




Evaluation of Self-medication with Over-The-Counter among Attahadi University Students

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ABSTRACT

Over-The-Counter (OTC) drugs, or non-prescription drugs, are medicines available without a doctor's prescription for common health issues like pain, headaches, colds, and allergies. They are regulated by the FDA to ensure effectiveness and safety. This study aimed to evaluate the self-medication practice among Attahadi University Students. A cross-sectional study was conducted using pre-validated questionnaire with 20 multiple-choice questions. It was distributed face-to-face to university students during July 2023. Data was analyzed using descriptive statistics. In this study, it was revealed that many respondents were unaware of the advantages and disadvantages of using these medications, which could result in inappropriate use or potential injury. The most widely used class of OTC drugs were painkillers, and many students who took them complained of side effects. A sizable portion of participants mix various OTC medications to treat multiple ailments, which can be risky. Prioritizing safety and efficacy are key, and it is crucial to carefully study labels and seek professional advice as necessary.

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INTRODUCTION

Over-The-Counter (OTC) drugs commonly referred to as non-prescription drugs, are medicines that can be bought without a doctor's prescription. They are extensively offered at supermarkets, pharmacies, and quick-service restaurants [1]. These medications are used to treat some common health issues, including pain, headaches, colds, and allergies [1].

OTC medications can be beneficial for treating minor health issues or relieving symptoms, but they should always be taken carefully and according to the directions on the packaging. Government organizations, such as the Food and Drug Administration (FDA), regulate over-the-counter medications to guarantee their effectiveness and safety for consumer use [2].

Although over-the-counter (OTC) medications can be bought without a prescription, it's important to remember that they still count as medications and should be used with caution, especially if you have any pre-existing medical conditions or are already taking prescription medication [3].

Self-medication with antibiotics is common worldwide, particularly in developing countries such as Libya. According to studies, the prevalence in developed countries was 3% in northern Europe, 6% in central Europe, and 19% in southern Europe, whereas self-medication is more prevalent in developing countries with lax regulatory systems, with frequency ranging from 24% to 73.9% in Africa, 36.1% to 45.8% in the Middle East, 29% in South America, and 4% to 75% in Asia [4]. The most commonly reported reasons for self-medication were drug shortages at health facilities, long wait times at health facilities, long distances to health facilities, inability to pay for health care charges and the freedom to choose preferred drugs, a lack of medical professionals, poor quality of healthcare facilities, unregulated distribution of medicines, and patients' misconceptions about physicians, which were more prevalent in developing countries [5].

In the Libya, a study conducted in Tripoli evaluated antibiotic utilization attitudes and behaviors among students who reported high consumption rates

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regardless of the student's specialty [6]. Another study conducted in Benghazi showed that 94 students (27%) who had antibiotics, were covered under medical insurance, and 19 (29%) of the medically insured students had antibiotics without doctor's prescription. About 14% of students did not complete their antibiotics course [7].

Given that Libyan university medical undergraduates are members of the educated class and have access to health information, this study on their use of OTC for self-medication is noteworthy. Since they are the next generation of drug prescribers and health educators, it is also crucial to examine this trend. Hence, the objective of this study is to investigate the current status of self-medication behaviors among Attahadi University Students.

METHODS

Study design and area

The study was carried out at Al-Tahhadi University in Tripoli, Libya between May and July 2023. A questionnaire contains 20 multiple-choice questions was prepared by reviewing similar studies and then validated on sample of 3 students.

The questionnaire contains demographic characteristics, pattern of self-medication with OTC drugs, most used OTC drugs, the condition that led to the use, source of information about the medication, and other questions that present their knowledge and attitude.

Data collection

A total of 200 questionnaires were personally distributed to the involved students. The questions had been thoughtfully written to be concise and easy to understand, and the questions was briefly explained to all students how were randomly selected, each student was asked to answer each question correctly and honestly, this strategy made guaranteed that an accurate reflection of the student population got the questionnaires.

Data analysis

Data from the questionnaire were gathered through Microsoft excel and presented as descriptive statistics using tables and figures.

RESULTS AND DISCUSSIONS

As shown in figure 1, the majority of respondents were female (67%) and 33% were male.

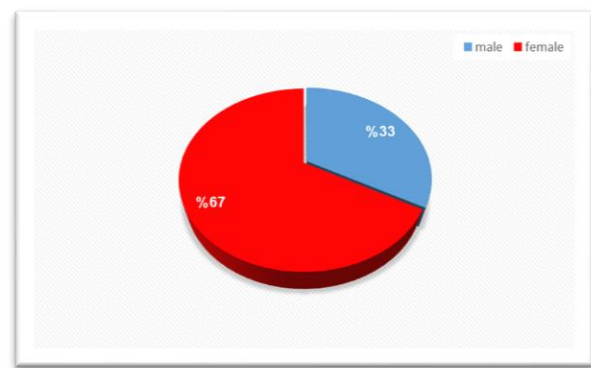


Figure 1. Gender wise distribution

The most frequent age group involved in the study was between 18 and 24, because the study was conducted on students (figure 2).

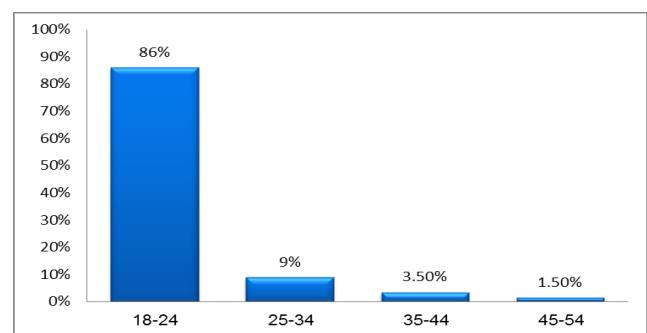


Figure 2. The age of precipitate in the study

The majority of respondents reported being either somewhat or not very familiar with the risks and benefits associated with using OTC drugs (figure 3). This similar to previous study [6]. The results suggest that there may be a lack of awareness and education about the risks and benefits associated with OTC drug use [8]. This may lead to inappropriate use or potential harm if individuals are not aware of potential side effects or drug interactions. Healthcare professionals can provide education and counseling on the risks and benefits associated with OTC drug use, including information on proper dosing, potential side effects, drug interactions, and when to seek medical attention [9,10].

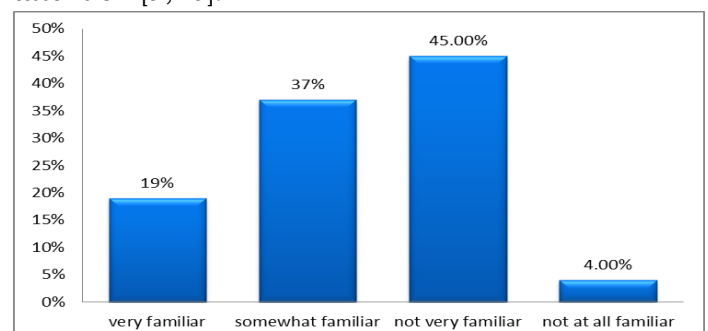


Figure 3. Participants' knowledge of the risks and benefits of the drugs.

Figure 4 shows that 38% of respondents reported using OTC drugs a few times a month, however, it is important to ensure that individuals are using these drugs safely and appropriately. This was in line with previous study [11]. Therefore, students should get information on proper dosing, potential side effects, drug interactions, and when to seek medical attention [12].

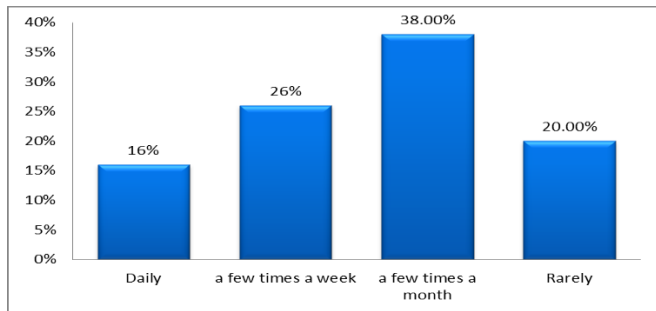


Figure 4. The frequency of use of OTC drugs

The most commonly used type of OTC drug reported by respondents was pain relievers, with 52% of respondents reporting using these drugs most often (figure 5). Pain relief is a common reason for OTC drug use, and it is consistent with previous studies [13] that have found pain relief to be the most common reason for OTC drug use. However, it is important to ensure that individuals are using these drugs safely and appropriately.

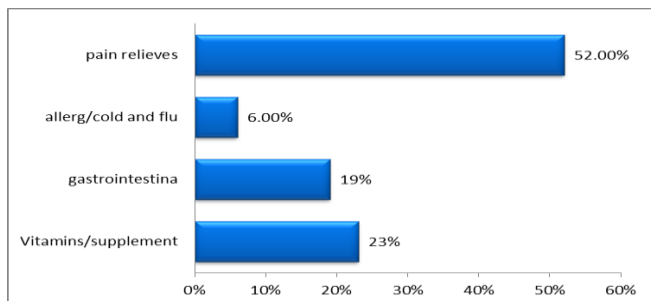


Figure 5. Class of OTC self-medications used.

Figure 8 demonstrates that 66% of respondents reported experiencing adverse effects from using an OTC drug. Adverse effects from OTC drugs can range from mild to severe and can include side effects such as nausea, headache, or dizziness, as well as drug interactions or allergic reactions. It is important to ensure that individuals are aware of potential adverse effects and know when to seek medical attention if necessary.

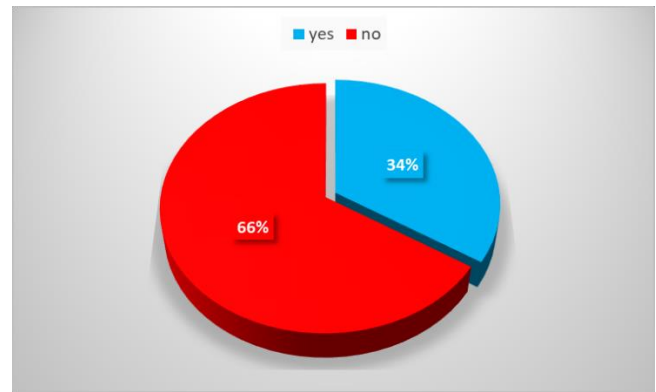


Figure 6. The adverse effect occurred when using OTC drugs by the participants.

The majority of respondents reported being either somewhat likely or not very likely to consult a healthcare provider before using an OTC drug (figure 7). The results suggest that many individuals may not be aware of the potential risks and benefits associated with OTC drug use and may not know when to seek medical advice. This may lead to inappropriate use or potential harm if individuals are not aware of potential side effects or drug interactions. Tips for correct OTC drug use [14]. Before using an OTC drug, it's important to consult a healthcare professional, such as a doctor or pharmacist, especially if you have any underlying medical conditions or are taking other medications [15].

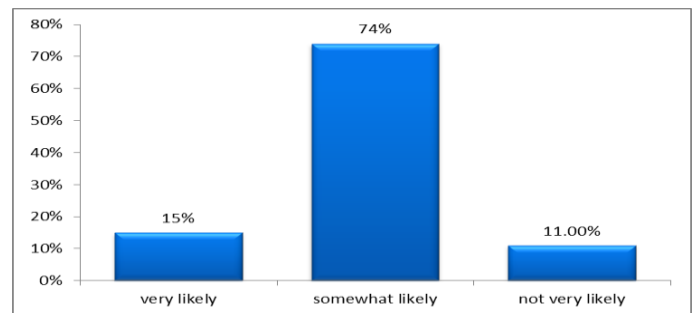


Figure 7. Possibility of consulting a health care provider before using any OTC drugs.

The most commonly consulted source of information reported by respondents before purchasing or using an OTC drug was a healthcare provider, with 54% of respondents reporting consulting a healthcare provider (figure 8). Similar to our finding, a previous German study reported that seek advice from doctors or pharmacists more often than men (66% vs. 44%, $p < 0.001$) [16]. Consulting a healthcare provider before using an OTC drug can help ensure safe and appropriate use and can help individuals avoid potential adverse effects or drug interactions. However, many individuals may rely on other sources of

information, such as family or friends, which may not always be reliable or accurate.

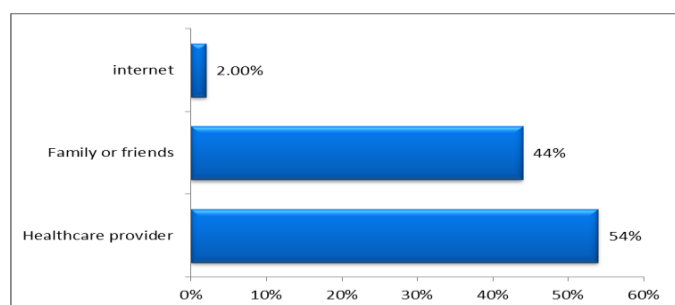


Figure 8. Source of information that participants turn to when choosing the OTC drugs.

About 69% of respondents reported feeling confident in their ability to choose the appropriate OTC drug for their needs (figure 9). However, it's important to note that OTC drugs can have serious side effects and interactions with other medications, so it's always a good idea to consult a healthcare professional if you're not sure which drug is right for you. Before using an OTC drug, read the label carefully and check for any warnings or precautions. If you have any questions or concerns, consult a healthcare professional, such as a doctor or pharmacist.

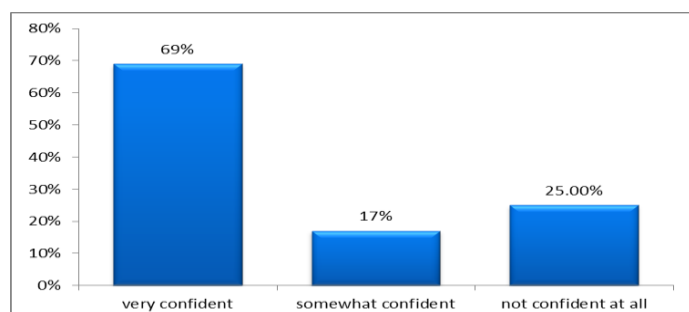


Figure 9. The ability to choose the appropriate OTC.

The survey found that brand name, familiarity with the drug, and recommendations from others were the most commonly reported factors influencing respondents' decisions to choose one OTC drug over another. Price was also a factor for some respondents (figure 10).

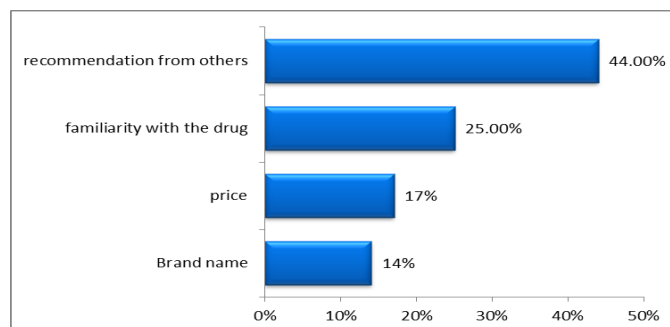


Figure 10. Factors that influence their decision when choosing an OTC drug.

CONCLUSION

Self-medication would be safe, if the people who are using it, have sufficient knowledge about its dose, time of intake, side-effect on over dose, but due to lack of information it can cause serious effects such as antibiotic resistance, skin problem, hypersensitivity and allergy. Although the self-medication practice is necessary, drug authorities and health professionals need to educate students about the benefits and drawbacks of self-medication.

It is important to prioritize safety and effectiveness when using OTC drugs, and to read the labels carefully and consult a healthcare professional if necessary. Moreover, it is important to ensure that individuals are aware of potential adverse effects and know when to seek medical attention if necessary.

Conflict of interest

The authors declared no conflict-of-interest present in the current study.

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