

Conference Paper

Factors Influencing the Behavior of Self-Medication With Diarrhea Drug

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ORCIDIka Ratna Hidayati: <https://orcid.org/0000-0003-2942-482X>**Abstract.**

Diarrhea is a mild condition, able to be treated with self-medication. There are factors that influence self-medication behavior, including predisposing factors such as knowledge and attitudes. This research aimed to examine the effect of influencing factors such as attitudes and knowledge on the behavior of self-medication in diarrhea treatment and to determine which factors have the most influence in Kauman Village, Srengat District, Blitar Regency. This was quantitative research with a descriptive observational approach and cross-sectional design. This research adopted the quota sampling method and selected 100 respondents. Data were analyzed using descriptive analysis, normality tests and the Chi-square test. According to the findings, there was a good level of knowledge (91%), positive attitudes (57%), and appropriate behavior (56%) among the respondents. There was a significant correlation between knowledge and self-medication behavior ($p = 0.016$) and between attitudes and self-medication behavior ($p < 0.001$).

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1. Introduction

Health is very important for humans because without health a person will find it difficult to carry out daily activities. If someone has a health problem, they will try to do something to restore their health. In restoring health, it can be overcome in various ways, namely handling, treatment, and care that can be done by self-medication or self-medication and going to a doctor/other health worker.

Self-medication is a self-medication effort carried out by the community with common illnesses without a doctor's prescription. Self-medication or self-medication has advantages and disadvantages. The advantage of self-medication is that it saves time and costs. If self-medication is carried out correctly, it will make it easier to provide medical services, reduce waiting time to see a doctor, relatively lower costs [1]. Meanwhile, the disadvantages of self-medication are that if self-medication is not appropriate, it can

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lead to a wrong diagnosis, inappropriate dosage, inappropriate timing of drug use and polypharmacy or excessive drug use may occur. Self-medication can also waste costs in the event of inappropriate use of drugs (Rahmawati and Bajorek, 2017). Classes of drugs that can be submitted by self-medication, namely, over-the-counter drugs, limited over-the-counter drugs and Obligatory Pharmacy Drugs (OWA) [2].

In Indonesia, self-medication behavior is still relatively large. Based on the Central Statistics Agency (2021) in 2020, it shows a figure of 72.19% of Indonesian people doing self-medication. While people in East Java in 2020 as many as 71.61% who do self-medication. In 2019 in Blitar Regency alone, the percentage of the population who did self-medication was 71.07% [3].

There are several complaints and minor illnesses that can be treated with self-medication, one of which is diarrhea [4]. Diarrhea is a bowel movement whose consistency is liquid, soft, or watery and is more frequent than usual [5]. The most common cause of diarrhea at all ages is acute gastroenteritis of viral origin, namely rotavirus. Bacteria from contaminated food and drinks are also the cause of diarrhea [6]. In Indonesia, diarrhea is a major problem. The province with the 2nd most cases of diarrhea is East Java with a figure of 151,878 cases. Diarrhea is also included in the 10 most common diseases in Blitar Regency, namely diarrhea ranks 4th with a total of 31,253 cases of diarrhea [7]. Diarrhea cases that occurred in Srengat District in 2018 ranked the 5th most cases of diarrhea from 22 other sub-districts with a total of 1,423 cases [8].

In society, there are still many problems when using drugs, one of which is lack of understanding about the proper use of drugs, excessive use of over-the-counter drugs and lack of knowledge about how to store and dispose of drugs properly. Therefore, the implementation of self-medication must be carried out according to the rules such as the right drug, the right dose, the right symptoms, no side effects and proper follow-up [4]. Based on the behavioral theory developed by Lawrence Green (1998) there are two health behavioral factors such as behavioral factors and non-behavioral factors. Behavioral factors are divided into three forms, namely predisposing factors, supporting factors and driving factors. The predisposing factors include knowledge, attitudes, etc [9].

A person's attitude towards self-medication describes one's response to something related to self-medication obtained from one's own experience or from others. Knowledge is the result obtained from "knowing" because the individual has identified a particular object. Sensing in question is identifying with the five human senses such as

seeing, hearing, smelling, tasting and touching. This knowledge is a crucial factor for creating individual behavior [10].

The purpose of this study was to determine the influence of factors that influence such as attitudes and knowledge of self-medication behavior for self-medication of diarrhea medicine appropriately and to determine factors that further influence the behavior of self-medication of diarrhea medicine appropriately in the community in Kauman Village, Srengat District, Blitar Regency.

2. Research Methods

This type of research is quantitative research with a descriptive observational approach. The design of this research is cross sectional. The instrument used is a questionnaire. The questionnaire first tested the validity of the 30 respondents who had met the criteria according to the respondents to be tested and not from the research place. And the reliability test was carried out with the Cronbach Alpha test using SPSS 23.0.

The population chosen by the researcher is the people of Kauman Village, Srengat District, Blitar Regency. The population in this study was 5,351 people. The sample used is people who have agreed to become respondents and are currently or have ever taken self-medication of diarrhea drugs. In this study, the number of samples was taken using the Slovin and Taro Yamane formula, which resulted in 100 samples. This research technique is non-probability sampling, namely Quota sampling. Ethical clearance in this study was submitted to the Health Research Ethics Commission, Faculty of Health Sciences, University of Muhammadiyah Malang in order to obtain research permission. The ethical clearance number in this study is No.E.5.a/116/KEPK-UMM/VI/2021.

Data analysis used was normality test, univariate test and bivariate test. In this study, univariate analysis was used to measure each of the independent and dependent variables with the help of the SPSS 23.0 application. In this study, bivariate analysis was used, namely to determine whether there was an influence or behavioral relationship on the accuracy of self-medication use of diarrhea drugs. The analysis used is the Chi-square test.

3. Results

This research was conducted on June 17, 2021 to June 27, 2021. The data obtained are as follows :

3.1. Characteristics of Respondents Based on Trade Names of Drugs Used

Table 1 shows that the most common diarrhea drug names used in self-medication are the trade name Entrostop, namely 35 respondents (35%). This is in line with the theory of [11] in a book entitled "The Daily Medicine Book" which states that the well-known trademarks, which belong to the over-the-counter drug class and are the most widely marketed, are entrostops.

TABLE 1: Characteristics of Respondents Based on Trade Names of Drugs Used.

Medicine name	Frequency	Percentage (%)
Biodiar	12	12
Diatabs	10	10
Diapet	32	32
Entrostop	35	35
ORS	11	11
Total	100	100

3.2. Characteristics of Respondents Based on Place of Purchase of Drugs

In table 2 the results obtained from the supporting data where the drug is purchased are the majority respondents bought diarrhea medicine at pharmacies as much as (66%).

TABLE 2: Frequency Distribution of Respondents' Characteristics by Place of Purchase of Drugs.

Medicine name	Frequency	Percentage (%)
Pharmacy	66	66
Supermarket or Warung	34	34
Total	100	100

3.3. Characteristics of Respondents Based on Duration of Drug Use

Based on table 3 shows that the majority of respondents used diarrhea medicine for <3 days, namely 60 respondents. If diarrhea has occurred for more than three days and self-medication is not successful, it must be treated by a doctor to get further treatment [12]. So, it can be concluded that people who self-medicate for diarrhea medicine know enough about how long they should take self-medication, which is shown by the fact that most people take self-medication in less than three days.

TABLE 3: Frequency Distribution of Respondents' Characteristics Based on Duration of Drug Use.

Medicine name	Frequency	Percentage (%)
Until the symptoms go away	28	28
> 1 week	2	2
3 -7 days	10	10
< 3 days	60	60
Total	100	100

3.4. Characteristics of Respondents Based on Sources of Information in Choosing Diarrhea Drugs

As seen in table 4, the majority of respondents who received information from friends/family in choosing diarrhea drugs were 40 respondents. Another study that strengthens this result is research conducted by Hidayati (2016) [13] in SMA Negeri 1 Karanganom, Karanganom District, Klaten Regency with results showing that the majority of respondents, as many as 51.35%, determined the choice of diarrhea medicine based on information from the family.

TABLE 4: Frequency Distribution of Respondents' Characteristics Based on Information Sources in Choosing Diarrhea Drugs.

Medicine name	Frequency	Percentage (%)
Medicines that the doctor has given	6	6
Advertisement	29	29
Information from pharmacy staff	25	25
Information from friends/family	40	40
Total	100	100

3.5. Normality test

The normality test of the data used the Kolmogorov-Smirnov One-Sample analysis technique. Normality test is not a requirement that must be met in non-parametric analysis [14]. The results of the normality test indicate that the data is not normally distributed because the significant value is below 0.05. Even though the data is not normally distributed, the researcher still maintains the data according to the phenomena in the field. Thus, the researcher continued to analyze the data using the bivariate test analysis with the chi-square test, in which the chi-square test was part of the non-parametric statistical analysis. Therefore, the chi square test does not require normally distributed data.

3.6. Respondent Knowledge Category

The analysis of respondents' knowledge is described in table 5 and table 6. From the results of this study, it was found that the most respondents' knowledge about self-medication of diarrhea drugs was in the good category, as many as 91 respondents (91%).

TABLE 5: Data Recapitulation of Respondents' Knowledge Questionnaire Values.

Score	Score	Percentage Score (%)	Category	Frequency Respondent	Percentage of Respondents (%)
0		0	Not enough	0	0
1		11.11		0	0
2		22.22		0	0
3		33.33		0	0
4		44.44		1	1
5		55.56		1	1
6		66.67	Enough	7	7
7		77.78	Well	17	17
8		88.89		31	31
9		100		43	43

TABLE 6: Distribution of Category Frequency Based on Respondent's Knowledge.

Knowledge	Category	Frequency	Percentage (%)
Well Enough Not enough	76-100% 60-75% <59%	91 7 2	91 7 2
Amount		100	100

3.7. Respondent's Attitude Category

It can be seen from table 7 and table 8 that as many as 57 respondents have a positive attitude in carrying out self-medication of diarrhea medicine, but there are 43 other respondents who have a negative attitude in carrying out self-medication of diarrhea medicine.

3.8. Respondent Behavior Category

Behavior is a person's response to stimulus or action that can be observed. It can be seen from tables 9 and 10 that respondents are classified as appropriate in carrying

TABLE 7: Data Recapitulation of Respondents' Attitude Questionnaire Values.

Score	Category	Frequency	Percentage (%)
0-9	Negative: If the T score < 50	1	1
10-19		0	0
20-29		2	2
30-39		10	10
40-49		30	30
50-59	Positive: If the T score > 50	37	37
60-69		20	20

TABLE 8: Distribution of Category Frequency Based on Respondents' Attitudes.

Attitude	Category	Frequency	Percentage (%)
Positive Negative	T score > 50 T score < 50	57 43	57 43
Amount		100	100

out self-medication of diarrhea drugs as many as 56 respondents and 44 respondents classified as inappropriate in carrying out self-medication of diarrhea drugs. So it can be concluded that respondents who run self-medication of diarrhea drugs are more appropriate.

TABLE 9: Data Recapitulation of Respondents Behavioral Questionnaire Values.

Score	Category	Frequency	Percentage (%)
0-9	Not exactly: If the T score < 50	1	1
10-19		1	1
20-29		3	3
30-39		7	7
40-49		32	32
50-59	Appropriate: If the T score > 50	37	37
60-69		19	19

TABLE 10: Category Frequency Distribution Based on Respondent Behavior.

Behavior	Category	Frequency	Percentage (%)
Appropriate Not exactly	T Score > 50 T Score < 50	56 44	56 44
Amount		100	100

3.9. Bivariate Test

In the health behavior theory of Lawrence Green, behavior is formed by several factors, one of which is predisposing factors, namely knowledge and attitudes. In order to determine whether or not there is an influence of knowledge and attitudes on self-medication behavior of diarrhea drugs in the community, the Chi-square test was carried out. In table 11 it can be seen that the results of the significance value of the chi-square test obtained a p-value for knowledge (0.016 <0.05), indicating that H0 is rejected, meaning that there is a relationship between knowledge and self-medication behavior of diarrhea drugs in Kauman Village, Srengat District, Blitar Regency.

TABLE 11: Bivariate Test Results.

Variable	Diarrhea Drug Self-Medication Behavior				p-value	Alpha (α)	Conclusion
	Appropriate		Not exactly				
	Frequency	%	Frequency	%			
Knowledge					0.016	0.05	H0: Rejected H1: Accepted
Well	55	98.21	36	81.82			
Enough	1	1.79	6	13.64			
Not enough	0	0	2	4.55			
Total	56	100	44	100			
Attitude					0.000	0.05	H0: Rejected H1: Accepted
Positive	43	76.79	14	31.82			
Negative	13	23.21	30	68.18			
Total	56	100	44	100			

In this case, it can be seen that comprehensive knowledge about diarrhea drugs will affect people’s attitudes about drug use. Knowledge and attitudes can shape a behavior. The better the knowledge or the more positive the attitude of the respondent, the more appropriate behavior can be produced. However, the formation of behavior can also be influenced by beliefs and traditions that develop in the community public. Therefore, sometimes people still find people with good knowledge and positive attitudes but their behavior is still not right. The smaller the p-value obtained, the more influential this factor. It can be seen that the results obtained for the p-value on knowledge are 0.016 and on attitudes, namely p-value = 0.000. So, it can be concluded that attitudes more influence the behavior of self-medication of diarrhea drugs appropriately in the people of Kauman Village, Srengat District, Blitar Regency

4. DISCUSSION

The adsorbent drug class is the most popular self-medication [6]. Table 1 shows that the most common diarrhea drug names used in self-medication are the trade name Entrostop, namely 35 respondents (35%). This is in line with the theory of SholekHUDIN (2014) [11] in a book entitled "The Daily Medicine Book" which states that the well-known trademarks, which belong to the over-the-counter drug class and are the most widely marketed, are entrostops. The adsorbent drug class is the most popular self-medication [6]. From table 2, Other research that can strengthen these results is research conducted Raini and Isnawati (2016) entitled "Profile of Diarrhea Drugs Stored in Households in Indonesia" with the result that more people buy diarrhea drugs at pharmacies. This is appropriate because when people buy drugs at pharmacies, people can get information about self-medication related to how to administer drugs and things that must be considered when using drugs [15]. From the result of Table 4, in conducting self-medication, the source of information to choose the most appropriate diarrhea medicine is to ask the authorized health personnel because pharmaceutical technical personnel who practice in pharmacies can provide self-medication services by providing appropriate treatment options along with explanations regarding the use of drugs, so that therapeutic goals can be achieved. maximally [16].

Knowledge is a very important domain for the formation of one's attitudes and behavior. This is in line with previous research conducted by RusmariANI et al. (2019) [17] with respondents PKK women in East Pontianak sub-district who had self-medication for diarrhea, which showed that the level of knowledge about self-medication for diarrhea in East Pontianak sub-district was categorized as good, which was 61.38%. However, this is different from the research conducted by SyarifAH et al. (2021) [18] which is located in Panjang Wetam Village, Pekalongan City which shows that the majority of respondents' knowledge is in the poor category.

Everyone's knowledge is different depending on how each individual perceives objects [10]. Knowledge can be obtained by a person naturally. Knowledge of self-medication describes the respondent's response to matters relating to self-medication. Knowledge is an important domain in order to form individual attitudes and behavior [19]. It can be seen from table 7 and table 8 that as many as 57 respondents have a positive attitude in carrying out self-medication of diarrhea medicine, but there are 43 other respondents who have a negative attitude in carrying out self-medication of diarrhea medicine. This is in line with previous research conducted by Trilia (2017) [20]

with the results of 91 respondents at STIKes Muhammadiyah Palembang mostly having a positive attitude as many as 79 respondents.

Different attitudes are natural because the circumstances that shape the attitudes of individuals are also different. The better a person's knowledge of an object, the better the person's attitude towards the subject [20]. Attitudes are often influenced by the views and habits of family, friends and society. So in this case sometimes the attitude can be positive or negative towards health [21]. Inappropriate self-medication behavior can occur due to human error, this can occur because the respondent is wrong to carry out self-medication behavior even though they have good knowledge. This is in line with research Suherman (2019) [22] conducted in three pharmacies in the city of Purwokerto showed that the majority of respondents carried out self-medication correctly, namely 73.7%.

From the bivariate analysis result, this is also in line with the results obtained from the research Robiyanto et al. (2018) [12] with respondents, namely people in East Pontianak District who have had diarrhea self-medication, showed that there was a relationship between knowledge of diarrhea self-medication ($p = 0.000$). according to A. Wawan and Dewi M (2018) Knowledge is a very important dominant for the formation of a person's action because good knowledge is based on experience and sources of information obtained.

In the attitude to obtain a significance value, namely ($0.000 < 0.05$), that H_0 is rejected, it means that there is a relationship between attitudes towards self-medication behavior for diarrhea drugs in Kauman Village, Srengat District, Blitar Regency. The results of this study are in line with research conducted by Madania & Papeo (2021) [23] The results obtained indicate that there is a relationship between attitudes towards behavior with the resulting significance value of 0.000.

Another research that strengthens is a study conducted at Chitwan Medical College Nepal with the title "Knowledge, attitude and practice of self-medication" conducted by (Mehta and Sharma 2020) [24] shows that there is an influence of attitude and knowledge on self-medication behavior. Attitude is not yet an action or activity but is a predisposition which means the originator of an action. Attitude is a feeling, belief or value that influences a person's behavior [21].

5. CONCLUSION

The knowledge of the community in the good category is 91%, the attitude of the community in the positive category is 57%, and the behavior of the community self-medication is

in the right category, which is 56%. The results of the Chi-square test analysis showed that there was a relationship between knowledge and community attitudes towards self-medication behavior of diarrhea medicine in Temas Village, Srengat District, Blitar Regency. Attitudes have a smaller p-value than knowledge, so that attitudes affect the behavior of self-medication of diarrhea medication appropriately in the community of Kauman Village, Srengat District, Blitar Regency.

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