IOSR Journal Of Pharmacy
(e)-ISSN: 2250-3013, (p)-ISSN: 2319-4219
Volume 11, Issue 9 Series. I (September 2021), PP. 17-22
www.iosrphr.org

Evaluation of Knowledge And Attitude Of non-Narcotic Analgesic Self-Medication Among Grade 12 Pharmacy Students Of Citra Medika Magelang Vocational High School

Zulkarnia Sofa[1)], Riyan Setiyanto[2)], Makmun Syaifudin[3)]
[1)]*Diploma pharmacy, PoliteknikIndonusa Surakarta*
[2)] *Diploma Pharmacy, PoliteknikIndonusa Surakarta*
[3)] *Diploma Hospitality, PoliteknikIndonusa Surakarta*
Received 28 August 2021; Accepted 12 September 2021

Abstract: The increase in the number of Indonesian people's self-medication in both chemical and traditional medicine has been described by the Central Statistics Agency in 2019, namely an increase of 0.72% from 2018 to 71.46% in 2019. The high number of self-medication requires a capable pharmaceutical worker. understand how self-medication. The purpose of this research is to evaluate the knowledge and behavior of non-narcotic analgesic drugs among 12th-grade pharmacy students of Citra Medika Vocational High School, Magelang City as prospective pharmaceutical technical personnel.

The study was conducted with a quantitative method with a cross-sectional analytic approach using a questionnaire containing questions and statements that must be answered by the respondent. The independent variable in this study is the level of student knowledge, while the dependent variable in this study is the behavior of the respondent in non-narcotic analgesic self-medication. Then carried out the validity and reliability test on the questionnaire and it has been declared valid and meets reliability. The data was processed using the IBM statistical SPSS 22 application using the rank spearman correlation so that it could evaluate how the relationship between the level of knowledge and the respondent's self-medicated behavior was then presented in tabular form.

The results of data processing showed that 97.96% of students had good knowledge and behavior. Data from the analysis with the IBM statistical SPSS 22 application on the rank spearman correlation showed a significance value of 0.000 or <0.05 and an r-value of 0.318 so that it was stated that there was a weak relationship on the level of knowledge and behavior of respondents in non-narcotic analgesic self-medication.

Keywords: Self-medication, analgesic, evaluation

I. INTRODUCTOION

Health is very important in the continuation of human life, while health is a condition of the whole body and its parts free from illness. According to the World Health Organization, the concept of health is formulated as a state of being perfect both physically, mentally, and socially, not only free from illness or weakness/disability [1]. Referring to Undang-undang No. 36 of 2009 concerning health, states that health is a state of health both physically, mentally, spiritually as well as socially and economically. The realization of a healthy condition is the will of all parties, not only by individuals but also by groups and even by the community [2]. One of the realizations of the healthy condition of the community is by doing self-medication.Self-medication means treating all complaints to yourself with over-the-counter drugs purchased at a pharmacy or drugstore on your initiative without a doctor's advice [3]. Self-medication is part of people's efforts to maintain their health without having to go through a doctor. The legal basis that explains self-medicated behavior is in the Minister ofHealth Regulation Number 919 Menkes/Per/ X/1993 [4]..

The results of the National Socio-Economic Survey in 2019 showed that the percentage of the population who carried out self-medication due to health complaints experienced was 71.46%, an increase of 0.72% from 2018. This shows that the behavior of self-medication in Indonesia is quite large and is likely to continue to increase [5]. The number of self-medication performed by the Indonesian people continues to increase from year to year. The results of previous studies conducted by Krishnandan Shah (2021), he reported that 95.4% of students had reported self-medication, among which analgesics and antipyretic medications were mostly used (66 %); followed by anti-ulcerants (35.3%), antibiotics (33.9%), anti-allergic preparations (20%),

and other categories (10.3%) of drugs. Study results also showed that, the major cause of self-medicationwas minor illness, and the prescriptions which were previously used to treat the similar disease conditions were the main source of motivation to do so [6]. In another study conducted by Al Essa (2019), research on Health Science students at King Saud bin Abdulaziz University Riyadh, Saudi Arabia towards as many as 300 respondents showed that 96.5% of respondents did self-medication using acetaminophen drugs [7].

Citra MedikaMagelang Vocational High School is a secondary school with health education, one of which is pharmaceutical science. Students are required to have reliable pharmaceutical skills to provide excellent service to patients, especially in providing information in self-medication. From June to October, the author has made observations when testing Drug Information Services on grade 12 Pharmacy Citra MedikaMagelang Vocational High School. The observations made for approximately 4 months provided the results of the services provided by a very varied view of the students' scores during the exam so that further special evaluations were necessary and carried out simply.

Based on that background, the authors are interested in raising the title Evaluation of Knowledge and Behavior on Non-Narcotic Analgesic Self-Medication Among Pharmacy Students Grade 12 Citra Medika Vocational High School as a Final Project so that it can be used as a learning evaluation material in increasing knowledge and self-medication behavior among students.

II. LITERATURE REVIEW AND METHODS

2. LITERATURE REVIEW

2.1. THEORETICAL BASIS

Everyone has a different level of knowledge of an object. The level of knowledge consists of 7 things, namely knowing, understanding, giving examples and concluding, application, analysis, synthesis, and evaluation influenced by several factors between the level of education, media, mass media, socio-cultural and economic, environment, experience, and age. Then a person's level of knowledge can often influence a person's behavior in acting, one of which is in self-medication. Self-medication is the behavior of self-medication for the complaints they are experiencing. Many self-medicating activities are carried out on a person's pain with the drugs used are analgesics. Analgesics are painkillers that belong to the opioid and NSAID groups. In self-medication, the drugs commonly used are NSAID analgesics.

2.2. COMPARATIVE JOURNAL

The journal entitled “Knowledge, attitude & practice of self-medication with painkillers among young adults, Bangladesh”, written by Moonajillin, use a cross-sectional approach to the analytic survey method. Research using questionnaires and correspondence from the entire population or total sampling aims to determine the relationship between knowledge level and self-medicated behavior towards free analgesic drugs [8]. The second journal entitled “A Questionnaire Based Study Regarding the Knowledge, Attitude and Practice of Self-Medication Among Second Year Undergraduate Medical Students” written by Sankdia. In his research, the writer use the pre-validated questionnaire was prepared and distributed among the students. Data was collected and analyzed using Microsoft Excel application and the results expressed as counts and percentages. This study showed that students of second year MBBS after studying pharmacology became more aware about the drugs and hence do not hesitate in taking Self-medication which is a wrong practice [9].

2.3. METHODS

This research is included in non-experimental analytic research with a cross sectional approach [10]. The research was conducted at Citra Medika Vocational School, Magelang City and was carried out from February to April 2021. The population in this study were all students majoring in pharmacy who were in class 12 in the 2020/2021 academic year, totaling 56 students. The sampling technique in this study is the total sampling method, where the entire population is included in the sample by the researcher by including the inclusion and exclusion criteria that have been set. The variables in this study consisted of the independent variable and the dependent variable with the independent variable in the form of the respondent's level of knowledge and the dependent variable, namely the respondent's behavior as indicated by the results of filling out the questionnaire. Analysis of the data in this study using IBM SPSS Statistic 22 software. The data analysis phase with a computer has 2 main stages, namely editing and coding. Then the data were analyzed by Spearman rank correlation with 95% confidence level. Four things that can be known in the correlation index include the direction of the correlation, the presence or absence of a relationship from the P value, the interpretation of the high-low correlation and the significance of the correlation.

III. RESULTS AND DISCUSSION

Table 1.
Characteristics of respondents based on gender

Gender	Frequency (n)	Percentage (%)
Male	9	18,4
Female	40	81,6
Total	**49**	**100**

Based on the table above, it can be seen that the number of samples in this study was 49 students. The table also shows that the number of male respondents was 9 students (18.4%). The number of female respondents was 40 students (81.6%).

Table 2.
Characteristics of respondents by age

Age	Frequency (n)	Percentage (%)
17 years	14	28.6
18 years	20	40.8
19 years	15	30.6
Total	**49**	**100**

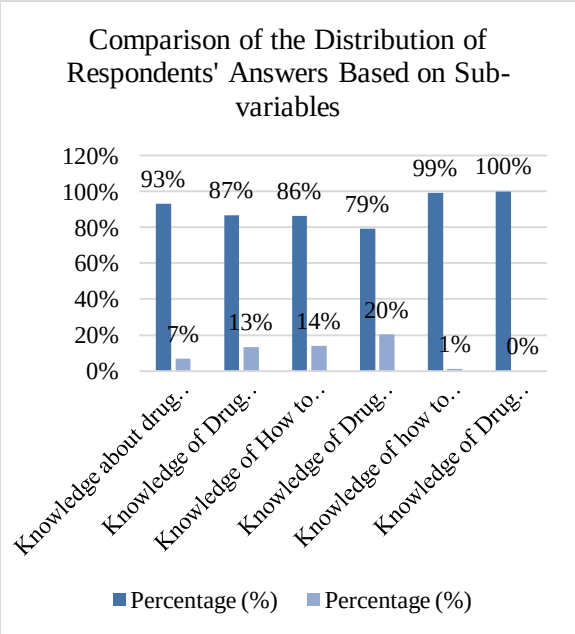
The majority of respondents were 18 years old with a total of 49 students. From the table, it is explained that there are 14 students aged 17 years old, 20 students aged 18 years old, and 15 students aged 19 years old. This age is by the high school-age statistics which show that the majority of high school students are aged 16-18 years [5].

Table 3.
The level of knowledge of respondents in self-medicating analgesic drugs

Level of Knowledge	Frequency (n)	Percentage (%)
Less	0	0
Enough	1	2,04
Good	48	97.96
Total	**49**	**100**

The majority of respondents have a good level of knowledge about analgesic drug self-medication. The good level of knowledge is definitely because the respondent is a pharmacy student who has obtained self-medicated subjects while in school. The data shows that 97.96% of respondents can correctly answer the statements given by the researcher. Then the distribution of respondents' answers based on their sub-variables is presented in the diagram to make it easier to read the data.

Figure 1.
Comparison of the Distribution of Respondents' Answers Based on Sub-variables



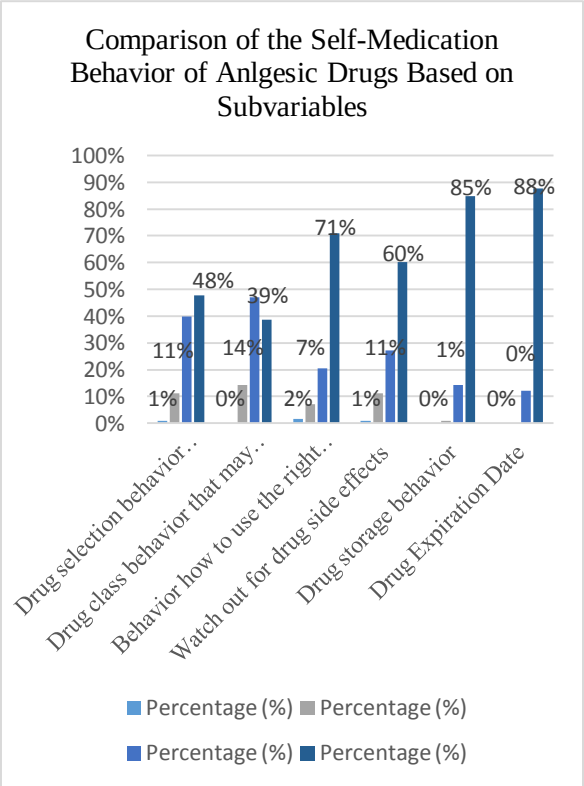
Based on the sub-variables, the distribution of answers is well presented in the diagram above that the majority of respondents have the best level of knowledge on the sub variable about the drug expired date, it is clear that the expired date is the most important thing for everyone to pay attention before consuming a drug or food to avoid unwanted poisoning. The lowest knowledge is on the sub-variable about drug side effects. The side effects of drugs that are known in general are widely known, but in particular, not all respondents can understand the effects of a drug to be consumed so that it can be used as an evaluation that needs to be improved in learning to provide information on drug side effects in pharmaceutical subjects.

Table 4.
The behavior of respondents in self-medication analgesic drugs

The behavior of respondents	Frequency (n)	Percentage (%)
Less	0	0
Enough	1	2.04
Good	48	97.9
Total	**49**	**100**

The results of the research on the behavior of grade 12 students of Citra Medika Vocational High School which is presented in the table above show that the majority of the students' behaviors are good. Good behavior indicates that the respondent has adopted good habits. The results of the data show that the distribution of respondents' answers that are classified as very good can make the response as an assistant to a pharmacy worker who has good behavior, namely as much as 97.9% of the entire sample. The distribution of respondents' answers based on their sub-variables is described in the diagram.

Figure 2.
Comparison of the Self-Medication Behavior of Analgesic Drugs Based on Sub-variables



The diagram above shows that the respondent's behavior level is best on the sub-variable regarding the expired date of the drug, which is directly proportional to the respondent's knowledge that the knowledge is best on the drug expired date sub-variable. The lowest level of behavior differs from the level of knowledge. The sub variable shows that only 39% of respondents have good behavior in the class of drugs that can be used in self-medication, so it is necessary to pay more attention to how to provide the best education regarding drugs that can be used in self-medication.

Table 5.
The results of testing the correlation between knowledge level and analgesic drug self-medication behavior

R-count	Sig.	Decision
0.506	0.000	Reject H_0 / Accept Ha

The results of the test of the relationship between the level of knowledge and the behavior of analgesic drug self-medication obtained an r count of 0.318 with a significance value (P-value) of 0.000, so H0 is rejected and Ha is accepted. This shows that the value of r count> 0.000, which means that there is a relationship between the level of knowledge and the self-medicating behavior of analgesic drugs. The significance value (P-value) <0.050 (0.000 <0.050) so it is concluded that rejecting H0 or accepting Ha, which means that there is a significant relationship between the level of knowledge and the self-medication behavior of analgesic drugs. The correlation coefficient (r table) of 0.318 is positive and falls into the strong enough category. The r-table values that categorize the strength of the relationship are presented in the following table [10].

IV. CONCLUSION

The level of knowledge of non-narcotics analgesic self-medication in grade 12 pharmacy at Citra MedikaMagelang Vocational High School is the majority classified as good namely, 97.96% of students have a good level of knowledge, and only 2.04% of students who have sufficient knowledge level The majority of students' behavior in self-medication of non-narcotic analgesic at Citra MedikaMagelang Vocational High

School is classified as good, namely, 97.96% of respondents have a value above 76% and only 2.04% have good enough behavior. Based on the results of the Spearman rank correlation test, the significance value is 0.000 and the r count is 0.318. This shows that the relationship between the level of knowledge and the self-medication behavior of non-narcotic analgesic drugs for grade 12 pharmacy students at Citra MedikaMagelang Vocational High School is low, significant, and unidirectional. The level of knowledge affects the student's behavior, but not comprehensively and consistently.

ACKNOWLEDGEMENTS

I would like to thank the management and Principal of Citra MedikaMagelang Vocational High School for providing all the facilities required to carry out my work.

Abbreviations

WHO: World Health Organization; NSAID: Non Steroid Anti Inflamation drugs; SPSS: Statistikal Package for the Social Sciens

REFERENCES

[1] World Health Organization, *Guidelines For The Regulatory Assessment of Medicinal Products For Use In Self-Medication*. Geneva: World Health Organization, 2000.

[2] A. Mansjoer, *Capita Selecta Medicine Volume 1*, 3rd ed. Jakarta: Media Aesculapius, 2000.

[3] Sylvie Fainzang, *Self-Medication and Society Mirages of Autonomy*, 1st ed. Routllege Falmer, 2020.

[4] Minister of Health of the Republic of Indonesia, "Regulation of the Minister of Health of the Republic of Indonesia Number 919/MenKes/PER/X/1993 concerning Criteria for Drugs that Can be Dispensed Without a Prescription," *Regul. Minist. Heal. Repub. Indones.*, vol. 16, no. 1, pp. 1988–1989, 1993.

[5] Central Bureau of Statistics, "Percentage of Population Self-medicating During the Last Month, 2017-2019." National Socio-Economic Survey, Jakarta, 2019, [Online]. Available: https://www.bps.go.id/indicator/30/224/1/persentase-penduduk-yang-mengobati-sendiri-selama-sebulan-terakhir.html.

[6] K. Shah, S. Halder, and S. S. Haider, "Assessment of knowledge, perception, and awareness about self-medication practices among university students in Nepal," *Heliyon*, vol. 7, no. 1, p. e05976, 2021, doi: 10.1016/j.heliyon.2021.e05976.

[7] M. Al Essa *et al.*, "Practices, awareness and attitudes toward self-medication of analgesics among health sciences students in Riyadh, Saudi Arabia," *Saudi Pharm. J.*, vol. 27, no. 2, pp. 235–239, 2019, doi: 10.1016/j.jsps.2018.11.004.

[8] M. S. Moonajilin, "Knowledge, attitude & practice of self-medication with painkillers among young adults, Bangladesh," *Int. J. Public Heal. Res.*, vol. 10, no. 1, pp. 1174–1182, 2020.

[9] R. K. Sankdia, M. Agrawal, P. B. Rekha, and N. Kothari, "A Questionnaire Based Study Regarding the Knowledge, Attitude and Practice of Self-Medication Among Second Year Undergraduate Medical Students," *Int. J. Pharmacol. Clin. Sci.*, vol. 6, no. 1, pp. 01–05, 2017, doi: 10.5530/ijpcs.6.1.1.

[10] C. A. Hesse and J. B. Ofosu, *Statistical Methods for The Social Sciences*, no. January. Accra, Ghana: Akrong Publications Limited, 2018.

Zulkarnia Sofa, et. al. "Evaluation of Knowledge And Attitude Of non-Narcotic Analgesic Self-Medication Among Grade 12 Pharmacy Students Of Citra Medika Magelang Vocational High School." *IOSR Journal of Pharmacy (IOSRPHR)*, 11(09), 2021, pp. 17-22.