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ASSESSING OVER-THE-COUNTER MEDICINE USE AMONG MEDICAL STUDENTS OF TASHKENT MEDICAL ACADEMY: PRACTICES, PERCEPTIONS, AND POTENTIAL RISKS

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Abstract

Over-the-counter (OTC) medicines are widely used for self-medication among medical students, yet their misuse can lead to adverse health outcomes and mask underlying conditions. This study assesses the practices, perceptions, and potential risks associated with OTC medicine use among medical students of Tashkent Medical Academy. A cross-sectional survey was conducted, collecting data on students' knowledge of OTC drugs, their frequency of use, and factors influencing their decisions. The findings revealed that while students demonstrated moderate knowledge about OTC medicines, misconceptions and improper usage patterns were prevalent. Notable risks included self-diagnosis errors, drug interactions, and the development of drug dependency. The study underscores the need for targeted educational programs to promote safe self-medication practices and enhance awareness of the potential risks of OTC drug misuse.

Keywords

Over-the-counter medicine, medical students, self-medication, drug misuse, Tashkent medical academy, health risks, perceptions and practices.

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Introduction:

Over-the-counter (OTC) medicines are widely accessible and frequently used for the self-management of common health conditions such as colds, flu, pain, and digestive issues. While these medications provide convenience and immediate relief, their improper use can lead to significant health risks, including adverse reactions and antimicrobial resistance. Medical students, as future healthcare providers, are expected to have a thorough understanding of safe medication practices [1,2,3,4,5,6,7,8]. However, their own habits and perceptions regarding OTC medicine use may not always align with best practices. This study aims to explore the frequency, reasons, and sources of information for OTC medicine use among medical students, highlighting potential areas of concern and the need for enhanced educational interventions [9,10,11,12,13,14,15].

Relevance:

Investigating OTC medicine use among medical students is particularly relevant as they are at a critical juncture in their professional development. Understanding their medication practices can provide insights into potential gaps in knowledge and areas where further education is necessary. Given their future role in prescribing and advising on medication use, it is crucial to ensure they adopt safe and informed practices early in their careers. Additionally, the prevalence of antibiotic misuse and the involvement of family members in OTC medication practices can have broader public health implications [16,17,18,19,20]. This study aims to shed light on these issues, thereby contributing to the development of targeted strategies to promote responsible OTC medicine use and safeguard public health.

Materials and Methods:

This study employed a cross-sectional survey design using a Google Form questionnaire to investigate OTC medicine use among medical students of Tashkent Medical Academy, Tashkent, Uzbekistan. Privacy and anonymity of the participants were maintained throughout the survey. A total of 87 students, including 50 females and 37 males aged between 18 to 30 years, participated in this survey. The survey comprised questions related to the frequency of OTC medicine use, reasons for usage, sources of information, common antibiotics used, frequency of buying antibiotics, experiences of side effects, recommendation of antibiotics for flu, family members' usage of OTC medicines, and preferred OTC medication for emergencies. Participants were assured of confidentiality to maintain privacy [21,22,23,24,25,26]. The survey responses were then anonymized and analyzed to identify trends, patterns, and potential areas for intervention.

Results:

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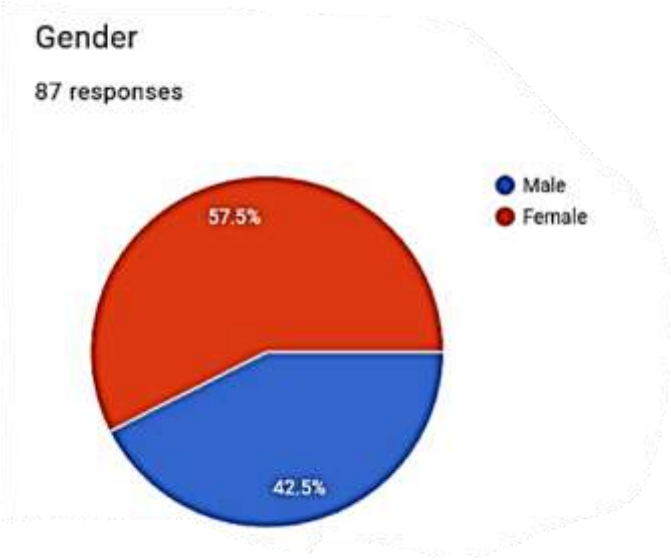
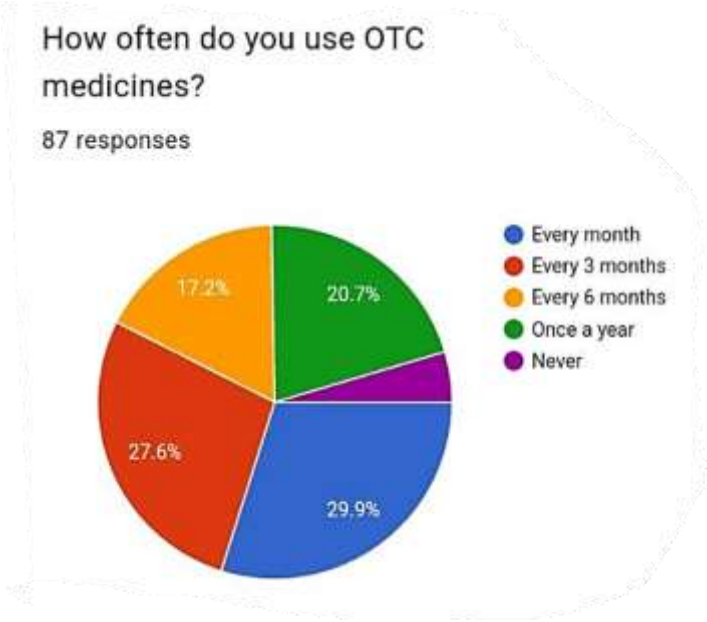
The survey conducted among 87 medical students, consisting of



50 females and 37 males aged between 18 to 30 years, provided a comprehensive overview of their attitudes, behaviours, and experiences related to over-the-counter (OTC) medicine use.

Varying patterns emerged in the frequency of OTC medicine use,



with 26 (29.9%) reporting monthly usage, 24 (27.6%) every three months, 15 (17.2%) every six months, 18 (20.7%) once a year, and 4 (4.6%) participants indicating never using OTC medicines.

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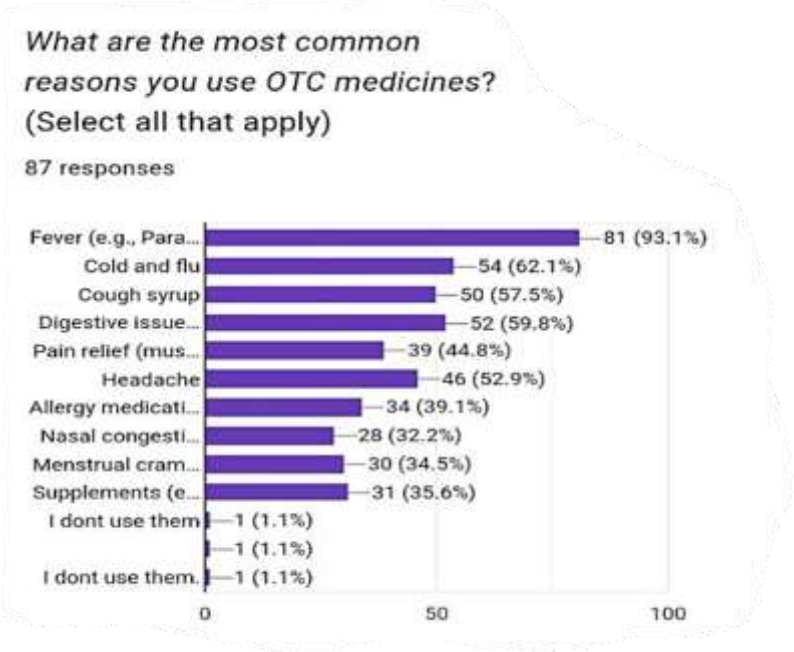
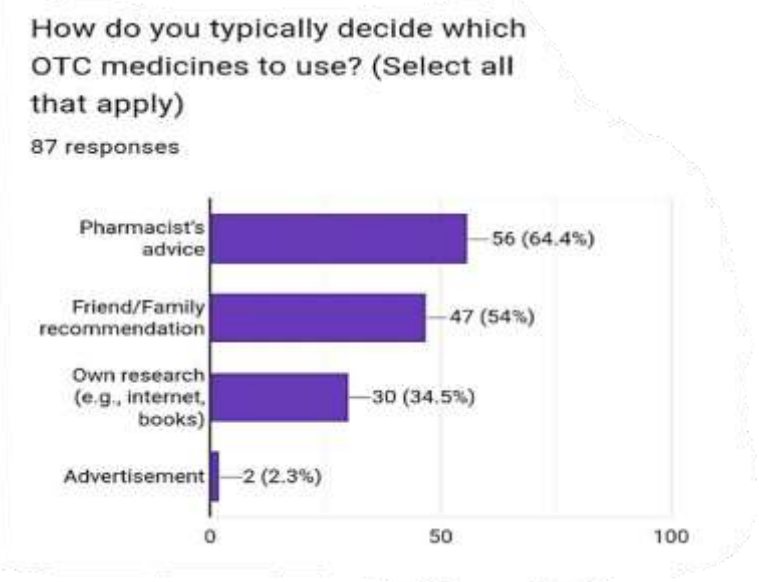


Primary reasons for OTC medicine use included fever (93.1%) and cold and flu (93.1%),

followed by cough syrup and digestive issues (both 62.1%), pain relief and headache (both 57.5%), allergy medications and nasal congestion relief (both 59.8%), menstrual cramps (44.8%), supplements (34.5%), and miscellaneous factors (1.1%).



Pharmacist's advice (64.4%) was the predominant source of information, followed by recommendations from friends and family (54%) and own research (34.5%), while only 2.3% relied on advertisements.

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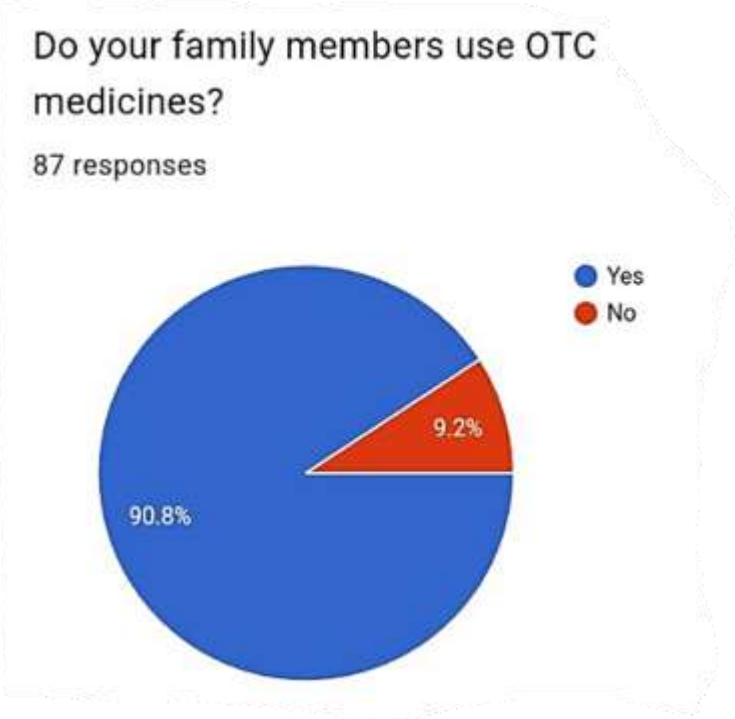
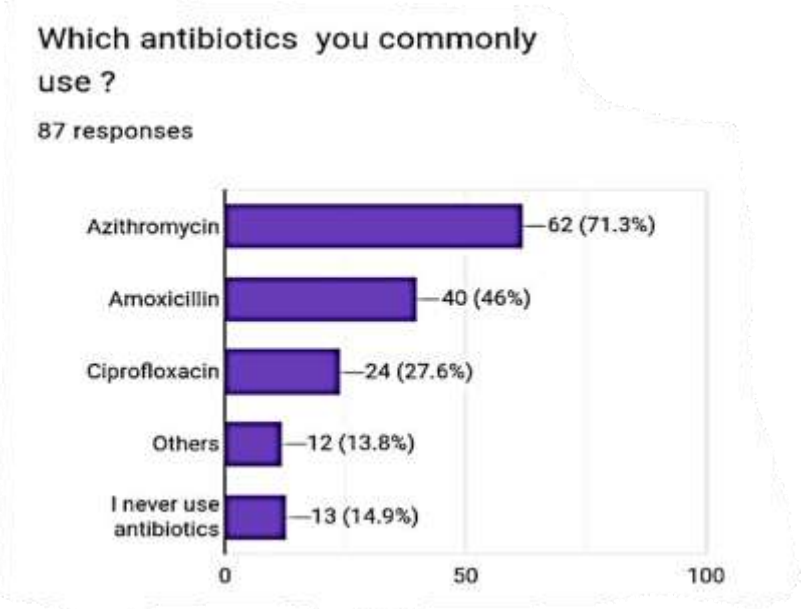


OTC medicine usage among family members was prevalent (90.8%), with 8 (9.2%) reporting no usage.



Azithromycin was the most commonly used antibiotic (71.3%), followed by amoxicillin (46%) and ciprofloxacin (27.6%), with 14.9% never using antibiotics as OTC medication.

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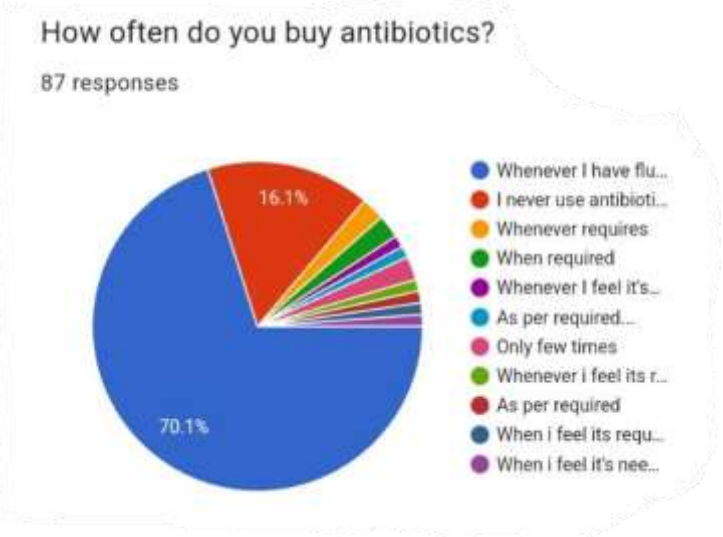
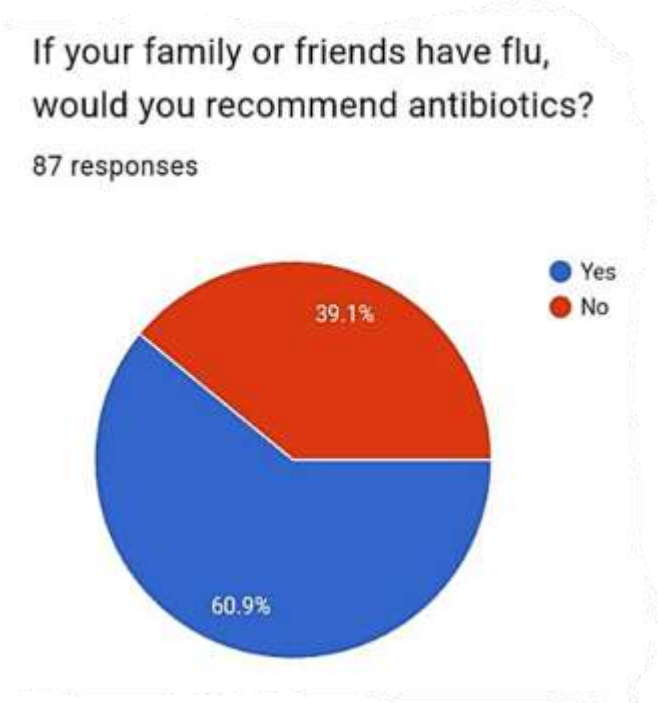


The majority (70.1%) purchased antibiotics whenever they had flu or symptoms of infection, while 16.1% never used antibiotics as OTC medication, and 13.8% bought them few times, whenever they felt it was recommended or required.



Regarding the recommendation of antibiotics for flu to their near circle, 60.9% endorsed it, while 39.1% opposed it.

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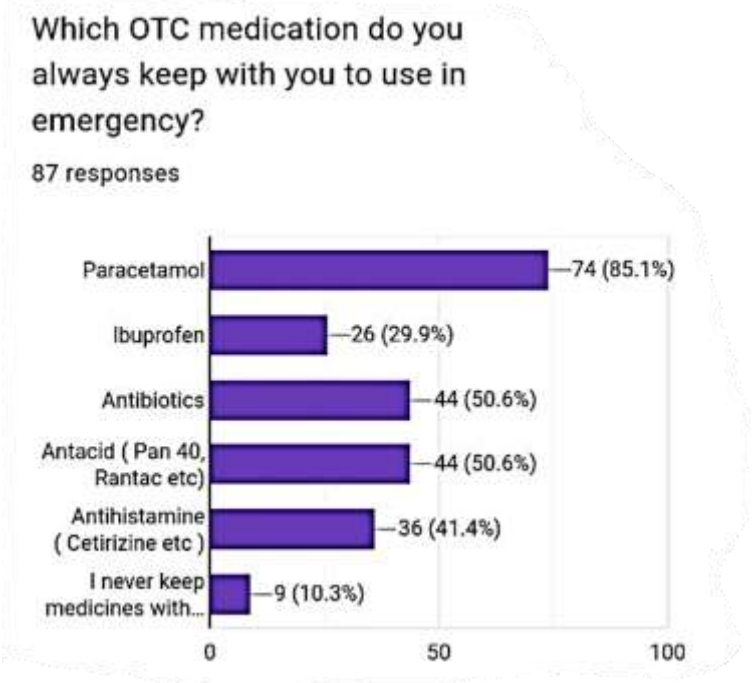
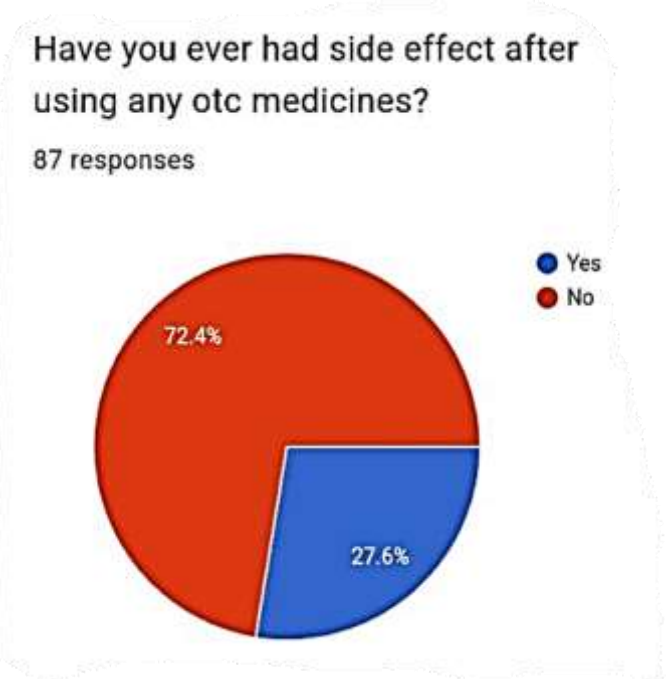


Paracetamol was the most commonly kept OTC medication for emergencies (85.1%), followed by antacid (50.6%) and antihistamine (41.4%), while 10.3% reported never keeping medicines with them.



Side effects after using OTC medicines were reported by 24 (27.6%) participants, while 63 (72.4%) did not report any.

Conclusion:

The survey findings underscore the precarious landscape surrounding over-the-counter (OTC) medicine usage among medical students. Despite the prevalence of seeking pharmacist advice, concerns loom large with the widespread reliance on

antibiotics and their endorsement for flu treatment, potentially fueling the rise of antimicrobial resistance. Additionally, the reported occurrence of side effects following OTC medication use signals the inherent dangers associated with uninformed decision-making. The involvement of family members in OTC medicine practices further amplifies the societal impact and underscores the urgency for intervention. In light of these findings, it's imperative to prioritize targeted educational efforts aimed at promoting responsible OTC medication practices. The survey data underscores the critical need to cultivate a culture of informed and cautious OTC medicine use among medical students and the wider community.

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