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PREVALENCE OF SELF MEDICATION AND ITS COMMON SIDE EFFECTS IN AN OUT PATIENT DEPARTMENT IN A TERTIARY CARE HOSPITAL

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ABSTRACT

The main objectives of this study were to find out prevalence, and reasons, assessing most commonly used drug and common illness and also to find out the common side effects experienced while on self-medication. A prospective, observational study was conducted in an OPD with the help of questionnaire in a population of 132 samples. With 132 individuals taking part in this study, the following data were obtained after analysing the filled questionnaire. In this study out of 132 individuals, 111 responded with yes as their answer (84.09%) and 21 responded with No as their answer (15.90%). The main reason was Saving money with 61.36%. After analysing the Questionnaire, it was found that the respond for most commonly used drug was Analgesic/Antipyretic with 95 individuals consuming it on their own (71.96%). 86 individuals (65.15%) reported the common illness for people taking self-medication was Headache. This particular study reveals that while on self-medication the most commonly experienced side effects was sleep problems (14.39%). This study gives an overview of self-medication and its common side effects. Prevalence of self-medication in individuals visiting OPD was seen to be very high. Many individuals were not fully aware of the dangers of self-medication and were also ignorant to check expiry date, sharing ofprescriptions as well as taking half or double the dose on their own. It is therefore necessary to educate each and every-one either through direct counselling as well as distributing of Patient Information Leaflets. Encouraging the people to always refer to a

physician in case of any medical attention, and if no physician is available at the moment, they can contact a qualified nurse or pharmacist to enquire about the medicine.

KEYWORDS: Self - medication, Side effects, OPD.

INTRODUCTION

Self - medication is described as a treatment of any ailments without consulting any qualified or registered medical practitioner. Self - medication is one of the major problems for safe medications and the root cause for other complications. It is practised worldwide and commonly practised among youngsters and adults. Self - medication has been going on for ages and people practice this method mainly for mild symptoms, or commonly experienced symptoms such as headache, fever, pain, menstruation cramps, diarrhoea, constipation and so on. Developing countries like India have the access to OTC medications and in many instances, it leads to mis-diagnosis. Practising self - medication in a community by people can be seen as an advantageous method as it is less time consuming, easy, save money and even successful process at times.

The fact that self -medication has so many downsides, there are also few advantages of self – medication

- It reduces the burden of health care professionals.
- It is thus an easy and fast method.
- Successful procedure at times.
- Prevent paying of prescription bills.
- Less time consuming

Adverse effects

Adverse effects often as,, Side Effects ‟is defined as any harmful effects caused due to a medication or any interventions such as surgery. They can be either,, Iatrogenic ‟i.e., relating to illness caused by medical treatment. These side effects can be caused by either increasing the dose or can cause directly when an individual start the therapy, or even discontinuation of treatment. They are classified as either minor side effects or major side effects.

MATERIALS AND METHOD

A cross sectional prospective study was carried out in an Out Patient Department (OPD) of Akash Institute of Medical Science and research centre (AIMS & RC), Devanahalli,

Bangalore Karnataka for a period of 6 months with a sample size of 132 samples using Cochran‟s Formula.

Study tools – Questionnaire

Inclusion criteria

- Individuals above 18 years.
- Individuals who is ready to participate
- Individuals who visited OPD in AIMS & RC.
- Individuals of any gender.

Exclusion criteria

- Mentally retarded.
- Those who are not willing to participate.
- Those who did not complete the questionnaire.
- Those who return blank questionnaire.

RESULTS AND DISCUSSION

Table 1: Distribution of Gender in a population visiting OPD at AIMS&RC.

Distribution of Participants	Number of Participants	Percentage
Male	80	61%
Female	52	39%
Total	132	100%

Table 1 and Figure 1 showing the distribution of Gender in a study population visiting OPD at AIMS&RC shows that 61% are male and 39% are female.

Table 2: Distribution of Age in a population visiting OPD at AIMS&RC.

Various age group	No of frequency (n = 132)
18-27	60
28-37	33
38-47	19
48-57	7
58-67	6
68-77	6
78-87	1

Table 2 and Figure 2 the percentage of number of participants in age group between (18-27) is highest with 45.45% (i.e. 60 participants) and the percentage of number of participants in age group between (78-87) is the least with 0.75% (i.e. 1 participant).

Table 3: Participants taking self-medication without consulting a physician.

Number with Yes as the Respond	Number with No as the Respond	Percentage with Yes as the answer	Percentage with No as the answer
111	21	84.09%	15.90%

Table 3 and Figure 3 – the respond recorded with Yes as the answer to self-medication was 84.09% and No as the answer to self-medication was 15.90%.

Table 4: Participants using the same prescription with their family members.

Number with Yes as the respond	Number with No as the respond	Percentage with Yes as the answer	Percentage with No as the answer
43	89	32.57%	67.42%

Table 4 and Figure 4 – showing the data of individuals and the respond with Yes to sharing the same prescription with same family members was 32.57%.

However, the respond for No to sharing the same prescription with family members was 67.42%.

Table 5: Data with Yes and No as the answer, as to whether they check the expiry date of the medicine.

Number with Yes as Respond	Number of No as the Respond	Percentage with Yes as the answer	Percentage with No as the answer
105	27	79.54%	20.45%

Table 5 and figure 5 - shows the respond of patient with Yes to checking the expiry date of the medicine was 79.54% whereas the respond with No to checking the expiry date of the medicine was 20.45%

Table 6: Data of individuals regarding Reasons for taking self-medication.

Reasons for taking self-medication	Number of Respond	Percentage (%)
Time saving.	65	49.24%
Quick relief.	80	60.60%
Saving Money.	81	61.36%

Unavailability of Doctor.	18	13.63%
Mild Illness.	26	19.69%
Prior experience with illness.	15	11.36%
Others.	1	0.75%

Table 6 and Figure 6 - In this study the main reasons for resorting to self-medication was saving money with 61.36%. Second one was Quick relief 60.60%, and then 49.24% was for time saving, Unavailability of doctor was recorded with 13.63%. The least reasons recorded in this study was Prior experience with illness with 11.36% and others 0.75%.

Table 7: Data on purpose for self-medication in individuals.

Purpose for self-medication	Number of Respond	Percentage%
Fever	73	55.30%
Cold	67	50.75%
Cough	38	28.78%
Headache	86	65.15%
Acidity	68	51.51%
Menstruation Cramps	21	15.90%
Diarrhoea	21	15.90%
Constipation	2	1.51%
Toothache	5	3.78%
Others	20	15.15%

Table 7 and Figure 7 In this current study we found that the most common purpose of self-medication was headache with 65.15%, followed by cold 50.75%, fever 55.30%, Acidity51.51%. However same percentage of respond was recorded for Menstruation Cramps and Diarrhoea with 15.90% and least respond was for constipation 1.51% and toothache 3.78% and others 15.15%.

Table 8: Data on medications frequently used by individuals.

Medication Frequently Used	Number of Respond	Percentage%
PPI	26	19.69%
Alpha1 and Alpha2 Adrenergic blockers	1	1%
Topical Analgesic	30	22.72%
Antispasmodic	6	4.54%
H1RA	54	40.90%
Antibiotics	4	3.03%
Anti-Diarrhoea	16	12.12%

Anti-Pyretic/Analgesic	95	71.96%
Anti-Tussive	19	14.39%
H2RA	41	31.06%
Vitamins	2	1.51%

Table 8 and Figure 8 – In this study it was found that the highest percentage of medication frequently used by the individuals was antipyretic/analgesic with 71.96%, followed by H1 receptor antagonist 40.90%, H2 receptor antagonist 31.06%, topical analgesic 22.72%, PPI 19.69%, anti-tussive 14.39%, anti-diarrhoea 12.12%, antispasmodic 4.54%, antibiotics 3.03% and the least were vitamins 1.15% and alpha1 & alpha2 adrenergic blockers 1%.

Table 9a: Number of individuals experiencing side effects.

Number with yes as the responds	Number with no as the responds	Percentage with yes as the responds	Percentage with no as the responds
36	96	27.27%	72.72%

Table 9a and Figure 9a the data showed that around 27.27% of individuals experienced side effects and 72.72% of individuals does not experienced any side effects while taking self-medication.

Table 9b: Data of individuals experiencing different symptoms of side effects while on self-medication.

Side Effects	Number of responds	Percentage (%)
Vomiting	6	4.54%%
Diarrhoea	2	1.51%
Nausea	3	2.27%
Allergic Reaction	2	1.51%
Tiredness & Dizziness	7	5.30%
Sleep Problem	19	14.39%
Lethargy	7	5.30%
Others	2	1.51%

Table 9b and Figure 9b in the present study the most common side effects that an individual experienced while on self-medication was Sleep Problem with 14.39% followed by Dizziness with 5.30%, and lethargy 5.30%, Vomiting 4.54%, Nausea 2.27% and the least was Diarrhoea and Allergic Reaction and others with 1.51%.

Table 10: Data with Yes or No as the answer, as to whether while on self-medication have, they ever taken half or double the dose?

Number with YES as the responds	Number with NO as the responds	Percentage with YES as the Responds	Percentage with NO as the responds
35	97	26.51%	73.48%

Table 10 and Figure 10 the respond with Yes was very less with only 26.51% while the respond with NO was 73.48%.

Table 11: Data of Individuals that consider self-medication can harm or benefit them.

Number with Harm as the respond	Number with Benefit as the respond	% with Harm as the respond	% with Benefit as the respond
72	60	54.54%	45.45%

Table 11 and Figure 11 showing the data of individuals and the respond with Harm to self-medication was 54.54% and the respond with Benefit to self-medication was 45.45%

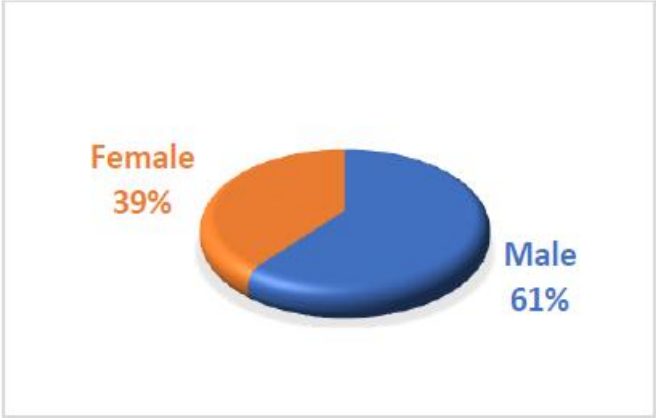


Figure 1: Distribution of Gender in a population visiting OPD at AIMS&RC.

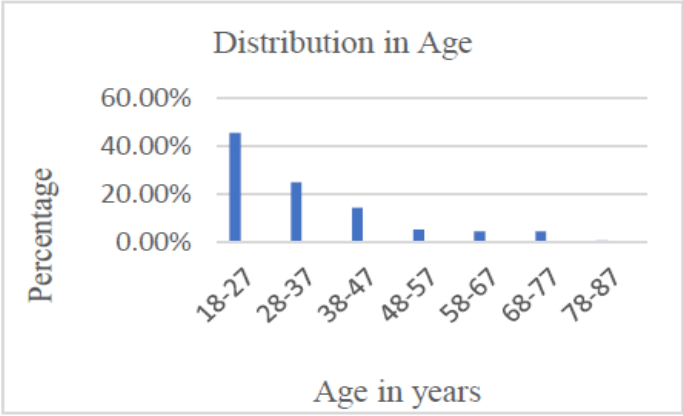


Figure 2: Distribution of Age in a population visiting OPD at AIMS&RC.

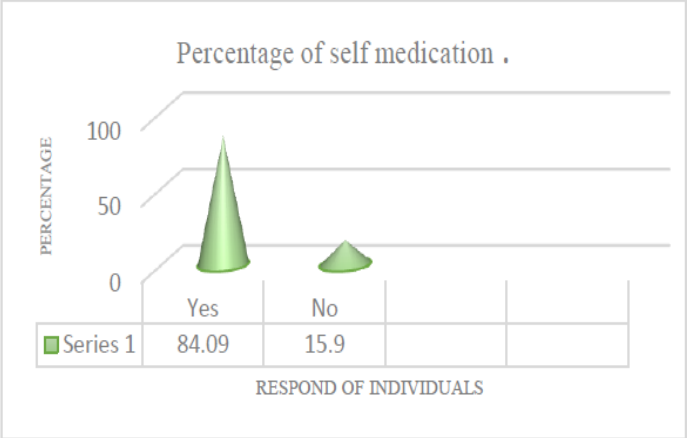


Figure 3: Participants taking self-medication without consulting a physician.

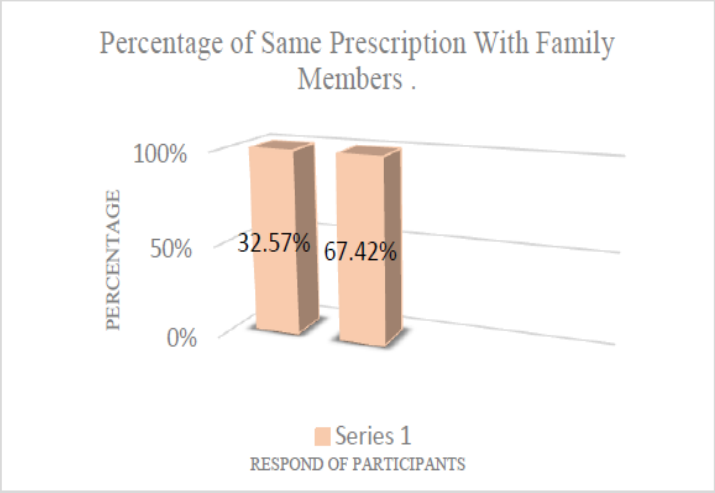


Figure 4: Participants using the same prescription with their family members.

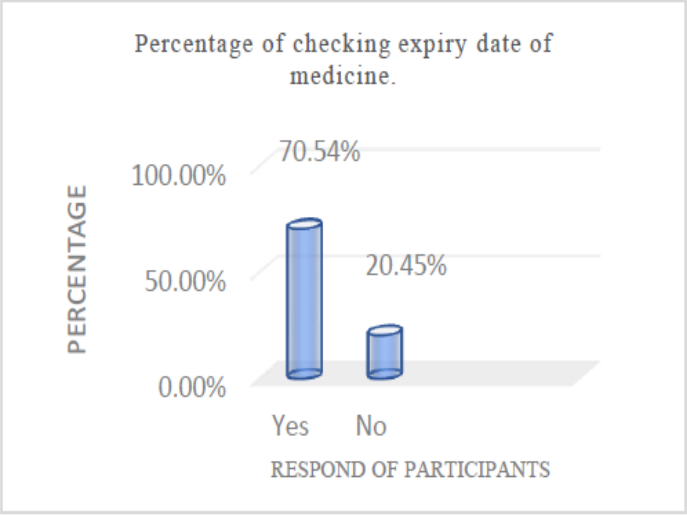


Figure 5: Data with Yes and No as the answer, as to whether they check the expiry date of the medicine.

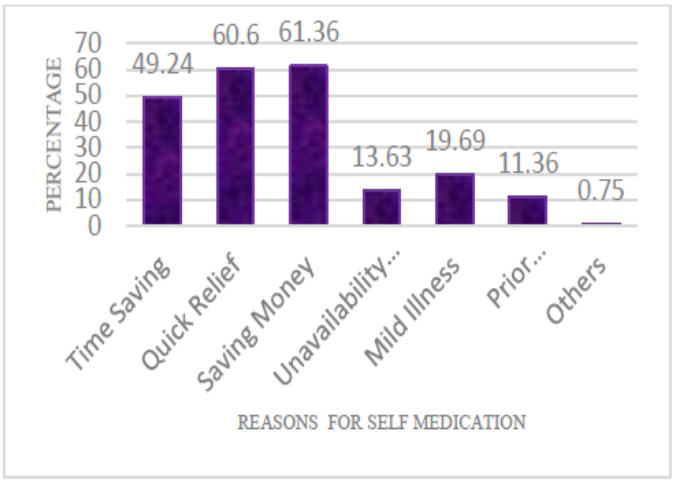
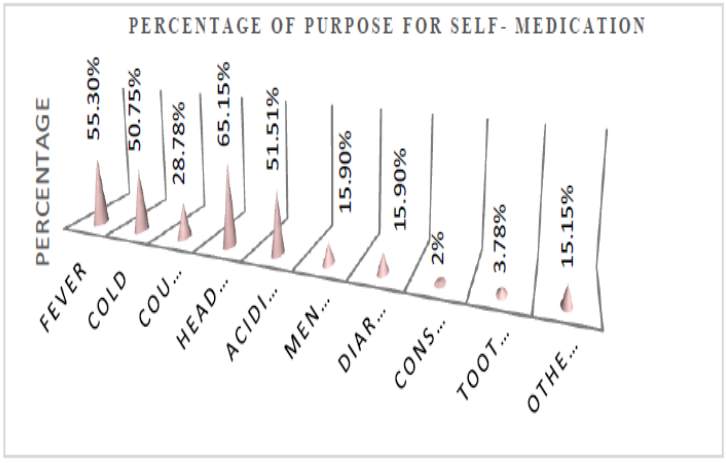


Figure 6: Data of individuals regarding Reasons for taking self-medication.



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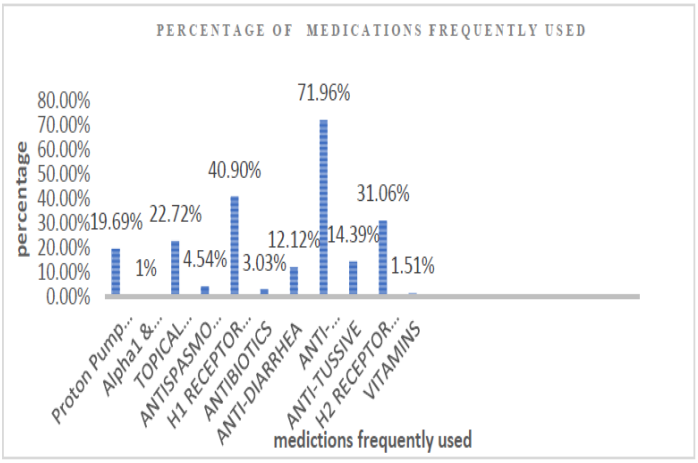


Figure 8: Data on medications frequently used by individuals.

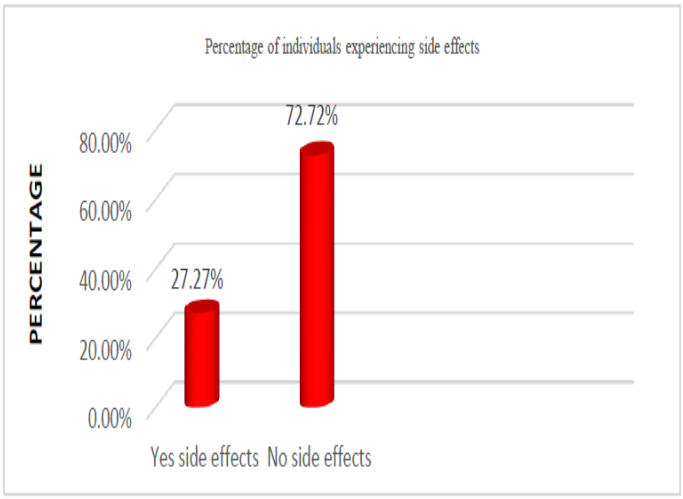


Figure 9a: Number of individuals experiencing side effects.

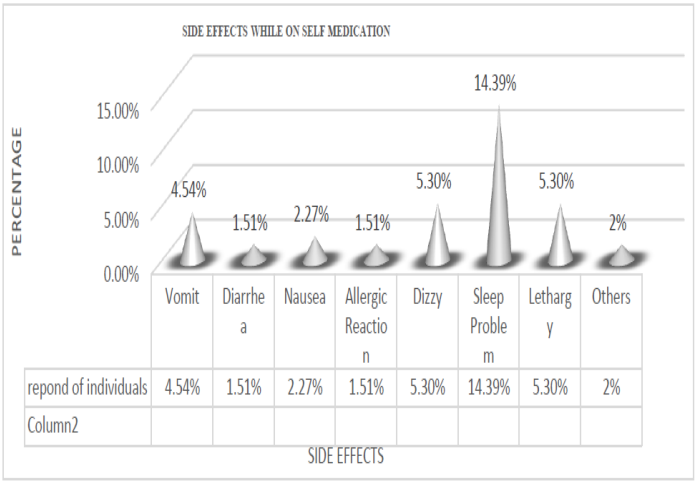
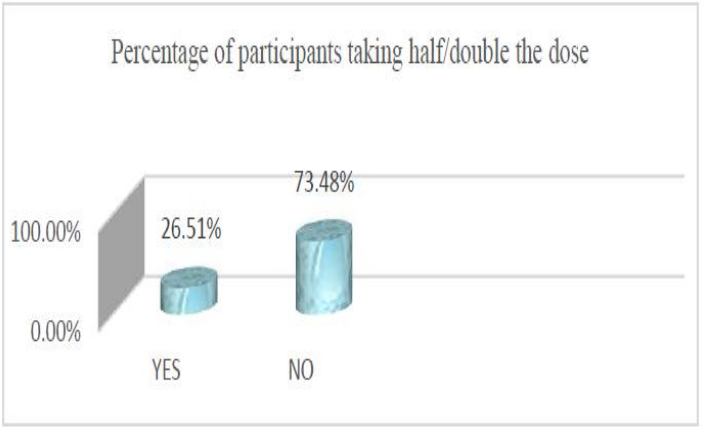


Figure 9b: Data of individuals experiencing different symptoms of side effects while on self medication.



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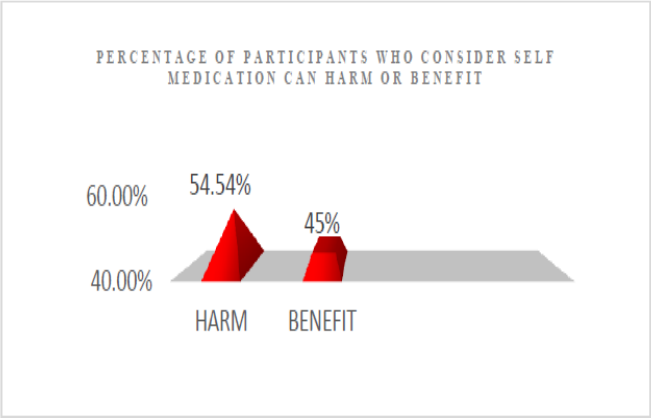

Figure 11: Data of Individuals that consider self-medication can harm or benefit them.

Self-medication is commonly practiced all over the world. The main reasons for self-medication is lack of time, quick relief, saving money, unavailability of doctor and prior experienced with illness. All medications have its own side effect therefore the dangers of self-medication should always be made aware to the community. This study was conducted in a tertiary care teaching hospital. In this study 132 participants were involved, and the prevalence of self-medication was found to be 84.09% which is quite high. Other similar studies conducted among under graduate of a private institution in Nigeria reported 81.8%, 79.2% was reported among private health sciences students in Gondar town North West Ethiopia, and 92.8% in the urban community of Delhi and 93.8% in Urban North West India. A study conducted in North East Ethiopia reported that the prevalence of self-medication was found to be 35.9%. In this study self-medication practice were significantly more among younger age group (18-27) compared with older age group (78-87). However, a study conducted by Kalaiselvi Selvaraj et.al showed that the prevalence of self-medication is more among (50-59) years age group compared with younger age groups. The difference in the prevalence of self-medication may be due to difference in the sample size, different region selected and socio-demographic factors. The prevalence of self-medication was more among males (61%) than females (39%). This is similar to other studies conducted in Urban area of Delhi and Urban Puducherry India. However, in a study conducted in West Bengal the practice of self-medication was found to be more among females than males. Another study conducted in North West Ethiopia also reported that self-medication was found to be commonly practiced among females. 32.57% of individuals were found to be using same prescription with their family members this may be because family members were the common sources of information about medication and also due to blind belief and high level of trust towards their families. About 70.54% checked the expiry date before taking

medications. In this study the most common reason reported for self - medication was saving money 61.36%, and quick relief 60.60%. A study conducted in Nepal reported minor illness, and previous medication experience due to illness as the major reasons for self-medication. Another study conducted in North East Ethiopia reported similarity with past illness, followed by illness as mild, and self-medication is cheaper as the predominant reasons to practice self-medication. The common ailments reported for taking self-medication in individuals were headache (65.15%), fever (55.30%), and acidity (51.51%). This result is similar to a study conducted in India which reported cold/cough, fever and headache as the most common ailment for which participants took medications without prescriptions. Another study conducted in West Bengal showed that cough and cold was the most common morbidity among medical students followed by diarrhea, headache and fever. In the current study, the medication which was found to be frequently used by individuals were analgesics/antipyretics (71.96%) and H1 receptor antagonist (40.90%). A study conducted in Nepal reported analgesics and antipyretic were commonly self -medicated routinely. Mohammed Rashid et.al reported NSAID‟s were the most self-practiced medications while Shilpa et.al reported both NSAID‟s and antibiotics as the most common used drugs for self-medication. In the study conducted by Banerjee et.al antibiotics were the most commonly used drug followed by analgesic and antipyretic. In this study about 27.27% of individuals reported that they experienced side effects after self-medication. A study conducted by Shilpa Patrick et.al., reported that 28.2% of participants experienced adverse drug reactions following self - medication practice. The most common side effect experienced by individuals is sleep problem 14.39%. Any medicines can have side effects whether a prescription drug, OTC drug, a herbal drug or a vitamin supplement. For example, side effects of analgesics include constipation, drowsiness, dizziness, upset stomach, ringing in the ears, rash and dry mouth. Antibiotics prescribed by a physician can also cause unwanted side effects. The most common side effects of antibiotics are hypersensitivity reactions, anaphylactic reactions, microbial resistance, immune dysfunction and neurologic, renal, cardiac, hematologic and hepatic complications. Therefore, education should be provided to individuals with the necessary warnings about irrational use of different medications, especially antibiotics. 26.51% of individuals have reported that they have taken half or double the dose while on self-medication. About 54.54% consider self-medication harmful and participants who consider self-medication beneficial is 45.45%. Many individuals have reported that self -medication is harmful mainly because of the past harmful experienced to

the particular drug, also people who are educated understand that it is always better to consult a physician before taking any medicine.

CONCLUSION

The Study concluded that the prevalence of self - medication appears to be high among individuals with more than half of the study participants practicing it. Commonly used drugs were analgesics/antipyretics. This study portrays that the individual also experiences few adverse effects due to self - medication such as vomiting and headache. Many individuals have less knowledge regarding the risk associated with self - medication. Self - medication may not be harmful on its own but it poses a great threat when OTC and prescription drugs become abused. The need for promoting appropriate use of drugs in health care systems is not only because of the financial reasons but also for health and medical care of patients. This highlights the importance of appropriate awareness and the implementation of components of ethical self - medication practise. Although the practice of self - medication is inevitable, drug authorities and health professionals need to educate the public about pros and cons of self - medication and provide counselling to individuals regarding the risks of taking self - medication.

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Abbreviations

ABIPER: Aditya Bangalore Institute of Pharmacy Education and Research.

AIMS &RC: Akash Institute of Medical Sciences and Research Centre.

OPD: Out Patient Department.

ADR: Adverse Drug Reaction.

PPI: Proton Pump Inhibitor.

H1RA**:** Histamine type 1 Receptor Antagonist.

H2RA**:** Histamine type 2 Receptor Antagonist.

Conflict of interest

The Authors declared no conflict of interest.

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