iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** VI **Month of publication:** June 2026

DOI: https://doi.org/10.22214/ijraset.2026.83450

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue VI June 2026- Available at www.ijraset.com

Public Awareness about Risks of Over-The-Counter Medicines Survey

Mr. Atish Kore[1], Miss. Prachi Nachan[2]
[1]*M Pharm in Pharmaceutics, Professor, Delonix society's Baramati College of Pharmacy, India*
[2]*Bachelor of Pharmacy, Delonix society's Baramati College of Pharmacy, India*

Abstract: ***This study focuses on a community-based survey about the use of over-the-counter (OTC) medicines such as pain relievers and cough syrups. It examines how people choose OTC products based on factors like brand preference, packaging, healthcare advice, income, and education. The study also evaluates awareness about proper use, side effects, and drug interactions. The findings show that consumer behavior differs among socio-economic and educational groups, and many people depend on brand familiarity or recommendations without fully understanding safe usage. The study emphasizes the need for better public education to promote safe self-medication and informed decision-making.***
Keywords: OTC drugs, OTC medicines, self-medication, consumer behavior, public health.

I. INTRODUCTION

Over-the-counter (OTC) drugs are those that can be bought without a prescription. They are frequently used to treat minor ailments like fever, headaches, colds, allergies, and indigestion. People of all ages often take over-the-counter medications because of its availability, affordability, and convenience. The World Health Organization (WHO) defines self-medication as using medications to treat conditions that one has self-diagnosed without consulting a physician. Even though over-the-counter medications can provide immediate comfort and lessen the strain on healthcare systems, excessive use of them can result in major issues such adverse drug reactions, overdose, drug resistance, and dangerous drug combinations. Misuse is more prevalent in India due to lax regulations and low public awareness, particularly with regard to cough syrups, analgesics, antihistamines, and antacids. To make over-the-counter medications safer, the Central Drugs Standard Control Organization (CDSCO) and other regulatory agencies are attempting to strengthen patient education and impose more stringent rules.

Commonly used OTC medicine with their category , example ;

Category	Common Uses	Example medicines
Pain Relif	Fever , headache ,body pain	Paracetamol,ibuprofen,aspirin
Antithistamines	Allergy,cough,cold	Cetrizine, loratadine, diphenhydramine
pkAntacids\acid control	Acidity, GERD	Ranitidine, pantoprazole, omepramide
Rehydration / anti-diarrheal	Dehydration, diarrhea	ORS , Loperamide
Supplements	General health, iron deficiency	Zinc tablets, multivitamins, iron

II. METHODOLOGY

The goal of the current study was to gauge public knowledge of the dangers associated with over-the-counter (OTC) medications. Data was gathered using a cross-sectional survey method that was based in the community. Participants in the study included a variety of age groups, genders, occupations, and educational levels. A standardised questionnaire covering topics such as over-the-counter medicine use, motivations for self-medication, side effect awareness, dose, drug interactions, and safe usage procedures was used to gather data. One hundred people completed the survey. Participants were chosen by convenience sampling In order to increase participation, the questionnaire was made available both locally and online. For easier interpretation, the gathered data was arranged, examined, and shown as tables, charts, and percentages. In addition to identifying the need for public health education on safe medication practices, the study sought to assess the knowledge, attitudes, and practices around the use of over-the-counter medications.

©IJRASET: All Rights are Reserved

III. RESULT

The current study's findings are displayed in a Google Form of a graph, which is displayed below, based on knowledge and experience.

1) Do you know what over the counter (OTC) medicines are?

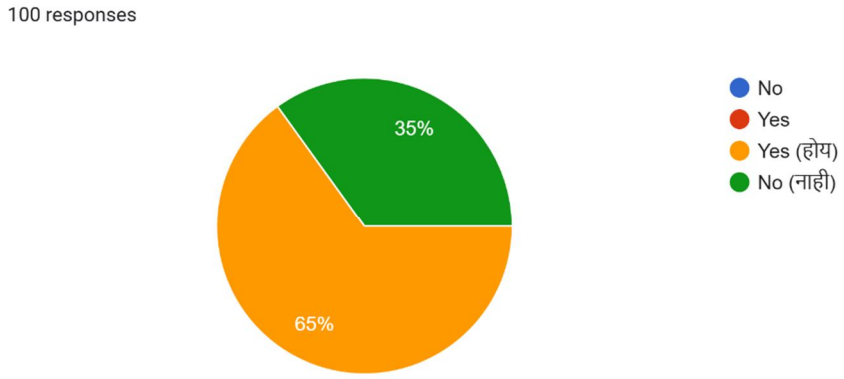


Figure 1

The respondents' knowledge about over-the-counter (OTC) medications is displayed in the pie chart. Of the 100 respondents, 65% said they were aware of over-the-counter medications, while 35% said they were not. The findings indicate that while most respondents are aware of over-the-counter medications, a sizable percentage are not.

2) Have you ever purchased medicines without a doctor's prescription?

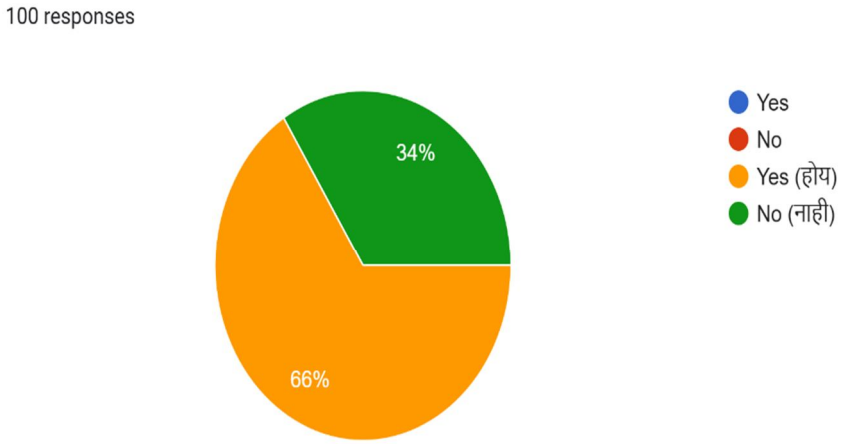


Figure 2

The answer to the question, "Have you ever purchased medicines without a doctor's prescription?" is shown in the pie chart. Of the 100 respondents, 66% indicated "Yes," meaning they had bought medications without a prescription, while 34% said "No." This indicates that while a smaller percentage have never done so, the majority of respondents have purchased medications without first contacting a physician.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

3) How often do you take OTC medicines?

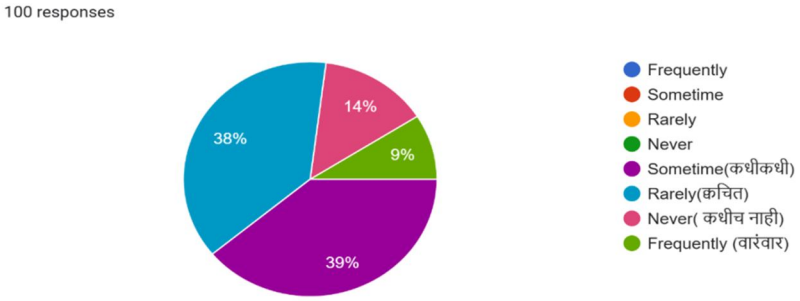


Figure 3

The pie chart displays the answers to the question, "How often do you take OTC medicines?" from one hundred participants. The majority of respondents (39%) take over-the-counter medications occasionally, closely followed by those who do so infrequently (38%), according to the statistics. Just 9% of respondents said they regularly take over-the-counter medications, while 14% said they never do. This implies that the majority of people do not frequently use over-the-counter medications.

4) From where do you usually get OTC medicines?

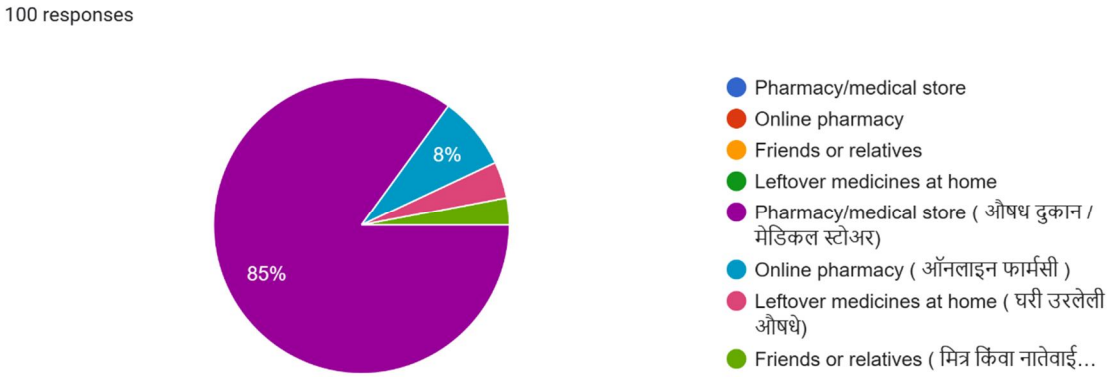


Figure 4

According to 85% of respondents, they typically purchase over-the-counter medications from pharmacies. Few people utilize leftover pharmaceuticals at home or buy prescription drugs from friends, relatives, or internet pharmacies.

5) Do you think OTC medicines can cause side effects?

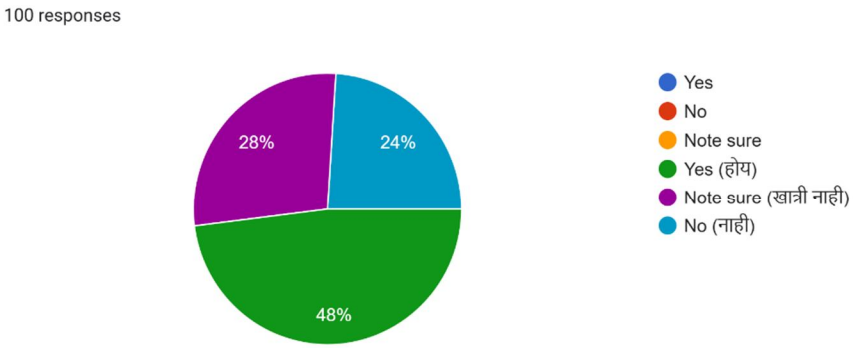


Figure 5

According to the pie chart, 28% of respondents are unsure, 24% disagree, and 48% think over-the-counter medications could have negative consequences. This suggests that some people are still ignorant of the potential drawbacks of over-the-counter medications, even if the majority of people are aware of them.

6) Do you read the instructions or labels before taking OTC medicines?

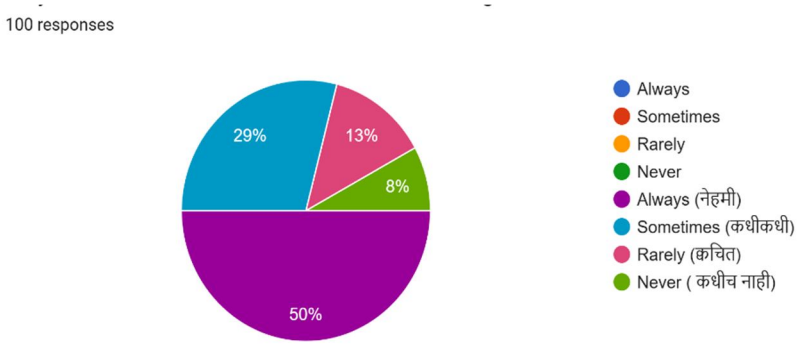


Figure 6

The graph shows that before taking over-the-counter medications, the majority of respondents read their labels. Of the 100 respondents, 50% read the instructions every time, 29% occasionally, 13% occasionally, and 8% never. Even while some people still disregard crucial instructions, this shows a high level of awareness regarding the proper use of drugs.

7) For which condition do you usually take OTC medicines?

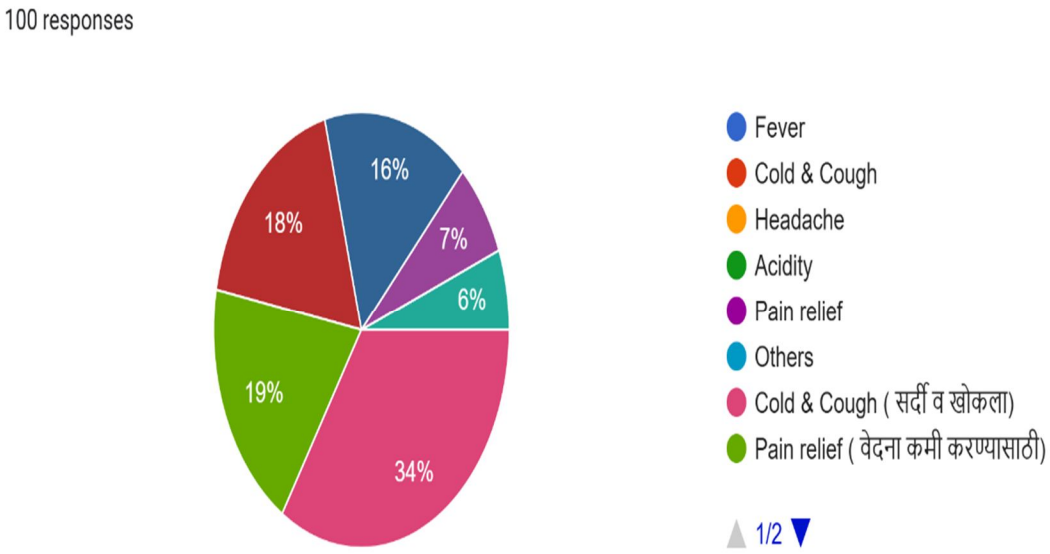


Figure 7

The chart displays the conditions for which people typically use over-the-counter medications. Most responders (34%) use over-the-counter medications for coughs and colds, followed by headaches (18%), fever (16%), pain treatment (19%), and acidity (7%). Only 6% of people use them for other ailments. This suggests that typical mild ailments are the primary use of ITC medicines.

8) Do you consult a pharmacist or healthcare professional before taking OTC medicines ?

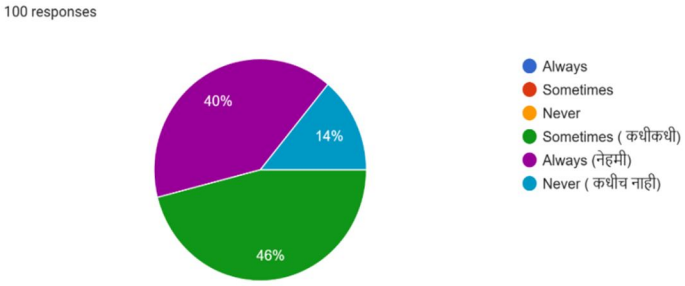


Figure 8

The charts display whether or not people seek advice from a chemist or other healthcare provider prior to using over-the-counter medications. Of the 100 respondents, 14% never consult an expert, 46% do so occasionally, and 40% do so on a regular basis. This suggests that while a tiny percentage of people take over-the-counter drugs without first consulting a doctor, the majority of people seek expert guidance before doing so.

9) Have you experienced side effects after taking OTC medicines?

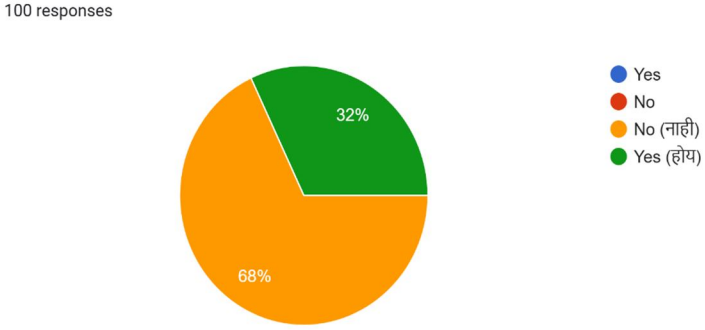


Figure 9

According to the graph, 32% of respondents reported side effects from using over-the-counter medications, whereas 68% of respondents did not. This shows that even while the majority of people use over-the-counter medications safely, a sizable portion still experience negative side effects.

10) Do you believe self-medication with OTC medicines is safe?

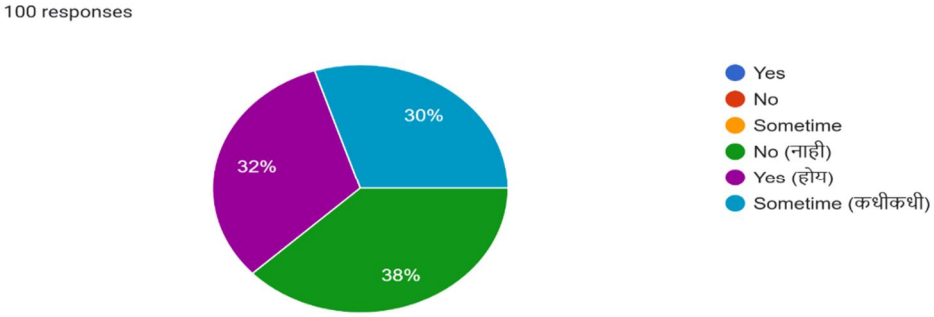


Figure 10

The graph displays people's perceptions on the safety of using OTYC medications for self-medication. Of the 100 respondents, 38% think it's dangerous, 32% think it's safe, and 30% think it's occasionally safe. This illustrates differing viewpoints, with the majority of people being wary of self-medication.

11) Do you think public awareness about OTC medicine risks is important?

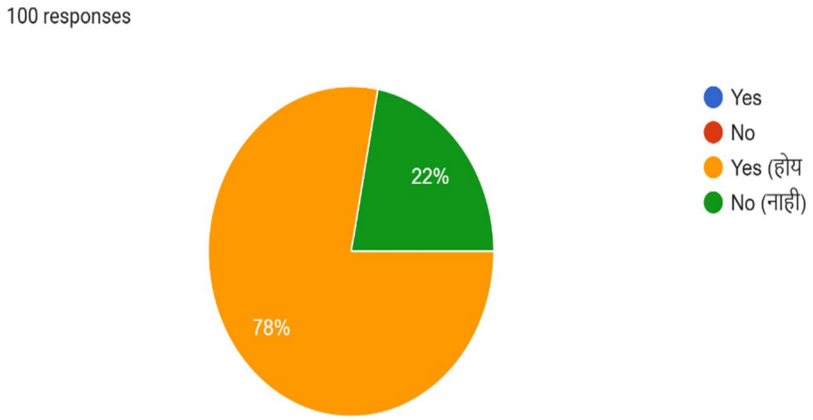


Figure 11

The graph indicates that the majority of respondents think it's critical for the public to be aware of the risks associated with over-the-counter medications. As evidenced by the 78% of respondents who chose "Yes" and the 22% who chose "No," there is substantial support for increasing awareness of the dangers and safe usage of over-the-counter medications.

12) Do you store medicines properly at home according to instructions?

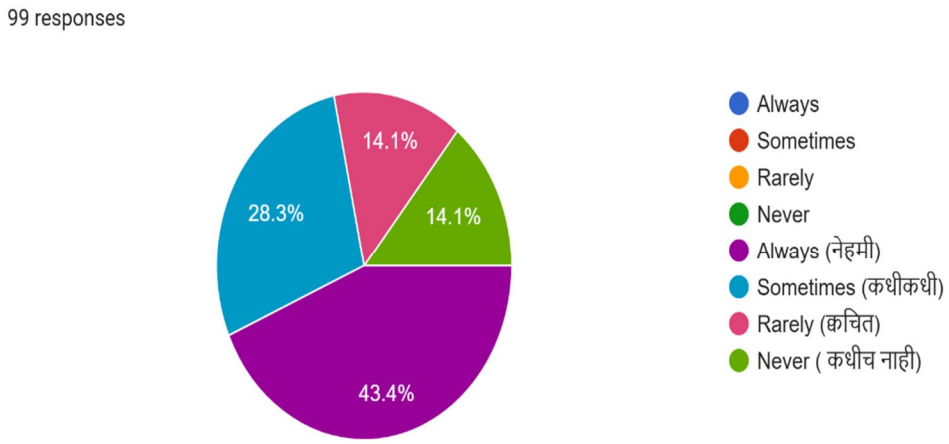


Figure 12

The result shows that 43.4% of respondents routinely take their medications as directed. But 28.3% barely ever, 14.1% infrequently, and 14.1% never adhere to the correct storage procedures. This suggests that while understanding of appropriate medication storage is moderate, there is still need for improvement.

13) Do you know that long-term use of some OTC medicines can damage organs such as the liver or kidneys?

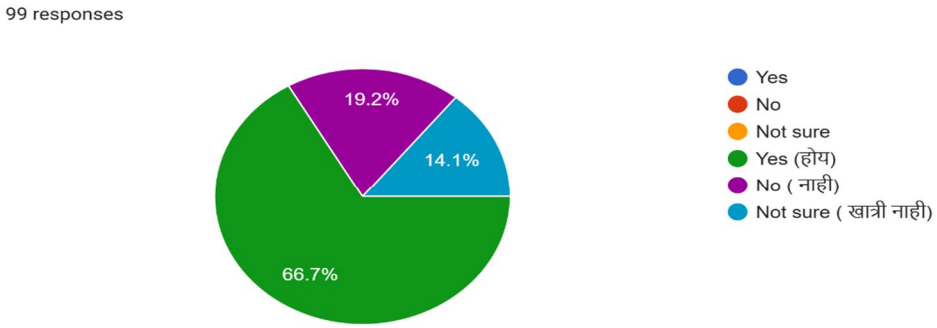


Figure 13

The graph shows knowledge of how over-the-counter medications affect organs including the kidneys and liver over time. Of those surveyed, 66.7% are aware that prolonged usage can harm organs, 19.2% are not, and 14.1 are unsure. This suggests that the majority of people are aware of the long-term health hazards associated with using over-the-counter medications.

14) Do you keep OTC medicines out of reach of children?

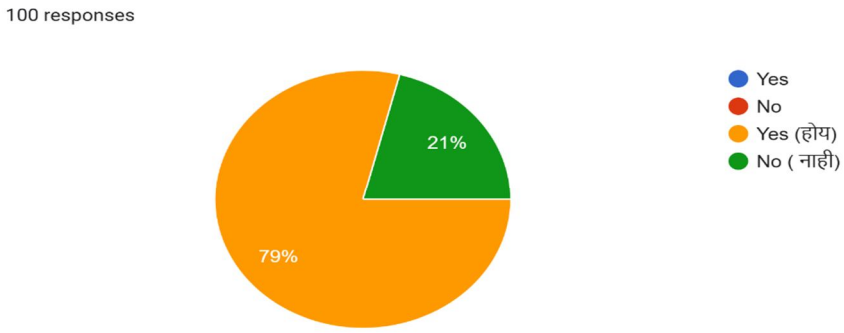


Figure 14

The graph shows that the majority of responses kept over-the-counter medications out of children's reach. 79% of the 100 replies replied "Yes," while 21% said "No." This suggests that people are aware of how to store medications properly at home to avoid mishaps with kids.

15) Do you believe that misuse of OTC medicines can lead to drug resistance or other health problems?

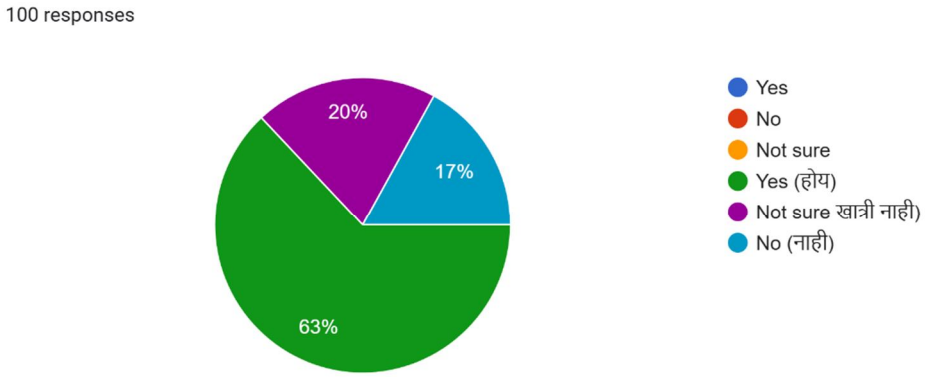


Figure 15

Views on whether abusing over-the-counter medications can result in drug resistance or other health issues are displayed in the chart. Of the 100 respondents, 63% think that misuse could lead to health issues, 20% are unsure, and 17% disagree. This suggests that the majority of people are aware of the dangers of abusing over-the-counter medications.

IV. DISCUSSION

The current study's objective was to assess the perspectives, usage patterns, and general knowledge of 100 respondents regarding over-the-counter (OTC) drugs. The findings showed that 65% of participants knew about over-the-counter medications. Furthermore, 66% of respondents admitted to purchasing drugs without a prescription, demonstrating the prevalence of self-medication. The majority of participants reported that over-the-counter medications are frequently used for minor medical conditions rather than on a daily basis, with 39% expressing occasional usage and 38% reporting seldom use. Additionally, the poll revealed that 85% of participants mostly purchase their over-the-counter drugs from pharmacies, with a lesser percentage purchasing them from online or unlicensed pharmacies. Fever, headache, acidity, cold and cough, and pain are commonly treated with over-the-counter drugs. These findings demonstrate that consumers routinely treat mild illnesses and symptoms with over-the-counter drugs without consulting a doctor. The risks associated with over-the-counter drugs were widely recognized. More than half of respondents (48%) said that over-the-counter medications could have negative effects, even though a significant majority were either unaware of or unsure about these dangers. It is reassuring that 50% of participants stated they always read medicine labels and instructions, even if a significant portion admitted doing so only occasionally or never at all. The majority of respondents either always or occasionally sought guidance from pharmacists or medical professionals before taking over-the-counter medications, suggesting a generally positive attitude toward doing so. The investigation also found issues with pharmaceutical safety and storage. While most respondents kept medications out of children's reach and stored them properly at home, some participants did not always follow recommended storage guidelines. Additionally, roughly one-third of respondents reported experiencing adverse effects from over-the-counter drugs, underscoring the fact that these medications are not entirely risk-free. It was widely accepted that long-term use of over-the-counter drugs might have detrimental effects on organs including the liver and kidneys, even if some customers were ignorant of these risks. Divergent opinions regarding the safety of self-medication were also revealed by the results. While some respondents believed that using over-the-counter drugs for self-medication was safe, the majority expressed concerns about the possible consequences of incorrect pharmaceutical usage and believed it to be harmful. Most participants concurred that misusing over-the-counter drugs can lead to drug resistance and other health problems. Additionally, a substantial majority agreed that increasing public awareness of the risks associated with over-the-counter drugs is essential. Overall, the study demonstrates that even while individuals take and accept over-the-counter drugs, there is still a lack of awareness regarding long-term risks, proper storage practices, side effects, and appropriate treatment. Our findings highlight the need for further public education, awareness campaigns, and medical professional assistance to promote the right, safe, and effective use of over-the-counter drugs and to lessen the risks associated with self-medication.

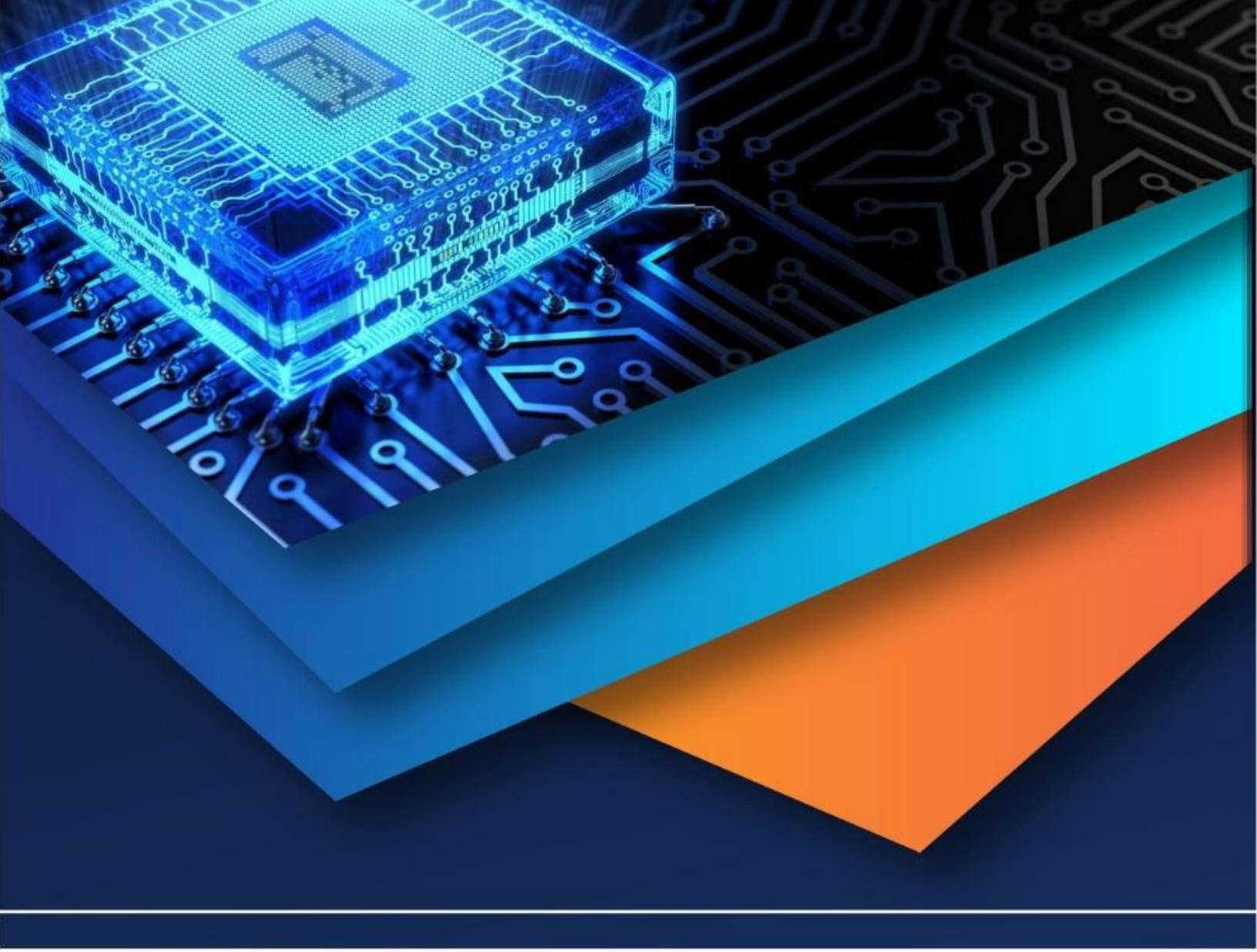
V. CONCLUSION

People frequently use over-the-counter (OTC) medications to address minor ailments, including fever, headache, cold, cough, and pain, according to the current study. According to the poll results, most participants are aware of over-the-counter medications and some of the hazards involved with using them. The proper dosage, pharmacological interactions, side effects, and the disadvantages of long-term use are still not entirely understood. The survey also showed that some people continue to rely on self-medication without the appropriate guidance, even though many people read drug labels, seek medical advice, and follow safe storage procedures. Adverse reactions, drug abuse, and other health issues may become more likely as a result. Overall, the results highlight how important it is to educate the public on the safe and appropriate use of over-the-counter medications. Programs for health education, awareness campaigns, and advice from chemists and other medical professionals can all help to increase knowledge, promote sensible medication practices, and lower the dangers of self-medication.

REFERENCES

[1] Schifano F, Chiappini S, Miuli A, Mosca A, Santovito MC, Corkery JM, et al. Focus on Over-the-Counter Drugs' Misuse: A Systematic Review on Antihistamines, Cough Medicines, and Decongestants. Vol. 12, Frontiers in Psychiatry. Frontiers Media S.A.; 2021.
[2] Haram ova Z, Kobliskova Z, Soltysova J. Purchase of prescription and OTC medicines in Slovakia: Factors influencing patients' expectations and satisfaction. Brazilian Journal of Pharmaceutical Sciences. 2017;53(1).
[3] Smith SM, Schroeder K, Fahey T. Over-the-counter medications for acute cough in children and adults in ambulatory settings. Cochrane Database of Systematic Reviews. John Wiley and Sons Ltd., 2008.

[4] Majedul Hoque, Arafath Jubayer, Md Aktaruzzaman, Md Nahid Hasan, Mohammad Sabbir Hossain, Taharat Akram, et al. Survey on perception for over-the-counter medicine use without a prescription among the general people in the Gazipur, Bangladesh. Open Access Research Journal of Biology and Pharmacy. 2023 Oct 30;9(1):019–26.
[5] Goh LY, Vitry AI, Semple SJ, Esterman A, Luszcz MA. Self-medication with over-the-counter drugs and complementary medications in South Australia's elderly population. BMC Complement Altern Med. 2009 Nov 11;9:42.
[6] Kim HJ, Yang YM, Choi EJ. Use patterns of over-the-counter (OTC) medications and perspectives on OTC medications among Korean adult patients with chronic diseases: Gender and age differences. Patients Prefer Adherence. 2018;12:1597–606.
[7] Patel PD, Patel KP, Malhotra SD. Survey of use of over-the-counter drugs and other than over-the-counter drugs among medical students, nursing, and technician staff of a tertiary care teaching hospital. Int J Basic Clin Pharmacol. 2017 Feb 24;6(3):592.
[8] Alduraibi RK, Altowayan WM. A cross-sectional survey: knowledge, attitudes, and practices of self-medication in medical and pharmacy students. BMC Health Serv Res. 2022 Dec 1;22(1).
[9] Akande-Sholabi W, Akinyemi OO. Self-medication with over-the-counter drugs among consumers: A cross-sectional survey in a southwestern state in Nigeria. BMJ Open. 2023 May 18;13(5).
[10] Algarni M, Hadi MA, Yahyouche A, Mahmood S, Jalal Z. A mixed-methods systematic review of the prevalence, reasons, associated harms, and risk-reduction interventions of over-the-counter (OTC) medicine misuse, abuse, and dependence in adults. Vol. 14, Journal of Pharmaceutical Policy and Practice. BioMed Central Ltd; 2021.
[11] Klepser ME. Socioeconomic impact of seasonal (epidemic) influenza and the role of over-the-counter medicines. Vol. 74, Drugs. Springer International Publishing; 2014. p. 1467–79.
[12] Song M, Ung COL, Lee VW Yan, Hu Y, Zhao J, Li P, et al. Community pharmacists' perceptions about pharmaceutical services of over-the-counter traditional Chinese medicine: A survey study in Harbin, China. BMC Complement Altern Med. 2017 Jan 5;17(1).
[13] Tian YS, Mao X, Zhou Y, Fukuzawa K, Ikeda K, Hatabu A. Status and influencing factors of OTC medicine use for self-medication in cold and cough: a cross-sectional survey in Japan. BMC Public Health. 2025 Dec 1;25(1).
[14] Wangler J, Jansky M. Attitudes, attributions, and usage patterns of primary care patients with regard to over-the-counter drugs—a survey in Germany. Wiener Medizinische Wochenschrift. 2024 Mar 1;174(3–4):61–8.
[15] Hanna LA, Hughes CM. Public's views on making decisions about over-the-counter medication and their attitudes towards evidence of effectiveness: A cross-sectional questionnaire study. Patient Educ Couns. 2011 Jun;83(3):345–51.



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)