



## The Correlation between Characteristics of Patient and Their Behavior of Bringing Patient Card in The Registration of Puskesmas Tlogosari Wetan Semarang City

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### ABSTRACT

*This study aims to determine the correlation between patients characteristics and their behavior of bringing patient card in the Registration of Community Health Center Tlogosari Wetan. The type of research is observational analytic through the cross-sectional approach. The population in the study amounted to 1,253 respondents and the sample used 303 respondents were analyzed using the chi-square test. The results showed there was a correlation between age and the practice of bringing patient card ( $p < 0.05$ ). There is a correlation between the level of education and the practice of bringing patient card ( $p < 0.05$ ). There is a correlation between knowledge and practice of bringing patient card ( $p < 0.05$ ). There is not correlation between the attitude and practice of bringing patient card ( $p > 0.05$ ). The conclusion of this research is the practice of bringing patient card will be supported by the characteristics and knowledge of patients.*

**Keywords:** *characteristics, knowledge, attitude, behavior, patient card, registration*

### I. INTRODUCTION

Community Health Center (Puskesmas) is a health service facility that organizes public health efforts and first-level individual health efforts, with more emphasis on promoting and preventive efforts, to achieve the highest degree of public health in working area. [1] All service

facilities are required to hold medical records to support the quality of health services. [2]

The registration is a gateway for quality of service at the health service agency. The quality of health services at the registration is marked by the speed, accuracy, completeness and clarity of information, and the comfort of the waiting room. [3] Service time is a factor related to patient satisfaction. [4] Pratiwi (2017) and Xie (2017) research results show that there is a relationship between waiting time and patient satisfaction. [5] One of the reasons for the long waiting time in the registration section is that patients do not bring patient cards. [6]

Patient cards must always be taken by patients when they seek treatment. The patient card contains a medical record number to search for the patient's medical record. [6] The most appropriate Puskesmas medical record is Family Folder based, which is a medical record that contains data on the patient's family history of a patient with the number of the head of the family. [7] By bringing a patient card, the officer quickly finds the Family Folder and the service becomes fast. [8] [This makes the outpatient registration counter service part not pile up.

The practice of bringing a medical treatment card is one aspect of health behavior. A person's health behavior is influenced by two main factors namely behavioral factors and factors outside

behavior. Behavioral factors are determined by three factors: predisposing, enabling, and reinforcing factors. [9] Predisposing factors include knowledge, attitudes, beliefs, values, perceptions, regarding the motivation of a person or group to act. Enabling factors include the skills and resources needed to perform health behaviors. Reinforcing factors include attitudes and behavior of health workers, community leaders, religious leaders, parents or other officers who are a reference group of community behavior. [10] Predisposing factors are behavioral triggering factors that provide reasons for the behavior. [11]

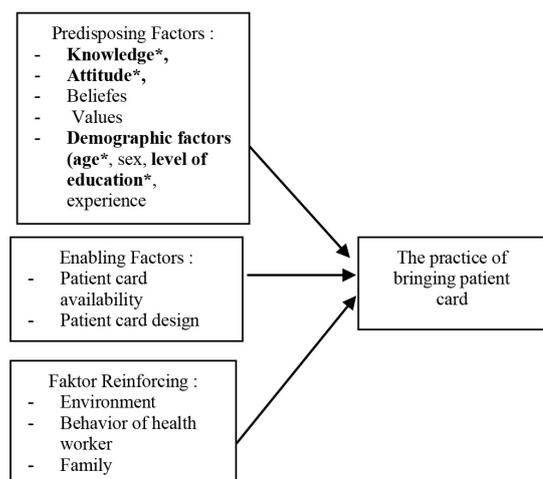
Predisposing factors (facilitating factors) are knowledge, attitudes, beliefs, values, and demographic factors (age, sex, education, experience). Enabling factors (enabling factors) are behavioral antecedents that allow motivation to be accomplished. Reinforcing factor (reinforcement factor) is a factor after the behavior that rewards the behavior and contributes to its persistence or repetition. [12] Knowledge, attitude, and demographic factors (age and education level) are predisposing factors for patients bringing a patient card. The enabling factor in bringing the treatment card is the availability and design of the treatment card. The reinforcing factor is the behavior of the registration officer and family that strengthen to bring the patient card.

From the results of the initial survey, the average patient visit in January - March 2019 at the Puskesmas Tlogosari Wetan is 5013 patients/month or 209 patients/day. An average of 30% of patients do not bring patient cards. Based on the Standar operational procedure (SOP) of the Puskesmas Tlogosari Wetan outpatient registration in Semarang, the maximum patient service takes 5 minutes. Based on the observation time, the average waiting time for registration is 7 minutes. As a result, there was a long queue at the registration .

Behavioral factors are determined by three factors, namely predisposing, enabling, and reinforcing factors. This study focuses on examining the relationship between predisposing factors (patient characteristics and attitudes) with the practice of bringing a patient card.

## II. RESEACH METHODE

This type of research is a descriptive study with quantitative methods through a cross sectional approach. [13] The population in this study were all patients visiting the Puskesmas Tlogosari Wetan. The population taken from the number of patient visits in the first quarter of January-March 2019 was 15,039 with an average monthly visit of 5013 patients and the average patient in one week 1253 patients. Based on the Slovin formula, the sample size of patients who will become respondents is 303 people. Sampling is done randomly for one week. The research variables are age, level of education, knowledge, and attitude of the patient (independent variable). The dependent variable is the practice of carrying a treatment card. Data collection was done by interview using a questionnaire and processed with the chi square correlation test. [14]



\*factors studied

Fig 1. Conceptual Framework [adopted from Teori Lawrence Green theory at Notoadmodjo]



Knowledge, attitude, and demographic factors (age and level of education) are predisposing factors for patients bringing a patient card. The enabling factors is the availability and design of the patient card. The reinforcing factor is the behavior of the registration officer and family that strengthen to bring the patient card.

This study limits the testing of correlations of knowledge, attitude, age, and education level factors on the practice of bringing a patient card.

### III. RESULT AND DISCUSSION

The population of the Puskesmas Tlogosari Wetan in 2018 is 97,009 people. The average patient visit is 209 people per day. The registration counters are three counters with three registration officers. The results of the univariate and bivariate analysis of the respondent data are as follows:

#### A. Univariate Analysis

Univariate analysis contains a description of age, level of education, knowledge, attitudes, and practice of bringing a patient card

**Table 1.** Distribution of Respondents by Age and Education Level

Category	Frequency	%
<b>Age</b>		
≤ 35 years old	155	51%
> 35 years old	148	49%
<b>Total</b>	<b>303</b>	<b>100%</b>
<b>Level of education</b>		
≤ SMP	150	49,5%
> SMP	153	50,5%
<b>Total</b>	<b>303</b>	<b>100,0%</b>

Source: Primary data processed (2019)

Most respondents aged ≤ 35 years and the level of higher education. The more age and the level of education, the reasoning and knowledge of a person increases. [10] Age and level of knowledge is one of the

predisposing factors for improving health behavior, [9] namely bringing a patient card every visit to the health center.

**Table 2.** Distribution of Respondents Based on Knowledge, Attitudes, and Practices Bringing Patient Card

Category	Frequency	%
<b>Knowledge</b>		
Good	144	47%
Poor	159	53%
<b>Total</b>	<b>303</b>	<b>100%</b>
<b>Attitude</b>		
Good	112	37%
Poor	191	63%
<b>Total</b>	<b>303</b>	<b>100%</b>
<b>Practices</b>		
Good	133	44%
Poor	170	56%
<b>Total</b>	<b>303</b>	<b>100%</b>

Source: Primary data processed (2019)

Most respondents have poor knowledge (53%), the majority of respondents' attitudes are not good about bringing patient cards (63%), and the practice of bringing patient card is mostly poor (65%).

#### B. Bivariate Analysis

Bivariate analysis contains the results of correlation tests between independent and dependent variables. The relationship of age, level of education, knowledge, attitude to the practice of bringing a patient card is presented in the following table.

**Table 3.** Cross Tabulation of Respondents Age by Bringing Patient Card

Age	Bringing Patient Card		Total (%)
	Poor (%)	Good (%)	
≤ 35 years old	106 (68%)	49 (32%)	155 (100%)
> 35 years old	64 (43%)	84 (57%)	148 (100%)
<b>Total</b>	<b>170 (56%)</b>	<b>133 (44%)</b>	<b>303 (100%)</b>
<b>p</b>	p-value (Sig.) = 0.000		
<b>X<sup>2</sup></b>	19,43565387		
<b>X<sup>2</sup> table</b>	3,84		

Source: Primary data processed (2019)

Chi square statistical test results showed the value of  $p = 0,000$  ( $p < 0.05$ ) and  $X^2$  19.43 greater than  $X^2$  table which means that the age of the patient is related to the practice of bringing a patient card. Descriptively, it can be seen that the practice of bringing patient card for patients aged  $> 35$  years is better than patients aged  $\leq 35$  years. Age and level of knowledge is one of the predisposing factors for increasing health behavior. [9] The more age and level of education, the more reasoning and knowledge a person has [10] in bringing a patient card.

**Table 4.** Cross Tabulation of Respondents Level of education by Bringing Patient Card

Level of education	Bringing Patient Card		Total (%)
	Poor (%)	Good (%)	
$\leq$ SMP	112	38	150 (100%)
$>$ SMP	58	95	153 (100%)
<b>Total</b>	170 (56%)	133 (44%)	303 (100%)
<b>p</b>	p-value (Sig.) = 0.000		
<b>X<sup>2</sup></b>	41,55		
<b>X<sup>2</sup> tabel</b>	3,84		

Source: Primary data processed (2019)

Chi square correlation test results of the level of education with the practice of bringing a patient card showed the value of  $p = 0,000$  ( $p < 0.05$ ) and  $X^2$  count 41.55 greater than  $X^2$  table which means the level of education is related to the practice of bringing a patient card. With higher education it is possible for someone to have more knowledge, when compared to those with less education. [15]. The treatment card is needed to shorten the waiting time because the officer does not need to look up the patient's medical record number.

**Table 5.** Cross Tabulation of Respondents Knowledge by Bringing Patient Card

Knowledge	Bringing patient card		Total (%)
	Poor (%)	Good (%)	
<b>Poor</b>	98 (62%)	61 (38%)	159 (100%)
<b>Good</b>	72 (50%)	72 (50%)	144 (100%)
<b>Total</b>	170 (56%)	133 (44%)	303 (100%)
<b>p</b>	p-value (Sig.) = 0.041		
<b>X<sup>2</sup></b>	4,153851		
<b>X<sup>2</sup> table</b>	3,84		

Sumber : Data primer terolah (2019)

Chi square correlation test results with the practice of bringing a patient card showed the value of  $p = 0.041$  ( $p < 0.05$ ) and  $X^2$  calculated 4.153 greater than  $X^2$  tables, which means there is a relationship between knowledge and the practice of carrying medical cards. This is consistent with Pratiko's (2014) study that there is a relationship between knowledge and patient compliance. [15]

Knowledge is a very important domain for the formation of a person's actions (behavior) and behavior based on knowledge will be more lasting than behavior that is not based on knowledge. [10] With higher education it is possible for someone to have more knowledge, when compared to those with less education. [15]

Officers must often remind patients to bring medical cards and provide knowledge of the importance of medical cards for the speed of registration services. At the time the officer handed over a treatment card accompanied by a message that is always taken if treated. This must be included in the SOP for outpatient registration at the puskesmas. Installation of banners that contain information to invite patients to bring a treatment card can be used as a trigger to increase the percentage of compliance with a treatment card.

**Table 6.** Cross Tabulation of Respondents Attitude by Bringing Patient Card



Attitude	Bringing Patient Card		Total (%)
	Poor (%)	Good (%)	
Poor	111 (58%)	80 (42%)	191 (100%)
Good	59 (53%)	53 (47%)	112 (100%)
<b>Total</b>	<b>133 (44%)</b>	<b>170 (56%)</b>	<b>303 (100%)</b>
<b>p</b>	p-value (Sig.) = 0,357		
<b>X<sup>2</sup></b>	0,847		
<b>X<sup>2</sup> tabel</b>	3,84		

Source: Primary data processed (2019)

Chi square correlation test results with the practice of bringing a patient card showed the value of  $p = 0.357$  ( $p > 0.05$ ) and  $X^2$  count 0.847 smaller than  $X^2$  table which means that there is no relationship between attitude and practice of carrying medical cards.

According to Notoatmodjo (2003) quoted from Allport (1954) explains that attitude has three main components; among them are (1) beliefs (beliefs), ideas and concepts of an object, (2) emotional life or emotional evaluation of an object, (3) tendency to act (trend to behavior). This is consistent with the opinion of Notoatmodjo (2003) quoted from Lawrence Green (1980) that one of the factors that influence behavior is the enabling factor (Enabling Factor), that behavior is strongly influenced by health facilities and infrastructure for the community. [15]

The following table shows the details of the patient's attitude towards the practice of bringing patient card.

**Tabel 7.** Frequency Distribution Based on Respondents' Attitudes

No	Questions	Answers	
		Agree	Not agree
1	Every time I seek treatment, I always bring a patient card	213 (70%)	90 (30%)
2	I will keep the patient card even though I haven't come for a long time	90 (30%)	213 (70%)

No	Questions	Answers	
		Agree	Not agree
3	I prefer to keep patient card in my wallet so that it doesn't disappear	213 (70%)	90 (30%)
4	I prefer to bring a patient card so that service at the counter is fast	213 (70%)	90 (30%)
5	In my opinion, bringing a patient card makes it easy for officers to find documents for my medical history	211 (70%)	92 (30%)
6	I receive the advice of the ticket window clerk if I remove the patient card	213 (70%)	90 (30%)
7	I will place the patient card in the space available when registering	218 (72%)	85 (28%)
8	In my opinion, claiming to be a new patient when the patient card is not carried away can disrupt my history	218 (72%)	85 (28%)
9	I request a new patient card, if it is lost or damaged	211 (70%)	92 (30%)
10	I received a recommendation from the clerk to save the patient card so it would not disappear	208 (69%)	95 (31%)

The majority of patients' attitudes about the importance of bringing a patient card are still poor. Especially on the obligation to keep the patient card. From in-depth interviews with patients, it was found that they did not always bring a patient cards. The patient card that is used for all family members so that they are difficult if still carried by other family members.

The administration of medical cards in the unit numbering system must be well organized. This is to minimize duplication of the patient's medical record number [16]. In the family medical record system, medical record numbering is a unit for one family called the index number. [17] Storage with one family number has the advantage of being information sustainable, so health care.



**Fig 2.** Patient Card of Puskesmas Tlogosari Wetan

The Patient card at the Puskesmas Tlogosari Wetan is made of blue buffalo paper with a KTP size. The treatment card contains the index number, name of the head of the family, and address of the head of the family. The suggestion for the design of a medical treatment card is to make a medical treatment card as many as family members, so that each can bring their own.

The work guidelines for counter staff at the outpatient registration counter in the use of patient cards are outlined in the SOP for outpatient services. [16] The work goals of the outpatient registration counter staff include recording patients, making patient cards and outpatient cards for new families and finding outpatient cards stored in the family folder for families with repeat visits.

#### IV. CONCLUSION

From the results of the study it can be concluded that there is a correlation between age and level of education with the practice of bringing a patient card, there is a correlation between knowledge of the practice of bringing a patient card, and there is no correlation between attitude and practice of bringing a patient card.

It is recommended to provide banners that contain information about the importance of bringing a patient card, the registration staff must constantly remind patients to always bring a patient card. The patient card is made up of as

many family members as puskesmas patients so that each can store their own card.

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