

LEVEL OF SELF-MEDICATION KNOWLEDGE OF CHILDREN FEVER AMONG PARENTS IN RIAU

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ABSTRACT

Self-medication in the context of health maintenance is a widely practiced communal effort to alleviate health concerns, therefore its importance should not be underestimated. Fever occurs when the body's temperature rises above 37°C. The purpose of this study was to determine the level of knowledge of parents' self-medication of fever in children, as well as the sociodemographic relationship between the two at Andalan Jaya Pharmacy Pekanbaru. This is a quantitative descriptive research methodology. The study used a total sampling system. This study included all patients who visited the Andalan Jaya pharmacy in Pekanbaru and had self-medicated, for a total of 90 respondents. Data was collected through questionnaires. The results showed that the level of knowledge of self-medication for fever in children was good (75.6%), sufficient (23.3%), and less (1.1%). The Chi square analysis results for gender and occupation were more than 0.05, indicating that there was no a significant relationship with self-medication knowledge. The Rank Spearman analysis results for the variables of age and education showed p value of 0.497 and 0.787, indicating that there was no significant relationship with the level of knowledge of self-medication, whereas the income factor obtained a p value of 0.039, indicating that it had a significant relationship with the level of knowledge of self-medication at Andalan Jaya Pharmacy in Pekanbaru.

Keywords: Knowledge, Self-Medication of Parents, Children Fever

INTRODUCTION

Fever is a condition characterized by an increase in body temperature to $> 37.5^{\circ}\text{C}$. The Indonesian Pediatric Society (IDAI) defines the normal body temperature for children as ranging from 36.5°C to 37.5°C (1). Fever is a primary reason why parents seek medical care, and it is a concerning condition for parents and, in some cases, also for doctors as healthcare providers. Based on data from Andalan Jaya Pharmacy in Pekanbaru, fever is also a common complaint that leads patients to visit pharmacies to purchase medication and consult with pharmacists. The percentage of such cases was 12% in February 2024, 14% in March 2024, and 18% in April 2024.

Self-medication is an effort undertaken to treat oneself, starting from recognizing complaints or symptoms to selecting and using medications. Symptoms that can be managed through self-medication are usually mild or minor illnesses. In self-medication, various types of drugs can be used, including those that can be purchased over the counter without a doctor's prescription, as well as herbal or traditional medicines (2). According to survey data conducted by Statistics Indonesia (BPS), updated in 2019, 90.54% of the Indonesian population practiced self-medication (3), a figure that has increased compared to previous years. Self-medication is often chosen because the illness is not considered severe, medicines are easily accessible, there is no need to consult a doctor, and treatment can be carried out quickly, conveniently, and economically (4). Healthcare professionals, especially pharmacists, play a very important role in self-medication to ensure that the medicines used are safe, effective, and affordable, so that self-medication practices can provide therapeutic outcomes as expected.

The study was conducted at Andalan Jaya Pharmacy in Limbungan Subdistrict, Rumbai District, which is classified as an urban area. Urban communities generally have a sufficient understanding of self-medication due to living close to healthcare facilities, which enables them to be more informed about self-medication practices. This study was carried out to determine whether the community understands self-medication, particularly self-medication for fever in children.

METHODOLOGY

This study used a quantitative descriptive design. It aimed to describe the level of knowledge among parents of patients at Andalan Jaya Pharmacy, Pekanbaru. The study was conducted from September to October 2024. It took place at Andalan Jaya Pharmacy, located at Jalan Sembilang No.116 E, Limbungan Subdistrict, Rumbai District, Pekanbaru City, Riau. The population in this study consisted of all patients visiting the pharmacy who met the inclusion criteria. The sampling technique used was total sampling, where the number of samples equals the population. Total sampling was chosen because the population size was fewer than 100. Therefore, the total sample in this study was 90 respondents over a one-month period. The data collected in this study were primary data obtained using a questionnaire. Data collection began by determining the sample from the population. Respondents were given an explanation about the study, including its objectives and benefits. Those who agreed to participate were asked to complete an informed consent form, followed by filling out a questionnaire on self-medication. The variables in this study included independent variables, namely sociodemographic factors, and the dependent variable, which was the level of parents' knowledge about self-medication.

Descriptive analysis was conducted using Microsoft Excel to obtain an overview in the form of frequencies and percentages related to self-medication for fever in children, as well as the level of knowledge about self-medication. Frequency results were obtained from the

number of respondents selecting a particular answer. Percentage results were calculated by dividing the number of respondents selecting a particular answer by the total number of respondents and multiplying by 100%. The formula used to calculate the percentage score (5):

$$\text{Percentage score} = (\text{Number of correct answers} \times 100\%) / \text{Number of statements}$$

The bivariate analysis used in this study was correlation analysis using the Chi-square test and Spearman's rank correlation to determine the relationship between independent and dependent variables. The Chi-square test was used to examine the relationship between sociodemographic factors, such as gender and occupation, and knowledge, and is suitable for nominal data.

RESULTS AND DISCUSSION

This study aims to determine the level of parents' knowledge regarding self-medication for fever in children and to examine the relationship between sociodemographic factors and the level of parents' knowledge about self-medication for fever in children at Andalan Jaya Pharmacy, Pekanbaru. For Sociodemographic Characteristics, based on the frequency distribution, respondents can be categorized as follows:

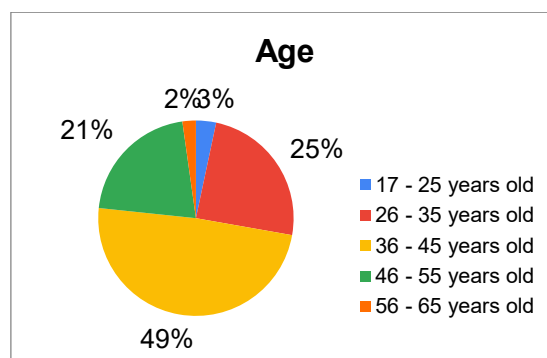


Figure 1. Frequency Distribution Graph Based on Respondents' Age

Based on Figure 1, it can be seen that the majority of parents who visited and were willing to become respondents at Andalan Jaya Pharmacy, Pekanbaru were aged 36–45 years (49%), while the lowest proportion was in the 56–65 years age group (2%). This finding is also commonly observed in other studies, where most respondents fall within this age range. From a psychological perspective, individuals in this age group are at a stage where emotional understanding reaches its peak (6).

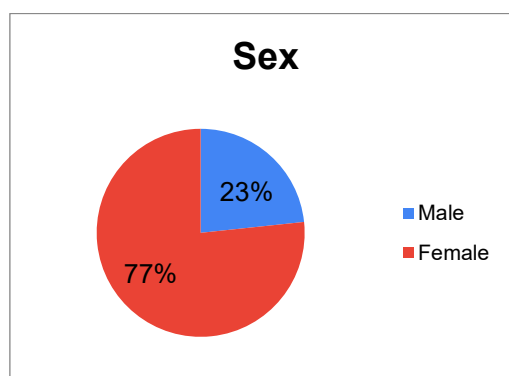


Figure 2. Frequency Distribution Graph Based on Respondents' Gender

Based on Figure 2, it can be seen that the majority of patient visits were by females (77%), while males accounted for the lowest proportion (23%).

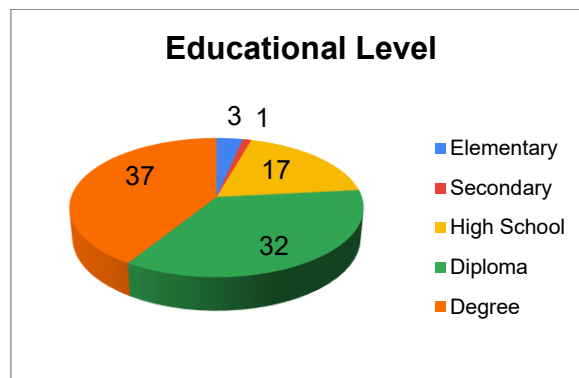


Figure 3. Frequency Distribution Graph

Based on Figure 3, it can be seen that the highest number of patient visits was from respondents with a bachelor's degree (41%), while the lowest was from those with a junior high school education (1%).

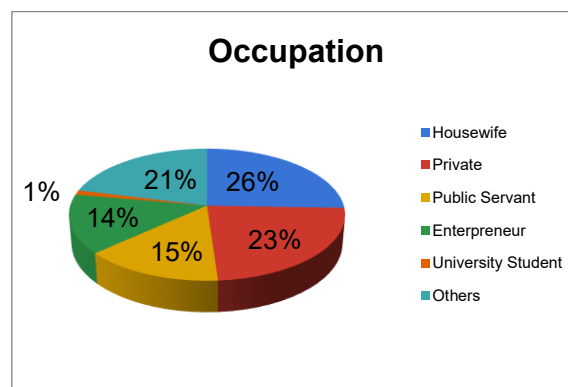


Figure 4. Frequency Distribution Graph Based on Respondents' Occupation

Based on Figure 4, it can be seen that the highest number of patient visits was from housewives (26%), while the lowest was from students (1%).

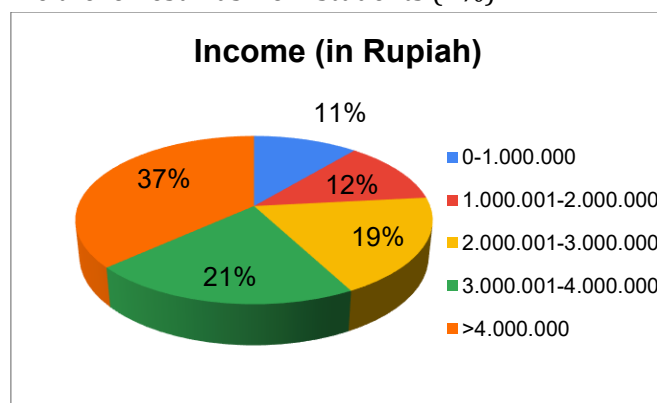


Figure 5. Frequency Distribution Graph Based on Respondents' Income

Based on Figure 5, it can be seen that the majority of respondents fall into group five, with an income above 4,000,000 (37%), while the lowest proportion is in group one, with an income below 1,000,000 (11%). Results of the Level of Knowledge on Self-Medication for Childhood Fever is shown in table below:

Table 1. Level of Knowledge on Self-Medication for Childhood Fever

No	Knowledge level	Total	(%)
1.	Good	68	75,6
2.	Enough	21	23,3
3.	Fair	1	1,1
Total		90	100

The Relationship Between Sociodemographic Factors and the Level of Knowledge on Self-Medication for Childhood Fever

The bivariate analysis used in this study to process the data was correlation analysis, aimed at determining the relationship between independent and dependent variables. The correlation tests applied were the Chi-square test and Spearman's rank correlation.

The Chi-square test was used to examine the relationship between sociodemographic variables such as gender and occupation and knowledge of self-medication. The data used were nominal and ordinal in nature. Meanwhile, Spearman's rank correlation test was used to determine the relationship between sociodemographic variables such as age, last education level, and income with knowledge of self-medication, with the data in ordinal form.

Table 2. Results of the Analysis of the Relationship Between Sociodemographic Factors (Gender) and the Level of Knowledge on Self-Medication Using the Chi-square Test

Variable	Category of Knowledge Level			Total	P Value
	Fair	Enough	Good		
Sex					
Male	1 1,1%	6 6,7%	14 15,6%	21	0,143
Female	0 0%	15 16,7%	54 60%	69	

The relationship between gender and the level of patients' knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru was analyzed using the Chi-square test. Based on the data in Table 1, the p-value was 0.143, indicating that there is no significant relationship between gender and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru.

Table 3. Results of the Analysis of the Relationship Between Sociodemographic Factors (Occupation) and the Level of Knowledge on Self-Medication Using the Chi-square Test

Variable	Category of Knowledge Level			Total	P Value
	Fair	Enough	Good		

Occupation				
Housewife	0	9	14	23
	0%	10%	15,6%	
Private	0	6	15	21
	0%	6,7%	16,7%	
Public Servant	0	2	11	13
	0%	2,2%	12,2%	
Edupreneur	0	2	11	13
	0%	2,2%	12,2%	0,443
University Student	0	0	1	1
	0%	0%	1,1%	
Others	1	2	16	19
	1,1%	2,2%	17,8%	

From the data, respondents can be regrouped into two categories: those who are employed and those who are not employed. The employed group includes private employees, civil servants, entrepreneurs, and others, while the non-employed group consists of housewives and students. These can be organized into the following table:

Table 4. Classification of Respondents Based on Occupation

Variable	Category of Knowledge Level			Total
	Fair	Enough	Good	
Working	1	12	53	66
	1,1%	13,3%	58,9%	73,3%
Not Working	0	9	15	24
	0%	10%	16,7%	26,7%

The relationship between occupation and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru was analyzed using the Chi-square test. Based on the data in Table 4.10, the p-value was $0.443 > 0.05$, indicating that there is no significant relationship between occupation and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru.

Gender and occupation do not have a specific relationship with the level of knowledge of self-medication, particularly in relation to health, because self-medication practices are carried out based on individual needs and are not limited to a particular gender or occupation. Female respondents tend to have a higher proportion in the “good” category because they are generally more cautious in practicing self-medication and more frequently purchase medicines for family treatment.

This is consistent with the findings of a study by Dhea Putri (7), which stated that there is no significant relationship between sociodemographic factors and the level of knowledge of self-medication in Sinduharjo Village, Sleman Regency ($p > 0.05$).

Table 5. Results of the Analysis of the Relationship Between Sociodemographic Factors (Age) and the Level of Knowledge on Self-Medication Using Spearman’s Rank Test

Variable	Category of Knowledge Level			Total	P Value
	Fair	Enough	Good		
Age					
17-25	0 0%	0 0%	3 3,3%	3	0,497
26-35	0 0%	5 5,6%	17 18,9%	22	
36-45	1 1,1%	10 11,1%	33 36,7%	44	
46-55	0 0%	6 6,7%	13 14,4%	19	
56-65	0 0%	0 0%	2 2,2%	2	

The relationship between age and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru was analyzed using Spearman's rank correlation test. Based on the data obtained, the p-value was 0.497, indicating that there is no significant relationship between age and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru.

Table 6. Results of the Analysis of the Relationship Between Sociodemographic Factors (Last Education Level) and the Level of Knowledge on Self-Medication Using Spearman's Rank Test

Variable	Category of Knowledge Level			Total	P Value
	Fair	Enough	Good		
Education					
Elementary	0 0%	1 1,1%	2 2,2%	3	0,787
Secondary	0 0%	0 0%	1 1,1%	1	
High School	0 0%	6 6,7%	11 12,2%	17	
Diploma	0 0%	4 4,4%	28 31%	32	
Degree	1 1,1%	10 11,1%	26 28,9%	37	

The relationship between the last education level and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru was analyzed using Spearman's rank correlation test. Based on the data obtained, the p-value was 0.787, indicating that there is no significant relationship between the last education level and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru.

Table 7. Results of the Analysis of the Relationship Between Sociodemographic Factors (Income) and the Level of Knowledge on Self-Medication Using Spearman's Rank Test

Variable	Category of Knowledge Level			Total	P Value
	Fair	Enough	Good		

Income (in Rupiahs)				
0-1.000.000	0	3	7	10
	0%	3,3%	7,8%	
1.000.001-2.000.000	0	1	10	11
	0%	1,1%	11,1%	
2.000.001-3.000.000	0	0	17	17
	0%	0%	18,9%	
3.000.001-4.000.000	0	6	13	19
	0%	6,7%	14,4%	
>4.000.000	1	11	21	33
	1,1%	12,2%	23,3%	

Based on the data above, respondents can be regrouped into those who have an income below the city minimum wage and those whose income is above the minimum wage of Pekanbaru.

Table 8. Classification of Respondents' Income Based on the Pekanbaru City Minimum Wage

Variable	Category of Knowledge Level			Total
	Fair	Enough	Good	
Under Minimum wage	0	4	34	38
	0%	4,4%	37,8%	42,2%
Above Minimum Wage	1	17	34	52
	1,1%	18,9%	37,8%	57,8%

The relationship between income and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru was analyzed using Spearman's rank correlation test. Based on the data obtained, the p-value was 0.039, indicating that there is a significant relationship between income and the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru.

This is because income influences an individual's social status. The higher a person's income, the easier it is to meet their needs, including healthcare needs—both in terms of physical health products and access to health-related information. This finding is consistent with a study by Puspita Fitri, which stated that income has a significant relationship with the level of knowledge of self-medication ($p = 0.012$) (8).

The results of this study show that the most dominant income group at Andalan Jaya Pharmacy, Pekanbaru is the group with income above the Pekanbaru City Minimum Wage, with a percentage of 57.8%. When associated with the Pekanbaru City Minimum Wage in 2024, which is Rp 3,451,584.95 (9), it can be concluded that individuals earning above the city minimum wage have a significant relationship with the level of knowledge of self-medication at Andalan Jaya Pharmacy, Pekanbaru.

CONCLUSION

The level of parents' knowledge regarding self-medication for fever in children at Andalan Jaya Pharmacy, Pekanbaru was predominantly in the good category (75.6%). There was no significant relationship between sociodemographic factors and the level of knowledge, except for the income factor.

It is recommended that Andalan Jaya Pharmacy, Pekanbaru continuously improve the provision of information and education about medicines to visiting patients.

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