

FACTORS RELATED TO SELF MEDICATION IN PAI III OF BIRINGKANAYA SUBDISTRICT MAKASSAR

Agust Dwi Djajanti^{1a}, Ermawati¹, Yusriyani¹, Dzulasfi¹, Rusli²

¹ Yamasi Pharmacy Academy of Makassar

²Health Polytechnic of Makassar

^a Corresponding author: mamasasa71@gmail.com

ABSTRACT

The research is how the level of knowledge of the PAI III Subsubdistrict of Biringkanaya Makassar in 2018 on the level of drug use without a prescription is self-medication. Independent variables in this study were age, education, income, source of information and place of medication for self-medication. Factors are most related to the cross sectional study design method for 63 samples taken with purposive sampling in the PAI III Biringkanaya subdistrict, Makassar. This type of research is observational analytic research, using the cross sectional study approach. This study is used to observe the level of self-medication, where in this case the independent variables and dependent variables, the study was observed simultaneously at the same time in each individual in the population. The results of this study indicate that the factors associated with self-medication in the PAI III sub-subdistrict are the source variables of getting the drug. The income level variable, age variable, education level and drug information source variable did not affect self-medication.

Keywords: Self-Medication dan Related Problems Factors

INTRODUCTION

Medicine is one of the irreplaceable components in health services. Drugs are different from trade commodities, because drugs have social functions. Medicines play a very important role in health services because the handling and prevention of various diseases cannot be separated from drug therapy. The source of medicine in Indonesia, includes three interconnected sectors, self-medication, traditional medicine, and professional medical treatment. In the treatment of pain, one can choose the source of treatment, but the first action that is most often done is self-medication. Self-medication is useful in the treatment of minor ailments, only if done correctly and rationally, based on sufficient knowledge about the drugs used and the ability to recognize diseases or symptoms that arise. There are five components of knowledge possessed by the community in addressing the use of modern drugs that are appropriate if needed for self-medication, namely knowledge of the active ingredients of the drug, indications, dosages, side effects, and contraindications (Sanjoyo, 1998; Supardi & Notosiswoyo?)

The definition of pain is related to psychosocial disorders that are felt by someone, while the disease is related to disorders that occur in body organs based on a diagnosis. Pain behavior is any activity carried out by sick people to explain the state of their health and get appropriate treatment. The impact of technological advances and changes in lifestyle of people who tend to pay less attention to health, the development

of diseases in the community is inevitable. The development of this disease encourages people to look for alternative treatments that are therapeutically effective but also efficient in terms of financing and time. With regard to this, the treatment itself becomes an alternative chosen by the community. Usually self-medication is done to deal with complaints or symptoms of minor illnesses that many people experience in general such as fever, pain, dizziness, cough, influenza, stomach ulcers, helminthiasis, diarrhea, skin diseases and others. Irrational use of drugs is a serious problem in health services because of the possibility of negative impacts. Most in many countries, at various levels of health services, various studies and findings have shown that the use of drugs is far from optimal and rational. The use of drugs is said to be irrational if it is possible to provide small or no benefits at all, while the possibility of benefits is not proportional to the possibility of side effects or costs (Gilman et al., 2007; Jordan, 2003).

The use of prescription drugs by the public is categorized as over-the-counter drugs and limited over-the-counter drugs used in self-medication efforts. The criteria for a drug can be included in this category, among others, is that the drug in question has been scientifically proven to show clinical benefits, is very necessary and easily obtained to deal with the pain that is often found in the community, is relatively safe and can be monitored by the authorities watching over. To classify certain drugs into non-prescription drugs that are classified as free

drugs and limited over-the-counter drugs is to increase the availability of essential drugs for the community in an effort to carry out self-medication. When used correctly, the drug is very helpful for the community in self-medication safely and effectively. However, it is often found that self-medication becomes very wasteful because using drugs that are actually not needed can even be dangerous because it is not according to the rules of use. However, over-the-counter drugs and limited over-the-counter drugs do not mean free of side effects, therefore their use must be in accordance with the indications, dosage, duration of use accompanied by knowledge of the risk of side effects and contraindications so that the knowledge and skills needed to choose over-the-counter drugs and limited drugs are needed. itself safely and effectively (Arifah, 2018; Supardi & Notosiswoyo?).

The case of antimicrobial self-medication in Europe in 2006 was 95% per 1000 respondents (Emerging Infectious Diseases, March 2006). Sudibyo Supardi, 1996, has conducted research on patterns of use of drugs & traditional medicines in self-medication efforts in Lampung. Data obtained 74.4% of housewives using self-medication and traditional medicine with a population of 320 people. Rinukti, Widayanti, 2005, conducted a study on self-medication for fever medicine for the resultant children. 74.5% of housewives self-medication. Sudibyo Supardi, Mulyono Notosiswoyo (Ministry of Health Research and Development Agency) from his research found that people with low income levels, namely income between Rp.250,000.00 to Rp.500,000.00 prefer self-medication (32.52%) than people with more income levels high. Communities with very high levels of education, namely graduating D3 / S1 / S2 prefer self-medication (35.77%) than people with lower levels of education. The community in doing their own treatment prefers modern medicine (50.41%), rather than using traditional medicine (30.08%) or a combination of both (19.51%). How to get medicine in doing self-medication mostly comes from pharmacies (59.35%), then stalls (54.47%), and drug stores (44.71%).

The criteria used to choose self-medication are knowledge about illness and use of the drug, confidence in treatment, severity of illness, and affordability, and distance to the source of treatment. Knowledge of the community is closely

related to the use of non-prescription drugs as self-medication, several indicators that need to be considered as knowledge in using the drug so that the use of the drug is safe, effective and rational and avoid unwanted effects. The indicators are: how to choose drugs, how to use drugs, how to store drugs, drug side effects, route of administration of drugs, drug dosage and use along with other foods and drugs. The government has issued legislation relating to self-medication. Self-medication can only use drugs that are classified as free drugs and limited over-the-counter drugs (Minister of Health Decree No.633 / Ph / 62 / b). The drug class sign must be listed on each drug package (SE Dirjen. POM No.02469 / 1983). All drugs which are included in the category of over-the-counter drugs and limited over-the-counter drugs must include information about the efficacious substance, uses, rules of use, and other statements needed on each of the packaging (SK Menkes No.917 / 1993). The duration of self-medication is only for certain complaints so it is not always listed on every drug package. However, all limited free drug packaging must include a warning sign "if the illness continues, immediately contact the doctor".

The government has also issued legislation on guidelines for free drug advertising. In the regulation it is stated that free drug information in advertisements must be objective, complete and not misleading. Free drug advertisements should be beneficial to the community in rational drug selection (Minister of Health Decree No.386 / 1994).

The community's enthusiasm for the PAI III Subsubdistrict in Biringkanaya Makassar Subsubdistrict is very large in using drugs without prescriptions, according to the initial survey, several shops and drug service facilities were conducted. This is because these drugs can be purchased freely without a doctor's prescription and time is not bound, the disease is categorized as mild and manageable, formal medical expenses are expensive, medical administration in formal service units takes time, distance from formal service units, fear of treatment and lack of time to treat the health care center. Based on the description above, research has been carried out on the factors related to the self-treatment of PAI III communities in Biringkanaya subsubdistrict, Makassar.

MATERIAL AND METHOD

This research is a descriptive research that is a qualitative study to find out the factors related to community self-medication in PAI III, Biringkanaya subdistrict, Makassar. This research was carried out for 2 months, in October and November 2018 in PAI III, Biringkanaya subsubdistrict, Makassar. The population of the study was the PAI III community in Biringkanaya subdistrict who had used over-the-counter drug and over-the-counter drugs. Number of population. Sample was people who were over 16 years of age and had used over-the-counter drugs and twice that were used self-medication. Size of sample this research is 63

Data analysis

Data were analyzed for each variable from the results of the study to see the relationship of the independent variables and the dependent variable using the Chi Square statistical test (Arikunto, 2006).

Objective Criteria

1. The level of public knowledge about the method of selecting prescription drugs
Enough: Respondent's answer \geq 18 points
Less: Answer the respondent $<$ 18 points
2. The level of public knowledge about how to use drugs without a prescription
Enough: Respondent's answer \geq 18 points
Less: Answer the respondent $<$ 18 points
3. The level of people's knowledge of how to store drugs without a prescription
Enough: Respondent's answer \geq 19 points
Less: Answer the respondent $<$ 19 points

RESULT

This research was carried out in the PAI III in Biringkanaya subdistrict Makassar, which included 175 people. in November 2018. The design of this study was observational using the Cross Sectional Study design and the sample size in this study was 63 samples. The source of research data is derived from primary data. Primary data is data relating to the research variables obtained directly from residents in PAI III Biringkanaya subdistrict, Makassar who were selected as samples or research respondents. Primary data collection is done

by using a data collection instrument in the form of a questionnaire.

Univariate analysis aims to be able to describe each research variable based on certain characteristics of the research respondents, which are explained in the form of sample distribution based on the characteristics of respondents according to age group, education level, income level, drug information source, and place to get medicine.

Table 1.
Distribution of Research Respondents by Age Group in PAI III Biringkanaya Subdistrict, Makassar in 2018

No	Age Groups	n	%
1.	17 - 25 year	11	17,5
2.	26 - 34 year	15	23,8
3.	35 - 43 year	15	23,8
4.	44 - 52 year	12	19,1
5.	53 - 60 year	7	11,0
6.	61 - 71 year	3	4,8
Total		63	100,0

Table 2.
Distribution of Research Respondents by Education Level in PAI III Biringkanaya subdistrict, Makassar in 2018

No	Level of education	n	%
1.	High school	53	84,1
2.	Diploma 1	1	1,6
3.	Diploma 3	3	4,8
4.	Bachelor	6	9,5
Total		63	100,0

Bivariate Analysis

Univariate analysis aims to see the relationship between each independent variable with dependent variable research (self-medication). The analysis was carried out using the Chi Square Test to see the magnitude of the X^2 calculated from each independent variable when associated with the dependent variable. Besides that, it can also be seen and calculated the distribution of respondents based on each independent variable on self-medication to explain the phenomenon- phenomena that arise based on the results of data management. The results of the analysis are as follows:

Table 3.
Relationship between age of respondents and self-medication in PAI III, Biringkanaya subdistrict, Makassar in 2018.

Age	Self Medication				Amount		Value X ² p value CI = 95%
	Ya		Tidak				
	Fo	Fe	Fo	Fe	Fo	Fe	
> 25 year	30	47,7	21	33,3	51	81	X ² =0,309 p= 0,578
< 25 year	6	9,5	6	9,5	12	19	
Total	36	57,2	27	42,8	63	100	

Table 4.
Relationship between education level and self-medication in PAI III Biringkanaya Subdistrict, Makassar in 2018.

Education Level	Self Medication				Amount		Value X ² p value CI = 95%
	Yes		No				
	Fo	Fe	Fo	Fe	Fo	Fe	
High School upper	7	11,1	3	4,8	10	15,9	X ² = 0,802 p = 0,370
High School down	29	46,0	24	38,1	53	84,1	
Total	36	57,1	27	42,9	63	100	

Table 5.
Relationship between Income Levels and Self-medication in PAI III Biringkanaya Subdistrict, Makassar in 2018.

Income Level	Self Medication				Amount		Nilai X ² p value CI = 95%
	Yes		No				
	Fo	Fe	Fo	Fe	Fo	Fe	
< 1 Million	16	25,4	13	20,6	29	46	X ² = 8,582 P = 0,014
1 – 2 Million	7	11,1	12	19,1	19	30,2	
> 2 Million	13	20,6	2	3,2	15	23,8	
Total	36	57,1	27	42,9	63	100	

Table 6.
Relationship of Information Sources of Medicines with Self-Medication in PAI III Biringkanaya Subdistrict, Makassar in 2018.

Drug Information Resources	Self Medication				Amount		Nilai X ² p value CI = 95%
	Yes		No				
	Fo	Fe	Fo	Fe	Fo	Fe	
Health Workers	13	20,6	8	12,7	21	33,3	X ² = 0,300 P = 0,861
Media	10	15,9	8	12,7	18	28,6	
Friends	13	20,6	11	17,5	24	38,1	
Total	36	57,1	27	42,9	63	100	

Table 7.
Relationship between Drug Sources and Self-Medication in PAI III Biringkanaya Subdistrict, Makassar in 2018.

Drug Resources	Self Medication				Amount		Nilai X ² p value CI = 95%
	Yes		No		Fo	Fe	
	Fo	Fe	Fo	Fe			
Pharmacy	7	11,1	4	6,4	11	17,5	X ² = 10,119 P = 0,006
Drug Store	16	25,4	3	4,8	19	30,2	
Shop	13	20,6	20	31,7	33	52,3	
Total	36	57,1	27	42,9	63	100	

Multivariate Analysis

The multivariate analysis carried out was aimed at seeing and knowing of all the independent variables, which variables were most associated with self-medication in the population in PAI III Biringkanaya subdistrict, Makassar, Biringkanaya Makassar. For this reason, all independent variables that meet the criteria are included in a multivariate test model together so that later which variables will be most related and also the most suitable regression equation models will be found to explain factors related to self-medication in the population in PAI III Subdistrict Kecamatan Biringkanaya Makassar. The criteria for the independent variables that will be included in the multivariate test are variables that have a p value <0.25 or those variables have biological significance. Based on these criteria, the independent variables in this study are income level variables and drug source variables that meet the requirements for inclusion in multivariate analysis, the value of p is below 0.25

Furthermore, because the variable measurement scale is in the form of a categorical dichotomy, the type of statistical test used is the multiple regression logistic test. Multiple regression is a regression analysis using two or more independent variables. This method is used with the aim of looking for a combination of cooperation between the most suitable variables in describing the relationship of independent variables with dependent variables and aims to find the most suitable form of regression equations to explain the relationship of variables, namely by issuing independent variables that are not meaningful in the results multivariate analysis test.

Multivariate analysis by entering one by one the independent variables into each step found that, sources get drugs that influence

self-medication in PAI III Biringkanaya subdistrict, Makassar in 2018 with a value of $p < 0.05$

DISCUSSION

The results of data processing obtained that the age group 26-43 years is the age group that was most netted as research respondents. This explains that the age group that has a lot of self-medication and age groups is the age phase which is usually called productive age (high activity).

In terms of education, the most netted as respondents were high school graduates as many as 53 respondents followed by undergraduate education as many as 6 people. This is in accordance with the results of the National Socio-Economic survey where the highest percentage of population education is SLTA. In terms of the level of income the most netted as respondents is the income level of <1 million rupiahs as many as 29 respondents followed by income levels of 1-2 million rupiahs as many as 18 respondents. This indicates that the majority of respondents in the PAI III sub-district of Biringkanaya Subdistrict were mostly at the lower middle class economic level.

Sources of obtaining the most drugs, those who obtained drugs in food stalls for self-medication as many as 33 people were followed by getting drugs at the drugstore as many as 19 people and those who received drugs in pharmacies as many as 11 people. This shows that respondents in the PAI III Biringkanaya subdistrict, Makassar already felt comfortable and safe enough to get medicines in the stalls. Even though obtaining medicine at the stall enlarges the use of drugs that are not rational in self-medication because the drugs obtained at the stall cannot guarantee the quality and quality of the medicine. This is one of the factors that causes treatment failure. It may

be that the drugs obtained at the stall are fake drugs, finally the desired properties are not fulfilled and can even cause poisoning due to fake drugs or because the drug has expired date. This is possible because the procurement of drugs in stalls is not managed properly as in pharmacies that are well managed by a pharmacist in charge, namely a professional in their field, namely a pharmacist. The large number of respondents who get medicine in the stalls is also due to the middle income level of the PAI III Biringkanaya subdistrict, Makassar (from the previous analysis) so that the ability to get drugs is only in stalls, because there is a tendency in the community to obtain drugs at pharmacies and drug stores. needed will be greater.

Sources of information about drugs, it was found that the most common source of information obtained by respondents in the PAI III Urban Village was through 24 friends and then through 20 medical personnel and 19 people through the media. This is because getting information through friends does not require consultation fees, does not require visiting time, there is no feeling of shame / fear in terms of telling complaints such as those faced when consulting a doctor or medical personnel. In terms of choosing drugs for their illnesses that have good knowledge about self-medication, there are 45 respondents. This means that respondents in the PAI III Biringkanaya subdistrict, Makassar have been able to self-medication in terms of diagnosis of their own penyakit.

The use drugs, the level of knowledge of the PAI III urban village community is quite good with a total of 52 respondents and in terms of drug storage it also shows that public knowledge is good enough. This is due to information on how to use the drug and how to store drugs for self-medication, namely free and limited free class drugs already listed in the drug etiquette so that the community easily gets the information even without consultation from medical personnel. To obtain information on drug etiquette, all that is needed is the ability to read, while for the PAI III Biringkanaya subdistrict, Makassar, most of them have high school education and above, which is certainly capable of reading. In terms of age group against self-medication, the age group ≥ 25 years who did self-medication were as many as 47%, the rest who did not self-medication 33.3%. This shows age above 25 years is a

productive age capable of psychology and finance in self-medication.

The level of education towards self-medication, the highest group was the education level <high school with the number of respondents as much as 46% who self-medication and as many as 38.1% who did not self-medication. This means that the level of high school education downwards is mostly self-medication because the lower the level of education, the less understanding about the dangers of self-medication with improper diagnosis. In terms of the level of income towards self-medication, the highest level of income that is self-administered is the level of income of 1 million and below as much as 25.4% while those that do not self-administer are 20.6%, followed by income levels above 2 million rupiah and the smallest with income levels of 1-2 million rupiah. This means that the level of income is less influential in the act of self-medication because income income is 1 million rupiahs and does the most self-medication but is also followed by an income level of 2 million and more self-administering against 1-2 million rupiah. In terms of sources, getting drug information on self-medication, the information obtained from friends who had the highest score was as much as 20.6% who were self-medication and as many as 17.5% were not self-medication. This means that the source of information obtained from friends is more likely to create a sense of security for the community because exchanging ideas with friends in overcoming disease problems can be done at any time, without spending, more open and not afraid or reluctant compared to consulting with medical personnel who sometimes considered too curbing, unfriendly and friendly so it decreases self-confidence.

Sources of getting medication for self-medication, the highest was those who received drugs from stalls of 20.6% and those who did not self-medication for 31.7%. This means that the people in the PAI III urban village have felt enough to get medicine in a stall because the location of the stalls can be located around their residence so it does not require a lot of time, effort and cost in obtaining medicine. Whereas to reach drugstore facilities and pharmacies will require more time, effort and costs than if you get medicine in a shop. Besides that, a disease that often attacks the community of PAI III Biringkanaya

subdistrict, Makassar, is a mild disease that can be treated using limited free and free drugs which are available in stalls, drug stores and pharmacies.

Self medication in addition to condemning can also cause losses. One of the advantages is that often the drugs needed are already in the cupboard at home. Other benefits are faster, cheaper, easier not to burden the health implementation system and can be done by yourself:

1. Save on your own costs and costs to see a doctor.
2. Immediately be able to do the activity again.

While the losses that can be caused by self-medication include:

1. Wrong medication occurs
2. Adverse side effects occur
3. Closing (masking) the symptoms needed to go to the doctor in determining the diagnosis.

Based on bivariate analysis, it was found that the education level variable was not related to self-medication level in the PAI III sub-district of Biringkanaya Makassar Subdistrict in 2018. This is due to the higher education, the more aware of the dangers of irrational use of drugs, the more careful treatment they are. For those who are highly educated, they tend to do more treatment with an accurate examination through a doctor's diagnosis and laboratory clinical examination.

Age variables against self-medication also do not show a relationship based on bivariate analysis, this is due to the current era of globalization, the problem of information about diseases, symptoms of disease, rational treatment can be obtained anywhere and anytime and can be accessed by all ages. Drug information can also be accessed in various print, electronic, brochure, etiquette, counseling, advertising and so forth. Accurate drug information can also be obtained at pharmacies that implement drug information services (PIO) and counseling with patients.

Based on the results of the multi-variant analysis, the source factors get the most influential drugs for self-medication. This is because the means to get drugs anywhere. Medicines can be obtained at pharmacies, drug stores, stalls, and even in malls. So that there is no obstacle for patients to get medicine. From the results of the research the pharmacy facilities were the places most visited by respondents to obtain medicines.

Pharmacy facilities are the ideal means to obtain quality medicines at affordable prices and quality drugs that can be guaranteed. Especially when there are changes in regulations in the pharmaceutical field that legalize list G drugs in certain conditions can be obtained without a doctor's prescription. Besides that currently in the pharmaceutical field improved drug consultation / counseling in hospitals and several pharmacies. Which serves as a place for consultation on appropriate and rational drug selection issues in self-medication in the community. Based on the above, each year self-medication cases are increasing.

1. Multivariate Relations between Independent Variables and Bound Variables

Based on multivariate analysis, the level of income and source of medicine is a variable related to self-medication in the population in PAI III Subdistrict, Biringkanaya District, Makassar in 2018. Whereas age, level of education and source of drug information are variables not related to self-medication.

By that, in principle, efforts to reduce self-medication in the community by increasing the level of income of the community so that patients make a diagnosis to the doctor about the disease properly so that later they will get a rational prescription for the disease at the official sepetiapotik drug store that is able to serve prescription redemption with good quality and minimizing getting drugs of questionable quality.

2. Quality Control

Primary data collection is done by using the data collection instrument in the form of a questionnaire or to see the ability of the auxiliary data collectors in carrying out data collection in the field

3. Research Limitations

Limitations in conducting this research include:

- a. This study has a conceptual framework that aims to find out the relationship of several factors with self-medication, therefore it is possible that there are several other factors that have not entered into the conceptual framework, but theoretically can be related to self-medication, for example the duration of certain diseases will be a factor which affects self-medication actions.
- b. Limitations in determining samples
The sample in the study was respondents who resided in the PAI III

Biringkanaya subdistrict, Makassar with sampling using purposive sampling, so that many samples were not filtered because they were not included in the determined researchers' consideration.

c. Limitations in research design

This study uses a cross sectional study, so that validation of causal relationships between dependent and independent variables is difficult to fulfill.

CONCLUSION

In accordance with the results of research and discussion, which refers to the formulation of the problem and research hypothesis, it can be concluded as follows:

1. Age is not a factor associated with self-medication of PAI III, Biringkanaya subdistrict, Makassar.
2. The level of education is not a factor associated with self-management of the PAI III Biringkanaya subdistrict, Makassar.
3. The source of information is not a factor associated with self-medication of the PAI III Biringkanaya subdistrict, Makassar.
4. The level of income is not a factor associated with self-management of the PAI III Biringkanaya subdistrict, Makassar.
5. The source of obtaining drugs is a factor associated with self-medication for the community of PAI III Biringkanaya subdistrict, Makassar.

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From the results of research, discussion and conclusions, the suggestions that can be submitted are:

1. In carrying out self-medication actions, it is necessary to obtain drugs from drug sources that can be justified as well as their quality so as to minimize the unsuccessful treatment and poisoning due to irrational use of drugs.
2. Further research is expected to be able to examine other factors that are more related to self-medication actions.

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