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A Cross Sectional Study on the Prevalence, Pattern and Consequences of Self-Medication Practices among the Population of Sitapur Urban



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ABSTRACT

This study employed for qualitative case study designed. A total number of population 500 were selected for sample collection and 488 people were respondent for pre-tested interview in study on questionnaire basis. Data was done to be using grounded theory and see how to become a known issues were related. SM was found to be prevalent in 82.31 % of individuals with females accounting for 40.98 % of those who responded. Males over the age of 40 who engage in moderate level occupational activity were shown to be substantially related with higher self-medication. The most frequent illnesses for self-medication which is utilized for fever (30 %), headache (24.5 %), and stomach discomfort (20.4 %) and also these study were to find out for which people self diagnose, prevalence of self medication during pregnancy and with antibiotics. The most popular strategy for users to get medicines is to describe their symptoms to pharmacists. The majority of SM users believe that self-medication is safe and that they would use it, thus it is important to get advice from others before using self-medication. In this location, SM is a major health concern. Public health education and pharmacy control may help in decreasing the use of self-medication.



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INTRODUCTION:

Self-medication involves the use of medicinal products by the consumer to treat self-recognized disorders or symptoms or the intermittent or continued use of a medication prescribed by a physician for chronic or recurring diseases or symptoms.[1] William Osler once quoted that “A desire to take medicine is perhaps the great feature which distinguishes man from animals.” This desire, however, may play havoc when a person starts taking medicines on their own (i.e., self-medicating), forgetting that all drugs are toxic and their justifiable use in therapy is based on a calculable risk.[2]

The reasons for growth in self-medication are the urge of self-care, feeling of sympathy toward family members in sickness, lack of health services, financial constraints, ignorance, and extensive advertisement of drugs and availability of drugs in establishments other than pharmacies.[1] In developing countries like India, easy availability of a wide range of drugs coupled with inadequate health services results in increased proportions of drugs being used as self-medication. Many studies report that self-medication can lead to delay in health-care seeking, leading to complications which, in turn, can cause economic losses and danger to life. [3, 4] Practicing self-medication for drugs such as antibiotics is a major factor fuelling the emergence of drug resistance. [5]

According to the Indian Drugs and Cosmetics Act, sale of antibiotics and drugs which are part of Schedule H without a valid prescription is banned. However, many studies from the country have shown a high prevalence of self-medication practices including antibiotic self-medication. [2, 6] However, most of the studies were done among medical students or professionals or hospital attendees. Community-based studies on antibiotic self-medication are limited, especially from North India. [7-10]

Major problems related to self-medication is wastage of resources, increased resistance of Pathogens, and generally entails serious health hazards such as adverse reaction and prolonged suffering. Antimicrobial resistance is a current problem worldwide particularly in developing countries where antibiotics are often available without a prescription [11, 12]. Hence a cross –sectional study was undertaken to estimate the prevalence of self- medication and to identify factors that might be associated with the same. Hence, this study was conducted with the objective of assessing the prevalence and pattern of antibiotic self-medication practices in an urban population of Sitapur district, India.

MATERIALS AND METHODS:

Study design: From November 2021 to February 2022, a community-based cross sectional study design was employed for the research.

Study area: The study was conducted in urban city of Sitapur. It is located at 98 km south toward state capital Lucknow of Uttar Pradesh. In addition, there have many Government health centre private clinic and pharmacies.

Study population: In this study, on account of population have been taken 500 (male & female) which is included in the study & categorised into five groups 18-24, 25-29, 30-34, 35-39, more than 40. Those aged considered above 18 as the subject for study. The target population were selected on questionnaire basis data collection was done on person. Well, Sitapur is developing district where most of the people come for education purpose and some of people who come from village area even they don't have sufficient awareness related medicines but people of city awarded them some their points of about self-medication that what's the importance of self-medication.

Sampling Frame: The data were used as frame to determine sample on household urban community.

Inclusion Criteria: The people living Sitapur are different background some are educated, non-educated and some of them have only basic knowledge. On basis of questionnaires form those who participated regarding their aged on more than 18.

Excluded Criteria: People who were seriously ill and incapable of hearing speaking and which were not present in district at the time of data collection were excluded.

Sampling and Sample size: These study participants are chosen using a basic random selection procedure. The sample size is computed assuming a 65 % educated population, a 25% non-educated population, and a 10% population with only a basic education. Some of them are medical professionals, and volunteers exhibited a tendency to perform self-medication with a 5% margin for error modification and a 95% confidence range. The sample size was determined to be 500. However, to assure more representative results, a larger sample size of 500 volunteers was chosen for this study; and 488 volunteers were interviewed.

This method is used because it allows the study to use respondents who are easy to contact and include in the investigation. Participants are required to complete a 23- 24 question self-administered questionnaire. The questionnaires include socioeconomic information as well as questions about their awareness of and usage of self-medication. The questionnaires are self-administered, and the respondents' identities and opinions are protected by strict confidentiality. [13-16]

Data Collection Tool and Technique: This procedure has been used in questionnaire to collect data and information from the respondents. The questionnaire had both open and close ended question which reflected the aim of this study. The questionnaire was distributed to the respondents in their various areas and blocks/sectors of Sitapur urban. The questionnaire was chosen as the data gathering technique since it is simple to measure and analyse. [17]

Data handling, analysis and presentation: The data was analysed by using the statistical study for ANOVA and Microsoft excel software see if there was a significant difference in SM between different age group and student *t*-test was used to determine significant difference between male and female for self-medication and also persons correlation coefficient was learnt both various age groups. [18]

Ethical Consideration and Informed Consent: The ethical protocol for all participant, when I was go there conduct my study firstly had to informed participants for this research project and data were collected generally for academic purpose without any forced. Because ethical issue was taken on account of potential risk that may occur during the study process, the risk could be arisen in this study involve like emotions stressed during pre-test interview.

Respect for patient Autonomy: The study researcher respected to all participants and not a discriminatory did not use unnecessarily language. Researcher was ensure their trustworthiness and transparency in all process. Researcher would not be considered interview in depth, it may cause the participants to exhibits with some distressing emotions by bringing up traumatic memories thereafter, the participants and research would agree to resume the interview on a later date. [19, 20]

RESULTS AND DISCUSSION:

The epidemiology research had a 100% response rate since all of the data was acquired through direct interviews with all of the individuals. SM was reported by 86.72 percent of

the participants. Fever (30%), Headache (24.5%), Stomach pain (20.4%), cough (8.1%), and cold(16.39%) allergy are the most prevalent conditions for which the participants self-medicate (20.1%). Analgesics, particularly paracetamol, as well as cold and cough remedies, were the most commonly utilised medications.

- Sample Size -500
- Self-medication – 413
- Non-self – 75
- Refused – 12

Demographic details of the study objects: The study objects were divided into four different age groups 18-24 25-29 30-34 35-40 and above 40. Male involved in this was 59.02 % and Female was 40.98%. Marital status of the objects single was 278 and married 210. The first group account 27.66% second group and 22.95% third group is 21.72% forth one is characterize 17.41% and last one by 10.24%. Occupation was occur from self-employed 28.42% government 23.15% private sector 18.94% student 15.78% house wives 13.6%. 43.03% of the subjects are married and the 56.96% are single (Figure 2).

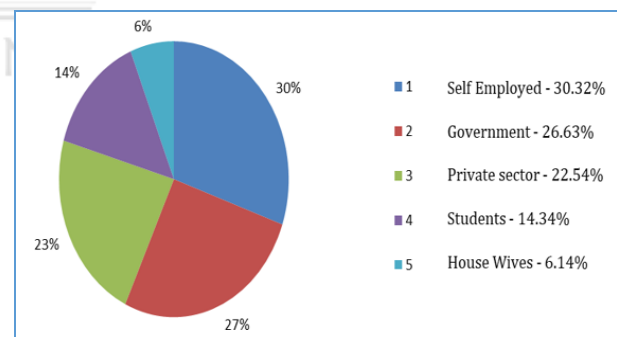
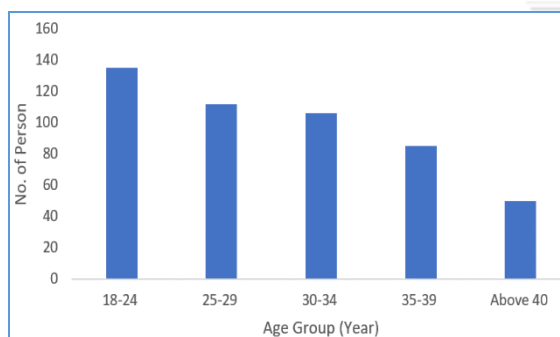


Figure 1: Demographic details according age

Figure 2: Occupation / profession status of respondent

Type of Treatments: Ayurveda was the form of treatment that the participants favoured (42%) Allopath (36%) Homeopathy (20%) Ayurveda. The majority of them said that they believe allopathy medicines provide faster alleviation. Those who preferred Ayurveda homoeopathic claimed that they had taken them because they believe they are free of adverse effects.

Self-medication reason: The data obtained indicates the outcome for the cause for self-medication in figure number one that Illness was minor (32.37%) convenience (26.63%) Doctor was not available (24.59%) cost saving (16.39%). As shown in number of subject Figure 3. The actual reasons behind the self-medication were having medication information, previous experiences, lack of time and on the other hand do not take disease seriously.

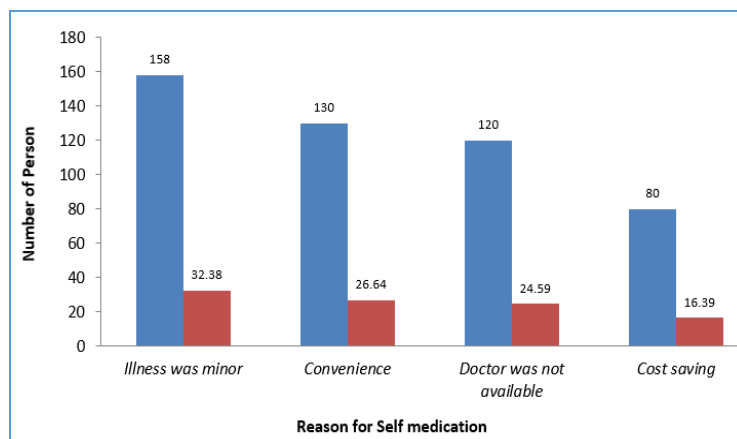


Figure 3: Reason for self-medication

Source of information: Having a many more sources of information were included for self-medication friends, neighbours, and they were also used their experiences with chronic illness. One explanation had to given. At once, I was ill and lying on floor at home and my neighbour came to home and she asked me that what happen, what was the problem, she told me what the medicine to buy. I went to the medical shop and bought the medicine I was asked to buy. As figure 2 the knowledge of previous Prescription (32.78%) family (28.27%) the media (22.54%) pharmacy (16.39%).

Side effects reported after self-medication: Figure 4, The majority of the them didn't suffer with any adverse effects after SM. Only a few of them reported minor side effects such as loss of appetite, headache, skin rash, stomach discomfort, acidity, nausea and vomiting, lack of hunger and so on.

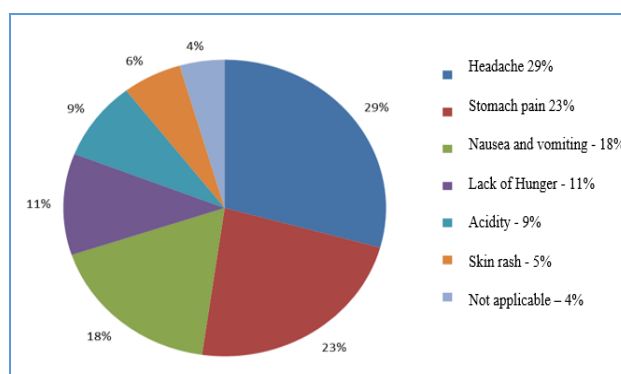


Figure 4: Side effects reported after self-medication

Reason for not consulting doctor: Participants had too many kind of reasons for consulting a doctor, because of lack of time and cost saving main purpose resorting to self-medication, the time factor explained individually. For example, going hospital was admitted as loss of time, depending on time of year also not taken disease or symptoms seriously. They totally belief this was done for longer duration, it takes to not seriously and get to the hospital the disease might worse and patient suffering with many problems or side effects at the situation might be cause death.

One participants had to say, self-medication general process I do before going hospital, it give the response, I get better early when I wait until I go to the hospital. Its good idea for serving life. Another participants had to says that waiting until you get to the hospital might made the situation is too critical and the disease became worse, so it was better to be treat yourself so that you became well.

Reason for consulting doctor even after self-medication: In this study, 32.78 percent of the population found relief after SM, while the majority of the 38.52 percent needed to see a doctor since they had no relief after SM. According to the study, volunteers reported waiting a few days to see if the condition goes away on its own or with home cures, or if they need to see a doctor. Many of them mentioned that they only go to the doctor when they reach a point when the problem can no longer be managed by oneself and they believe it will grow complex.

Self-medication pattern: The populace claimed that they buy drugs utilising outdated prescriptions without contacting a doctor in terms of self-medication patterns.

Table 1: Even after self-medication, there are reasons to see a doctor

Even after self-medication, there are reason to see a doctor		Percentage
There was no relief	188	38.52
Not Applicable	160	32.79
Disease become worse	140	28.69
Total	488	100

Self- medication with Antibiotic: Figure 3 depicts the self-medication trend in use. Self-medication with antibiotics was widespread among the 45.08 %, and most of antibiotics were abusing like ciprofloxacin, amoxicillin, azithromycin. The vast majority of people were ignorant of the dangers with SM of antibiotics.

Many Drugs are antibiotics that are used to treat infections. A total of 40.57 percent of the population said they were aware of the real use of antibiotics. They're unaware to how it is used. It was utilised 32.78 % as a fever reducer and 26.63 % as a pain reliever.

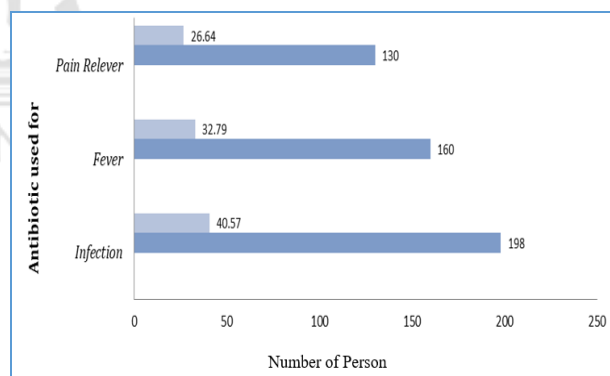
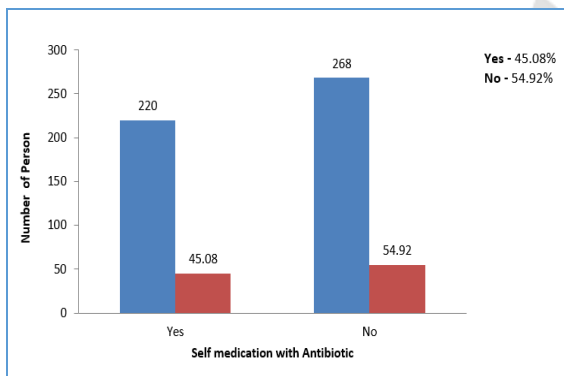


Figure 5: Self-medication with antibiotic Figure: 6 For antibiotic means a drug use

Table 2: For minor illness what do you do

For minor illness what do you do		Percentage
Any home remedies	155	31.76
Visiting to drug store	109	22.34
Take left over medicines	95	19.47
Consult doctor	75	15.37
Take medicine from neighbor	54	11.07
Total	488	100

Self-medication for children: In the research population, children's self-medication by their parents was the least common. Even for mild illnesses in their children, the majority of them said in the poll that they go to the doctor right away. Various parents utilised leftover medicines, while others tried some home treatments first and then went to the doctor if the problem did not go away.

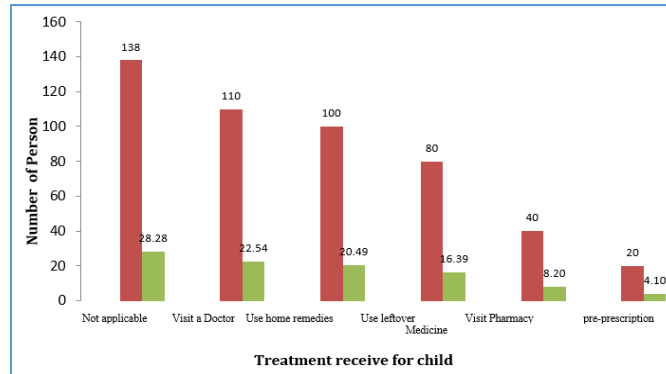


Figure 7: When a kid becomes unwell, the treatment they receive is determined

Self-medication pattern during the pregnancy and breast Feeding: The trend of SM throughout pregnancy and breastfeeding data was collected 107 married women volunteer are presented in Figure 8,9. None of the people in the population self-medicate during pregnancy, and just around 2% self-medicate while breastfeeding.

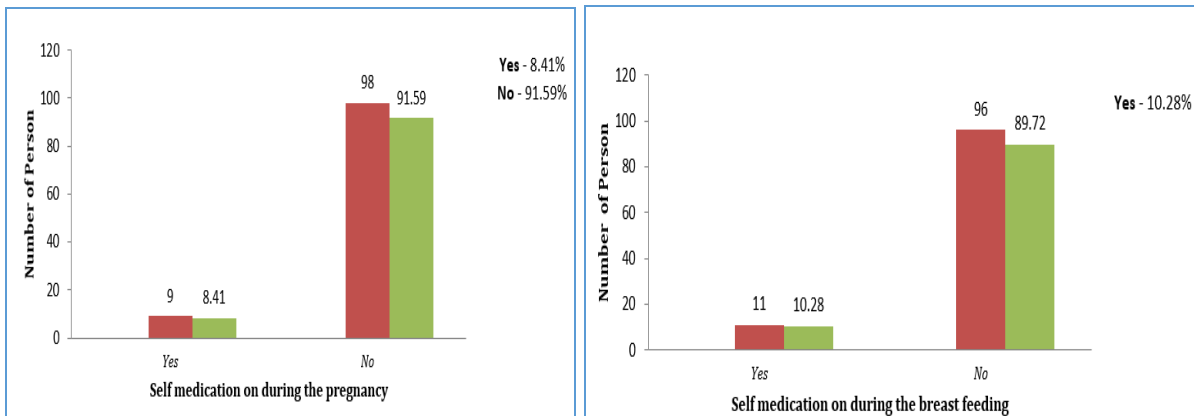


Figure: 8 Self-medication during the pregnancy Figure 9: Self-medication during the Breast-feeding

Confidence level in self-medication: The percentage of population showing confident 30.73% and doubt full 28.27% very confident 24.59% and are for not applicable 16.39%.

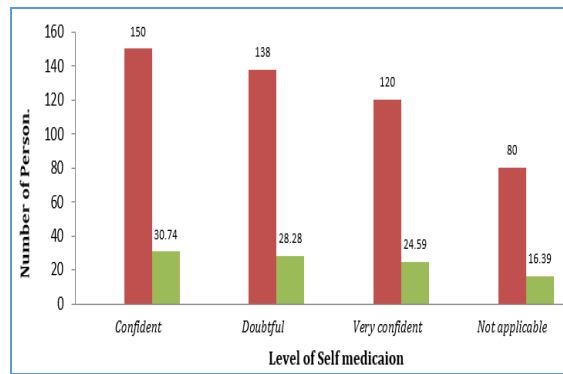


Figure 10: Confidence level in self medication

STATISTICAL DESCRIPTION:

ANOVA for Age groups: ANOVA test was completely analysed and having there significant differences in this study for self-medication between different age groups. The significant value is obtained after applied test 0.002. So here the age group do not differ significantly based on self-medication.

Student t-test: The t- test was completely analysed and had to see there's significant differences for self-medication in between male and female differ from variant of significant, it is based on entire population for self-medication. The male population was to found to self medication rather than the female population.

Pearson correlation coefficients: Pearson correlation coefficient was done and to see for different age groups. A positive correlation was analysed for age groups 18-24, 25-29, 30-34, 35-39, & Above 40. A positive correlation was also found for in between male and female.

CONCLUSION:

The purpose of this study is to determine the frequency, practise, and effects of self-medication among male and female adults older than 18 in the urban city of Sitapur. The focus of this study was on the information and direction given to each participant regarding self-medication and the potential advantages and disadvantages. The self-medication that all informants most frequently engaged in was discovered. As some informants relied solely on self-medication till they were not cured, the level of self-medication merely varied. While the other hand would use its own pain management techniques before seeing a doctor. The study was crucial in determining the cause, severity, and duration of the sickness as well as

prior experiences that influenced self-medication. Additionally, the advantages and disadvantages of self-medication are entirely dependent on the viewpoint of the person who is incurring the cost of the prescription purchase at a specific time.

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CONFLICT OF INTEREST: Nil.

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