

The relationship between patient characteristics and analgesic self-medication behavior in pharmacies in Kesesi District, Pekalongan Regency

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Abstrak

Self-medication is an effort to self-medicate without a doctor's prescription. Analgesics are medications used to reduce or relieve pain. The purpose of this study was to determine the relationship between patient characteristics and analgesic self-education behavior in pharmacies in Kesesi District, Pekalongan Regency. This study used an analytical observational method with a *cross-sectional approach*, the research instrument used a questionnaire involving 97 respondents in 3 pharmacies in Kesesi District, Pekalongan Regency. The sampling technique uses the *consecutive sampling method*. The independent variable is the characteristic and the dependent variable is the analgesic self-medication behavior. Data analysis using univariate and bivariate analysis with non-parametric *rank spearman* statistical test. The results showed that the age of 26-45 years was 50.5%, women were 66%, secondary education was 61.9%, self-employed by 47.7% and 32% of moderate-income people were more self-medicated analgesics. Some patients had good behavior in self-medication analgesics by 71.1%. The conclusion of this study was that patient characteristics including age ($p = 0.014$), education ($p = 0.000$), occupation ($p = 0.000$) and income ($p = 0.000$) had a relationship with analgesic self-medication behavior in pharmacies Kesesi District, Pekalongan Regency, while unrelated patient characteristics were gender ($p = 0.237$).

Keywords: characteristics, behavior, self-medication, analgesics, pharmacy.

1. INTRODUCTION

Self-medication is an effort to self-medicate without being based on a prescription doctor. Self-medication treatment is aimed at treating symptoms and diseases that can be diagnosed by patients themselves (Jajuli & Sinuraya, 2018). Drugs used in self-medication are all types of drugs that can be submitted without a doctor's prescription consisting of over-the-counter drugs, limited over-the-counter drugs, and mandatory pharmacy drugs (OWA) (Helal & Elwafa, 2017).

Various research results say that one of the drugs that is often used for self-medication is analgesics (Halim et al.,

2018). Analgesics are drugs used to reduce or eliminate pain and are also called pain relievers or pain relievers (Ratnawulan et al., 2017). Pain is an uncomfortable sensory and emotional experience, related to tissue damage or necrosis (Raja et al., 2020).

Analgesics are often consumed to relieve symptoms such as headaches, toothaches, muscle aches and others. Analgesics are divided into two groups, namely opioids (narcotics) and non-opioids. Opioid analgesics in repeated use can cause dependence. Non-opioid analgesics are non-dependent analgesics (Balam et al., 2021). The results showed that the majority of patients bought one type of analgesic, the most commonly

purchased analgesic class was nonsteroidal anti-inflammatory drugs (NSAIDs) (Halim et al., 2018). In research in Surabaya, education and information need to be emphasized on patient groups with certain sociodemographics to avoid irrational use of analgesics, including elderly patients, not working, low income, living alone or divorced and having a history of smoking and drinking alcohol (Halim et al., 2018). Several studies prove that the level of public knowledge is closely related to the rational use of analgesic drugs (Health et al., 2019). The level of knowledge with self-medication behavior in pharmacies in Denpasar City also has a significant relationship (Maharianingsih et al., 2022). In research conducted in the city of Kediri, work and education have a relationship with analgesic self-medication behavior, while those that do not have a relationship include gender, age and income (Ilmi et al., 2021).

Seeing from previous studies that the role of characteristics with analgesic self-medication behavior affects the safe and rational use of drugs, it is necessary to conduct research on the relationship between patient characteristics and analgesic self-medication behavior in pharmacies in Kesesi District, Pekalongan Regency. This research was conducted in three pharmacies in Kesesi District, Pekalongan Regency because most of the people chose to buy drugs at pharmacies. It is hoped that this research can add sources of information and education to the public in the use of analgesic drugs.

2. METHOD

This study used *analytical observational* method with *cross-sectional* research design. Data was obtained from the results of questionnaires given to patients at three pharmacies in Kesesi

District, Pekalongan Regency. The characteristics of respondents reviewed included gender, age, education, occupation and income. Good behavior is behavior that performs analgesic self-medication properly and correctly.

The population in this study was patients who came to buy analgesic drugs at pharmacies in Kesesi District, Pekalongan Regency. Sampling is carried out by *consecutive sampling method*, where all subjects who come and meet the criteria are included in the study until the required number of subjects is met. The determination of the number of samples used in this study was determined using the *Lemeshow Formula*. *Lemeshow's formula* is used because of the number of unknown or *infinite populations*. Using the Lemeshow formula above, the sample value (n) obtained was 96.04 which was then rounded to 97 respondents, where this study involved three pharmacies in Kesesi District, Pekalongan Regency with a minimum sampling of 97 respondents.

The criteria for pharmacy inclusion are pharmacies that have a pharmacy license and are registered at the Pekalongan Regency Health Office that is still valid, pharmacies that have a pharmacist registration certificate, the location is easy to reach (strategic), pharmacies that are crowded with visitors. The exclusion criteria are pharmacies that are not willing to be a place of research, pharmacies that are in the clinic / hospital room. Patient inclusion criteria, patients who come to the pharmacy kesesi sub-district of Pekalongan Regency, patients who self-medicate oral analgesics in the form of tablets, patients aged 17-65 years, patients who can communicate, read and write, Patients who are willing to fill out questionnaires. Criteria for exclusion of patients, patients who did not buy analgesic drugs prepared

with tablets, patients aged <17 years and >65 years, patients who have mental and physical disabilities, patients who are unwilling to fill out questionnaires.

Validity and reliability tests of the questionnaire were tested on 30 initial respondents. The results of the questionnaire were tested using the computer program SPSS (Statistical Product and Service Solution) 22 for Windows, The variables to be analyzed univariately were "patient characteristics (sex, age, education, occupation, income)" and "analgesic self-medication behavior". The results of univariate analysis in this study are categorical data of frequency distribution in the form of percentages of each variable studied. Bivariate analysis is used to determine the relationship of patient characteristics

With analgesic self-medication behavior, using the Spearman rank test. The degree of confidence chosen is 95% with $\alpha = 5\%$ or 0.05. Thus, if the P value ≤ 0.05 means that the statistical calculation is meaningful, so it can be concluded that there is a significant relationship between the variables studied. Conversely, if the P value >0.05 can be concluded, there is no significant relationship between the variables studied.

3. RESULTS AND DISCUSSION

This study was conducted in three pharmacies in Kesesi sub-district, Pekalongan regency with a total of 97 respondents, where all respondents who came to buy analgesic drugs and met the criteria were included in the study until the number of subjects needed Fulfilled.

Tabel 1. Characteristics of respondents using analgesic preparations

Variable	Category	Frekuensi (n)	Persentase (%)
Age	17-25 years of adolescence	10	10,3
	26-45 years of adult age	49	50,5
	46-65 years old elderly	38	39,2
Gender	Man	33	34
	Women	64	66
Education	Basic	11	11,3
	Secondary (Middle and High School)	60	61,9
	High (D3, S1 or higher)	26	26,6
Work	Civil servants	13	13,4
	Self-employed	46	47,4
	Employees	11	11,3
	Farmers	5	5,2
	Housewives	20	20,6
	Students	2	2,1
Income	Non income	21	21,6
	< Rp 2.000.000, Low	21	21,6
	Rp 2.000.000-Rp 5.000.000, Medium	31	32
Behavior	>Rp 5.000.000, High	24	24,7
	Good	69	71,1
	Enough	28	28,9
	Less	0	0

Based on table 1, it can be seen that the number of samples in this study was 97 respondents. In the age category most respondents were Adults 49 (50.5%), Elderly 38 (39.2%) and adolescents 10 (10.3%). In the sex variable, most women were 64 people (66%) and men 33 (34%). In the education variable, it is known that most of the secondary education (junior high, high school) 60 people (61.9%), higher education 26 people (26.8%) and basic education 11 people (11.3%).

The job variables consisted of civil servants 13 (13.4%), self-employed 46 (47.4%), cc 11 (11.3%), farmers 5 (5.2%), housewives 20 (20.6 %) and students 2 (2.1%).

High income category 24 (24.7%), medium income 31 (32%), low income 21 (21.6%), and non-income 21 (21.6%). Based on behavioral variables, most respondents behaved well 69 (71.1%), while enough 28 (28.9%) and less 0. Before conducting data analysis, it is necessary to test normality and homogeneity, the goal is to find out the method of data analysis taken, from these tests it can be concluded that the normality test value obtained is 0.006 and the homogeneity test is 0.000 < 0.05, which means that the data is abnormal and inhomogeneous. The test taken is a non-parametric rank spearman test to determine the relationship between the two variables.

Testing the relationship between respondents' characteristics and behavior using the spearman rank test. The spearman rank test was chosen because the independent variables in this study are categorical ordinal and nominal, while the dependent variables are categorical ordinal.

The relationship between patient characteristics and behavior can be seen based on table 2 using the spearman rank test on the characteristics of the respondent's age relationship with behavior P-Value value = 0.014 (< 0.05), meaning that there is a significant relationship between age and respondent behavior in the use of analgesic drugs. A person's age affects his comprehension and mindset, as a person gets older, the more his grasp and mindset will develop. At that age there will be an increase in one's performance and physical skills. The adult age range is the productive age or has maturity both physically and psychologically so that in receiving information is getting better (Irana, 2017). The results of this study show that age is one of the factors that has a relationship with the behavior of using analgesic drugs.

In the gender variable, most respondents were women, namely 64 people (66%) and men 33 (34%). Judging from this study, it shows that female respondents do more analgesic self-medication. This incident can be based on differences in nature in each gender that women are more knowledgeable about drugs compared to men and women are more likely to be careful in doing treatment (Panero, 2016). Women care more about health and do more self-medication. In addition, the level of willingness and positive response of female respondents to include as research subjects is higher than male respondents. So that this can be one of the factors that affect compliance in taking drugs as recommended (Pratama, 2021).

Tabel 2. Distribution of the proportion of characteristic relationships with analgesic self-medication behavior

	Self-medication behavior						Total		p value
	Good		Enough		Less		F	%	
	F	%	F	%	F	%			
Age									
Adolescent	9	9,3	1	1	0	0	10	10,3	0,014
Adult	38	39,2	11	11,3	0	0	49	50,5	
Alderly	22	22,7	16	16,5	0	0	38	39,2	
Total	69	71,1	28	28,9	0	0	97	100	
Gender									
Man	26	26,8	7	7,2	0	0	33	34	0,237
Women	43	44,3	21	21,6	0	0	64	66	
Total	69	71,1	28	28,9	0	0	97	100	
Education									
Basis	2	2,1	9	9,3	0	0	11	11,3	0,000
Intermediate	41	42,3	19	19,6	0	0	60	61,9	
Tall	26	26,8	0	0	0	0	26	26,8	
Total	69	71,1	28	28,9	0	0	97	100	
Work									
Civil servants	13	13,4	0	0	0	0	13	13,4	0,000
Self employed	41	42,3	5	5,2	0	0	46	47,4	
Employee	6	6,2	5	5,2	0	0	11	11,3	
Farmer	0	0	5	5,2	0	0	5	5,2	
housewife	7	7,2	13	13,4	0	0	20	20,6	
Student	2	2,1	0	0	0	0	2	2,1	
Total	69	71,1	28	28,9	0	0	97	100	
Income									
None	8	8,2	13	13,4	0	0	21	21,6	0,000
Low	11	11,3	10	10,3	0	0	21	21,6	
Keep	26	26,8	5	5,2	0	0	31	32	
Tall	24	24,7	0	0	0	0	24	24,7	
Total	69	71,1	28	28,9	0	0	97	100	

Based on table 2, it is known that the results of the analysis using the sperman rank test on the characteristics of the relationship between sex and behavior obtained a p value of 0.237 ($p > 0.05$), meaning that there is no relationship between sex and the behavior of using analgesic drugs.

In the education variable, it is known that most of the respondents' education is secondary education (junior high, high school), which is 60 people (61.9%), higher

education as many as 26 people (26.8%) and basic education as many as 11 people (11.3%). Based on table 2 it is known that all highly educated respondents have good manners whereas those with secondary education are mostly well-behaved. The results of the analysis using the Sperman Rank test on the characteristics of the relationship between education and behavior obtained a p value of 0.000 ($p < 0.05$) meaning that there is a significant relationship between education and the

behavior of using analgesic drugs. Education is one of the factors that can affect a person's level of knowledge. The higher a person pursues education, the easier it is for a person to obtain information. Someone with higher education, the wider their knowledge, including about health behaviors related to healthy lifestyles (Iffat, 2021).

The job variable consists of 13 civil servants (13.4%), 46 (47.4%), 11 employees (11.3%), 5 farmers (5.2%), 20 housewives (20.6%), and 2 students (2.1%). Based on table 2, it is known that the results of the analysis using the Spearman Rank test on the characteristics of the relationship between work and behavior obtained a p value of 0.000 ($p < 0.05$), meaning that there is no relationship between work and the behavior of using analgesic drugs. Based on the results of research, a person's work can influence new habits, especially those related to a healthy lifestyle, because by working a person will be able to interact with people in the workplace environment with various kinds of individual characters.

The income variable consists of high income categories of 24 respondents (24.7%), medium income as many as 31 (32%), low income as much as 21 (21.6%) and no income as much as 21 (21.6%). Based on table 2, it is known that the results of the analysis using the spearman rank test on the characteristics of the relationship between income and behavior obtained a p value of 0.000 ($p < 0.05$), meaning that there is a relationship between income and the behavior of using analgesic drugs. Income describes the flow of economic resources in various specific time periods. Individuals with higher incomes are more likely to finance health care and the ability to meet good nutrition. People with low incomes prefer to overcome minor illnesses

they experience by self-medication. People with higher incomes can determine attitudes in self-medication more precisely. Thus, income shows the ability or purchasing power of an object that is desired according to needs (Murniasih, 2019).

4. CONCLUSION

The characteristics of analgesic self-medication patients in pharmacies in Kesesi District, Pekalongan Regency involving 97 respondents in 3 pharmacies showed that respondents aged 26-45 years were more likely to do analgesic self-medication by 50.5%, women by 66%, the most education was secondary (junior high / high school) by 61.9%, the work was partly self-employed 47.4% and 32% had moderate income. Some patients had good behavior in self-medication analgesics by 71.1%. The conclusion of this study was that patient characteristics including age ($p = 0.014$), education ($p = 0.000$), occupation ($p = 0.000$) and income ($p = 0.000$) were related to analgesic self-medication behavior in pharmacies in Kesesi District, Pekalongan Regency, while unrelated patient characteristics were gender ($p = 0.237$).

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