

**CASE STUDY ON SURVEY OF SELF MEDICATION AMONG GENERAL  
POPULATION AND THE STUDENT**

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DOI: <https://doi.org/10.5281/zenodo.18800159>

**How to cite this Article:** Mr. M. Senthilraja\*<sup>1</sup>, Mr. A. Mohammod Arkam<sup>2</sup>, Mr. R. Jeevith<sup>3</sup>, Mr. B. Keerthivarma<sup>4</sup>, Mr. J. Sai Deavesh<sup>5</sup>, Ms. P. Anusiya<sup>6</sup>. (2026). Case Study on Survey of Self Medication Among General Population and The Student. World Journal of Pharmaceutical and Medical Research, 12(3), 337-350.

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Article Received on 27/01/2026

Article Revised on 17/02/2026

Article Published on 01/03/2026

**ABSTRACT**

Self-medication is the practice of the treatment of self-recognized illnesses by an individual with medicinal products without the supervision of a medical professional. It is a common health care behaviour in the world especially in developing countries attributed to accessibility of drugs without prescription, lack of knowledge, and financial problem. The present case study is an attempt to assess the extent, types and determinants of self-medication with reference to general people and students. The review briefly summarizes the history of self-medication, common OTC drugs and the impact of the COVID-19 pandemic on self-medication. A questionnaire-based survey was conducted to gather information about demographic profile, type of illness, commonly used drugs, source of information and knowledge regarding the risk imparted by self-medication. The findings indicated a significant prevalence of self-medication and that students are more prone to self-medication than the public. Analgesics, antipyretics and antibiotics were among the most commonly used drugs followed by drugs used for cough and cold. During the COVID-19 pandemic, a significant increase in self-medication was observed due to fear of contracting the infection, difficulty in accessing medical services and influences from social media and internet resources. The discussions revealed a lack of awareness about ADRs, misuse of antibiotics and the threat of antimicrobial resistance. This work outlines the importance of the healthcare professionals, mainly pharmacists, as educators of the population and promoters of the rational drug use. It is all well and good to say that self-medication is convenient, easy and fast, but if people are doing it irrationally, it could have fatal outcomes, which create necessity for awareness programs and regulatory control.

**KEYWORDS:** Self-Medication, OTC Drugs, Insufficient Knowledge, Adverse Drug Reaction, Irrational practice, Awareness Programme.

**1. INTRODUCTION**

Self-medication means selection and use of medicines by individuals to treat self-recognized illnesses<sup>951</sup> or symptoms or the intermittent or continuous use of an already prescribed medication for the treatment of chronic or recurrent diseases or symptoms.<sup>[1]</sup> As per World Health Organization (WHO). We are all self-medicating ourselves in the way of self-care in terms of our health, every day. What is traditionally meant by self-medication? The use drugs, along with herbs or home remedies, with or without the advice of people other than the physicians (including friends and family),

without a professional opinion. Family, friends, neighbours, the pharmacist or the previous prescribed drug, none of these have to be reimbursed by a doctor's advice.<sup>[2]</sup> Today the phenomenon of self-medication is referred to as "a willingness and competence of people/patients to assume an intelligent, independent and informed role not just in terms of decision making but also in performing those preventive and diagnostic as well as therapeutic measures that are relevant to them in their own lives. Self-medication is a worldwide practice and can be seen mainly in developing nations using prescribed drugs, herbal drugs or over the counter drugs.

Practice of self-medication is not entirely positive because there are always two sides of the coin. It can serve to benefit patients and health care providers. And or meet the patients' safety risks.<sup>[3]</sup>

## 2.1 STORY OF SELF MEDICATION

Self-medication is as old as human civilization. In prehistoric times, people used instinct, trial and error, and traditional knowledge to cure diseases. Primitive man employed herbs, roots, minerals and parts of animals to soothe pain, fever, wounds and infections of many kinds. This knowledge was orally transmitted from one generation to mate.<sup>[4]</sup>

### Self-medication developed to a more institutionalized form in the ancient civilizations

- In Ayurveda (India), Traditional Chinese Medicine, etc., people prepared remedies at home from the medicinal plants like turmeric, ginger and neem.
- Home cures were recorded by ancient Egyptians on papyrus scrolls such as the Ebers Papyrus.
- Greeks and Romans like Hippocrates and Galen detailed the use of home remedies for treating common ailments.

In the Middle Ages, there was little access to physicians and self-medication was the norm. They relied on village doctors, herbalists and apothecaries. Monasteries were crucial in retaining knowledge of medicine and many families held on to home remedies.<sup>[5]</sup>

Self-treatment again became more common in the 18th and 19th century as apothecaries and patent medicines grew in number, and it can be presumed that many of those that were ill would seek out treatment for themselves. A good number of drugs were sold without prescriptions, many of them making exaggerated claims and little regulation.<sup>[6]</sup>

The 20th century was a different story. Improvements in pharmacology led to the invention of powerful preparations, e.g., antibiotics. Authorities enacted drug controls and separated prescription medicines from nonprescription (or over-the-counter, OTC) products in an effort to make self-care safer.<sup>[7]</sup>

Nowadays, self-medication is more prevalent with the availability of OTC drugs, internet and health information. While responsible self-medication is useful in dealing with minor ailments and alleviating the load on the health system, unwarranted self-medication may lead to detrimental drug reaction, antimicrobial resistance, and waste of resources.<sup>[8]</sup>

## 2.2 SELF MEDICATION BY USING OTC DRUGS

Self-medication with OTC drugs, which is prevalent as a convenient living for minor illnesses and as a measure for health.

The appropriate use of OTC drugs has been advocated to address the problem of high nationwide medical costs in Japan.

Nevertheless, although these drugs are considered relatively safe, abuse or misuse can result in delayed treatment or adverse events. To regulate the use of OTC drugs and provide medical treatment to learners in a appropriate manner are in demand for world class education 9Self-Medication.diabetes itching feet. It is the administration of a registered medicine (Unscheduled or Schedule 0, 1 or 2) for the treatment or prevention of symptoms of a minor condition for which a registered medical practitioner has not prescribed the medicine, either on the patient's own initiative or as advised by any other health professional.<sup>[9]</sup>

The consumption of these 'over-the-counter' (OTC) products is now regarded as an essential element of healthcare.<sup>[10]</sup>

People's lives are Entering 2024 now more and worst for healthy want to be more independent and responsible for their own healthcare.

"They Are More Assertive, Question and Are More Interested in What More Information Is Available for Them." Informed and responsible self-medication may be a decision-making process that allows people to be more self-aware and disempower them in the healthcare system. If Proper Self-Care Advice Guided to Appropriate Students from Correct Health Information and Suitable Self-Medication Step by Step, Education Practice Would likewise Stop the Unnecessary Doctor's Visits. Once correct self-medication is taught, there could also be savings in costs and resources. It is a global illness and a potential source of antimicrobial resistance to antibiotics. The negative consequences of such practices should be stressed route public and particular measures to curb it.

There are more opportunities for, like, your risk of getting the wrong treatment, getting the incorrect treatment, unsupported treatments, delay in appropriate treatment, pathogen resistance, and increased morbidity because of which there is a larger chance of inappropriate, nonessential, or unsupported therapy, misleading diagnosis, and delay in appropriate care, loss of life.<sup>[11]</sup>

## 2.3 SELF MEDICATION IN DEVELOPING COUNTRY

It is of paramount importance to provide the appropriate pharmacy-based self-care advice for a given self-medication request in the developing world for various reasons. Firstly, because of poor economic conditions and absence of universal health coverage, patients belonging to low income may not afford the cost of professional medical consultation. Secondly, the public health care centres in developing countries are generally

overcrowded, and patients have to wait for a long time before they can see a doctor.<sup>[12]</sup> Thirdly, a bad stock of the public health care centres may lead to drugs shortage for the patients. As a consequence, a large proportion of patients in developing countries self-medicate. They get their drugs from community pharmacies where pharmacy personnel offer free advice as well as the medicine supply.<sup>[13]</sup>

#### 2.4 SELF MEDICATION DURING COVID-19

Self-medication is the use of medication without consulting with healthcare professionals, and its practice increased substantially during the pandemic due to fear of infection, limited access to health care services, lockdowns, and an infodemic.<sup>[14]</sup> Several societal factors contributed to people taking care of themselves to treat or prevent the symptoms of COVID-19, including antipyretics, analgesics, antibiotics, antimalarial drugs, vitamins, supplements, and medicinal plants. Social media and non-scientific media sources contributed significantly to the dissemination of treatment misinformation, ultimately leading to irrational drug use. Although self-treatment can offer a brief relief in mild illness, unregulated consumption of prescription drugs may also cause side effects, poisoning, drug-drug interactions, misdiagnosis, and bacterial resistance. The rise in self-medication during the pandemic points to a dire public health situation and emphasizes the necessity of enhanced health education, tighter control of sales of prescription-only drugs, trusted channels for medical knowledge sharing and much wider access to healthcare services to deter risky practices of drug consumption under the duress of public health emergencies in the future.<sup>[15]</sup>

### 3. AIMS AND OBJECTIVES

#### 3.1 AIMS

To analyse self-medication practices among students and the general population and to evaluate the factors, patterns, awareness, and risks associated with their self-medication behaviour.

#### 3.2 OBJECTIVES OF SELF MEDICATION

##### 1. To estimate how common self-medication is

- I. Assess the prevalence of self-medication and its patterns in both groups.
- II. Prevalence should be compared between the students and the general population.

##### 2. Compare self-medication in students and in two groups of infertile men from general population

- I. Emphasize the contrasts in drug preferences, knowledge, attitudes and practices of risk taking.

##### 3. To determine the most common drugs

- I. We studied the categories of commonly used drugs (analgesic, antibiotics, antacids).
- II. Determine the most common sources of those drugs.

#### 4. To investigate the determinants of self-medication and other related behaviours

- I. To investigate the motivations for self-medication (the cost of health care, previous experience with the pharmaceutical products, etc).
- II. To review social, psychological and economic factors and the theoretical framework of applied behaviour.

#### 5. Evaluate the knowledge of risks and safety

- I. Assess knowledge of drug safety, adverse effects of medication, drug dosage and know the relationship between antibiotic usage and resistance.
- II. Determine adverse reactions, drug interactions, misuse of antibiotics, and diseases due to exaggerated drug consumption.

#### 6. And also Q. How to Protect your children from parents who self-medicated?

- I. Post common symptoms illness for which individuals take self-medication.
- II. (Fever, headache, gastric issues, etc.).
- III. Propose actions for limiting misuse of drugs through self-medication.
- IV. Raise awareness and responsible usage of medicines.

### 4. PLAN OF WORK

The whole investigation was scheduled for 2 months.

This study was conceived in 5 separate stages as follows.

#### PHASE 1

- ❖ Topic selection
- ❖ Assessing feasibility
- ❖ Writing the study protocol
- ❖ Designing the questionnaire and the data collection instrument
- ❖ Literature review.

#### PHASE 2

- ❖ Going to the college and villagers explain the study in detail to the principal
- ❖ Preparation of data collection form
- ❖ Design the appropriate online survey form.

#### PHASE 3

##### DIRECT INTERVIEW

- ❖ Face to face interviews with the general population and students were directly Herein Conducted

##### Online Survey

- ❖ After their informed consent was obtained and appropriate, data from the study population were gathered
- ❖ The link to the Google form has been shared on social media
- ❖ Participant response collection in filled forms.

**PHASE 4**

- ❖ Evaluation of individual submitted responses
- ❖ Analysing data
- ❖ Results Interpretation
- ❖ Discussion.

**PHASE 5**

- ❖ Report writing
- ❖ Submission.

**5. METHODOLOGY****5.1 Case Study on Survey of Self Medication Among Students and Genral Population****1. Research Design**

A cross-sectional descriptive case study approach is used for this research to analyse the prevalence of self-medication among students and the general public. With this design, data can be collected at one time only by using a structured questionnaire.

**2. Study population**

- The study population includes:
  - Students from colleges and institutions.
  - General population from the community who are above 18 years of age.
  - Both groups were selected to compare difference in self-medication behaviour

**3. Study area**

The present study was conducted in medical college, rural area, urban area.

**4. Sampling technique**

A convenience sampling method was used. Participants were eligible if they were available to participate during the study period.

**5. Sampling size**

Expanded from 120 to 150 subjects, otherwise the protocol remained unchanged.

**6. Inclusion criteria**

- Being aged 18 years or older
- Being a student of any degree/ diploma
- General population living in the chosen location
- Individuals who are able to give consent and willing to participate.

**7. Exclusion criteria**

- Pregnant and lactating women and children younger than 18 years
- Participants unwilling to participate
- Those with cognitive impairment or who could not answer.

**8. Data collection method**

- A structured, self-administered questionnaire was employed for data collection, which included the following:

- Demographic information
- Knowledge, attitudes and practice concerning self-medication
- Factors contributing to self-medication
- Frequently used medicines and reasons for self-medication.
- The questionnaire was composed of multiple-choice questions, yes/no questions, and likert-scale questions

**9. Ethical considerations**

- Participants were made aware of the study objectives.
- All respondents provided informed consent.
- The subjects participated on a voluntary basis and their anonymity was protocol maintained.
- Identifying personal data were not collected.

**10. Data analysis**

The data obtained from the questionnaires was keyed in to microstate. the analysis included;

- Frequently distribution
- Percentage analysis
- Illustrated (Bar chart, pie chart, Tables)
- Studies trends and patterns in self-medication -the self.

**11. Limitations of the study**

This was a small sample, restricted to a single geographical area and it is not representative of the population. Data obtained by self-report might be biased.

**5.2 SELF MEDICATION QUESTIONNAIRES**

The practice of self-medication was evaluated through proprietary structured Self-Medication Questionnaire (SMQ), which has been developed to investigate prevalence, pattern and determinates of self-medication among general population and students. The SMQ had several parts, each one developed to obtain a complete picture regarding the self-medication status<sup>16</sup>. Demographic data including age, sex, level of education and occupation were gathered in the first part. The second part included the practice of self-medication: frequency of self-medication, common diseases for which self-medication was practiced, types of drugs used (analgesics, antipyretics, antibiotics, antihistamines, herbal products), and sources of acquiring drugs (pharmacies without prescription, previous prescriptions, non-professional advice).<sup>[16]</sup>

The questionnaire also inquired about the motives behind self-medication, such as the treatment of a perceived minor illness, driven by the saving of time, economical among the other factors, and easy access to OTC products. Attitudes and knowledge about self-medication were assessed by using a 5-point Likert scale (from strongly disagree to strongly agree). These questions tested knowledge of when to use drugs,

whether drugs should be taken for a certain amount of time, whether above-standard drugs could cause side effects, and whether using drugs incorrectly poses risks.<sup>[17]</sup>

Scores on the responses were calculated according to a pre-determined scoring system with higher scores indicating better knowledge and rational self-medication. The SMQ was self-administered, comprehensible and applicable in community as well as in student population surveys, thus it can be considered a reliable instrument for measuring self-medication practice among study group.<sup>[18]</sup>

## 6. RESULT AND DISCUSSION

### DETAILED RESULT EXPLANATION (One by One)

Based on your dataset: 150 respondents

### RESULT

#### 1. AGE

We surveyed among general population and students. Then we got 150 responses among them. First we describe age wise category shown in figure 1.

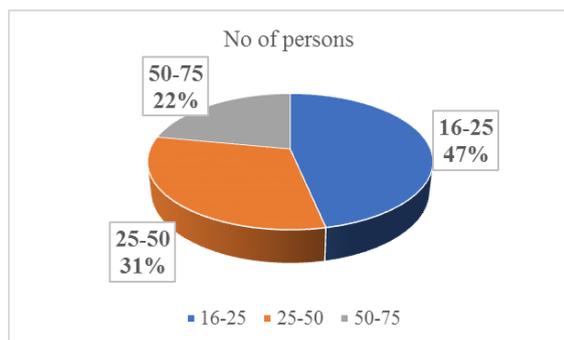


Figure 1.

#### ✓ Most respondents

- 18–24 years (majority)
- A few in 25+ age groups.

#### ✓ Interpretation

Self-medication is highest among young adults, likely due to:

- Greater independence
- Busy academic/work schedule
- Attempt to avoid hospital time
- Confidence in self-diagnosis

Students tend to self-medicate more than older adults

Table 1.

Gender	Number (n)	Percentage (%)
Male	89	59.3
Female	61	40.7
<b>Total</b>	<b>150</b>	<b>100</b>

#### Gender

A total of 150 participants were included in the study. Among them, 89 (59.3%) were males and 61 (40.7%)

were females, indicating a slightly higher participation of males compared to females.

#### ✓ Finding

- Males practiced self-medication slightly more than females.

#### ✓ Interpretation

This may be due to:

- Higher outdoor activity
- Less likelihood of visiting clinics
- Increased tendency to take quick relief measures

However, the difference is not extremely large.

#### 2. Education level

Out of the 150 participants, the majority were graduates (60%), followed by undergraduates (25%) and postgraduates (15%).

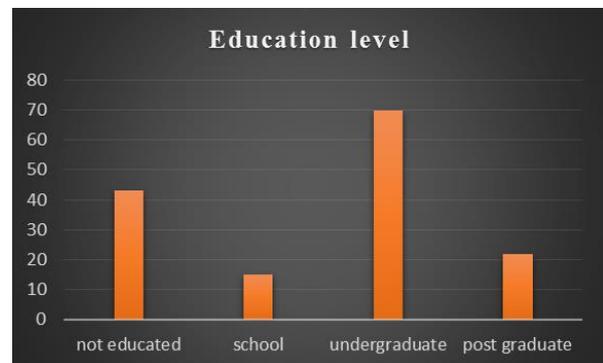


Figure 2.

#### ✓ Finding

Different education levels showed high self-medication, especially:

- College students
- Graduates

#### ✓ Interpretation

Higher education may give individuals more confidence in understanding symptoms and medicines. Yet, this confidence can sometimes lead to unsafe self-prescribing.

#### 3. Occupation

The distribution of the occupation of the 150 participants in the study. Of these, the students were the largest group with 44.7% of respondents, which suggests that almost half of the participants were students. About 26.7% are working people, which is a significant number of respondents who are employed. Housewife participants are 19.3% present figures in that field as well. A mere 9.3% were unemployed. On the whole, the figure suggests that the majority of the respondents were students, and the rest were employees, housewives, and unemployed, in that order.

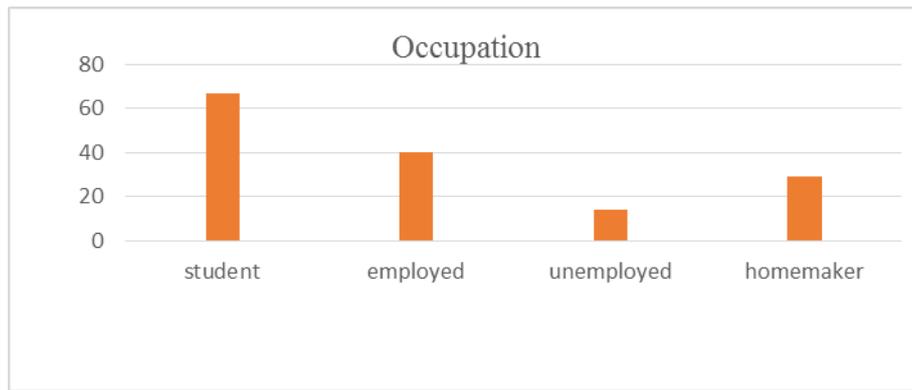


Figure 3.

#### 4. Residence area

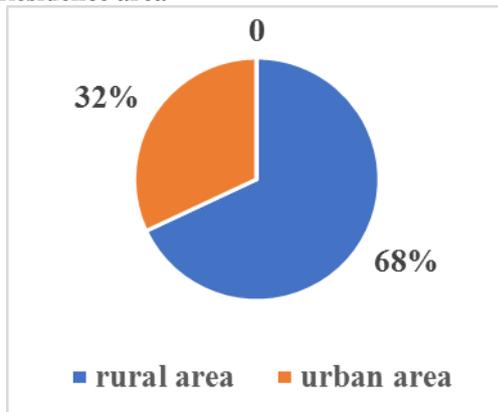


Figure 4.

The pie graph illustrates the segmentation of participants according to the area of residence among 150 respondents. A large percentage (68%) of participants are from rural area, which means that over two-third of the participants in the study are rural dwellers. Comparatively, 32% of those surveyed were non-rural. This breakdown indicates that the study was more representative of the rural than the urban population.

#### AWARENESS AND GENERAL PRACTICES

##### 5. Using medicine without doctor's prescription

###### ✓ Finding

- Out of 150 participants, majority answered "Yes" to having used medicines without a doctor's prescription.

###### ✓ Interpretation

This shows that self-medication is highly prevalent among your study population.

It indicates that many individuals feel confident enough to treat minor illnesses.

This behaviour may be influenced by accessibility of pharmacies, previous experiences, or perceived mildness of illness.

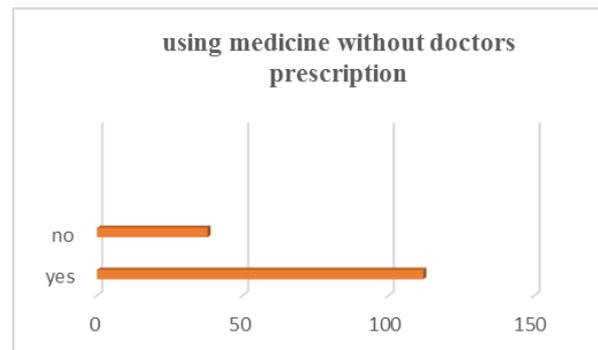


Figure 5.

##### 6. Self-medication practicing

The pie diagram illustrates how often the respondents (n=150) engaged in self-medication. Among all the participants, 45.3% who had the largest constituent ratio responded that they practice self-medication occasionally, implying that it is the most common approach to self-medication is a once in a while practice but not a regular one. It is then followed by 37.3% of the participants that practiced self-medication seldom. A lesser percentage of 9.3% reported to have engaged in self-medication frequently and 8% of the respondents claimed that they have not practiced self-medication. Oligo summary: Certainly, these results indicate that self-medication is common in this study population but the majority are not frequent users but rather they are using it continually or infrequently.

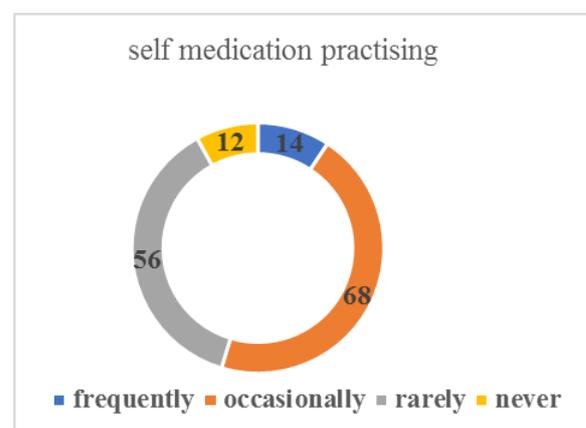


Figure 6.

## 7. Reasons for self medication

Figure 1 depicts the reasons for self-medication among 150 respondents. The most frequent was mild illness 62.7% (n = 94), which suggested that most people would like to treat themselves for minor illness. It was followed by avoiding the doctor's fees which was mentioned by 51 participants (34%), the third was time saving which was selected by 44 participants (29.3%), which reflects the influence of economic and convenience factors. Prior experience of such diseases was also a significant reason cited by 39 participants (26%), denoting that success in the past had given them confidence. Easy availability of drug also led to self-medication in 27 (18%) respondents. The least influential factor was the advice from friends and relatives which accounted for 14 respondents (9.3%). The overall results suggest perception of illness to be mild, cost factor and time factor as the primary reasons of self-medication.

### ✓ Top reasons from dataset

- Mild illness
- Quick relief
- Previous experience
- Avoiding hospital visits
- Time-saving
- Pharmacy suggestions

### ✓ Interpretation

These reasons indicate that self-medication is mainly driven by convenience, perceived low risk, and easy access to medicines.

Avoiding doctor visits suggests lack of awareness or barriers like waiting time, cost, or availability.

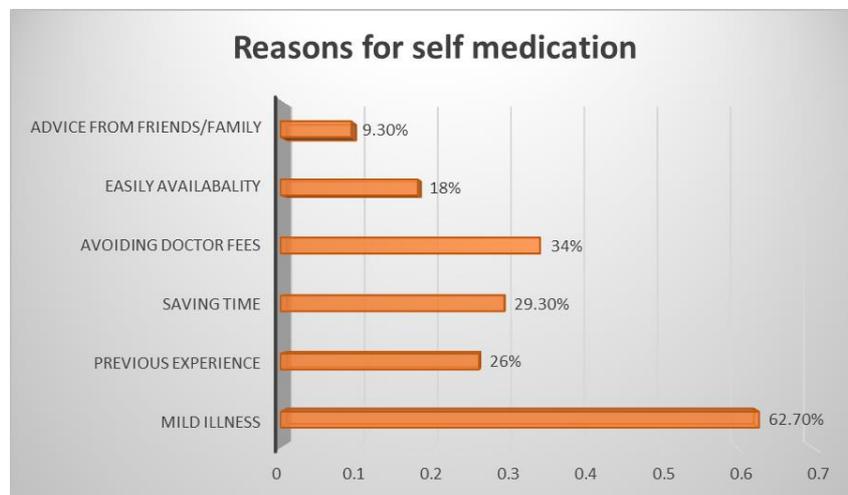


Figure 7.

## 8. Illness self treated

### ✓ Most common illnesses treated

- Headache
- Fever
- Cold & cough
- Body pain
- Acidity / Gastric discomfort

### ✓ Interpretation

These are everyday, non-serious conditions for which people feel comfortable taking OTC medicines. This matches global trends—self-medication is most common for minor, short-term illnesses.

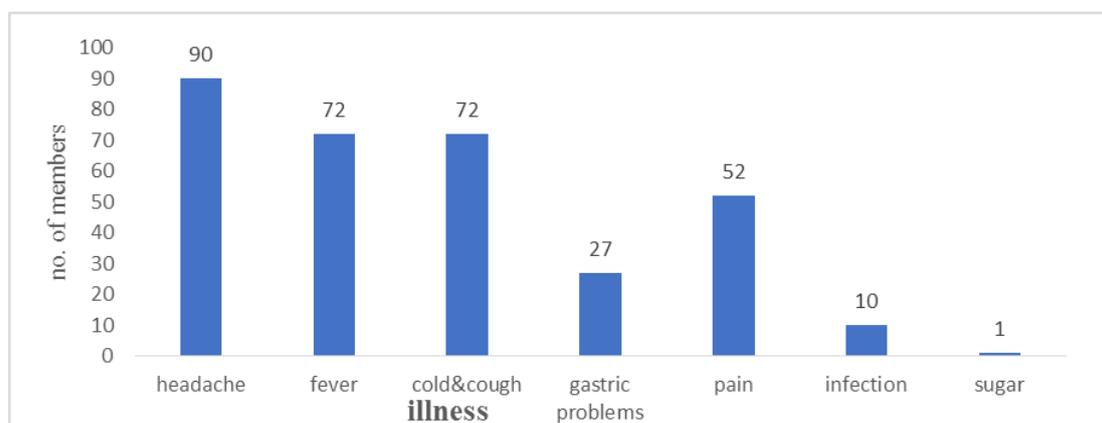


Figure 8.

## 9. Commonly used medicine

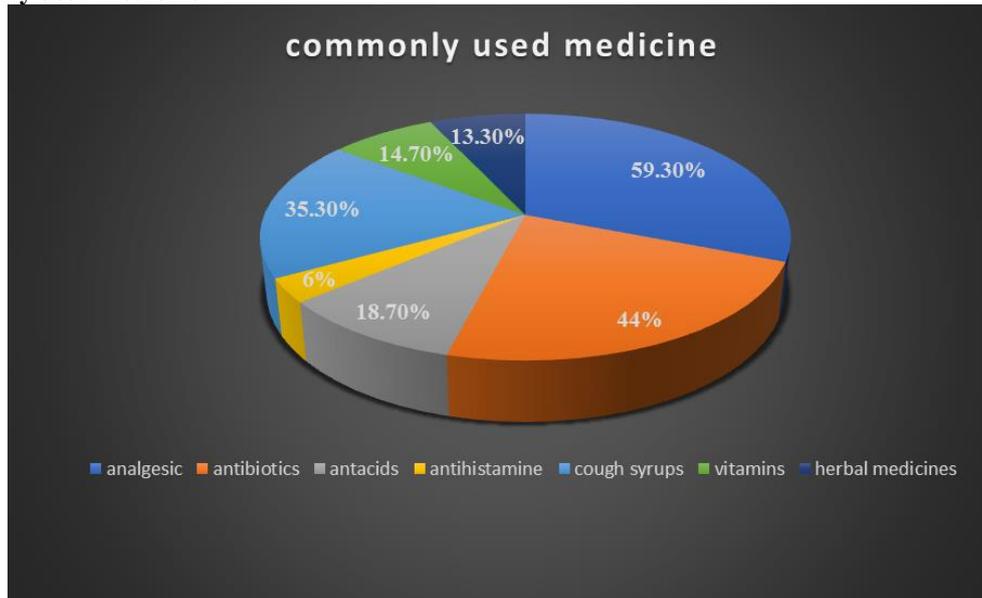


Figure 9.

### Your dataset showed frequent use of

- Paracetamol
- Ibuprofen
- Antacids
- Cough syrups
- Antihistamines

### ✓ Interpretation

Most medicines used are OTC drugs, indicating that respondents mostly stay within safe medication boundaries.

However, ibuprofen misuse or frequent use without monitoring may lead to gastric or renal issues.

## 10. Information about medicine

The code depicts the Respondents' Sources of Information on Medicine (n = 150). Most of the respondents depended on the pharmacists, 121 (80.7%) participants answered that pharmacists are the most reliable and frequently approached source of information related to medicines. The internet ranked second as source of information, with 31 respondents (20.7%)

using it. This is a clear indication of the increasing importance of digital channels, websites, and social media in the dissemination of information related to health and medicines. Many people go to the internet because it's comfortable, fast, and provides access to a lot of information, but the reliability of what you find online can vary and there's a risk of misinformation and you could be told to treat yourself in a way that's not appropriate. Friends and family were mentioned by 25 respondents (16.7%), indicating that informal experience sharing has an impact on medicine usage. Twelve respondents (8%) used old prescriptions, indicating the tendency to take previous medical advice without seeking it again from a professional. Advertisement was the least influential source, as for 5 respondents (3.3%) only. In summary, even though pharmacists are still the most consulted source of information, the high rate of use of the internet points out the importance of developing educational strategies to increase the awareness towards reliable online medical information and digital health information use.

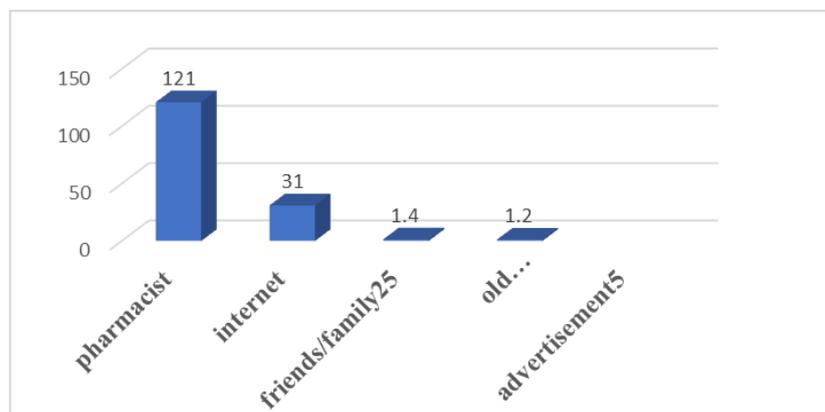


Figure 10.

### 11. Where the medicines are obtained

#### ✓ Top places

- Pharmacy shops
- Leftover medicines at home
- Friends/family
- General stores (in some cases)

#### ✓ Interpretation

Pharmacies are the most common source — this reflects easy availability and lack of strict enforcement of prescription norms.

#### Using leftover medicines is risky due to

- Incorrect dosage
- Expired drugs
- Incomplete previous therap

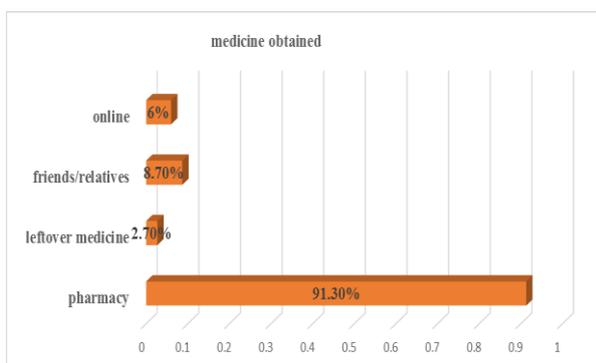


Figure 11.

### 12. Reading label before taking medicine

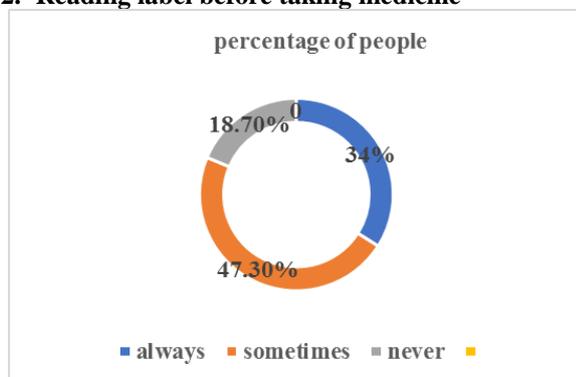


Figure 12.

The pie is a representation of 150 people, on “Do you see the label before taking medicines?” Almost half of the respondents (47.3%) read the label only occasionally, thus they don’t pay full attention to the instructions related to the medicines. A good practice for medicines was observed among approximately 34% of users who reported to always see the label prior to use and have been informed of safety aspects including dose, precautions and side effects. A significant number, 18.7% of the respondents, said that they never read the label before taking medicines, and that puts them at an even greater risk of possible misuse of the drugs, adverse drug reactions and medication errors. In summary, results showed that although there may be a fair number

of people who think that reading medicine labels is important, more should be done to educate and raise awareness for an encouragement of the more reliable and responsible use of medicines.

### 13. Fixing the doses

This Figure presents the way in which respondents choose the dose of the drug among 150 respondents. Most respondents (73.3%) said they determine the dose according to the advice of the pharmacist, which shows the trust of the elderly to health care professionals even though they have been the users of drug for a long time. Approximately 26.7% relied on the experience meaning that a history of usage has some role in dose decision. A smaller share of respondents indicated that they turned to the internet (14%) for information, highlighting the increasing prominence of online health information. Only 8% based dose on symptoms and a very small amount (5.3%) on guesswork, indicating relatively low unsafe practices. Taken as a whole, this work indicates that a positive sign for rational drug use is that pharmacist guidance is the strongest influence on decisions about drug dosage.

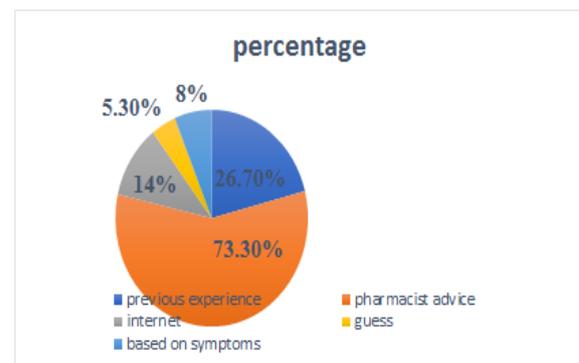


Figure 13.

### 14. Awareness of Side Effects Associated with Self-Medication

This is a pie chart depicting the knowledge of respondents about the side effects of self-medications in a total number of 150 respondents. Among the respondents, 75.3% (4519/6000) reported that they knew self-medication might cause side effects, which reflects a relatively high awareness of potential hazards of drug use without supervision. But, 24.7% of the respondents also claimed that they unaware about possible side effects, and this reveals alarming knowledge deficit. These results indicate that although the negative consequences of self-medication are known by more individuals, there is a need for specific health education and sensitization to enhance the knowledge and encourage safe medication in the other part of the population.

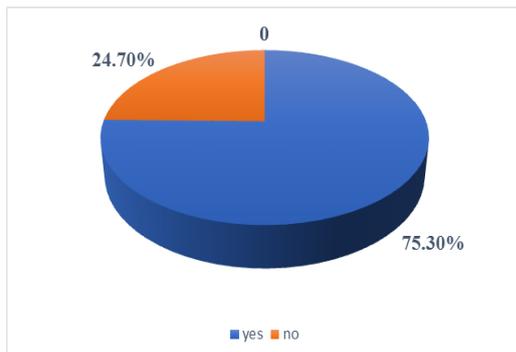


Figure 14.

### 15. Discontinuation of Medicines After Symptom Improvement

Among 150 respondents, this practice to stop medicines after relief of symptoms was reported. An overwhelming majority of the respondents (82.7%) said that they discontinue the medicines once symptoms got better, showing the culture of premature discontinuation of therapy. By contrast, a mere 17.3% said that they do not stop medicines, and presumably complete the course of medicines prescribed or recommended. This is a worrying worry which points to early cessation of medication especially antibiotics or chronic therapy which may cause treatment failure, relapse of disease or development of drug resistance. The results underline the importance of informing patients that it is essential to follow a complete dose of medication even after relief of symptoms.

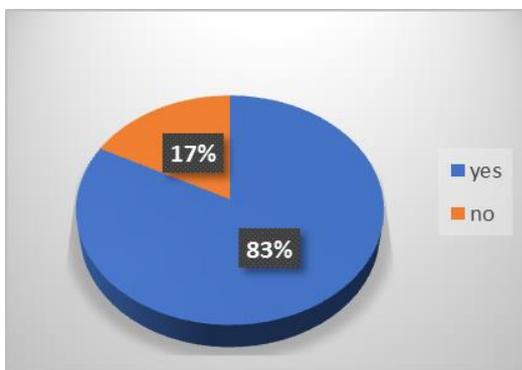


Figure 15.

### 16. Practice of Sharing Medicines with Others

This is a pie chart depicting the sharing of medicines among 150 respondents. A total of 150 respondents filled out the survey, and 150 was considered to be a sufficient sample size to start with. The results indicate that 33.3% of them have used their medicines with others, and 66.7% of them have not. Despite the fact that the majority of respondents did not share drugs, it is alarming that a third still practised it. Sharing medicines may result in misuse of drugs, wrong dosage, adverse drug reactions and even mask serious illness. These results underscore the necessity of regaining public confidence in the potential danger of sharing medicines and the need to emphasize that medicines should only be used for individual patients.

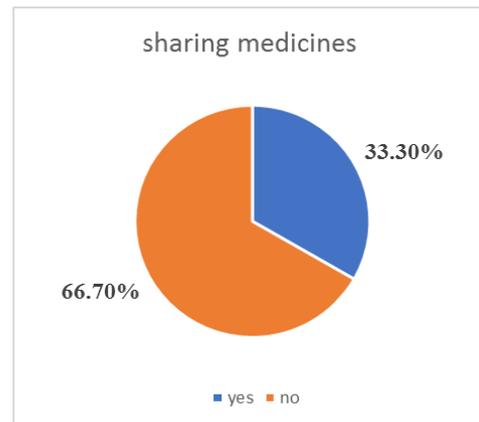


Figure 16.

### 17. Antibiotics is used for cold and fever

The pie chart illustrates the number of responses for 150 participants about whether antibiotics should be used for cold and fever. About half respondents (49.3%) were of the opinion that antibiotics can also be used for cold and fever showing high degree of misconception as majority of colds are viral in nature. Only 20% of the respondents had correct replies that antibiotics should not be taken for cold and fever. On the other hand, 30.7% of the participants were unsure, which indicates confusion and insufficient knowledge. To summarize, these results show a lack of awareness for when to use antibiotics correctly and suggest that the public needs to be educated to avoid misuse and eventual resistance.

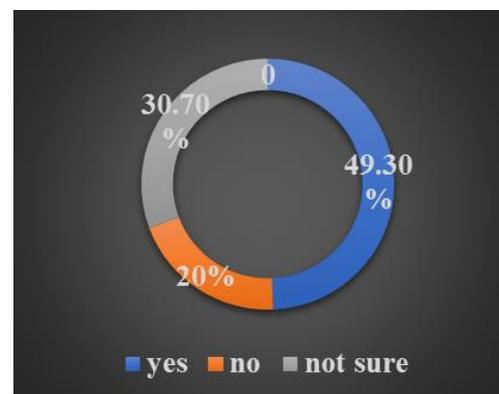


Figure 17.

### 18. Perception of Safety of Self-Medication for Minor Illnesses

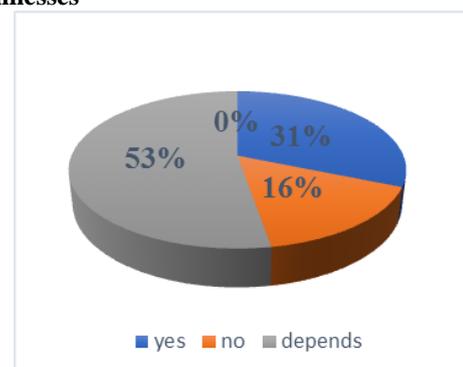


Figure 18.

The pie chart shows Poll respondents' answer to "Do you think that self-medication is safe for everyone in case of minor diseases?" The 52.7% of participants who belonged to the majority were of the opinion that self-medication safety was influenced by the disease, the medicine used, and the individual, a view that they regarded as precautionary and conditional. A third (31.3%) said self-medication was safe for minor ailments, indicating some confidence in treating minor health matters alone. Yet 16% responded negatively stating that it is unsafe, revealing fears of misuse, side effects, and misdiagnosis. Of all, results indicate that general practice in self-medication is high, but a majority of them know that caution is needed in S-risk (perhaps should this be "situational risk") is care under s-medication. In summary, although the present results confirmed that self-medication is widely practiced among people, the common perception on its safety is that one should not believe in the absolute safety of self-medication.

### 19. Experience of Side Effects Following Self-Medication

Chart 5 shows the experience of side effects for the respondents who practiced self-medication. Out of 150 participants, 76.7% did not suffer any adverse effects, indicating that a large proportion of people considers self-medication to be safe, at least when taken for common or minor ailments. But a substantial fraction (23.3%) also had side effects, pointing to the possible dangers of medicine usage in the air without getting any guidance. It highlights the fact that the majority of users do not experience adverse reactions, but a considerable number do, which means that appropriate drug choice and dose, as well as professional advice, are key to reducing the risk of bad outcomes.

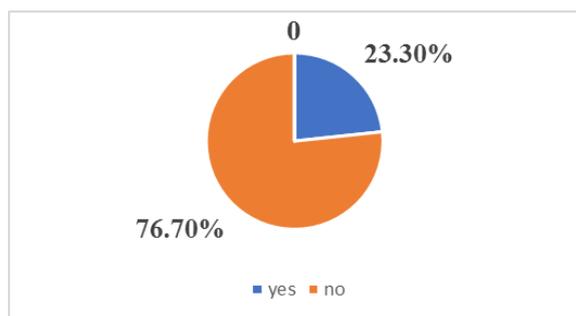


Figure 19.

### 20. Types of Side Effects Experienced After Self-Medication

FIGURE 1. Specific side effects among respondents who were adversely affected after self-medicating themselves (n = 35). The response no specific side effect was also the most reported (17.1%), which indicated that some respondents were not able to clearly identify or name the reaction that they underwent. Of the effects that could be identified, fatigue (14.3%) was the most common, followed by itching, burning in the stomach, and stomach complaints, which were all reported by a

minor percentage (approximately five to six percent) of participants. Other sporadic complaints were burning, withdrawals, and general unease. In sum, the results indicate that although most side effects were mild and diverse, symptoms related to the gastro-intestinal and to tiredness were the most frequent, emphasizing the potential danger of taking drugs without medical supervision.

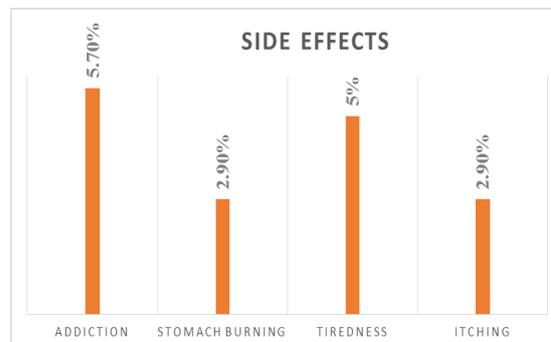


Figure 20.

### 21. Role of Pharmacist Counseling Before Dispensing Medicines

The pie chart shows whether people thought pharmacists need to give counselling prior to the sale of medicines. Of the 150 respondents, 89.3% were in Favor of pharmacist counselling before selling medicines, indicating that most of the public wanted professional advice on taking medicines. Only 10.7% of the respondents did not require counselling. This finding highlights the significance of pharmacist intercession in facilitating rational drug use and mitigating drug-related risks and the risk-prone nature of self-medication, including adverse drug reactions and drug misuse. In general, the results highlight pharmacist-patient communication as a key element in ensuring safe and effective drug use.

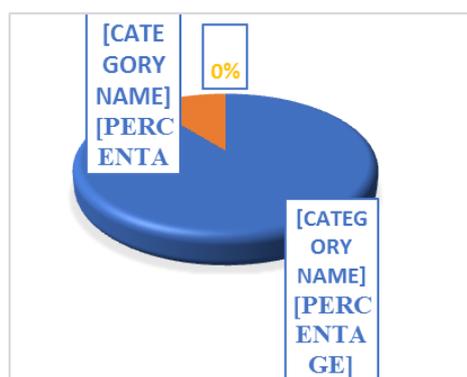


Figure 21.

### 22. Public Opinion on Implementing Strict Rules for OTC Drug Sales

The pie chart pertains to the question of whether the respondents consider it necessary to have some tight controls on the sale of OTC drugs. Out of 150 respondents, 57.3% were against the enforcement of stringent regulations, which may be due to the fact that

they were worried about the decrease in accessibility and convenience of acquiring common medicines. On the other hand, 42.7% were in favour of the draft for necessities becoming tighter, showing recognition of the dangers of an unregulated market for OTC drugs, including the potential for misuse, adverse drug reaction and development of antibiotic resistance. On the whole, the results denote a divided consensus on the issue, and emphasize the importance of granting easy access to medicines while imposing adequate regulatory measures to guarantee safe and rational use of drugs.

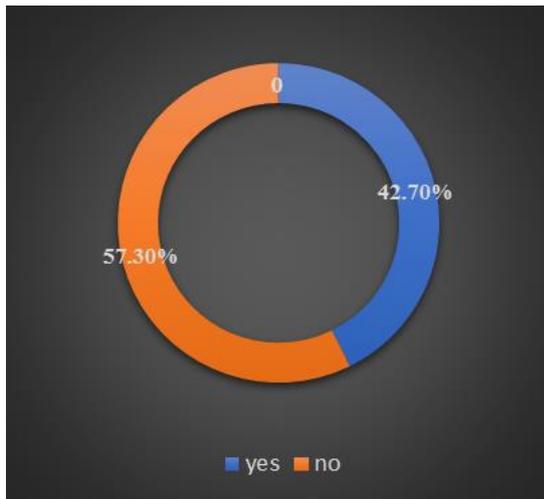


Figure 22.

### 23. Willingness to Participate in Awareness Programs on Rational Drug Use

The pie chart depicts the availability of respondents to attend awareness programs on rational drug use. Among the 150 respondents, 95 (63.3%) showed the interest to participate in similar programs in the future, reflecting a favorable approach to increase their knowledge on safe and proper usage of drugs. But 36.7% were unwilling to take part, maybe due to ignorance, busy schedule, or the attitude that the courses were of little use to them. In general, these results indicate that there is a high degree of willingness among the public to participate in educational programs, suggesting that for the promotion of rational drug use and minimization of the hazards of self-medication, such awareness programs could be effective.

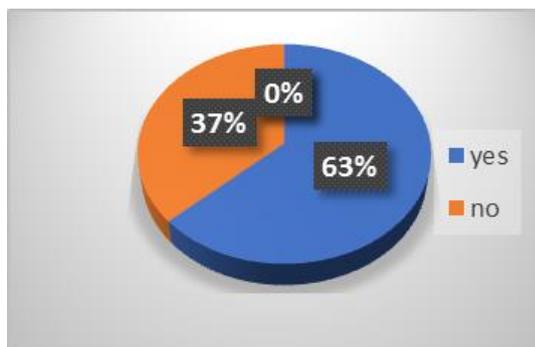


Figure 23.

### 24. Suggestions to Reduce Self-Medication Practices and Promote Rational Drug Use

The analysis of the open-ended answers on how to reduce self-medication and promote rational drug use points out some important recommendations. A significant number of the participants (estimated 45 to 50%) voiced their opinion on importance of awareness and education in the form of public awareness programs, patient education on side effects, health camps for rural and urban populations. Consultation with doctors and use of medicines as prescribed are now very essential have been insisted on by around 25–30%, with comments such as “don’t consume or dispense medicine without prescription”. The role of the pharmacist was also emphasized by 15% to 20%, with recommendations such as adequate counselling prior to dispensing, OTC sales of potent drugs should be restricted, pharmacists should not dispense medication to the same patient repeatedly. A minority (approximately 10 to 15%) proposed regulatory and financial initiatives, including decreasing the cost of consulting a doctor and enforcing tighter governmental regulation on the sale of OTC drugs. In summary, the answers indicate that enhancing awareness, enforcing stringent prescription policies, pharmacist consultation and enabling health system policies hold the key for reducing detrimental self-medication behaviour.

### 25. Prevalence of Chronic Diseases Among Study Participants

The pie chart illustrates the prevalence of chronic diseases among the respondents. Out of 136 participants, the majority (77.2%) reported that they do not suffer from any chronic disease, while 22.8% indicated that they have at least one chronic condition such as diabetes, hypertension, asthma, or arthritis. This finding suggests that most participants were relatively healthy, but a considerable proportion had chronic illnesses that may require long-term medication. The presence of chronic disease in nearly one-fourth of respondents highlights the importance of careful medication use and professional supervision, as self-medication in such individuals may increase the risk of drug interactions, adverse effects, and poor disease control.

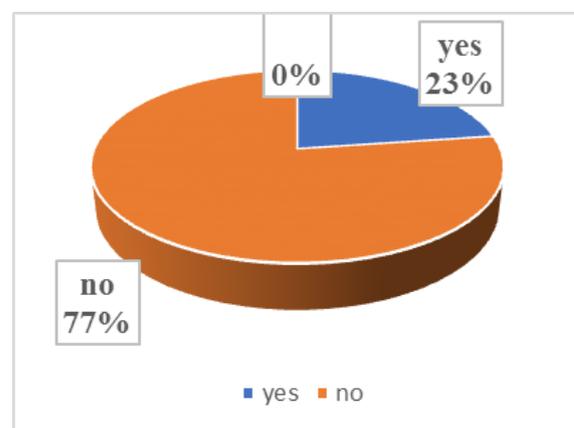


Figure 24.

## 26. Distribution of Specific Chronic Diseases Among Respondents

The bar chart shows the specific diseases reported by respondents who indicated having a chronic condition (n = 85). The majority of responses (62.4%) were categorized as “No,” suggesting that many participants either did not report a specific chronic illness or may have misunderstood the question. Among the reported conditions, hypertension was the most common (16.5%),

followed by diabetes (4.7%). A small proportion of respondents reported other conditions such as asthma, fever, and combined hypertension with diabetes, each accounting for a minimal percentage (around 1–2%). Overall, the findings indicate that hypertension is the most prevalent chronic disease among the participants, while the low reporting of other conditions highlights the need for clearer awareness.

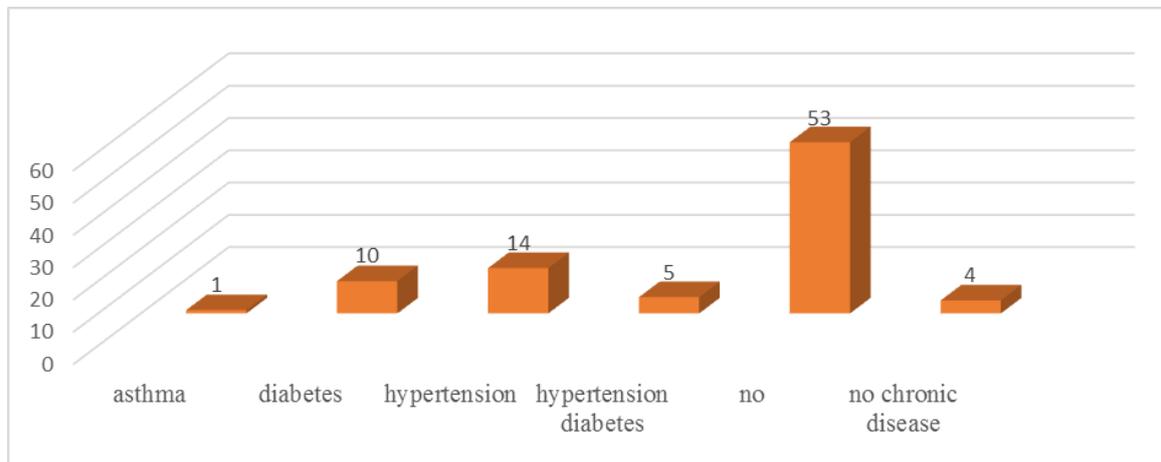


Figure 25.

## 27. Duration of Illness Among Study Participants

The pie chart illustrates the duration of illness among the 66 respondents. Nearly half of the participants (47%) reported suffering from the disease for less than one year, indicating a relatively recent onset in a large proportion of cases. About 16.7% of respondents stated that they have been affected for a period of 1–5 years, representing a smaller group with medium-term illness duration. Meanwhile, a considerable proportion (36.4%) reported living with the disease for more than five years, highlighting the presence of long-term or chronic conditions among the respondents. Overall, the chart shows that while many participants are newly affected, a significant number have been dealing with the disease for several years.

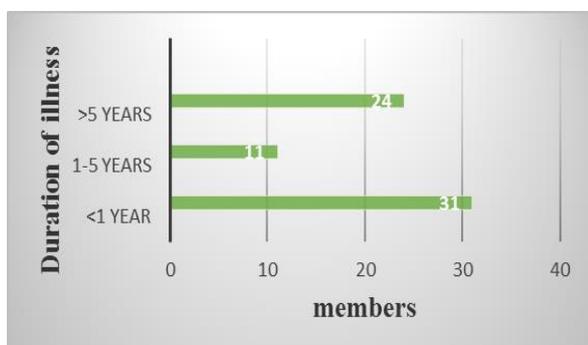


Figure 26.

## Overall Self-Medication Behaviour Pattern

- ✓ The overall pattern from your data shows:
  - Self-medication is common and accepted.
  - Mostly used for minor illnesses.

- People depend on pharmacists and family, not doctors.
- Medicines are obtained easily without prescription.
- Many respondents believe self-medication is safe for minor conditions.

### ✓ Interpretation

Your population shows a typical Indian community behaviour where over-the-counter access and pharmacist-based guidance are common.

### However, there are risks

- Misdiagnosis
- Drug interactions
- Overdose (especially painkillers)
- Antibiotic misuse (if used)
- Masking serious conditions.

## 7. CONCLUSION

The current study findings show that self-medication was a common practice in the study population, and the ailments for which they preferred self-medication were mainly headache, fever, cold, and pain. The findings show that a large number of subjects were self-medicated on the basis of a previous prescription, family or friends suggestion or due to information found on Internet. While it is true that quite a few respondents led themselves to believe that it was dangerous to go about self-medication carelessly, respondents still admitted to taking things like medication without prescription or halting a treatment upon symptom improvement.

The research also exposes insufficient awareness of the correct dose, therapy duration, and possible adverse responses to pharmaceutical items. Antibiotics were one of the most commonly misused drugs, which raises serious concern for antimicrobial resistance. The findings do indicate a shift in favour of consulting doctors for more severe ailments, and this provides some indication for potential improvement through proper education.

To sum up, the findings of the present study underline the importance of more public awareness programs and strict regulation on OTC drug sales, and the implication of health care professionals, particularly pharmacist, in educating patient on rational use of drug. Responsible self-medication practices for treatment of minor illness will lead to decreased health risk and better patient safety.

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