Conference Paper

Factors Affecting the Level of Community Knowledge on the Use of Antacid Medication

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Abstract.
Knowledge can be affected by internal and external factors. Internal factors include education, age, occupation and experience, while external factors include the environment, economy and information. The purpose of this study was to determine the level of public knowledge of the use of antacid drugs in several pharmacies in Lowokwaru District, Malang City. This was a descriptive study that examined health problems that occur in this particular community. This study used a cross-sectional approach. Incidental or accidental sampling was used to obtain 96 respondents. The results of the Chi-square test showed that, among the 7 factors examined, there were 2 factors that had a significant influence on the level of public knowledge about the self-medication of antacid drugs, namely education ($p < 0.001$) and employment ($p = 0.005$).

Keywords: ulcer, drug use, antacids, self-medication, knowledge level

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1. INTRODUCTION

Health is a condition of well-being and normal functioning of one's body, soul and social life in carrying out activities without experiencing continuous disturbances when interacting with the environment. The four components that influence the health status in the community include the environment, genetics, behavior and health services (1).

Knowledge can be affected by two factors, namely internal factors and external factors. Internal factors include education, age, work and experience, while external factors include environment, economy and information (2).

The percentage of Indonesian people who did self-medication (self-medication) in 2019 was 71.46% (BPS, 2019). The prevalence of gastritis in Indonesia is 274,396 cases out of 238,452,952 inhabitants. Based on data obtained from the Central Statistics Agency of Malang City in 2020, gastritis ranks fourth with a total of 5991 cases in 2017-2019 of the top five cases of the disease in Malang (3).

Gastritis drugs that are often consumed by patients are antacids. Antacid drugs that are consumed inappropriately can reduce the effectiveness of the drug and excessive use of antacids will cause unwanted side effects (4).

The purpose of this study was to determine the level of public knowledge of the use of antacid drugs in Lowokwaru District, Malang City and to determine the factors that influence the level of public knowledge of the use of antacid self-medication in Lowokwaru District, Malang City. The use of antacid drugs is used by the community because it is the first choice for self-medication for gastritis (5).

Mistakes made by people in the use of antacids include tablets that are not chewed first, taking antacid drugs right after eating (6) . Antacid drugs that are taken inappropriately can reduce the effectiveness of the drug and excessive use of antacids will cause unwanted side effects. Drugs used inappropriately are caused by a lack of drug-related information to patients (7) .

Lowokwaru District is one of the densely populated districts in Malang City. Lowokwaru District has 12 urban villages. Based on data obtained from the Central Statistics Agency in 2020, the highest number of disease cases in Malang City in 2017-2019 was gastritis in fourth place with 5991 cases (3). There are 51 pharmacies located in Lowokwaru District, Malang City in 2021 based on data obtained from the Malang City Health Office.

2. RESEARCH METHODS

This research uses analytic correlation research with cross sectional approach. Collecting data using a questionnaire with a Guttman scale that has been declared valid and reliable. The number of samples used in this study using the Lemeshow formula and obtained a total sample of 96 respondents. The sampling technique used, namely accidental sampling (sampling) is data collection that is carried out spontaneously so that anyone can be used as a sample by the researcher.

3. RESULTS AND DISCUSSION

This study was conducted from 26 July to 16 September 2021. The respondents in this study were patients who underwent self-medication at 12 pharmacies in Lowokwaru District, Malang City who met the inclusion and exclusion criteria of the study. After collecting data using a questionnaire to determine the sociodemographic data and

knowledge of the respondents on the use of self-medication of antacid drugs. The results of data analysis obtained are as follows :

TABLE 1

Variable	Number of Respondents	
	Frequency	Percentage (%)
Gender		
Man	36	37.5%
Woman	60	62.5%
Age		
17-25 years old	42	43.8%
26-35 years old	17	17.7%
36-45 years old	17	17.7%
46-55 years old	11	11.5%
56-65 years old	4	4.2%
>65 years old	5	5.2%
Education		
Basic (SD/MI, SMP/MTs)	13	13.5%
Intermediate (SMA/MA, SMK)	46	47.9%
College (Diploma,Bachelor,Master)	36	37.5%
Work		
Student/Student	25	26%
Housewife	15	15.6%
No/Not yet Working	2	2.1%
Private employees	35	36.5%
PNS/ASN	5	5.2%
Entrepreneur/Entrepreneur	14	14.6%
Insurance		
BPJS Class (I/II/III)	47	49%
General insurance	8	8.3%
Don't Have Insurance	41	42.7%
Family Income		
Rp. 2,000,000	11	11.5%
Rp. 2,100,000-Rp. 5,000,000	36	37.5%
IDR 5,100,000-Rp 10,000,000	37	38.5%
> Rp. 10,000,000	12	12.5%
Environmental Social		
Disease Socialization	36	37.5%
Drug Socialization	9	9.4%
Environmental Hygiene Socialization	5	5.2%
There is not any	46	47.9%
Resources		
Health workers	55	57.3%
Relatives/Neighbors	17	17.7%
Reading Medicine Packaging	10	10.4%
Mass media/Internet	14	14.6%
Drugs used		
DOEN antacid	28	29.2%
Mylanta	24	25.0%
Polysilane	9	9.4%
Promag	35	36.5%

Table 1 shows the results in the form of a frequency distribution based on the demographic characteristics of the respondents. the gender of the respondents was mostly female as much as 62.5%. In general, women pay more attention to costs other than the effectiveness of the drugs used and consider prevention and treatment using drugs to be more effective than men (8).

Most respondents' education is secondary education (SMA/MA, SMK/MAK) as much as 47.9%. Differences in people's education levels can lead to differences in people's knowledge levels. A high level of education will affect the ease of a person in receiving information so that they can have broad knowledge (9) .

Most of the respondents' occupations were private employees as much as 36.5%. The majority of respondents' insurance uses BPJS as much as 49%. the highest family income is Rp.5,100,000-Rp.10,000,000 as much as 38.5%. The greater a person's income, the more prosperous a person's life is. So that it can affect a person in self-medication of drug use (10).

Socialization/environmental in the last month in this study, the results showed that the most respondents who did not receive social or environmental socialization were 47.9%. In this study, demographic data resulted in a lack of social/environmental socialization to respondents, while the benefits of socialization were activities to support health programs with the aim of increasing public knowledge.

Most respondents' sources of information were getting information from health workers by 57.3%. Providing information to patients is to support the correct and rational use of drugs, and to reduce the possibility of medication errors. Information related to the use of drugs that will be used by the patient will be conveyed by health workers(11) . The experience of drugs used by the community is mostly drugs with the trade name Promag as much as 36.5%. The use of antacid drugs that are used by the public with various trade names can be caused by the patient's experience with the previous use of these drugs and can be influenced by information obtained by the public through mass media or information media and so on (12).

TABLE 2: Characteristics of Respondents' Knowledge of Self-Medication Use of Antacids.

Knowledge level	Frequency	Percentage (%)
Not good	9	9.38%
Pretty good	28	29.17%
Good	59	61.45%

TABLE 3: Analysis of the Relationship between Knowledge Level and Factors Affecting Knowledge Level of Self-Medication Use of Antacid Drugs.

Variable	Knowledge level			asymp. Sig (2-sided)
	Not good	**Pretty good**	**Good**	
	Frequency (%)	**Frequency (%)**	**Frequency (%)**	
Gender				
Man	4 (4.17%)	7 (7.29%)	25 (26.04%)	0.266
Woman	5 (5.21%)	21 (21.86%)	34 (35.42%)	
Age				
17-25 years old	5 (5.21%)	11 (11.46%)	26 (27.08%)	0.970
26-35 years old	2 (2.08%)	4 (4.17%)	11 (11.46%)	
36-45 years old	1 (1.04%)	6 (6.25%)	10 (10.42%)	
46-55 years old	1 (1.04%)	4 (4.17%)	6 (6.25%)	
56-65 years old	0 (0%)	2 (2.08%)	2 (2.08%)	
>65 years old	0 (0%)	1 (1.04%)	4 (4.17%)	
Level of education				
Base	7 (7.29%)	6 (6.25%)	0 (0%)	**0.000**
Intermediate	1 (1.04%)	16 (16.67%)	29 (30.21%)	
Tall	1 (1.04%)	6 (6.25%)	30 (31.25%)	
Work				
Student/Student	4 (4.17%)	6 (6.25%)	15 (15.63%)	**0.005**
Housewife	2 (2.08%)	10 (10.42%)	3 (3.12%)	
No/Not yet Working	0 (0%)	2 (2.08%)	0 (0%)	
Private employees	3 (3.12%)	7 (7.29%)	25 (26.04%)	
PNS/ASN	0 (0%)	0 (0%)	5 (5.21%)	
Entrepreneur/Entrepreneur	0 (0%)	3 (3.12%)	11 (11.46%)	
Insurance				
BPJS Class (I/II/III)	2 (2.08%)	13 (13.54%)	32 (33.33%)	0.088
Don't Have Insurance	7 (7.29%)	14 (14.58%)	20 (20.83%)	
General insurance	0 (0%)	1 (1.04%)	7 (7.29%)	
Family Income				
Rp. 2,000,000	3 (3.12%)	3 (3.12%)	5 (5.21%)	0.225
Rp.2.100.000-Rp. 5,000,000	1 (1.04%)	10 (10.42%)	25 (26.04%)	
Rp.5,100,000-Rp. 10,000,000	4 (4.17%)	13 (13.54%)	20 (20.83%)	
>Rp. 10,000,000	1 (1.04%)	2 (2.08%)	9 (9.38%)	
Socialization/Environment				
Disease Socialization	2 (2.08%)	11 (11.46%)	23 (23.95%)	0.335
Drug Socialization	0 (0%)	5 (5.21%)	4 (4.17%)	
Environmental Cleanliness	1 (1.04%)	2 (2.08%)	2 (2.08%)	
There is not any	6 (6.25%)	10 (10.42%)	30 (31.25%)	
Resources				
Health workers	4 (4.17%)	19 (19.79%)	32 (33.33%)	0.168
Relatives/Neighbors	2 (2.08%)	5 (5.21%)	10 (10.42%)	
Reading Medicine Packaging	3 (3.12%)	1 (1.04%)	6 (6.25%)	
Mass media/Internet	0 (0%)	3 (3.13%)	11 (11.46%)	
Drugs used				
DOEN antacid	5 (5.21%)	6 (6.25%)	17 (17.71%)	0.596
Mylanta	1 (1.04%)	8 (8.33%)	15 (15.21%)	
Polysilane	0 (0%)	3 (3.13%)	6 (6.25%)	
Promag	3 (3.12%)	11 (11.46%)	21 (21.88%)	

The distribution of the frequency of the level of public knowledge based on research in several pharmacies in Lowokwaru District, Malang City on the use of self-medication of antacid drugs obtained results in the "good" category of 59 respondents with a percentage of 61.45%. The results of the Chi-Square test in this study which consisted of 7 factors, there were 2 factors that had an influence or relationship on the level of public knowledge on the use of self-medication of antacid drugs in several pharmacies in Lowokwaru District, Malang City, namely the educational factor with Asymp results. Sig (2-sided) 0.000 and work factor with Asymp value. Sig (2-sided) 0.005 as in table 3. Educational factors have an influence on the level of knowledge because the higher the level of education of a person, the higher the level of knowledge. In general, someone with higher education has broader knowledge than someone with low education (13).

In this study, the results obtained were 31.25% of respondents with the latest education in the middle category with a good level of knowledge. In addition to education level, occupational factors have an influence or relationship on the level of knowledge on the use of self-medication of antacid drugs. Someone who has a higher education has broader knowledge than someone who has a low education (13) . Education is a process of someone wanting to develop abilities, attitudes and form positive behavior in society (14). The level of education affects a person's learning, the high education of a person will have a good effect on receiving learning. The amount of learning that is owned will affect the knowledge that a person gets. Knowledge has a considerable influence on education. Education can affect a person's way of thinking, making decisions and making a policy, by having a good level of knowledge, wider knowledge will be obtained. This does not mean that someone who has a low level of education does not necessarily have low knowledge. This can be influenced by life experience, a person's habits in digging for information (15). This does not mean that someone who has a low level of education does not necessarily have low knowledge. This can be influenced by life experience, a person's habits in digging for information (15). This does not mean that someone who has a low level of education does not necessarily have low knowledge. This can be influenced by life experience, a person's habits in digging for information (15).

In this study, the results obtained were 26.04% of respondents with private employees with a good level of knowledge. Work can cause high levels of stress. One of the factors that cause gastritis is stress conditions. This causes respondents who interact more with the outside world to easily obtain information that can affect knowledge in the use of self-medication of antacid drugs (16). The type of work is related to the level of knowledge of the community. Jobs will demand professionalism and community skills

so that they have a high income. This high income will make people's health needs more fulfilled. This will affect the fulfillment of family health status and needs (17).

4. CONCLUSION

Based on the results of data analysis and discussion of the factors that influence the level of public knowledge on the use of self-medication of antacid drugs, the following conclusions can be drawn.

1. The level of knowledge of respondents in the use of self-medication of antacid drugs from 96 respondents, the highest level of knowledge is "(good)" of 61.45%, it can be concluded that the level of knowledge of respondents in the community in Lowokwaru District, Malang City in the use of self-medication of antacid drugs is categorized as "good" .

2. Based on the results of the Chi-Square analysis, it shows that there are 2 influencing factors, namely the education factor (Asymp. Sig = 0.000) and the work factor (Asymp. Sig = 0.005) which has a significant influence on the level of public knowledge on the use of self-medication of antacid drugs in Lowokwaru District, Malang City

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References

[1] Dinkes, "Renstra Dinas Kesehatan Kota Batu 2018-2022.," vol. 25, no. April, p. No 1, 2019.

[2] A. Johariyah and T. Mariati, "Effectiveness Of Adolescent Reproductive Health Education By Giving Module To The Change Of Youth Knowledge.," *Jurnal Manajemen Kesehatan Yayasan RS. Dr. Soetomo*. vol. 4, no. No.1, pp. 38–46, 2018.

[3] A.M. Wibawa, P.D.C. Jaluri, and Fakhruddin, "Descruption Of Knowledge Level Of Gastritis Patients On Drug Swamedication And Rationality At A Pharmacy In Mendawai Pangkalanbun City.," *Jurnal Borneo Cendekia*. vol. 4, no. 1, pp. 97–107, 2020.

[4] P. Fajri and S.W. Indijah, "Pharmacology.," *Health Hr Center For Education*. p. 2016.

[5] I. Rachmawati, "The Level of Patient Knowledge About Antacid Drugs Obtained By Self- Medication at The Pharmacy Dinar Farma in The City of Pasuruan.," *In KTI Diploma Of The Indonesian Academy Of Pharmacy*. pp. 1–7, 2019.

[6] L. Asnasari, "The Relationship Of Knowledge About Antacid Drugs Obtained Self Medication At Kenaran, Sumberharjo, Prambanan, Sleman, Yogyakarta.," *Thesis Of The Faculty Of Pharmacy, Sanata Dharma University*. p. 2017.

[7] Z.N. Fadlilah, "Description of the Level of Knowledge About Swamedication in Communities in Baciro and Terban Urban Villages, Yogyakarta.," *Department of Pharmacy*. p. 2021.

[8] A. Restiyono, "Analysis Of Influential Factors In Antibiotic Self-Medication For Housewives In Kajn Village.," *Indonesian Journal Healthy Promotion*. vol. 11, no. 1, pp. 14–27, 2016.

[9] Rusli, "Clinical Pharmacy 148.," *Health Center For Human Resources*. p. 2018.

[10] E.D. Cahyaningrum and A.S. Siwi, "Factors Connected With Mother Knowledge Level In Handling Fever On Children In Community Health Center Of Kembaran I Of Banyumas.," *STIKES Harapan Bangsa Purwokerto*. vol. 9, no. 2, pp. 1–13, 2018.

[11] M.A.C. Dewi, "Level of knowledge of the outpatient on the use of antibiotics public health center (puskesmas) in karanganyar.," *Journal of Pharmaceutical Science and Clinical Research*. vol. 01, pp. 27–35, 2018.