

Self-Medication Among Students Universities in The North Sumatra, Indonesia

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ABSTRACT: Students at universities are susceptible to minor illnesses influenced by various factors, so students need to understand and take self-medication carefully. This study aims to describe self-medication and the level of knowledge of medicine among students at universities in North Sumatra descriptively. This descriptive quantitative study recruited 133 students from 5 favorite universities selected by simple random sampling from 5 favorite universities in North Sumatra, Indonesia. Data collection will be done using questionnaires that experts have validated; questionnaires provided online via Google Forms, and the data obtained will be described quantitatively. The results of this study showed that the three most frequent medicines that they saved were anti-influenza or antipyretic (80.5%), antiseptic (42.9%), and cough medicine (42.9%). Regarding the level of knowledge, 44% of respondents were categorized as good, 16% were very good, 20% were less good, and 20% were poor. This study concludes that the majority of students in North Sumatra have a good level of knowledge.

KEYWORDS: Self Medication, Student, Knowledge Level.

I. INTRODUCTION

Self-medication is an action taken by the community to treat illnesses. themselves. This is done to overcome complaints and minor illnesses, such as fever, pain, dizziness, cough, influenza, stomach ulcers, worms, diarrhea, skin diseases, and others. Drugs used for self-medication are all types of drugs that can be dispensed without a doctor's prescription consisting of over-the-counter drugs, limited over-the-counter drugs, mandatory pharmacy drugs (OWA), and traditional medicines (Suryono, 2019). The results of a study in the United States reported that around 78% of people who experience health problems do self-medication. The results of other studies show that the prevalence of self-medication in several countries ranges from 30-80% as a response to health problems. The results of a survey in developing countries show that up to 80% of all drugs are purchased without a prescription, which is supported by reports that the prevalence of self-medication in developing countries ranges from 12.7% to 95%. Self-medication is an effort by people to treat themselves by selecting and using drugs that are available without a doctor's prescription to treat minor illnesses or certain symptoms. This practice aims to increase public access to treatment and reduce the burden on health services. However, translated from Indonesian to English - www.onlinedoctranslator.com Self-medication needs to be done wisely and in accordance with the instructions for use of the drug. Choosing the right drug and the correct dosage is very important to avoid unwanted side effects. According to the World Health Organization (WHO), selfmedication is the selection and use of modern, herbal, and traditional medicines used by the community to cure various diseases. Meanwhile, The International Pharmaceutical Federation (IPF) defines self-medication as the use of non-prescription drugs by an individual on his/her own initiative (Tsamrotul, 2021). Students are individuals who are registered as learners at a college to pursue higher education. They are active in academic activities such as lectures, seminars, and research to gain knowledge and skills in their chosen field of study. In addition, students are also often involved in various non-academic activities such as student organizations, social activities, and arts activities. According to Law Number 12 of 2012 concerning Higher Education, students have rights and obligations in the learning process. On the other hand, the Big Indonesian Dictionary (KBBI) defines students as people who study at college. Students as a group of active and dynamic individuals often have a busy lifestyle. High academic burdens, organizational activities, and social demands can have an impact on their health. One-way students deal with various health complaints that arise is by self-medication, namely the use of drugs without a doctor's prescription to relieve symptoms of the disease (Ministry of Health of the Republic of Indonesia, 2018). The practice of self-medication among students has become a serious concern. Previous research has shown that the prevalence of selfmedication among students is quite high (Smith & Jones, 2015). This is caused by several factors, such as limited access to health services, lack of knowledge about medicines, and

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misperceptions about the safety of over-the-counter drugs (Lee, 2017). To overcome these complaints, students often consume over-the-counter drugs such as paracetamol, ibuprofen, antacids, and cough medicine. The use of these drugs without medical supervision can pose a risk of unwanted side effects, especially if used for a long period of time or in excessive doses. In addition to headaches, other minor illnesses that students often experience are flu, fever, sore throat, and digestive disorders such as diarrhea and ulcers. Research conducted by Moestafidz Chalieq, et al. Shows that changes in students' lifestyles, such as irregular eating patterns and lack of rest, are the main risk factors for these diseases. To overcome these complaints, students often consume over-the-counter drugs such as paracetamol, ibuprofen, antacids, and cough medicine. The use of these drugs without medical supervision can pose a risk of unwanted side effects, especially if used for a long period of time or in excessive doses (Department of Health, 2020). In addition to physical impacts, self-medication can also have an impact on students' mental health. Research shows that prolonged use of over-the-counter drugs can increase the risk of depression and anxiety (Brown & Smith, 2019). High academic pressure, coupled with the side effects of drugs, can worsen students' mental health. Pharmacists have an important role in providing accurate information about drugs to the public, including students. However, research shows that students often do not consult a pharmacist before taking over-the-counter drugs (Lee, 2017). This shows the need for efforts to increase students' awareness of the importance of consulting a pharmacist.

Several universities have attempted to address the issue of self-medication by providing better health services and conducting educational campaigns. However, many universities still do not have comprehensive policies regarding drug use among students (University Health Services, 2020). Research on self-medication among Indonesian students is still limited. However, several studies have shown that the prevalence of self-medication in Indonesia is quite high, especially among private university students (Suparman, 2015). Based on the description above, this study aims to identify the prevalence of self-medication among students in North Sumatra Province, analyze the factors that influence self-medication practices, and evaluate students' knowledge of over-the-counter drugs. The results of this study are expected to contribute to the development of effective health education programs for students.

II. METHOD

This study is a descriptive quantitative study that will describe how the knowledge and efforts of self-medication for minor illnesses among students of the University of North Sumatra, State University of Medan, State Islamic University of North Sumatra Medan, Muhammadiyah University of North Sumatra and the Industrial Chemical Technology Polytechnic are carried out using the survey method. This survey method is one of the quantitative research methods that is used to obtain current and past data. The data collection technique was carried out using a questionnaire via Google Form. This research was conducted on October 21, 2024. The population in this study was several students in North Sumatra Medan semester 1, semester 2, 3, 4, 6, and 8. The side technique used is non-probability sampling by Purposive Sampling. Initially, data was collected from all students in semesters 2, 4, 6 and 8, then a link was shared to be respondents and a questionnaire. A total of 133 students were willing to be respondents. The main instrument in this study. The questionnaire contains 25 questions that describe the knowledge and efforts of self-medication. The description of respondents' knowledge and efforts towards self-medication was then analyzed based on the percentage of respondents who answered the questions correctly. Knowledge and efforts of selfmedication are considered very good if the correct answers are (81-100%), good (61-80%), quite good (41-60%), bad (<40%).

III. RESULTS

3.1 CHARACTERISTICS OF RESPONDENT

The description of respondents in this study can be seen in the table below:

Table 1. Distribution of respondents based on university and respondent age

University/Age	Man	Women	Number of Student
USU	13 (9,8%)	57 (42,9%)	70
UNIMED	8 (6%)	8 (6%)	16
UINSU	10 (7,5%)	18 (13,5%)	28
PTKI	5 (3,8%)	1 (0,7%)	6
UMSU	6 (4,5%)	7 (5,3%)	13
AMOUNT			133
18 YEARS	25 (18,8%)	46 (34,6%)	71
19 YEARS	10 (7,5%)	30 (22,6%)	40
20 YEARS	1 (0,7%)	15 (11,3%)	16
21 YEARS	2 (1,5%)	0	2
22 YEARS	2 (1,5%)	2 (1,5%)	4
AMOUNT			133

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Based on the image above, it shows that the respondents in this study consisted of students from North Sumatra Medan consisting of (31.6%) male respondents and (68.4%) female respondents. UINSU (21.1%), UNIMED (12%), UMSU (9.8%), USU (52.6%) and PTKI (4.5%). Most respondents came from USU and the least from PTKI. The next distribution of respondents is based on gender, the majority of respondents in this study were female (69.9%), while the male gender was 30.1%. Based on the age of the respondents in this study, they were aged between 18-22 years. The respondents were mostly 18 and 19 years old, this is in line with the distribution of respondents based on semester, the majority of whom were students.

3.2 Self-medication Knowledge

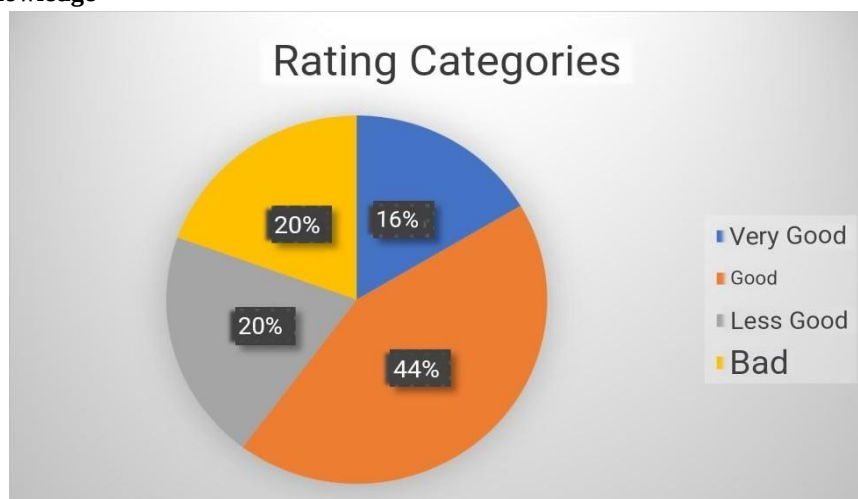


Figure 1. Self-medication Assessment Level Categories

Based on the image above, it shows that the respondent assessment categories in this study consist of (16%) very good category, (44%) good category, (20%) less good category, and (20%) bad category.

Question: In your opinion, what diseases can be treated by self-medication?

What diseases do you think can be swamedicated
106/133 correct answer

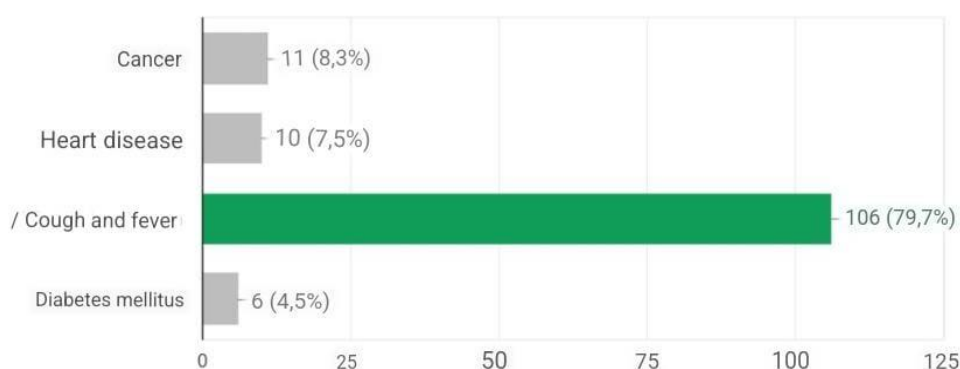


Figure 2. Percentage of responses to questions related to knowledge II

Based on the picture above, students' responses to what diseases can be treated with self-medication. (79.7%) Students chose cough and fever, (8.3%) Students chose cancer, (7.5%) Students chose heart disease, (4.5%) Students chose diabetes mellitus. From several questions available in the questionnaire to evaluate self-medication knowledge, the two questions above can provide a general picture of the level of students' self-medication knowledge. The two images above show that 39.8% of students are not familiar with the term self-medication and 79.7% already know what diseases can be self-medicated.

3.3 Self-medication Patterns/Efforts

The results of the survey on self-medication patterns/efforts can be seen in several images. image below:

Question: Have you ever heard and understood the meaning of self-medication?

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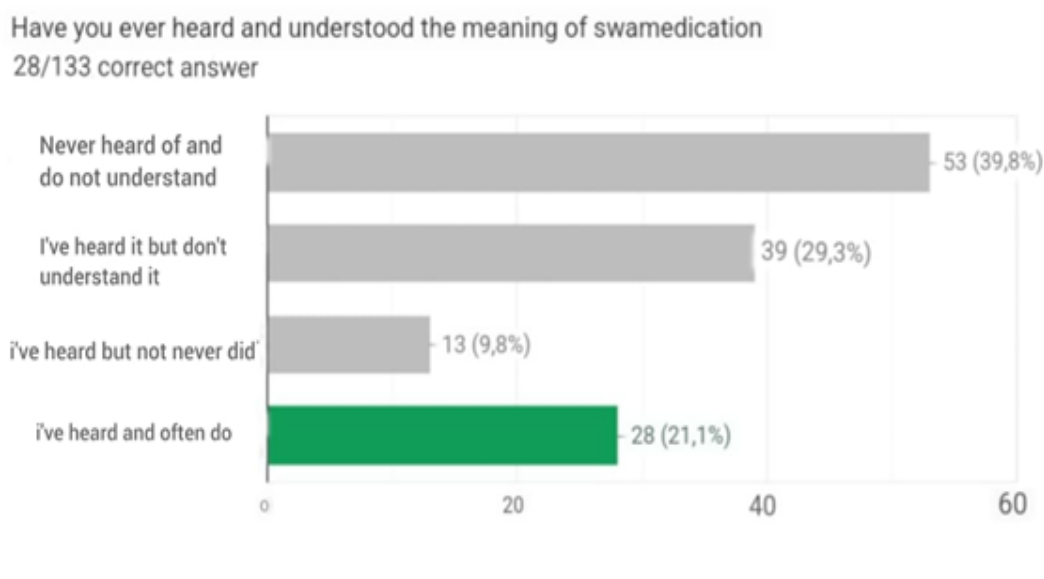


Figure 3. Percentage of responses to questions related to knowledge I

Based on the picture above, it shows that some students have heard and understand the meaning of Self-medication. (21.1%) Students have heard and often do it, (9.8%) Students have heard but not done it, (29.3%) have heard but do not understand, (39.8%) Never heard and do not understand.

Question: What do you do if you experience minor illnesses such as fever, cough, skin disease, allergies, etc?

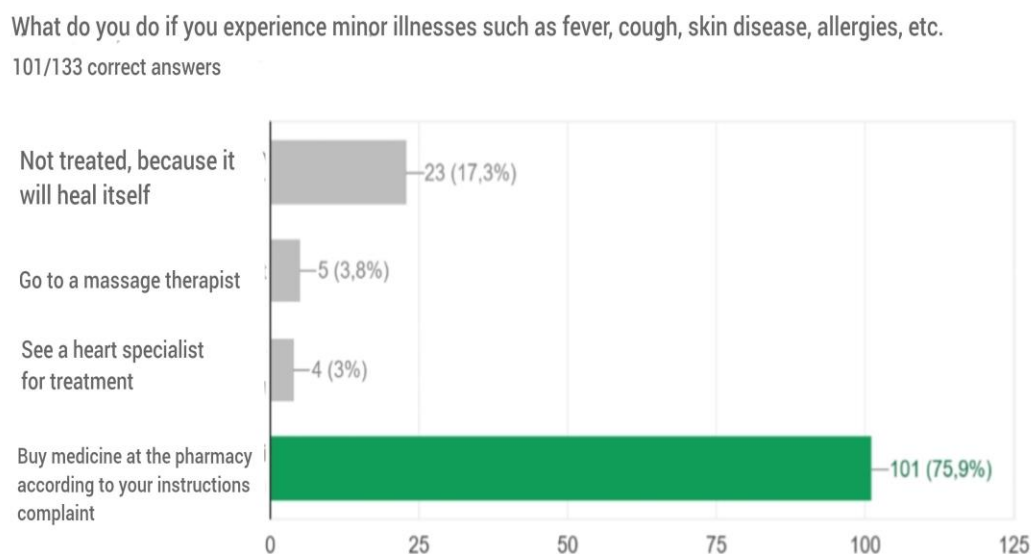


Figure 4. Percentage of responses to questions related to self-medication patterns/efforts

Of the several questions available in the questionnaire to evaluate self-medication knowledge, the two questions above can provide a general picture of the level of self-medication knowledge of students. The two pictures above show that (75.9%) people buy medicine at the pharmacy according to their complaints, (17.3%) people choose not to be treated, (3.8%) people prefer to see a massage therapist, and (3%) people seek treatment from a heart specialist.

Question: When is self-medication considered safe?

When is self-medication considered safe?

107/131 correct answers

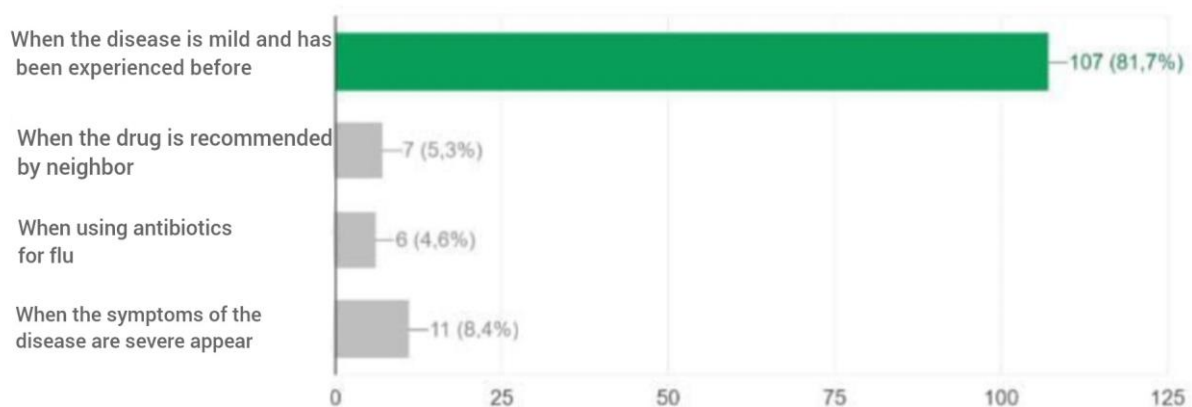


Figure 5. Percentage of responses to questions related to self-medication efforts II

From the image above, it shows that 107 (81.7%) respondents know Self-medication is safe to do if an illness is classified as a mild illness. When the medicine was recommended by a neighbor 7 (5.3%) respondents, 6 (4.6%) respondents when using antibiotics for flu and 11 (8.4%) respondents when symptoms of mild illness appeared.

Question: What medicines do you keep at home in preparation for when you get sick?

The medicine you keep at home in preparation for when you get sick

133 answers

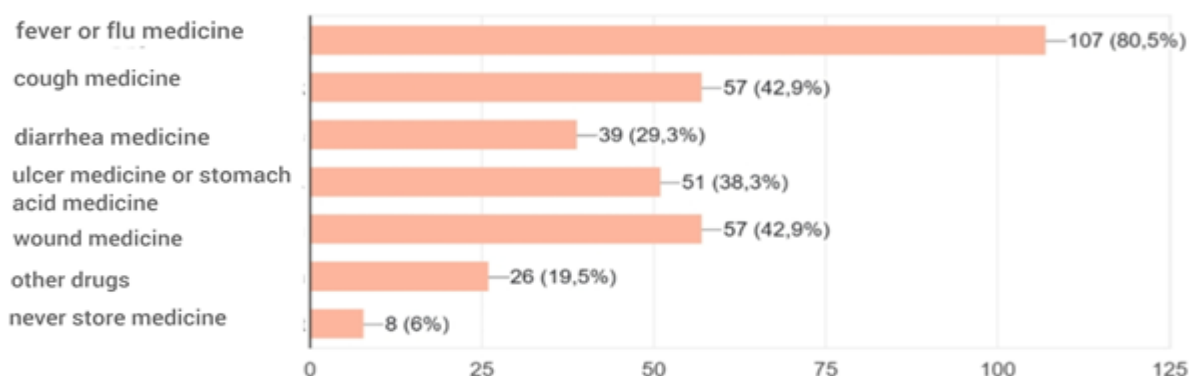


Figure 6. Percentage of responses to questions related to self-medication efforts III

Of the several questions available in the questionnaire to evaluate self-medication efforts, the three questions above can provide a general picture of the level of students' self-medication efforts. The three pictures above show that 75.9% of students who experience minor illnesses buy medicine from the pharmacy, (49.6%) have an illness and have consumed a medicine purchased from the pharmacy for 3 days and consulted a pharmacist, and 80.5% keep fever and flu medicine at home.

IV. DISCUSSION

Based on gender, the respondents who participated in this study were mostly female students, as many as 92 respondents (69%), while male respondents were only 41 respondents (31%). This is because women tend to be more active in filling out health self-medication questionnaires than men and they tend to be more cooperative in working together in health research. From table 1, it is also known that the composition of respondents aged 18 years is the largest, namely 71 respondents (53%) considering that students here are of productive age. This study is in accordance with (Suherman, 2019), which states that women do more self-medication (64%) than men. The results of this study are also in line with research (Onchonga et al., 2020) which states that there

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is a significant relationship between gender and self-medication. This is because women's anxiety is greater than men's (Sadio et al., 2021)

Based on the research conducted by Chalieg Moestahfidz, Juan Syakir Haziq, Laila Atiyyah Ramadhani Sitorus, Nazla Alifa Kamal and Nesa Ariska, it can be concluded that the level of knowledge of self-medication for minor illnesses among students in North Sumatra Province is that some have a good category (44%), very good category (16%), less good category (20%), and bad category (20%). The existence of a significant difference in scores of knowledges and behavior of self-medication for minor illnesses among students in North Sumatra Province shows that education about self-medication for minor illnesses among students is still needed. The knowledge possessed by humans is the result of efforts made by humans in seeking a truth or problem that faced. Activities or efforts made by humans to seek a truth or problem faced are basically the nature of humans themselves or better known as desires. The desires possessed by humans will provide encouragement for humans themselves to get everything they want (Darsini, Fahrurrozi and Cahyono, 2019).

In this study, the level of knowledge and behavior of self-medication for minor illnesses that have been carried out on 133 students of the University of North Sumatra, State University of Medan, State Islamic University of North Sumatra, Muhammadiyah University of North Sumatra, Polytechnic of Industrial Chemical Technology. It can be explained that 106 students (79.7%) know that coughs and fevers can be self-medicated, while 27 students (20.3%) do not know what diseases can be self-medicated. The results of the level of student knowledge regarding self-medication for coughs and fevers are classified as high and behavior is found to be in the good category. Self-medication must be carried out correctly and appropriately. so that it can provide a good effect on an individual's health. However, in implementing self-medication, it is necessary to have knowledge about the correct use of drugs in accordance with existing provisions. The right patient, the right indication, the right drug, and the right dose are the requirements that each individual must know in carrying out self-medication (Barbara, Roring and Malinti, 2022) Based on research on the level of knowledge of self-medication for minor illnesses among students in North Sumatra Province, 21.1% have heard of and often do self-medication, 9.8% have heard but never done self-medication, 29.3% have heard but do not understand self-medication and 39.8% have never heard and do not understand self-medication. From these results, it can be concluded that most students in North Sumatra Province are not familiar with self-medication for minor illnesses. Knowledge is the most important domain for a person to determine an inner response in the form of an attitude that will form an action (action) according to the stimulus they receive (Ni Putu and Mahadri, 2022). Public knowledge about self-medication plays an important role in avoiding drug abuse and therapeutic failure due to improper treatment. Although drugs are used to cure diseases, there are many cases that result in someone suffering from drug poisoning, this is due to the lack of public knowledge about drugs. Self-medication is safe when done when the disease is mild and has been experienced and also recognizes the symptoms that appear, chooses the right medicine, dosage and appropriateness in seeking advice / suggestions from health workers if complaints persist (BPOM, 2014). Previous experiences of illness and recommendations from friends or family based on illnesses that have been suffered are also supporting factors for self-medication. This is in line with research conducted by previous studies (Ha, Nguyen, & Nguyen, 2019). Self-medication behavior can cause various health problems if done incorrectly. Potential risks associated with self-medication are misdiagnosis of the disease, delays in seeking the necessary treatment so that the disease can become more severe, the wrong way to administer the drug and the wrong dosage (Ahmed et al., 2020).

Self-medication research in Indonesia has been conducted several times, including self-medication behavior in students. OTC drugs used include fever and flu drugs (80.5%), cough medicine (42.9%), wound medicine (42.9%), stomach ulcer or stomach acid disorder drugs (38.3%), diarrhea medicine (29.3%), and others (19.5%). Some behaviors categorized as self-medication are the use of over-the-counter drugs, sometimes including prescription drugs to treat symptoms/diseases based on self-diagnosis. These OTC drugs are usually available at drug stores, retail stores, and kiosks (Atmadani, Nkoka, Yunita, & Chen, 2020). Self-medication also includes buying drugs by reusing or sending back previous prescriptions, taking drugs on the advice of family or others, and consuming leftover drugs (Helal & Abou-Elwafa, 2020). Drugs used in self-medication other than OTC drugs and prescribed drugs include traditional medicines and herbal medicines. The main factors underlying self-medication behavior are expensive drugs and medical costs, lack of education and knowledge in the health sector, drugs that are freely available in shops, selling drugs without a doctor's prescription and lack of strict supervision from the government regarding the distribution of drugs, unavailability of medical facilities, and poverty (Khan, 2020).

V. CONCLUSIONS

The conclusion of this study is that the level of knowledge of the majority of student respondents in North Sumatra province has good knowledge of self-medication (44%), the drugs most often stored by students for self-medication are fever or flu drugs (80.5%). (www.causalproductions.com)”.

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