



# SELF-MEDICATION PRACTICES AMONG THE RURAL POPULATION: A CROSS-SECTIONAL SURVEY STUDY.

Nikhil Tukaram Antarkar<sup>1</sup>, Pavan Eknath Shelke<sup>1</sup>, Utkarsha Santosh Shelke<sup>1</sup>, Vaees Iliyas Shaikh<sup>2</sup>, Vishal Thete<sup>1</sup>, Mr. Shivaji H. Salunke<sup>3</sup>

<sup>1</sup> Rajesh Bhaiyya Tope College of Pharmacy, Nipani-Bhalgaon, Chhatrapati Sambhajnagar, Maharashtra 431007, India.

<sup>2</sup> Y.B. Chavan College of Pharmacy, Chhatrapati Sambhajnagar, Maharashtra, India.

<sup>3</sup> Department of Pharmacy, Rajesh Bhaiyya Tope College of Pharmacy, Nipani-Bhalgaon, Chhatrapati Sambhajnagar, Maharashtra 431007, India.

**Abstract-** Self-medication is a common practice in rural areas where access to healthcare is limited. It involves using medicines without consulting a doctor, often based on personal experience or advice. While it may help in treating minor illnesses, improper use can lead to serious health risks. This study assessed self-medication practices among 1,379 participants using a structured questionnaire. The results showed that 65.1% of individuals practiced self-medication. Common conditions included fever, headache, cold, cough, and body pain, and commonly used drugs were analgesics, antipyretics, antibiotics, and cold and cough preparations. The main reasons for self-medication were saving time and money, minor illness, and limited healthcare access. Many participants relied on family, friends, pharmacists, or the internet for information. Unsafe practices were observed, as 32.7% did not complete the full course of medication and many experienced side effects. Overall, awareness about proper drug use was limited. The study concludes that although self-medication is convenient, it can be harmful if not used responsibly, highlighting the need for better awareness and safer use of medicines.

Index Terms: Self-Medication, Rural Population, Antibiotic Misuse, Awareness, Drug safety, Public Health

## I. INTRODUCTION

Self-medication refers to the use of medicines by individuals to treat self-recognized illnesses or symptoms without consulting a qualified healthcare professional. It has become increasingly common due to easy access to medicines, availability of health information, and growing self-care practices. In India, self-medication is widely practiced among both urban and rural populations. Factors such as limited healthcare access, long waiting times, financial constraints, and easy availability of medicines contribute significantly to this practice. Although self-medication may be beneficial for minor illnesses when used responsibly, inappropriate use may lead to adverse drug reactions, drug interactions, masking of diseases, and antimicrobial resistance.

## II. MATERIALS AND METHODS

### Study Design

The present research was conducted using a cross-sectional survey design to evaluate self-medication practices among the general population in rural areas. This type of study design allows data to be collected from a large group of individuals at a single point in time. A cross-sectional approach was selected because it is practical, economical, and effective for assessing current behaviours, patterns, and awareness levels within a population.

### Study Area

The present research was conducted using a cross-sectional survey design to evaluate self-medication practices among the general population in rural areas. This type of study design allows data to be collected from a large group of individuals at a single point in time. A cross-sectional approach was selected because it is practical, economical, and effective for assessing current behaviours, patterns, and awareness levels within a population.

### Study Population

The study population has above 18+ age group individuals in rural area. Whose survey was taken after their consent. The individuals who participate are from different age group, genders, educational background residential areas are used to obtain medical information about Self-Medication practice.

### Inclusion Criteria

- Individuals aged 18 years and above.
- Individuals willing to participate in the study.
- Individuals capable of understanding and responding to the questionnaire.

- Members of the general population residing in the selected study areas.

### Exclusion Criteria

- Individuals below 18 years of age.
- Individuals unwilling to participate in the survey.
- Participants providing incomplete responses.
- Individuals unable to understand the questionnaire.

### Sample Size

A larger sample size of 1378 was selected to improve the reliability and validity of the findings. It also ensures better representation of the general population. A larger number of participants reduces random error and increases the reliability of the study findings. With 1378 patients, the study can better represent the actual self-medication behavior of the target population.

### Data Collection Tool

Data for the study was collected using a structured questionnaire. The questionnaire was designed in simple and understandable language to ensure clarity for all participants. It consisted of both closed-ended and multiple-choice questions. The survey was conducted through direct interaction with individuals in rural areas to obtain accurate responses.

### Data Collection Procedure

Data for the study was collected using a structured questionnaire. The questionnaire was designed in simple and understandable language to ensure clarity for all participants. It consisted of both closed-ended and multiple-choice questions. The survey was conducted through direct interaction with individuals in rural areas to obtain accurate responses.

### Statistical Analysis

Data for the present study was collected using a structured questionnaire designed in simple and easily understandable language. The questionnaire was prepared to obtain detailed information regarding self-medication practices among the general population. It consisted of multiple sections covering demographic details, medication practices, and awareness levels.

### Ethical Considerations

The individuals who participate in the survey they were informed about what is survey and its purpose of research to collect data. Their personal details and privacy of the participants were kept maintained throughout the survey research, and the gathered medical information are solely used to academic and research purposes.

## III. RESULTS

A total of 1,378 participants from rural areas were included in the study to assess self-medication practices among the general population. The findings revealed that self-medication is highly prevalent, with 898 participants (65.2%) reporting that they take medicines without consulting a doctor, while 480 participants (34.8%) stated that they do not practice self-medication. These results indicate that self-medication is a common healthcare behavior among the surveyed population.

Regarding the frequency of self-medication, 22.9% of participants reported practicing it sometimes, 22.0% often, and 20.2% rarely, demonstrating that self-medication is a recurring habit for many individuals rather than an occasional practice.

Analysis of the types of medicines used showed that cold and cough preparations (16.9%), antibiotics (16.0%), and painkillers (14.7%) were among the most commonly utilized medications. The use of antibiotics without medical supervision is particularly concerning due to the potential risk of antimicrobial resistance.

The primary reasons for self-medication were identified as saving time (26.6%), minor illnesses (26.2%), cost saving (23.7%), and previous experience with similar illnesses (23.5%). These findings suggest that convenience and economic factors play a major role in encouraging self-medication practices.

When assessing sources of information, participants most commonly relied on friends and family (26.0%), followed by the internet (25.2%), pharmacists (24.8%), and old prescriptions (23.9%). Dependence on informal information sources may increase the likelihood of inappropriate medication use.

The study also revealed concerns regarding medication safety. Although 67.4% of participants reported completing the full course of treatment, 32.6% did not complete their medications as prescribed. Furthermore, 70.9% of respondents reported experiencing side effects associated with self-medication, indicating inadequate awareness and potentially unsafe medication practices.

Overall, the results demonstrate a high prevalence of self-medication among the rural population. While self-medication is often practiced for convenience and cost-effectiveness, the frequent use of antibiotics, reliance on non-professional sources of information, incomplete treatment courses, and high incidence of side effects highlight the need for improved public awareness regarding the safe and rational use of medicines.

- Characteristics of the Study Population

Table 1: Frequency of Self-Medication Practice

Frequency	Number	Percentage (%)
Rarely	279	20.2%
Sometimes	316	22.9%
Often	303	22.0%
No	480	34.8%

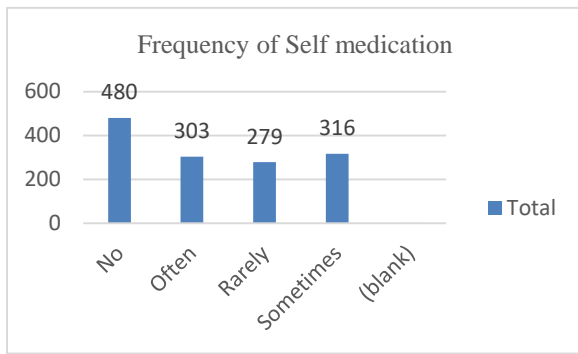


Fig 1: Frequency of Self-Medication Practice

Evaluation: The majority of participants (22.9%) reported sometimes practicing self-medication. A similar proportion (22.0%) frequently practiced self-medication.

Table 2: Reasons For Self-Medication

Reason	Number	Percentage (%)
Minor illness	361	26.2%
Save time	366	26.6%
Cost saving	327	23.7%
Previous experience	324	23.5%

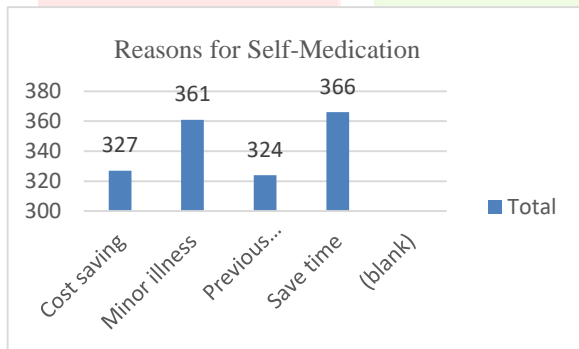


Fig 2: Reasons for self-Medication

Evaluation: Minor illness (26.2%) was the most common reason for self-medication, followed by previous experience (23.5%). These findings suggest that convenience and prior treatment experiences influence self-medication

Table 3: Completion Of Course

Response	Number	Percentage (%)
Yes	929	67.4%
No	449	32.6%

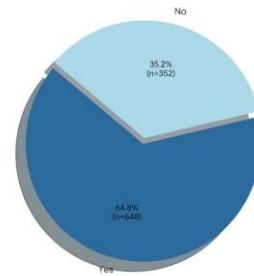


Fig 3: Completion of Full Course of Medicines

Evaluation: The above table represents completion of antibiotic courses among study participants. The findings showed that 64.8% of participants completed their full antibiotic course, while 35.2% did not complete the prescribed treatment course.

Pre-Existing Disease but still practice self-medication:

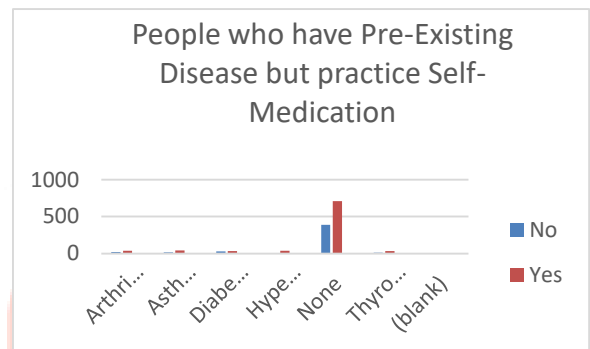


Fig 4: Pre- Existing Diseases but still practice Self-Medication

Evaluation: The above figure represents the pre-existing disease individuals who practice self-medication included in the study. The survey showed that the highest number of the individuals had Asthma (42), then comes Hypertension (39), followed by Arthritis (37), Diabetes (36), Thyroid (33).

Gender	Frequency	Percentage
Male	745	54.06%
Female	633	45.94%
Total	1378	100

Table 4: Gender Wise Distribution

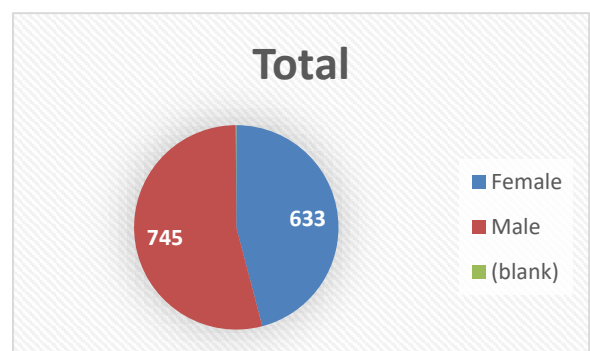


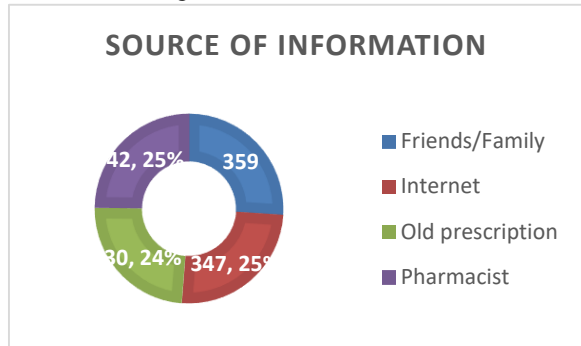
Fig 5: Gender Wise Distribution

Evaluation: The survey results indicates that both male and female individuals participate were included in the study of self-medication. Male individuals are somewhat higher than female individuals who participates. Inclusion of both genders provided balanced information regarding Self-Medication usage, behaviour and awareness.

Table 5: Source of Information

Source of Information	Number	Percentage
Pharmacist	342	24.8%
Internet	347	25.2%
Friends/Family	359	26.0%
Old Prescription	330	23.9%

Fig 6: Source of Information



Evaluation: The above table represents the sources of information from which they start Self-Medication. The survey showed that 26% individuals get information from friends/Family, 25.2% individuals get information from Internet, 24.8 gets from Pharmacist and others get from old prescription. The survey predict that people starts self-medication due to ease from consulting doctor.

Table 6: Self-Medication Practice without Doctor Consultation

Response	Frequency	Percentage
Yes	898	65.2%
No	480	35.8%
Total	1378	100

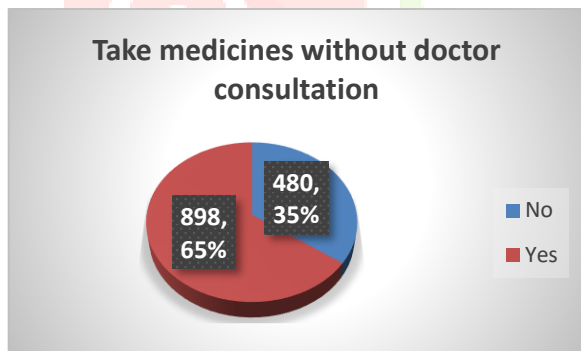


Fig 7: : Self-Medication Practice without Doctor Consultation

Evaluation: The above table and figure represent the data of individuals who practice self-medication or not without doctor consultation. The survey represents the data that 65.2% individuals agree that they practice self-medication without doctor consultation and on the other side 35.8% individuals concluded that they do not practice self-medication without doctor consultation. The survey results come to the point that more than the half of participants practice self-medication without doctor consultation.

Table 7: Types of Medicines Used

Types of medicines	Number	Percentage
Painkillers	202	14.7%
Antibiotics	221	16.0%
Cold & Cough	233	16.9%
Others	242	17.9%
Total	1378	100

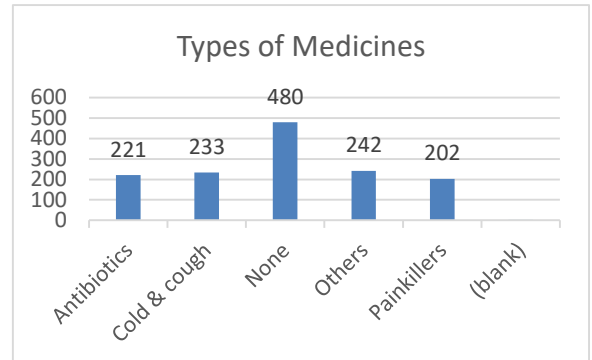


Fig 8 Types of Medicines Used

Evaluation: The above table and figure represents the types of medicines used by individuals who practice self-medication. The survey result represents that mostly people's used Cold & Cough (16.9%) medicines and after that Antibiotics (16.0%) used and at last painkillers (14.7%) used as self-medication without doctor consultation. This result indicates that diseases like cold, cough, fever, body pain are treated through self-medication.

Table 8: Experienced any side-effects

Response	Number	Percentage
Yes	977	70.9%
No	401	29.1%
Total	1378	100

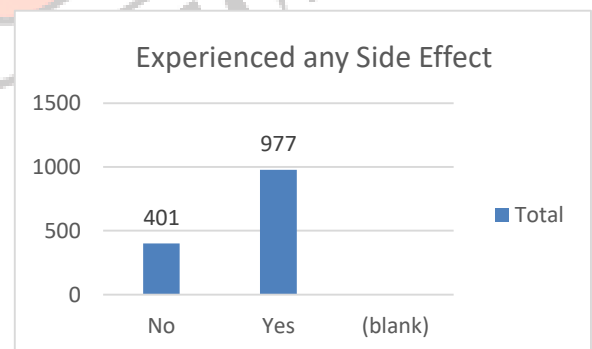


Fig 9: Experienced any side-effects

Evaluation: The above table and figure represent side-effect which experienced by individuals during practice of self-medication. The survey results represent that the 70.9% individuals who participate in survey had experienced side-effects and 29.1% individuals don't experience any side-effect. The result comes to the point that indicate that majority of the individuals experienced side-effects.

#### IV. DISCUSSION

The present study demonstrated that self-medication is highly prevalent among the rural population. A considerable proportion of participants reported consuming medicines without consulting healthcare professionals. The findings are consistent with previous studies that reported widespread self-medication practices due to convenience, accessibility of medicines, and limited healthcare access. Antibiotics, analgesics, and cold and cough preparations were among the most commonly used medicines. The study further revealed that many individuals rely on informal sources of information such as family members, friends, pharmacists, and internet-based resources. Dependence on such sources may contribute to inappropriate medication practices. Another important observation was that a significant proportion of participants failed to complete the full course of medication and many reported experiencing side effects. These findings highlight concerns regarding irrational medicine use and potential public health consequences.

#### V. CONCLUSION

The present study concludes that self-medication is highly prevalent among the rural population and has become a common practice for managing minor illnesses. Convenience, cost-saving, and easy accessibility of medicines were identified as major contributing factors. The findings revealed extensive use of antibiotics and other medicines without proper medical consultation. Many participants relied on informal information sources and demonstrated limited awareness regarding dosage, duration of treatment, and potential risks. The study emphasizes the need for public awareness programs, improved healthcare accessibility, stricter regulation of medicine sales, and promotion of rational drug use to minimize risks associated with self-medication.

#### ACKNOWLEDGMENT

The authors express their sincere gratitude to Mr. Shivaji.H.Solunke, Department of Pharmaceutical Chemistry, Rajesh Bhaiyya Tope College of Pharmacy, Nipani-Bhalgaon, Chhatrapati Sambhajinagar, for his valuable guidance, continuous encouragement, and constructive suggestions throughout the course of this research work.

The authors are also thankful to the Principal, faculty members, and staff of Rajesh Bhaiyya Tope College of Pharmacy for providing the necessary facilities, academic support, and resources required for the successful completion of the study.

The authors would like to extend their heartfelt appreciation to all study participants who voluntarily contributed their time and responses to this survey. Their cooperation played a significant role in the successful completion of this research.

#### REFERENCES

- [1] World Health Organization (WHO), 2000.
- [2] Hughes C.M., McElnay J.C., Fleming G.F., 2001.
- [3] Klemenc-Ketis Z., Hladnik Z., Kersnik J., 2010.
- [4] Kumar N., Kanchan T., Unnikrishnan B., 2013.
- [5] Sharma R., Verma U., Sharma C.L., Kapoor B., 2015.
- [6] Ayalew M.B., 2017.
- [7] Jain S., Malvi R., Purviya J., 2018.
- [8] Nepal G., Bhatta S., 2018.
- [9] Sontakke S.D., Bajait C.S., Pimpalkhute S.A., 2019.
- [10] Jambo A., Mengistu G., Sisay M., 2020.

