International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Why people Self-medicate?

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ABSTRACT
Background: Self-medication has become a common trend to treat self-diagnosed disorders.

Objectives: To assess the prevalence of self-medication, identify factors leading to self-medication, find the association of demographic variables with self-medication.

Methods: A cross-sectional descriptive study was conducted using a self-prepared questionnaire. The reliability of the tool was done by test, retest method and the r value = 0.829. 100 samples were surveyed in a selected community in Mahabaleshwar taluka.

Results: Out of 100 samples, 67 (67%) were self-medicating (Fig.9). The study findings show that, majority (41.8%) of the adults who self- medicated were from the age group of 20 to 35 years. 46.9% were females and 53.1% were males (Fig.2). Majority (55.1%) of the subject's self -medicated for headache. The major factors leading to self-medication were: Doctor/ clinic far from home (26%), 18% self -medicated to save time and hence referred old prescriptions, 8% has no trust in doctor, 7% said that they had to wait for a long time as the doctor was busy with other patients and 5.2% said that they followed pharmacist advise(Fig8). There was no significant association between demographic variables (Age, gender, income, occupation, education) with self-medication (Table 1).

Conclusion: Self- medication is used every day in the form of self-care for our health. Self-medication is an important concern at the global level. This study found that the prevalence of self-medication is high among adults residing in Mahabaleshwar Taluka. Educating the public regarding the dangers of self-medication and its crucial side effects. Tightening the rules and regulation of pharmacies to prevent sale of over the counter drugs may help in limiting the practice of self-medication.

Keywords: Self-medication, Practices, Factors, Prevalence, Over the counter drugs (OTC).

INTRODUCTION: Self-medication (SM) can be defined as obtaining and consuming drugs without the advice of a physician [1]. The desire to self-medicate may play chaos when a person starts taking medicines

on their own forgetting that all drugs are toxic and their justifiable use in therapy is based on a calculable risk. World Health Organization has defined self-medication as "use of pharmaceutical or medicinal products by the consumer to treat self-recognized disorders or symptoms, the intermittent or continued use of a medication previously prescribed by a physician for chronic or recurring disease or symptom, or the use of medication recommended by lay sources or health workers not entitled to prescribe medicine." [2]

In lay man's term self-medication is obtaining and consuming drugs without the advice of a physician on diagnosis, prevention or treatment of disease. Medicines that require a doctor's prescription are called prescription products. These medicines are available in pharmacies. A study conducted by Varun Kumar, Abha Mangal, Geeta Yadav, Deepak Raut, Saudan Singh, in 2022, on "Prevalence and pattern of self-medication practices in urban areas of Delhi" found that 92.8% (95 confidence intervals: 66.5 – 79.4) relied on self-medication. 74.9% preferred allopathic medicines. Self-medication was found to be practiced more among younger persons than older age groups.[3] Similar studies carried out elsewhere in India showed the prevalence of self- medication as 37% in urban areas and 17% in rural areas of India. There was a wide variation in prevalence of self-medication ranging from 12.7% to 95% in other developing countries. [4]

Families, friends, neighbors, pharmacists, previous prescribed drug, or suggestions from an advertisement in newspapers or popular magazines are common sources of self-medication. Some people may take advice from an older person who has knowledge of simple remedies for common illnesses. Some may go to a pharmacist or ask opinion of their friends or family members. In developing countries like India, easy availability of a wide range of drugs along with inadequate health services result in increased proportion of drugs used as self-medication compared to prescribed drugs. Some may use OTC (Over the Counter) drugs which is widely available. There is an increased threat of transfer of prescription medicine to OTC drugs. Excess use of OTC drugs results in many complications. Self-medication is associated with risks such as misdiagnosis, use of excessive drug dosage, prolonged duration of use, wastage of resources, and increased resistance to pathogens. Further, there is an increase in the promotion of self- medication products, which has enhanced consumer and patient's awareness of the availability of products. Despite these drawbacks, self-medication is an important component of primary healthcare. There are some advantages of self-medication like treating minor symptoms and ailments that do not require medical attention and thereby decreasing the burden on delivering health care. However, there are several critical issues that must be explored before promoting the potential benefits of self-medication. [5]

Any self-medication product should be safe. There is a lot of public and professional concern about the irrational use of drugs in self-medication. Although, OTC drugs are meant for self-medication and are of proven efficacy and safety, their improper use due to lack of knowledge of their side effects and interactions could have serious implications, especially in extremes of ages (children and elderly) and physiological conditions like pregnancy and lactation.

MATERIALS AND METHODS: A cross-sectional descriptive study was done to assess the practice of self-medication using a self-prepared questionnaire. The reliability of the questionnaire was tested by, test retest method by sending Google forms to 10 participants and the calculated r value was r = 0.829. The

main study was done by distributing questionnaires to 100 samples, 20 samples were randomly chosen from 5 different villages. Both descriptive and inferential statistics were used to analyze the data.

Materials used for the study: Questionnaire was prepared in English language which was then translated to Marathi and it was tested by reverse translating to English. The Marathi questionnaire was shared as a Google form to 100 participants. The questionnaire consists of 2 sections. Section 1 is comprised of 7 questions which includes the demographic variables such as age, gender, occupation, marital status, religion, educational qualification, income. Section 2 consists of 17 multiple choice questions to gather information regarding reasons, diseases and the prevalence of self-medication.

Inclusion criteria:
- Adults residing in selected communities in Mahabaleshwar
- Adults between the ages of 20 to 80 years.
- Adults who can read English/Marathi.

Exclusion criteria:
- Health team members (Nurses, Pharmacist, Reg. Practioners and Paramedical staff)
- Mentally incompetent.
- Unable to listen or speak.

Study Design: Non-Experimental descriptive research design was used.

Sampling Method: A non-probability consecutive sampling technique was adopted.

Pilot study: Pilot study was done on 10 samples and the study was found feasible.

Procedure:
Period of data collection: The main study was conducted from 14th August to 17th August 2022.

Procedure of data collection:
- Prior to data collection permission was obtained from the ethical clearance board of Institutional Ethics Committee.
- Based on the inclusion and exclusion criteria selections of samples were chosen using a non- probability sampling technique.
- 100 subjects were selected based on the criteria laid down for the study.
- Informed consent was obtained from the participants and confidentiality was maintained throughout the research.
- Questionnaires were given in the form of a Google sheet.
- The information from the samples were collated in excel sheets.

RESULT:
In this study, majority (41.8%) were from the age group of 20 to 35 years (Fig1). Majority (53.1%) were males (Fig2) and (39.8%) were Buddhist (Fig4) and majority (27.6%) were graduates (Fig5). In this study,

majority were married (66.3%) (Fig6) and belonged to the income group between Rs.30, 000- Rs.50, 000 (28.6%) (Fig7). The major reasons for self-medicating were headache (55.1%) and fever (24.5%). Major factors leading to self-medication was doctor/ clinic far from home (26%), 18% was to save time by referring old prescriptions (Fig8). The study found that out of 100 samples, 67% were self-medicating (Fig9). There was no significant association between the demographic variables (Age, gender, income, occupation, and education) and self-medication (Table1).

DISCUSSION:

The study was conducted in five communities of Mahabaleshwar Taluka. Results had shown that 67% were self-medicating. (Fig9). This was similar to studies done in Puducherry which showed 71% prevalence of self-medication.[6] Another study conducted in Nepal found that 59% of respondents had taken some form of self-medication. [7] A study done in South Africa had shown very high prevalence of self-medication (93-98%). [8] The current study had reported that 53.1% males and 46.9% females self-medicated (Fig2). Studies reported from India [9] and neighboring countries like Sri Lanka and Nepal also opined the same. [6, 9]

The present study shows more prevalence of self-medication among the age group of 20- 35 years (Fig1). Other studies also had opined the similar features. [10, 11] This study also reveals that high prevalence of self-medication was among graduates than illiterates (Fig5). Education was found to be an influencing factors leading to self-medication in various studies. [9] The common method of procuring medicine was found to be recalling prescription. Also in this study self- medication were more prevalent in housewives and married people. This could be because the women folk are busy through the day in their household chores and did not have time to wait to meet a physician. It can also be due to the expenses they have to meet to consult a doctor (Fig3). This finding was similar to a study done by Gaurav M and Nair. [12, 13] The present study found that self-medication was widely practiced by those with an income range of Rs30,000-Rs50,000/- compared with respondents belonging to lower socioeconomic status(Fig 7). This could because they were more focused on their employment and did not want to be absent from their work. This was supported by a similar study done in Sri Lanka and China. [9, 11]

The study found that more than half of the participants were self-medicating for headache (55.1%) followed by fever (24.5% menstrual pain, cough, gastric problems, allergies, nausea and skin problems. These findings were similar to the study conducted by Gaurav M. Rangari, Roza G. Bhaisare, Venkatasandhya Korukonda, Y Lakshmi Chaitanya, and Hanumanth N where headache were (78.8%) and fever (66.4%) [14]

In the present study, the majority of the participants responded that the doctors are far away from home. A similar study conducted in Hyderabad reported a high cost of consultation of private doctors and poor quality of care in government hospitals were the main reasons for self-medication. This in contrast to our study as very few subjects reported this reason.[15] The most common reason for self- medication in the study of Limaye was having an old prescription and saving time. And in a similar study of Keshari the reasons for self - medication were time- saving, high cost of consultation, and minor illness. This in contrast to our study is the second leading factor for self- medication.[16,17] Study reported by Deshpande and Tiwari also states every third customer coming to pharmacy is receiving drugs without prescription.

[18] People are self-medicating due to mild illness and lack of time to visit a doctor. The study findings reveal that there is no significant relation between the demographic variables with self-medication (Table1). The pharmaceutical industries primary aim is to sell all their products and maintain their profit either by generating more prescription from the physician by advertising its products through media.
The limitation of the study were that the study was conducted only for one week and among people residing in the five selected rural areas in Mahabaleshwar were transportation was also difficult. The study doesn't specify the time limit of using the drug and common drugs consumed were not included in the questionnaire. The study was limited to a smaller group and hence generalization is not possible. Some people miss their doses due to longer recall period of 3 months.

CONCLUSION:

Self-medication is the use of medications for self-treatment without seeking the advice of a licensed medical professional for a diagnosis, a prescription, a surveillance plan, or a course of treatment which can result in drug misuse and dependency, both of which have very serious problems in the modern world. Unwise medication usage without the right medical supervision increases risk of pathogen resistance, improper, inaccurate, or excessive therapy, and increased morbidity. Self-medication is an alarming concept. People who are self-medicating should have adequate knowledge regarding the dose, time of intake, side effects and effects of overdose. Potential risks of self-medication include incorrectly self-diagnosing and taking the wrong medication. In some instances, dangerous drug interactions may occur due to incorrect dosage or medication misuse. To minimize potential risks, we as nurses need to encourage the public to seek a medical professional who can accurately diagnosis and prescribe medications. Since there are chances for people to self-medicate in future, educating the public is a prime concern. The government has to enforce strict rules to protect innocent people from claims proposed by the pharmaceutical companies with fake claims or statements in newspaper, magazines and electronic media.

TABLES:

Section 1: Description of subjects with regard to Demographic variables.

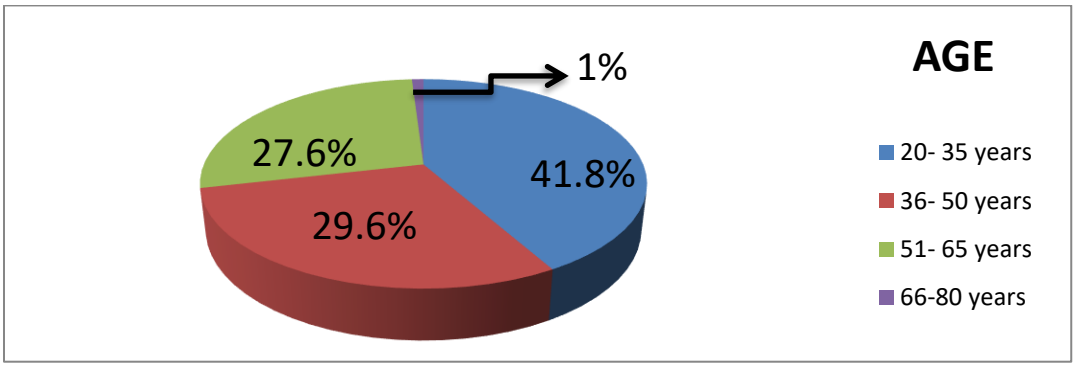

Fig 1: Distribution of samples according to Age

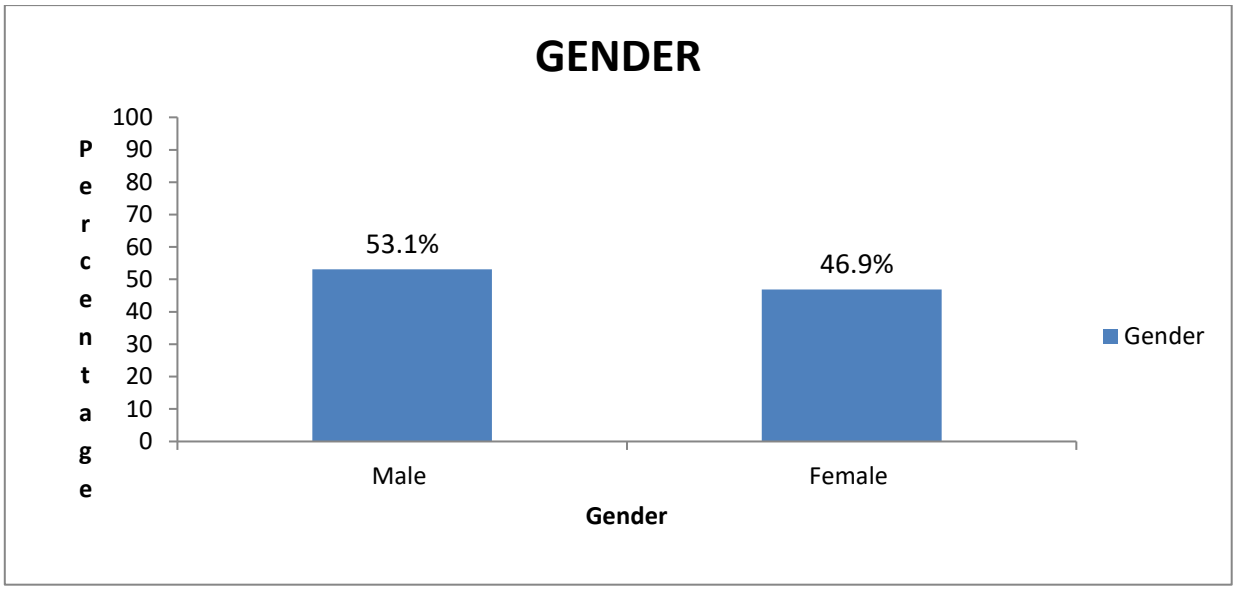

Fig 2: Distribution of samples according to Gender

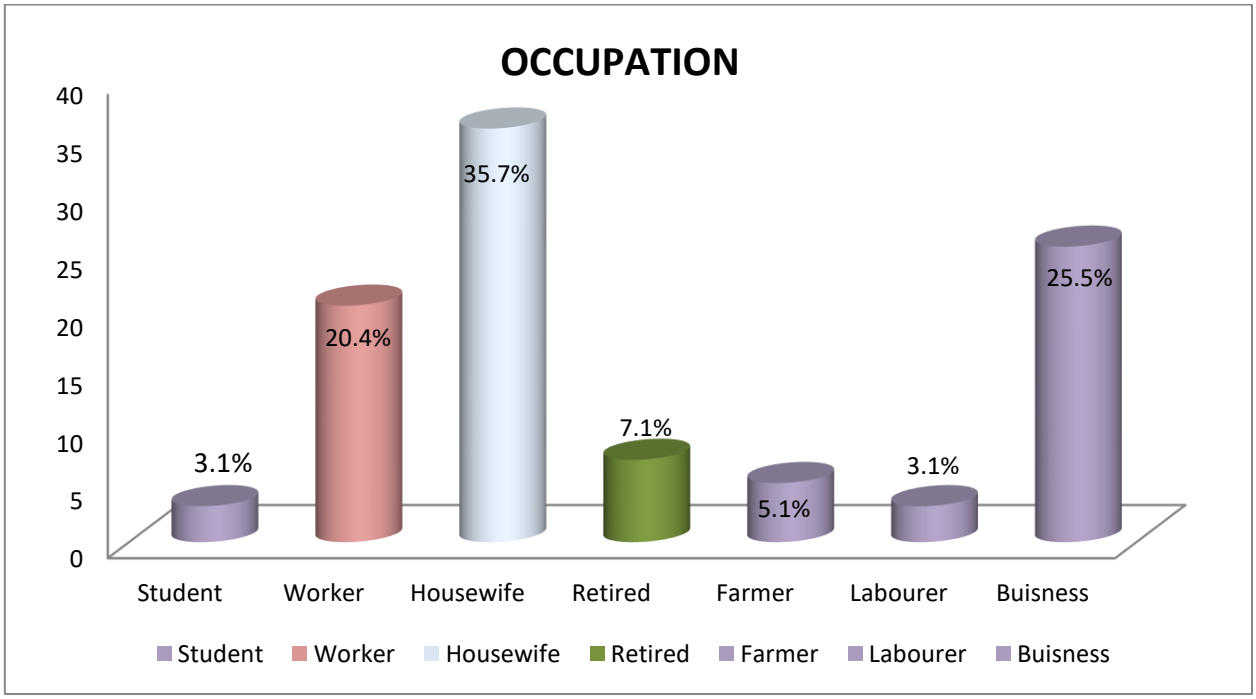

Fig 3: Distribution of samples according to Occupation

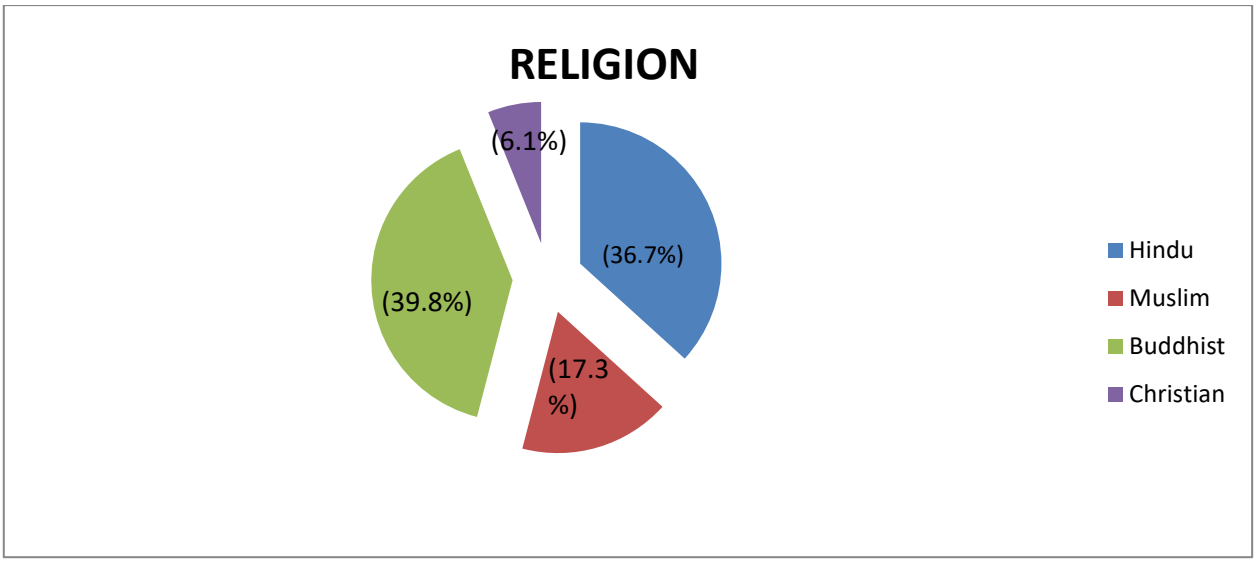

Fig 4: Distribution of samples according to Religion

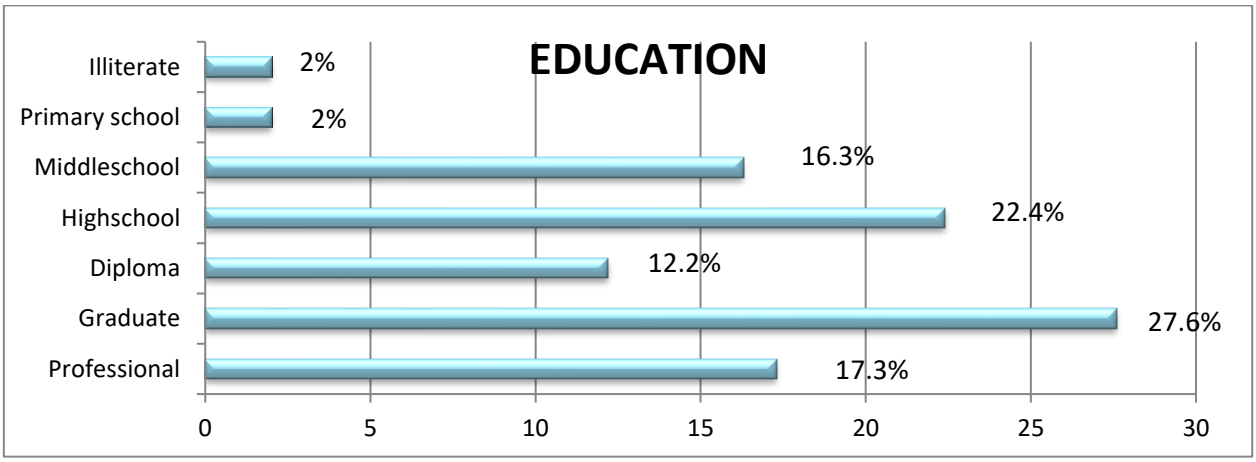

Fig 5: Distribution of samples according to education

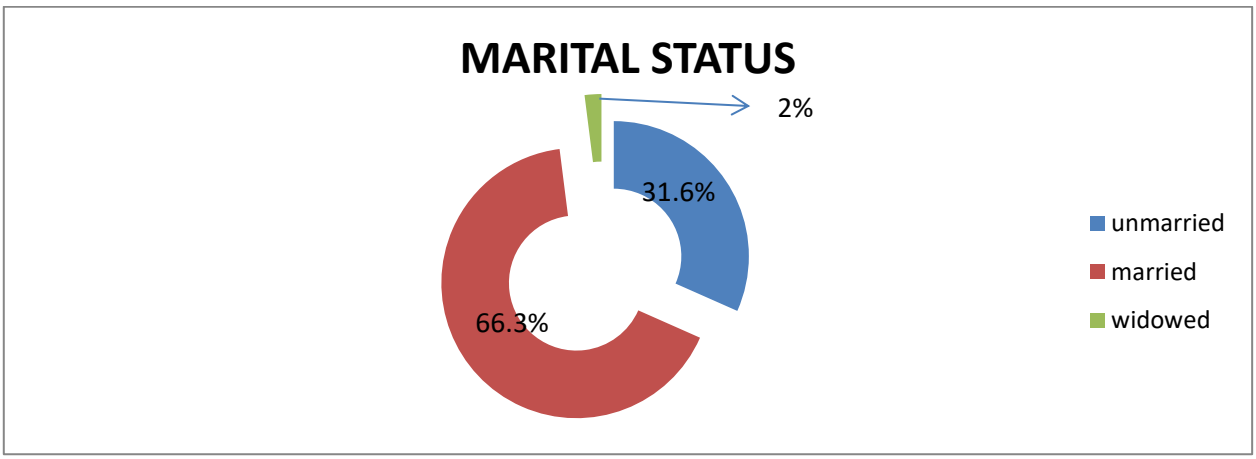

Fig 6: Distribution of samples according to Marital status

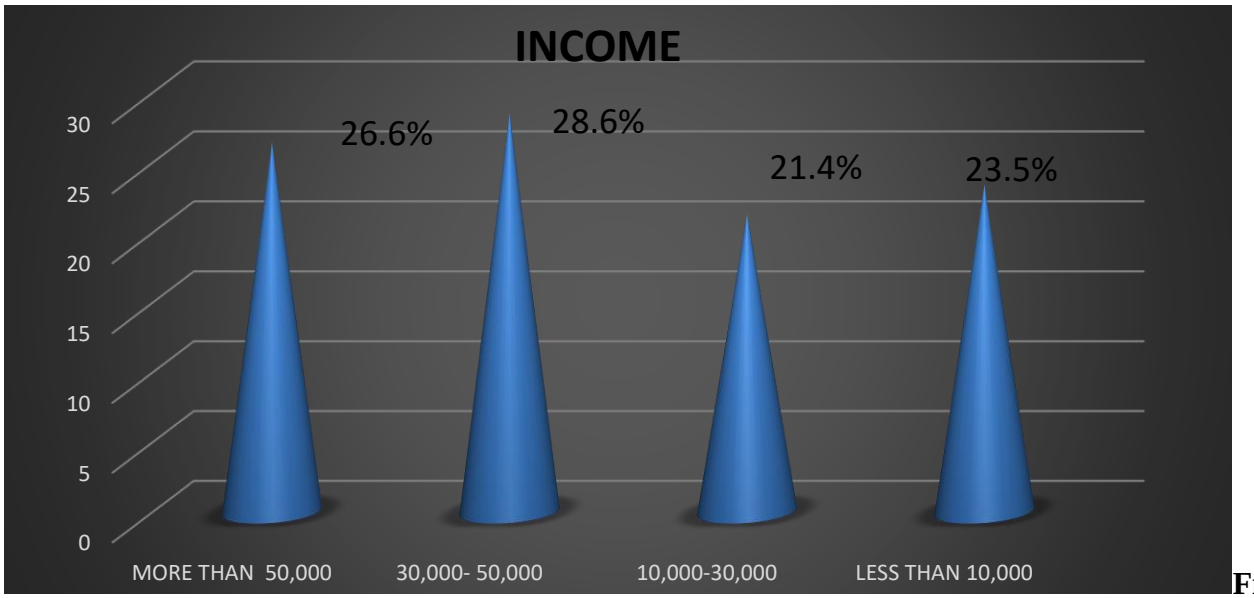

Fig 7: Distribution of samples according to Income

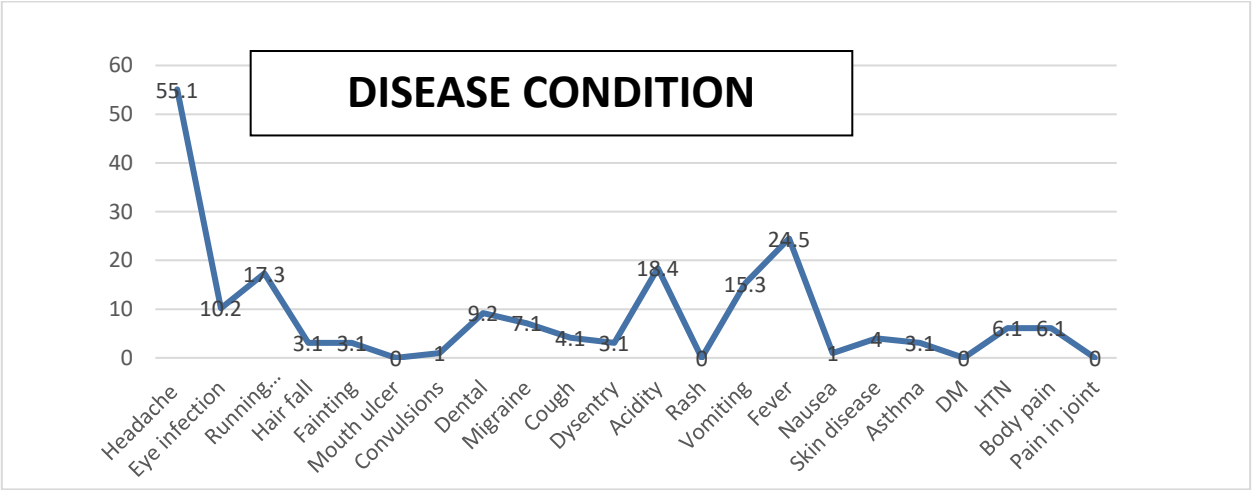

Fig 10: Distribution of samples according to Disease condition

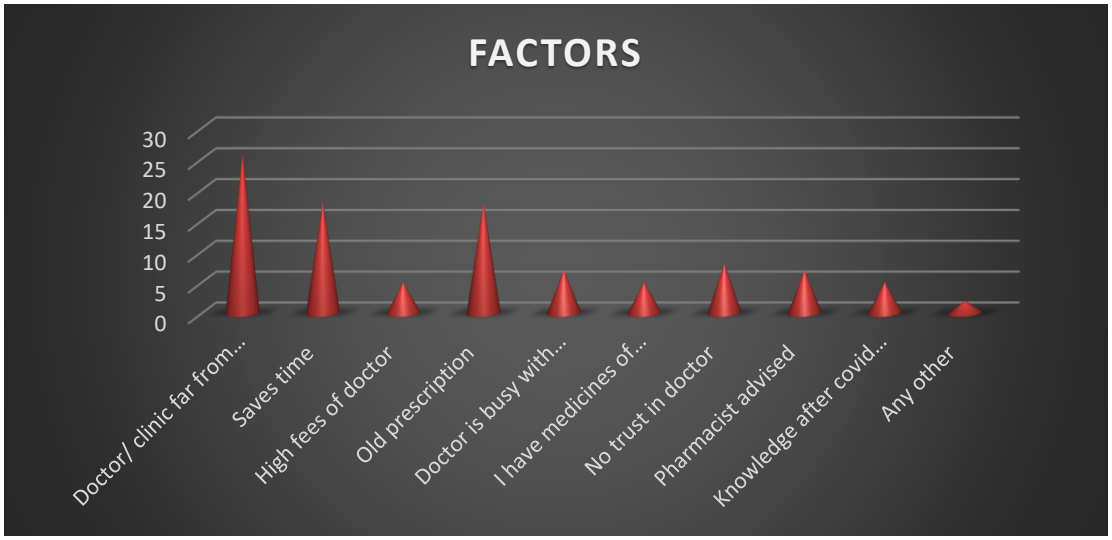

Fig 8: Distribution of samples according to Factors leading to self-medication

SECTION 2: Prevalence of self-medication

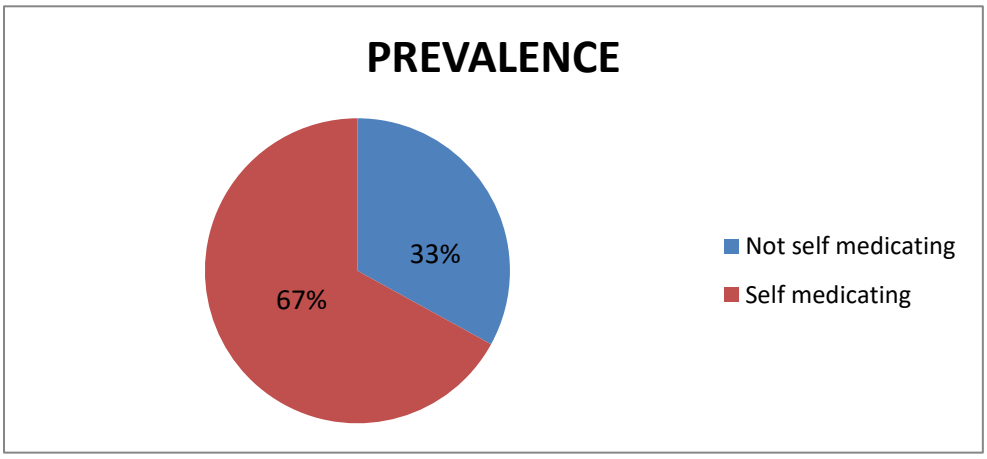

Fig 9: Prevalence of self-medication

SECTION 3: Association of demographic variables with study variables.

Demographic variables	Self-medication		Chi square	p value	Association
	Yes	No			
AGE					
20- 35 years	27	19	5.274	0.0716	Not significantly associated
36- 50 years	25	5			
51-65 years	15	9			
GENDER					
Male	29	18	0.2907	1.116	Not significantly associated
Female	39	14			
EDUCATION					
Professional	11	4	6.529	0.2581	Not significantly associated
Graduate	11	12			
Diploma	5	2			
High school	20	7			
Middle school	15	4			
Primary school	5	4			
OCCUPATION					
Student	2	2	9.804	0.199	Not significantly associated
Worker	14	3			
House wife	18	15			

Retired	5	1			
Farmer	2	3			
Laborer	1	4			
Business	18	11			
Unemployed	1	1			
INCOME					
>50,000	10	4	4.476	0.214	Not significantly associated
30,000-50,000	14	4			
10,000-30,000	15	13			
<10,000	30	10			

Table 1: Association of demographic variables with self-medication

ACKNOWLEDGEMENT: None

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