



# A Simple Comparative Analysis on Self-Medication Knowledge and Effort of Health and Non-Health Students in State Islamic University of North Sumatera

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Track Record Article	Abstract
<p>Accepted: 26 February 2023 Revised: 5 March 2023 Published: 26 March 2023</p> <p><b>How to cite :</b> Wahyudi. (2023). A Simple Comparative Analysis on Self-Medication Knowledge and Effort of Health and Non-Health Students in State Islamic University of North Sumatera. <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i>, 5(1), 216–224. <a href="https://doi.org/10.30829/contagion.v5i1.14862">https://doi.org/10.30829/contagion.v5i1.14862</a></p>	<p><i>Self medication has advantages such as increases access to medication and also can contribute to reducing prescribed drug costs. This study aims to describe the comparison of knowledge and efforts of self-medication health students (Faculty of Public Health/FPH) and non-health students (Faculty of Science and Technology/FST) in State Islamic University Of North Sumatera. This research is a quantitative descriptive study using survey methods. Data collection was carried out using a questionnaire through the Google form which was then analyzed to be able to describe the results of the research. The research was conducted on 100 students (FPH n=50 and FST n=50) were students in semesters 1-6. Self-medication knowledge on very good category are 80% for FPH and 16% for FST. The good category is 12% for FPH and 24%, the moderate category is for 4% FPH and 44% FST, the bad category is for 4% FPH and 12% FST, and the very bad category for FPH is absent and 4% for FST. Self-medication knowledge on very good category are 72% for FPH and 28% for FST. The good category is 18% for FPH and 26%, the moderate category is for 8% FPH and 36% FST, the bad category is for 2% FPH and 4% FST, and the very bad category for FPH is absent and 6% for FST. Health and non-health students both like the tablet drug form with a percentage of 56% and 64% respectively. Conclusion- The conclusion of this study is that FPH students have a much better level of knowledge and self-medication efforts than FST. This could be because FPH students have a background in health education.</i></p> <p><b>Keywords:</b> <i>Knowledge, Medicine, Self-Medication, Student.</i></p>

## INTRODUCTION

Self-medication (SM) is a behavior in which people take pharmaceuticals against the advice or recommendation of medical professionals in an effort to enhance their health . SM can take many different forms, such as taking one or more pharmaceuticals without a doctor's prescription, repurposing previously used medications, utilizing over-the-counter medications, and disregarding medical advice (Karimy et al., 2019). In other words, using any drug or other non-prescription medication without a doctor's prescription is considered self-medication. Self-medication is the process of choosing a substance to cure a self-diagnosed sickness or symptom. One of the biggest risks of self-medication that may make a health issue worse is delaying obtaining medical help when necessary and, instead of trying to heal oneself, disguising a severe sickness (Zeb et al., 2022).

Using over-the-counter (OTC) medications, being properly informed about the conditions being encountered, and delivering medications in the right way are all essential components of safe and responsible SM practice among the general people. This type of SM offers both individuals and healthcare systems numerous advantages (Abdullah et al., 2022). By purchasing the required medication directly from the neighborhood pharmacy and skipping the expense of contacting a doctor, for instance, SM can lower the cost of treatment for patients. Moreover, SM can reduce the frequency of hospital trips by addressing minor health issues on their own at home (Noone and Blanchette 2018).

SM cannot be regarded as a completely safe practice , and it may result in a number of medical issues such as antibiotic resistance, misdiagnosis, use of excessive dosages, prolonged duration of use, drug interactions, and polypharmacy. This is despite its significant role in the treatment of minor illnesses, as well as its capacity to lessen the burden on medical services and limit treatment costs (abdelwahed et al., 2022).

Several previous studies have shown that there are problems with student self-medication at several universities in the world. Increased media exposure and drug advertising pose a significant threat to this demographic. Because the majority of college students find that he uses at least one of the products advertised without discussing it with his doctor. Other reasons for college students to self-medicate include previous experience, advice from family and friends, perceived health problems as too trivial, saving time, lack of access to transportation, and convenience. symptoms, ability to self-manage symptoms, urgency of problem, and unavailability of physicians. And I had enough information. Other studies cited lack of time, cheap advice, and trust in doctors as the main reasons (Helal et al., 2017).

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Previous research on efforts and patterns of self-medication has been carried out mostly on various backgrounds of respondents such as pharmacy consumers (Harahap et al., 2017) (Ilmi et al., 2021), the general public (Pratiwi et al., 2020) (Wardoyo & Oktarlina, 2019) , housewives (Aswad et al., 2020) (Sari, 2020), patients (Suherman & Febrina, 2018) and also students (Sasmita, 2018) (Apsari et al., 2018). Comparative research on patterns and self-medication efforts of health and non-health students has been carried out several times in Indonesia, such as at Jember University (Rohamawati, 2016) and Airlangga University

(Pratiwi et al., 2022), but similar research is still very limited in universities in Sumatra region. This is also one of the main reasons for conducting this research.

One of the most vulnerable groups to self-medication is young people. Students in particular are more likely to self-medicate because of their higher educational level and access to online resources for pharmaceutical information (Alsharani et al., 2019). The things mentioned above are the background for us to conduct this research. Comparisons were made to FPH and FST students with the aim of knowing and ascertaining whether educational background would influence student self-medication patterns.

## METHOD

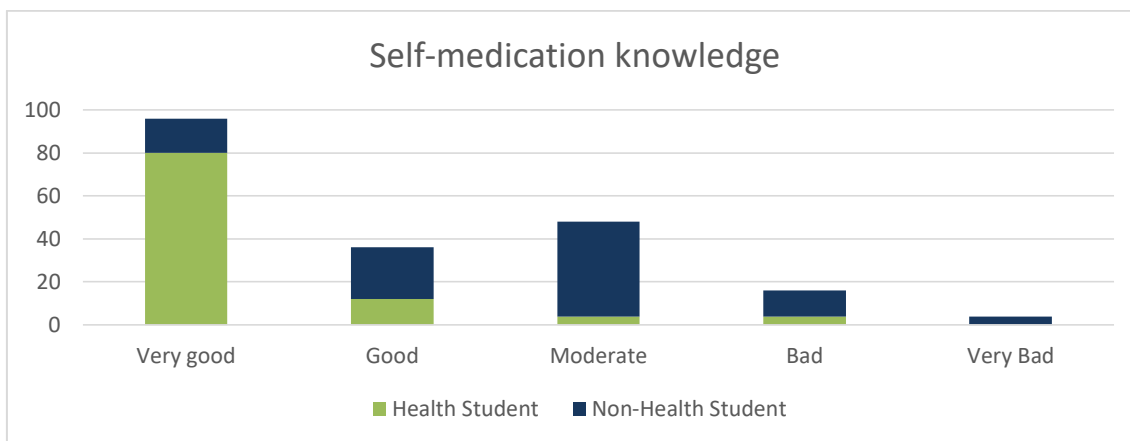
This research is a descriptive quantitative research that will describe how the comparison of knowledge and self-medication efforts between health students (Faculty of Public Health/FPH) and non-health students (Faculty of Science and Technology/FST) State Islamic University Of North Sumatera was conducted using a survey method. The survey method is a quantitative research method used to obtain current and past data. The research design is a comparative study with the main focus on comparing the knowledge and self-medication efforts of health and non-health students. The data collection technique was carried out using a questionnaire via google form. The questionnaire contains 20 questions consisting of 10 knowledge questions and 10 self-medication effort questions. This research questionnaire is a questionnaire that has been validated and used in our previous research.

Respondents in this study consisted of 100 students consisting of FPH students (n = 50 students) and FST students (n = 50 students). All respondents are semester 1-6 students. The sample selection was carried out by simple random sampling by randomly selecting student identification numbers each semester. The research was carried out in November-December 2022.

The description of the respondents' knowledge and efforts towards self-medication was then analyzed based on the percentage of the number of respondents who answered the questions correctly. Self-medication knowledge and efforts are considered very good if the answers are correct 80-100%, good 60-79.99%, Moderate 40-59.99%, bad 20-39.99% and very bad 0-19.99% . Survey data will be presented to compare knowledge and self-medication patterns of health and non-health students.

## RESULTS

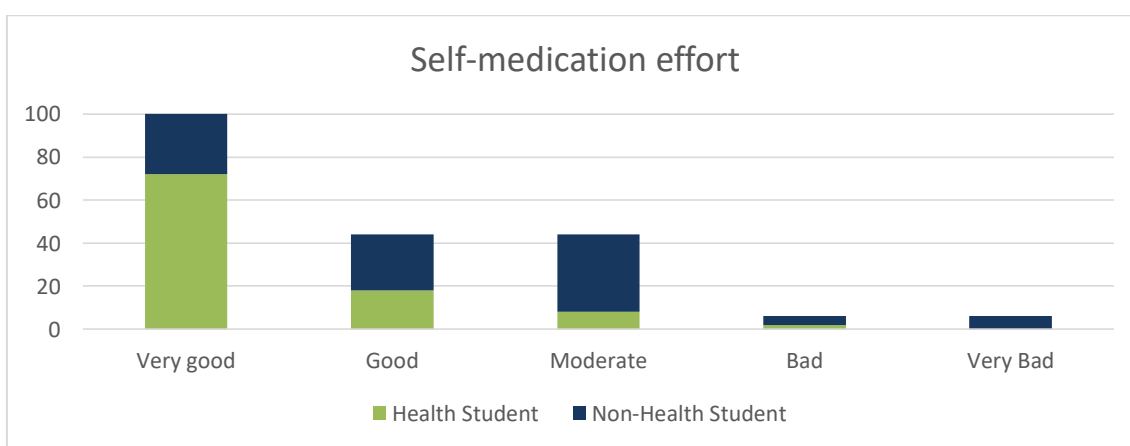
Based on completing the questionnaire on 10 questions related to self-medication knowledge, the classification of self-medication knowledge can be seen in the graph below:



**Figure 1.** Self-medication knowledge classification

Based on the graph above, it can be seen that students who fall into the very good category are 80% for FPH and 16% for FST. The good category is 12% for FPH and 24%, the moderate category is for 4% FPH and 44% FST, the bad category is for 4% FPH and 12% FST, and the very bad category for FPH is absent and 4% for FST. If accumulated, the majority of FPH students (92%) have good to very good knowledge, while FST is only 40%.

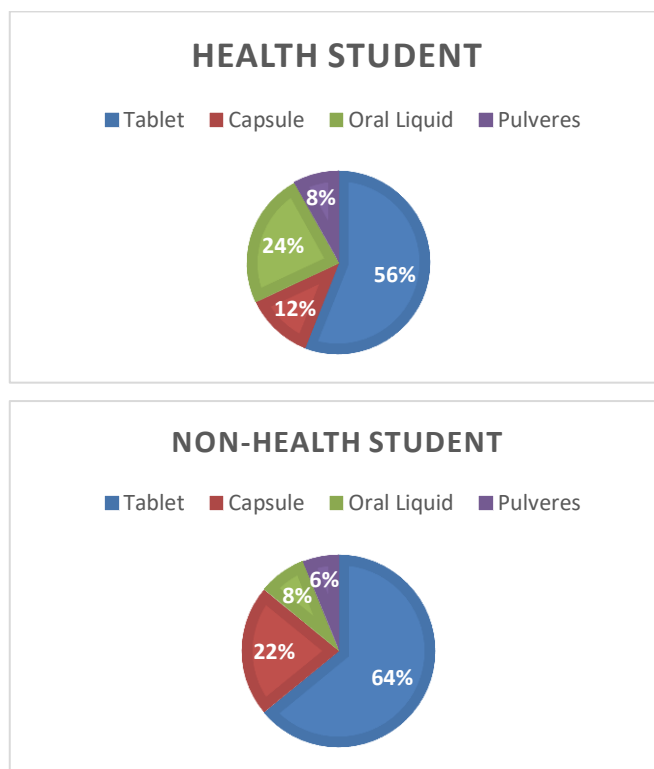
Based on completing the questionnaire on 10 questions related to self-medication effort, the classification of self-medication effort can be seen in the graph below:



**Figure 2.** Self-medication effort classification

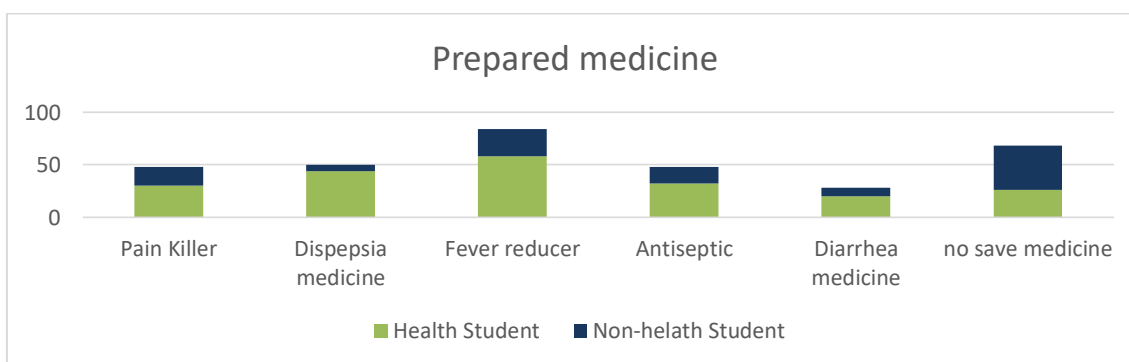
Based on the graph above, it can be seen that students who fall into the very good category are 72% for FPH and 28% for FST. The good category is 18% for FPH and 26%, the moderate category is for 8% FPH and 36% FST, the bad category is for 2% FPH and 4%

FST, and the very bad category for FPH is absent and 6% for FST. If accumulated, the majority of FPH students (90%) have good to very good knowledge, while FST is only 54%.



**Figure 3.** Preferred drug type

Based on the graph above, it can be seen that health and non-health students both like the tablet drug form with a percentage of 56% and 64% respectively. Whereas in the second position the most preferred for health students was oral liquid (24%) while non-health students were in capsule form (22%). The most disliked form of drug is pulveres where 6% of health students and 8% of non-health students.



**Figure 4.** Prepared Medicine

Based on the graph above, it can be seen that the sequence of drugs that were most stored by students were fever reducers, pain relievers, dyspepsia drugs, antiseptics and the last

position was diarrhea medicine. The graph above also shows that there are still many students who do not keep medicines at home and some students also keep several types of medicines.

## DISCUSS

Based on the survey results above, it can be seen that the level of self-medication knowledge of health students (Faculty of Public Health/FPH) is better than non-health students (Faculty of Science and Technology/FST) on very good category. This result is relevant to some of the results of previous research on self-medication. Age, gender, education level, income, information exposure, consultation with health workers, and socio-culture can have an impact on one's knowledge (Ar-Rasily & Dewi, 2016). Nonmedical vs medical students were significantly more dependent on friends (14.8% vs 7.7%) and own experience (7.4% vs 2.4%) as a source of self-medication advice (Alshorgan et al., 2018).

According to Ihsan et al., (2017), drugs play an important role in health services, but rational use of drugs remains the biggest obstacle to effective and efficient treatment. On the question regarding self-medication efforts, Health Students were classified as good with the majority answering that they went directly to the doctor/clinic if they had a mild illness, made a choice of drug based on previous use experience, the majority preferred medication in tablet form, and read the directions for use on the drug packaging before use. Whereas the majority of non-health students answered that they went straight to the doctor/clinic if they had a mild illness, determined the choice of drug based on previous experience of use, the same as the majority of health students preferred tablet-shaped drugs, and chose information on the rules for how to use the drug through being explained by the pharmacist.

FPH students' has very good self-medication knowledge was due to the health education background of these students. Health education obtained during college can increase knowledge and self-awareness about the importance of maintaining a healthy body. This is similar to previous research related to self-medication in health students. Study of patel et al (2012) shows that second year health students tend to have greater knowledge of appropriate self-medication, have a more confident as well as concerned attitude towards self-medication, and tend to practice self-medication more often and appropriately. Most of the respondents 87(96.7%) were aware of the possible adverse consequences. About 75(83.3%) participants thought the self-medication practice during the exam time is acceptable while 15(16.7%) regarded this as unacceptable (Bhattarai, 2020).

Even though FST students' self-medication knowledge was very low, the self-medication effort was moderate (if combined the categories were very good and good), namely 54%. This can happen because in essence humans are uncomfortable in unhealthy conditions and will try to treat it. This is in line with previous research regarding self-medication by students. Study results also showed that, the major cause of self-medication was minor illness, and the prescriptions which were previously used to treat the similar disease conditions were the main source of motivation to do so. A significant portion of the respondents believed that self-medication might be acceptable to treat minor illness (Shah et al., 2021).

## CONCLUSION

On self-medication knowledge, (FPH) health students are better than non-health students (FST) with very good percentages of 80% and 16% respectively. On self-medication efforts, FPH students performed better than FST students with very good percentages of 72% and 28%, respectively. This could be because FPH students have a background in health education.

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