits.

The purpose of health development towards Indonesia healthy 2020 refers to RI Law No. 36, 2009 on health, is to increase awareness, willingness and ability to live healthy for every person, in order to realize the optimal degree of public health for all Indonesian society which are characterized by the population who live with behavior and in a healthy environment, has the ability to reaching good quality of health services fairly and equally, and have optimal health status throughout the Republic of Indonesia. Environmental sanitation / health program is one health program that has been implemented in an integrated manner with other health programs at every level of service<sup>(3)</sup>.

Efforts to implement sanitation / environmental health is one of the activities of Public Health Center which is comprehensive, integrated and includes efforts to increase, prevention, healing and recovery. In order to improve the quality of sanitation / environmental health services to the community and realize the optimal health status of the public in carrying out the vision and mission of the Ministry of Health 2020. Thus efforts to increase, prevention and restoration of sanitation / environmental health in Public Health Center as basic service units to the community is absolutely necessary.

Visits in Sanitation Clinics of Public Health Center were influenced by several factors. There are two factors that has great influence namely internal and external factors, such as human resources, rate/ tariff policy, marketing, and types of comprehensive sanitation services which belongs to internal factors<sup>(7)</sup>. While, distance and location, social economy, other health service centers, private sanitation practices, hospitals located around the health center (as competitors), and customers (customers behavior) are external factors that have both very potential to influence the number of visits in the Sanitation Clinic.

Assurance dimension is a service quality dimension that should be taken seriously by the Sanitation Clinic, because it is the dimension that have great influence to the number of visits in the Sanitation Clinic. Assurance dimension should get more attention and must be enhanced by adding and improving the quality of work of Sanitation Clinic employee / Clinic officer and increasing knowledge and competency of Sanitation Clinic officer through trainings and seminars, even giving officers chance to continue higher education<sup>(8)</sup>.

The number of visits at Sanitation Clinic of Poncol Public Health Center, Magetan Regency influenced by internal and external factors (tangible, reliable, responsive, assurance, and empathy) only 29.1% this is possible because there are some officers who only provide services on the basis of complaints of patients, patients who come to visit in the condition of advanced disease that result in handling will become more complex and expensive. Therefore a comprehensive and sustainable sanitation / health maintenance strategy is required through an integrated sanitation / health services program integrated with other related programs<sup>(7)</sup>.

It can be done in the building (Indoor Activity): the activities in the building focused on the identification of the illness that the patient suffered, the counseling activity of sanitary health (sanitarian) to interview and provide counseling to patients and appointment home visit. The activity in the building is to discuss all problems, problem solving, monitoring / evaluation and sanitation clinic planning and in mini workshop of Public Health Center which involves all responsible persons of activities and implemented once a month.

Outdoor activities (outdoor activity): outdoor activities is a follow-up of counseling activities in the form of home visits. On this home visit, sanitation inspection on the patient's living environment and extension is more focused on both the patient, the patient's family and the neighbors. This visit is a routine activity that is sharpened its target, because during the visit the officer already has data about environmental sanitation facilities problematic that need to be checked and behavioral factors that play a big role in the happening of disease. If based on the visit it is decided to do a repair or construction of basic sanitation facilities at a large cost, then the officer proposes to the related institution<sup>(9)</sup>.

Obstacles encountered in the implementation of sanitation clinic are:

1. The limited number of personnel as sanitation clinic implementers, so this activity has not become the priority of Puskesmas (Public Health center).
2. Limited coverage of sanitation clinics to foster existing villages in the Public Health Center
3. area due to the size of the area, geographical conditions, and limited transportation.
4. Limited funds for sanitation clinic activities.

Opportunities encountered in the implementation of sanitation clinics as follows:

1. Public Health center (Puskesmas) operational funds that can be utilized for sanitation clinic activities.
2. Environmental-based disease still dominates the case.
3. The existence of a mini-workshop mechanism at the Public Health center that can be used for the development and coordination of sanitation clinic activities.
4. Utilization of environmental health workers who are currently working outside their field of duty for the implementation of sanitation clinics.
5. The existence of other sector of funds that can be allocated in the village so it can support sanitation clinic activities.
6. Increasing of community participation in village development as a result of community empowerment .
7. The availability of tools. (water test kit and extension media).
8. Implementation of a healthy paradigm that is aligned with the implementation of sanitation clinics.

Therefore it is necessary to optimize the utilization of existing resources as well as to improve the quality of service of Sanitation Clinic by optimizing the management of disease cases related to sanitation / environmental health as well as management of disease caused by the environment in accordance with prevailing standards and paradigms as well as the quality of physical facilities, types of personnel, availability of sanitary / environmental health equipments, supporting facilities and service delivery process. In addition, the quality of service is also achieved by the ability to perform monitoring, early diagnosis, prompt and appropriate treatment, rapid referral where the service will affect the utilization of health services.

Some of the things expected by the patients of Sanitation Clinic of Public Health Center of Poncol to tangible dimension are: registration procedure needs to make more quickly. From the responsive dimension that the officer explain and inform about the therapy performed on the patient. And from the empathy dimension, it is expected that officers give more attention to patient.

## CONCLUSION

Based on the results of research, analysis of research results and discussion on the influence of internal and external factors on the number of visits in sanitation clinics of Poncol Public Health Center, Magetan Regency, can be drawn the following conclusions:

1. There is a significant influence jointly between internal and external factors (tangible, reliable, responsive, assurance, and empathy) on the number of visits.
2. There is a significant influence on the tangible dimension and empathy on the number of visits.
3. There are influences of internal and external factors to the number of visits by 29.1% , therefore need to be improved utilization of internal and external factors that exist optimally.
4. Insurance dimension is the most dominant dimension affecting the number of visits in Sanitation Clinic.

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