

**DELVING INTO THE COLLECTIVE AWARENESS AND ATTITUDE TOWARDS
MEDICINE AMONG THE RURAL POPULATION: A COMMUNITY SURVEY**

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ABSTRACT

Medication is essential for treating a variety of illnesses and enhancing the person's quality of life. Use of medication by the public without awareness can lead to risk and complications. Despite all of its benefits, emerging evidence points to drug side effects as a common but preventable cause. This cross-sectional, questionnaire-based study was to assess the public opinions and knowledge on general beliefs about medication, their adherence practices, attitudes towards self-medication & prescribed medications. A Self Structured questionnaire form was prepared for this study, and was carried out in randomly selected 286 subjects. Literates (high school and graduate level) and illiterates (both sexes, over the age of 20 to 70 years) make up this study group's population of people with various levels of education. According to the results of our study, about 71% of the subjects who are suffering with various illness, who had their families help them manage their prescriptions frequently had difficulty comprehending their own therapies. Most of the population i.e., about 74% relies on the pharmacist's recommendation when selecting medication. About 47% of population believe in Over-the-Counter medications, rather than visiting a Physician. The study's findings shown that the general public's perception on Medication use was favorable. Their knowledge, which was determined to be average and their practice, which was below par towards medication usage which determines their attitude about practicing Self Medication.

KEYWORDS: Self-Medication, Over-the-counter medicine, Medication Adherence, Medication Safety, Knowledge on Allopathic Medication. Rural Population's Medication Practices.

INTRODUCTION

Medication plays a crucial role in managing various health conditions and improving the quality of life for numerous individuals. At its core, medication refers to substances that are used to treat, diagnose, or prevent diseases, and it encompasses a wide range of pharmaceutical drugs and therapeutic approaches. The benefits of medication cannot be understated as they can significantly improve health outcomes. Medication can control symptoms, alleviate pain, reduce inflammation, and even cure diseases in some cases. Modern medication has undoubtedly revolutionized healthcare and contributed to significant advancements in the treatment and prevention of diseases.^[1]

However, it is equally essential to acknowledge the potential risks and side effects associated with medication use. Every drug carries specific risks, and the likelihood and severity of side effects can vary widely. Proper comprehension of the medication's side effects empowers students to recognize and report any adverse reactions to healthcare providers promptly.^[2]

Unsupervised medication can lead to incorrect usage of drugs, putting health at risk. Without the guidance of a medical professional, they may misinterpret dosage instructions, leading to overuse or underuse of a medication. One critical aspect of medication use is adherence and responsible use.^[3] It is imperative for Skipping doses, altering dosage without proper guidance, or abruptly discontinuing medications can lead to adverse health outcomes, treatment failures, and the development of drug resistance. Following prescribed regimens, adhering to recommended lifestyle changes, and seeking medical advice before modifying any medication regimen exemplifies responsible medication usage. Regular check-ups and consultations with a medical professional are crucial for maintaining good health and addressing any concerns. Self-medication practices can have a significant impact on healthcare outcomes.

Misuse or overuse of drugs can lead to increased resistance to antibiotics, unnecessary healthcare expenditure due to treatment failures, and delayed

diagnosis and management of serious conditions. This increases the burden on healthcare systems and compromises patient safety. Self-medication can act as a temporary solution to underlying health issues that require professional intervention. By solely treating symptoms, students may neglect the root cause of their ailment, which could be an underlying medical condition or a psychological problem. Failure to address the underlying issue can lead to the aggravation of the condition or delayed diagnosis, compromising the chances of successful treatment.

Self-medication refers to the practice of individuals using non-prescription drugs or treatments to manage their own health conditions without consulting healthcare professionals. While this approach may seem convenient and cost-effective, it can have serious consequences. Self-medication often leads to drug-drug and drug-disease interactions, which can aggravate existing health conditions, pose new health risks, and potentially decrease the effectiveness of prescribed treatments. This essay delves into the potential dangers of self-medication, emphasizing the importance of seeking professional guidance when it comes to medication management.

Educational status is an important determinant of self-medication. The problem of educating low-literate patients cannot be ignored. The Joint Commission on Accreditation of Health Care Organizations mandated that hospitals and other health organizations provide instructions understandable to patients, assess patients' knowledge, and document such educational effort.^[4]

Physicians play a crucial role in providing healthcare to patients with lower levels of education. Patients with lower education often face unique challenges in accessing and understanding healthcare information.^[5] One of the core responsibilities of pharmacists is medication counseling. This involves providing patients with comprehensive information about their prescribed medications, including dosage instructions, potential side effects, and any precautions they need to take. Pharmacists can explain complex medical jargon in a simplified manner, ensuring patients understand the importance of adhering to their medication regimen.^[6]

Physician's guidance can help individuals navigate drug therapy, considering their unique medical history and current health conditions. Graduate school students understand that a person's overall health and potential allergies or pre-existing conditions can significantly impact their response to medications. Physicians hold the essential responsibility of evaluating a patient's medical background, conducting proper physical examinations, and analyzing diagnostic tests to ensure the most suitable medication is prescribed, minimizing potential risks and complications. Another critical aspect of following physician advice in drug therapy is the importance of dosage compliance and adherence. Physicians consider

the appropriate dosage and frequency of the prescribed medication after considering various factors, such as patient age, weight, and severity of the condition.

Patients with less education may place more faith in medical advice. Patient recollection of doctor's instructions is weak, and patient knowledge of disease and pharmacological therapy is still lacking because 50% of the knowledge will be forgotten right away. The significance of up to 55% of patient's non-adherence to prescribed drugs may be caused by a lack of communication and a failure on the part of the patient to absorb information.^[7]

METHODOLOGY

A Quantitative cross-sectional, Questionnaire-based study was conducted to determine the knowledge, perception, and attitudes towards the use of medication and their practices in the general population at Peddada, Kumara Priyam, and Gandredu, rural areas in East Godavari district of Andhra Pradesh. The study was conducted among 286 subjects, with the help of convenience sampling. The study is conducted from April 2023 to August 2023 for 4 months.

Subjects in the age group of 20 to 70 years, of both genders were included in the current study. Participants were briefed completely about the study and oral consent was taken from everyone before obtaining the response. Participants who vocally refused participation or who were not comfortable answering the questions due to any barriers were not included. The responses obtained for the questionnaire were recorded using a Google form. The questions were formulated with binary response options, requiring participants to choose between "yes" and "no" as their answer. This design facilitated ease of response and allowed for straightforward calculation of response percentages. The survey was done by calculating the positive and negative answers with zero errors. Each Positive response was given a score of 1 and a negative response was given a score of 0. Total scores of 15 or higher (>85%) are considered to have excellent knowledge, 12 to 14 (72–83%) are considered to have good knowledge, 9 to 11 (53–65%) are considered to have average knowledge, and less than 9 (52%) are considered to have poor knowledge of medication practices.

The following topics were addressed in the questionnaire:

- Common patient adherence to the medication;
- Acquiring prescriptions and having them filled
- Information on drugs given to patients by pharmacists;
- Self-medication
- Information on demographics to ascertain

The study took 6 months to complete and the data was analyzed using SPSS Version 21.0.

RESULTS AND DISCUSSION

The study was conducted among a total of 286 participants, obtained by using Solvin's Formula of $n = N / (1 + N(e)^2)$. n is the sample size, N is the Population Size and e is the Margin of error i.e., 0.05. By taking the

Population size of 1000, the sample size we obtained is 286.

$$n = 1000 / (1 + 1000(0.05)^2)$$

$$n = 1000 / (1 + 2.5)$$

$$n = 1000 / 3.5$$

$$n = 286 \text{ (Sample Size)}$$

Table 1: Gender-Wise & Educational-wise distribution of study subjects.

S. No	Variable	Literate	Illiterate	Total (n=286)
1	Males	119 (77.27%)	35 (22.72%)	154
2	Female	76 (57.57%)	56 (42.42%)	132

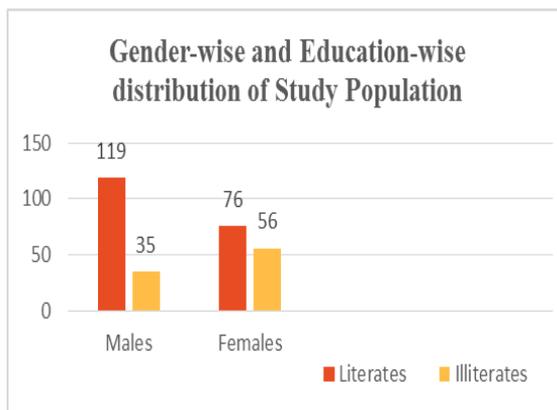


Figure 1: Gender-wise & educational-wise distribution of study subjects.

Figure 1 shows the gender-wise and Education-wise distribution of study participants with male

predominance in literacy at 77% over the female literacy rate of 58%

Table 2: Age-wise distribution of the study population.

S. No	Age Group (in Years)	Frequency (n=286)
1	20-29	65 (22.72%)
2	30-39	75 (26.22%)
3	40-49	69 (24.12%)
4	50-59	50 (17.48%)
5	60-70	27 (9.44%)

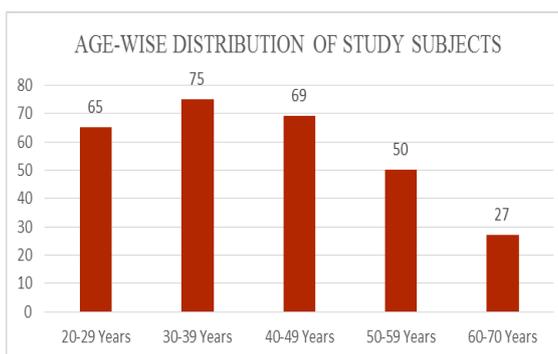


Figure 2: Age-wise distribution of study subjects.

Figure 2 represents the Age-group distribution of study participants with a majority of the Study Population from

the age groups of 20-50 years i.e. 209 (73%) and the remaining 27% comes under the category of Geriatrics.

Table 3: Health status distribution among the study population.

S. No	Health status	Frequency (n = 286)
1	Healthy	164 (57.34%)
2	Having Long-standing Illness	122 (42.65%)

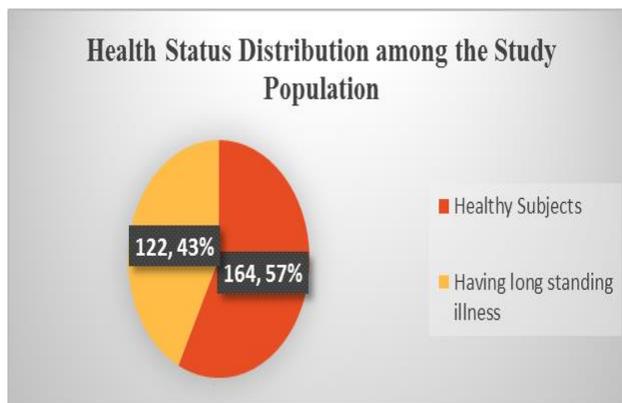


Figure 3: Health status distribution among the study population.

Figure 3 represents the health status of the study population. 43% of the participants were healthy without any long-standing illness and the remaining 57% were

suffering from long-standing illnesses such as Diabetes Mellitus, Hypertension, Asthma, Arthritis, and kidney-related Disorders.

Table 4: Distribution of study population based on medicine usage.

S. No	Variable	Frequency (n =286)
1	Participants taking Medicines on a daily basis	107 (37.41%)
2	Participants taking Medicines when needed	143 (50%)
3	Participants not taking any medicine	36 (12.58%)

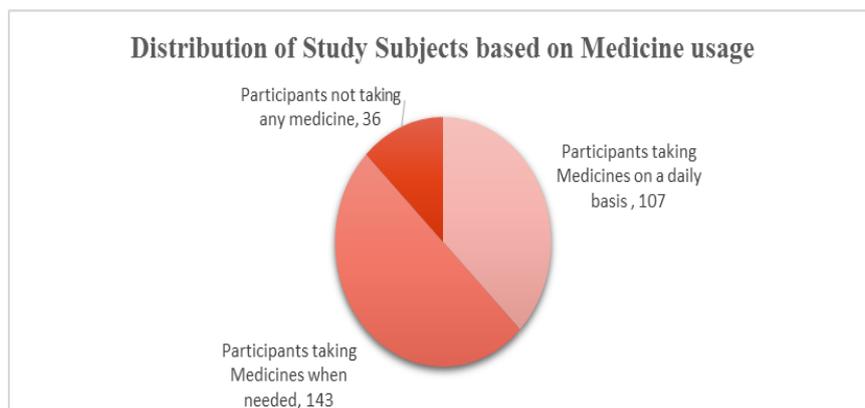


Figure 4: Distribution of study population based on medicine usage.

Figure 4 represents the distribution of the study participants based on their medicine use in the last 6 Months. Half of the Participants (50%) are taking the medicines, when needed upon the recommendation of

the Pharmacists at the Pharmacies rather than going to the Physicians. 37% of the Participants are taking their daily medicine regularly for managing their long standing illnesses.

Table 5: Responses to the questionnaire.

Question asked	Response given	Frequency (n=286)
What actions should you take if you have Body Pains, Headache, and Fever, cough, or a cold?	Visit a Pharmacy	198 (69.23%)
	I'll consult a Physician	88 (30.76%)
Do you currently take any medicine?	Yes	157 (54.9%)
	No	129 (45.10%)
Have you taken any medication in the past to treat it? (during the last 3 months)	For Minor Ailments	164 (57.34%)
	For long-standing illness	122 (42.65%)
Do you ask the pharmacist for the same medication or do you choose the medicine based on the Advertisements?	Based on the Advertisements	136 (47.55%)
	Based on the Pharmacist's advice	150 (52.44%)
Do you think all OTC Medications are safe & effective?	Yes	180 (62.93%)
	No	106 (37.06%)

Have you had any unfavorable side effects after using OTC Medicine?	Yes No	65 (22.72%) 221 (77.27%)
Have you mentioned to your Physician any negative effects you've had from taking medicines?	Yes No	141 (49.30%) 145 (50.70%)
Without consulting a Physician, would you take Dietary Supplements?	Yes No	184 (64.33%) 102 (35.66%)
Will you recommend the medicine you know or seek medical advice if you/your family member becomes ill?	Seek Medical Advice Use the medication I know	118 (41.26%) 168 (58.74%)
Do you like to acquire a prescription when you visit the doctor or are you looking to find the root cause?	I'll feel it is enough I'll ask for more information	164 (55.94%) 122 (42.65%)
How Quickly do you generally have your medications filled?	Immediately I'll wait for sometime	139 (48.60%) 147 (51.39%)
Have you ever had to take medicine for a long time?	Yes No	122 (42.65%) 164 (57.34%)
Would you prefer to go for an alternate Physician in case of nil improvement?	Yes No	198 (69.23%) 88 (30.76%)
Do you have basic knowledge about the medications?	Yes No	179 (62.58%) 107 (37.41%)
Do you believe more expensive medications are more effective?	Yes No	230 (80.41%) 56 (19.58%)
Do you use the prescription medication according to the prescribed dosage schedule or will you stop after your symptoms improve?	I'll stop taking medicine I'll consult the doctor	203 (70.97%) 83 (29.02%)
Do you intend to discuss the current medicine, including the OTC Medicines with your doctor during your consultation?	Yes No	159 (55.59%) 127 (44.40%)

The responses and the results of this work/survey summarize the general public perceptions of the medicines. It was more of a generalized response we gathered rather than concentrating on a single specific drug. In our research study, we focused more on emphasizing the knowledge both the literates and illiterates have regarding medicine usage and their adherence patterns.

Due to lengthy wait times in hospitals, minor illnesses, the need to save money and time, a lack of accessibility, a shortage of doctors, or the belief that their condition is beyond the scope of well-trained medical professionals, many patients turn to the practice instead of seeking medical attention.

Patients relied on other variables, such as personal experience with their medication effects or full trust in their provider's medical advice, to assign importance ratings in the absence of an appropriate understanding of the intended purpose and effectiveness of their prescriptions.

According to the results of our study, patients who got family support in managing their prescriptions frequently lacked knowledge of certain of their own treatments. Never share your medications with friends, family, or others because they might not be suitable for them. When a doctor can only offer counsel and assurance, patients should accept non-pharmacological therapy instead of thinking there is "a pill for every ill" or at least be open to it.

Self-medication was regarded as a significant issue in our survey, according to the majority of participant responses, when it came to minor illnesses like headaches, fever, and cough. Limiting patients' direct access to antibiotics may be challenging given that they have the option of purchasing them through pharmacies.

The cost was correlated with the prescriptions being filled entirely and with taking medications as prescribed. Studies conducted in low-income nations revealed a correlation between self-medication and both the expense of medical consultations and patient dissatisfaction with doctors.

If at all feasible, patients should refrain from self-medicating, but if this is not possible, they should confer with the dispenser or chemist and seek assistance, rather than relying solely on their prior knowledge. According to our survey, literate people had a 59% higher likelihood of self-medicating than illiterate ones.

When giving the patients, the required information on over-the-counter drugs, pharmacy professionals are crucial. In order to help the Pharmacists offer new services, information technology will be crucial. According to our study's findings, the majority of respondents had only ever gotten their prescriptions from pharmacists, which means that there is a greater likelihood and opportunity for pharmacists to offer effective, qualified advice for safe and proper OTC usage. The majority of patients, according to the research, had favorable attitudes towards the counsel and OTC medication provided by Pharmacists. Our study's

findings indicate that the majority of physicians and pharmacists were told by patients about the medication's negative effects when they experienced the same.

CONCLUSION

The majority of patients, according to the current survey, were unsure of how to take their prescriptions; this lack of knowledge may put patients at risk for health-related issues. This illustrates the necessity for changing the attitudes and behavior of healthcare professionals toward the safety of medications. Since they are easily accessible to patients once the drug has been prescribed, community/clinical chemists should offer continuing education and training. They can also play a significant role in counseling and teaching patients.

The idea of self-medication is concerning. This study examined the participants' knowledge, self-medication practices, use of allopathic medications, safety concerns, and justifications for doing so. If the people using it knew enough about the dosage, timing, and effects of an overdose, it would be safe. However, because of a lack of knowledge, it can have major side effects such as antibiotic resistance, hypersensitivity, and allergy.

As a result, developing nations like India have subpar economic, educational, and healthcare systems. The dangers of self-medication are less well-known to the public. The decision of whether to encourage self-medication is a razor's edge. Therefore, it is advised that a comprehensive strategy be used to prevent this issue, including appropriate awareness and education regarding self-medication and stringent regulations for pharmaceutical advertising. To make health care widely available and reasonably priced, dispensing methods must be enhanced by appropriate education, strong regulatory measures, and managerial tactics.

To raise public awareness of medications, more education and information availability are needed. The public and patients should be educated about medications by healthcare professionals. Patients should be encouraged to openly discuss their medications with their medical practitioners, along with any worries or queries they might have. Furthermore, the general public should have unfettered access to reliable sources of information about medications. Governments and health organizations should work together to develop and spread public health initiatives aimed at increasing medication awareness.

Prescriptions for pharmaceuticals are made after a thorough assessment of the patient's medical condition, which takes into account things like the ailment's severity, the patient's medical history, and any potential drug interactions. The possibility of getting the desired treatment results is increased by adhering to the prescribed pharmaceutical schedule as instructed by a medical practitioner. Consequently, it is specific in each circumstance. It shouldn't be assumed that treating

someone with the same issue with the same drug will help them; doing so could have unintended negative health effects.

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