



THE PROBE ON THE EXTENSION OF SELF MEDICATION PRACTICE IN SOCIETY

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ABSTRACT

Background: Self-medication is defined as the administration of medication intentionally by the patient or the initiative of registered pharmacist or an amateur without a valid prescription and consultation of a registered medical practitioner. Every day, self-medication is practiced in the form of self-care of our health. Thus an extensive study on self-medication is highly relevant and this study was aimed to estimate the prevalence of self-medication practice in the society and to identify incendiary factors that could impact the self-medication, to explore the source of practicing self medication and its details and to notice the precise reason for SM across Kozhikode district. **Methods:** A descriptive cross-sectional study was conducted on 284 subjects among different types of community across Kozhikode city from April 8 to May 8, 2023. Data were collected through a specially designed proforma using a closed-ended, self-administered questionnaire containing 15 questions. **Results:** Self-medication was highly prevalent among the society with 90.14% and only 9.86% of people are not involved in the practice of self-medication. **Conclusion:** Majority of people consider fever, headache, allergy and cold like conditions as common ailments and thus take medication themselves. Great number of people oblivious about the inconsequent of SM and adhere to OTC drugs. During the study we finally found that the whole approach must be modified:-(i)Initiate awareness and education regarding the practice of self-medication (ii) systematic approaches to prevent the dispensing without prescription (iii)Mandatory control regarding pharmaceutical advertising (iv) Strategies to ensure healthy communication within pharmacy & receiving health care more accessible and affordable (v)and warnings about the AMR.

KEYWORDS: Self-medication practice, Antimicrobial resistance, Adverse drug reactions, Over the counter drugs, World Health Organization, Non-steroidal anti-inflammatory agents.

INTRODUCTION

Self-medication is defined as the administration of medication intentionally by the patient or the initiative of registered pharmacist or an amateur without a valid prescription and consultation of a registered medical practitioner.

Every day, self-medication is performing as a part of self-care of our health. The primary public health resources including self care along with social support to diseased patients, facilities for the treatment and self medication as a first aid. Improved socioeconomic status, educational and professional performance reasonably promoting the safe use of drugs. In the view of regulatory assessment the responsible use of nonprescriptional drug based on the legal rules and scientific advices ensure the safety and efficacy of the product which are coming under SM for the public health care.

The world widely accepted practice shown the benefits which preeminent due to secure the time, money and frequent consultation. however these substitutable medical practice without a proper diagnosis, inappropriate clinical evaluation, testing procedures, delay of treatments, improper drug use and course series leads to adverse drug reactions, severe toxicity, unwanted drug interactions, overdosing, underdosing and moreover altered disease conditions. Usually SM can be satisfactory for the OTC or non prescriptional drugs such as vitamin tablets, calcium and iron tablets and also drug for minor illness. SM is a adept area of research due to global prevalence, unregulated rules, and unconcern about its impact.

Many studies have been done to identify the occurrence of SM among different population having different study criteria. This study was aimed to estimate the prevalence of extension of self medication in the society including

different population and to identify incendiary factors that could impact the self-medication, to explore the source of practicing self medication and its details and to study the precise reason for SM across Kozhikode district.

MATERIALS AND METHODS

Study Plan and Period

The study was planned to conduct in three phases. Initiating from April 8, 2023 to may 8, 2023. during phase 1 study, performing literature survey and review of literature. In phase 2 study, data collection via structured questionnaire including relevant 15 questions through google form and effective interview in local languages along with providing proper awareness about SM. finally by interpretation of collected data and preparation of its result and summing up with its conclusions.

Study Site and Study design

A descriptive cross sectional study including different type of community across the Kozhikode city.

Source and Study population

All population including students, house holds, professionals, health care providers, local people across the Kozhikode district.

Inclusion and exclusion criteria

Including all students, professionals, house holds, health care workers, local people between 18-60 years of age. Excluding special populations like pregnancy, diseased population, geriatrics, children under age of 18.

Sample size

The sample size was calculated for infinite population proportion formula and the 59% prevalence reported in Ernakulum district of kerala, India.

$$n = \frac{(Z)^2 \times P(1-P)}{M^2}$$

Therefore, the final minimum sample size was 284 with 10% considered as dropout.

Study Procedure and Data Analysis

A questionnaire was prepared according to the study objectives in a google format. Considering the name, age, profession, sex of all entries and questionnaire was in English and Malayalam languages including both multiple choice questions and close ended questions regarding current SM status.

Prevalence of each was found and evaluate the percentage of occurrence in various aspects.

RESULT

About 90.14% take self-medication and 9.86% are not involved in these practices. because of their behavior or attitude towards health. The conditions were SM preferably utilized SM as figure 1. It indicates in SM practices, negligent use of OTC drugs are comparatively more than antibiotics and other major disease treating drugs. Lack of regulation on nonprescriptional drugs and nonadherence to the cogent drug practice and policies, mass advertisement through multimedia also influences the intake of OTC drugs which is against Drugs and Magic Remedies act 1954. Majority of people consider fever, headache, cold-like conditions to be common ailments and are not very serious about these conditions.

In table 1 the sources of information from which people move on to SM, where previous prescription is the noticeable one. The exact reason behind the practice of SM as per table 2 rather than consulting physician, boost the deleterious effect of SM. Most people ceased treatment immediately after perceptible improvement. It all implies socio-economic factors are insignificant in these practices. 59.80% of people get the expected result by taking medicine, that is the main reason for concomitant use of self-medication and getting self-satisfaction by doing so. Only 5.85% of people experienced adverse drug reactions and the remaining 94.14% of the people did not experience any ADR. It hasten the SM, and the majority remains unaware about ADR. It sometimes led to dangerous health conditions. People should be conscious regarding the unintentional impacts of SM on health like prolonged illness and under diagnoses. It eases the increased expenditure of health care. Besides, SM of antimicrobials and NSAIDS can lead to drug resistance and make individuals prone to hepatic and renal dysfunction which drastically influence the rising generations. Interestingly, 75% of people don't recommend self-medication implies they may not be interested in these practices, and they are concerned about others health, 46.09% of people started self-medication themselves, 40.23% of the people under the influence of family or friend, 7.42% of people think that they themselves initiates SM, 6.25% says health care professionals influenced by them to do. The reason have been attributed to the factors like presumption of medication, higher economic, dubious attitude towards physician, personal volition about their own health. The educated elderly preconceived that they could grip all details from medicinal information brochures or using previous prescriptions they concluded their medical condition and following practice of SM using the same prescription and medication.

Table 1: Details on source of information from which a person chooses the drug during SM.

Source	No of individuals	Percentage
The drug used by me or my close ones in previous prescriptions	141	49.64
From internet	23	8.09
Recommended by friends or	42	14.78

relatives		
The drug given by pharmacist on my demand	85	29.92
Other	18	6.33

Eventhough 47.26% of antibiotic resistance awared people like students and professionals they also commit SM due to non socioeconomic basis. The remaining 53.73% don't have knowledge about it, which includes locals and households. Majority of them practicing SM because that they intake antibiotics for similar manifestations of diseases which is previously prescribed by a physician. Gender differences are also seen in the use of medicines, greater percentage of females are reported SM because of muscular pain, abdominal cramp during menstrual discomforts So, they are using

antibiotics in wrong dose, duration and moreover, neglecting the cautions about antibiotics. 41.45% are using branded medicine, 58.59% prefer OTC drugs by memorizing the content of drug and any brand can be preferred by them. Half of the people have the habit of SM without proper diagnosis. It leads the patient to develop serious adverse drug reactions followed by hiding of symptoms remain undiagnosed. That may cause hiding of serious illness which makes that disease untreatable.

Table 2: The exact reason behind the practice of SM rather than consulting a physician.

Reason	No of individuals	Percentage
For saving time and money	35	12.32
Having a mindset that these medical conditions can be treated myself	106	37.32
Due to the lack of knowledge of adverse effects	68	23.94
By trusting the opinion of others	12	4.22
By seeing others practicing self-medication and getting cured	17	5.98
Other reasons	18	6.33

Similarly, 50% of the people have the habit of stocking medicines for future use, mainly antipyretics, antacids, vitamin B12 like tablets. The purpose of stocking medicine is mainly for conserving time or hesitation to consult doctor and sometimes for emergency need. About 61.7% people take drugs after proper diagnosis and 8.98% of people doesn't diagnose their illness and such behavior on their education level, attitude towards self diagnosis, preservation of used left over medicaments moreover to reduce cost and time.

The preference of SM mainly due to medical condition figure 2. In 42.57% of the cases pharmacist give the

medicine they demand, mostly OTC drugs are provided in short pharmacy is the prime source of information about medications, which lead individuals to practice SM, Therefore when these medications are comfortably available from pharmacies as a cheap product without any significance of the medication it becomes a common practice. The pharmacist should be informed the patients otherwise they mislead the information supplied as a source of SM practices. Hence there should be strict regulation on scheduled drugs and also effective counselling should be provided.

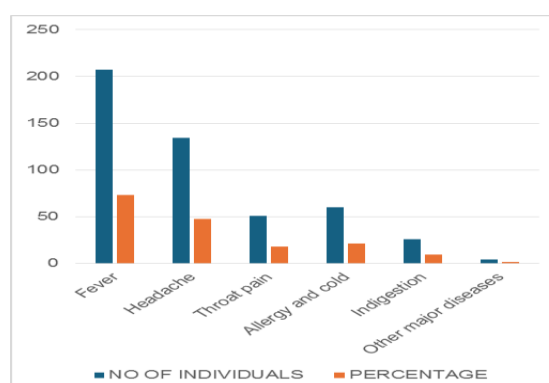


Figure 1: Various medical condition for which study participants take medicines themselves.

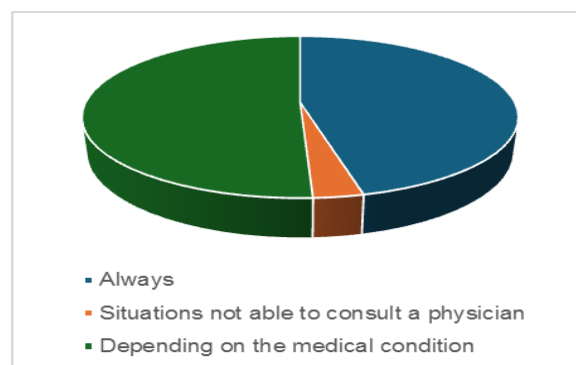


Figure 2: How often the study participants prefer SM.

DISCUSSION

The use of medications without a prescription is a growing phenomenon, driven by a multifaceted set of factors tied to prevailing modern societal norms. notably, the proliferation of alternative medicines and their accessibility, alongside unrestricted sales and advertising of pharmaceutical products in the media, are significant contributors to this trend. Likely wise, students and professionals are more often practicing SM due to incidence of stress related to their work mostly related to their occupational stress, workload, lack of time, hesitation to consult doctor, interpretation about disease condition, misunderstanding of seriousness of disease.

General contributing factors like socio-economic, educational, demographic, cultural, developmental status, health concepts, etc. are insignificant in these practices. Educated individuals are more likely to have a higher prevalence of SM due to their capability to interpret medication labels, a task that is challenging for the illiterate population. This underscores the necessity for initiatives like mass media campaigns and governmental interventions to enhance public awareness about the dangerous associated with drug consumption without medical guidance. In short, greatest number of people are inconsequent about their health condition and adhere to OTC drug. Majority of professionals, even though they are well educated, blurb to sustentation of their health. In the contrary, the fact of SM is not always a problem, but could offer advantages in many situations like emergency antipyretics, antacids, vitamin tablets especially in case of workers and students. So in certain emergency conditions it recommended as a first aid measure.

Hence responsible SM is to be encouraged and can result in positive outcomes as has been reported recently by the WHO and other organizations. For ensuring safe use of medication through pharmacy by prescription monitoring and sales volume comparison should be mandatory in inspection, frequent audit by Drug Regulatory Authorities, using available technology prescriptions from physicians to pharmacist based on which dispensing would occur to patients helps to limit reuse of previous prescription. Moreover, proper awareness creation to the public. Although SM is an old, universal

problem of large proportion, elimination is very difficult so in order to control these practices strict regulations and inspections along with public awareness should be performed.

CONCLUSION

Results showed that the use of self-medication among society was very high and at an alarming rate of 90.14%.the medications commonly used by people included pain relievers, anti pyretics, and anti-inflammatory drugs for conditions like fever, headache and common cold. In this survey, individuals across all sociodemographic groups endorse SM, citing past experiences treating similar illnesses, the perception of their condition as nonserious, and insufficient time as significant factors. The refinement of self-medication's appropriateness necessitates the utilization of well-designed studies and validated tools. The concept of self-medication serves a dual purpose: it aids in time management and alleviates the strain on overwhelmed medical services by allowing drugs to be obtained over the counter without a prescription; however, it also poses numerous risks such as misdiagnosis, prolonged illness, and the development of pathogen resistance. While self-medication practices cannot be unequivocally deemed harmful, medications categorized as "Over the Counter" (OTC) can be acquired without a prescription, often saving time and money for patients. Conducting a study to evaluate societal understanding of medication usage would serve as a valuable sequel to this investigation, facilitating improved intervention planning. It is essential to enhance health education initiatives to promote the utilization of government healthcare services by the general public, now available at subsidized rates. Displaying a list of medications available over the counter, akin to a citizen charter, and implementing stringent monitoring of pharmacies are necessary measures to ensure the dispensing of prescription drugs only, discouraging SM practices.

Recommendations

During our study we finally found that the whole approach must be modified:

- i. Raising Awareness and providing education on the consequences of self-medication.

- ii. Tactics to curb the dispensing of medications without prescriptions by pharmacies.
- iii. Enforce strict regulations on pharmaceutical advertising.
- iv. Approaches to simplify and make receiving health care more accessible and affordable.
- v. Awareness of AMR.

Physicians and healthcare providers invest additional time in educating patients about these matters. Enhancing comprehension of self-medication can lead to more judicious use of medications, potentially mitigating the rise of antibiotic resistance.

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