

**PRACTICE OF SELF MEDICATION AMONG MEDICAL STUDENTS OF
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ABSTRACT

The study was conducted to find out various aspects of self-medication (SM) among medical students. A prospective, cross-sectional, questionnaire-based study was carried out among 285 medical students of 2nd, 3rd and 4th year. Data were collected and analyzed for counts and percentage. Students reported self-medication in the last one year were 76 % and the frequency of SM was more in final year students. 35% believed that they practice SM as the complains were mild in form, followed by quick relief of symptoms and time saving. Abdominal pain along with headache and fever were the most frequent causes for SM in our study. While commonly used drugs were analgesics and antipyretic along with antacids and antibiotics. Most common source for acquiring these medicines were pharmacist shops followed by unused medicines from previous prescription and unsold physician sample. However 83% believed that for practicing SM some medical knowledge is must. 71% also believed that SM is not bad all the time and must be encouraged in selected cases. Effective and safe SM practice in some cases can be done by active participation of hospitals and clinics along with pharmacist in educating the people. 17% believed that SM must never be practiced and strict rules must be made for pharmacists who indulge in false malpractice.

KEYWORDS: Medical students, self-medication, questionnaire.**INTRODUCTION**

Self-medication (SM) is a very important concern for all Health care professionals and various regulatory authorities. Self-medication (SM) in simple words is taking a medicine without consulting a doctor. Over the counter drugs are a part of SM. William Osler once commented, "*The desire to take medicine is perhaps the greatest feature which distinguishes man from animals*". The practice of SM has been regarded as a part of self-care.^[1] SM is a process by which, an individual uses drugs to treat self-diagnosed minor symptoms or disorders like headache, fever, sore throat, acidity and other similar complains, having the potential to do good as well as harm as it involves use of drugs.^[2] The practice of self-medication must be based on relevant medical information otherwise it can give rise to irrational use of drugs which can cause significant wastage of resources, increased resistance of pathogens, and can lead to serious health concerns like adverse drug reactions and prolonged morbidity and in extreme cases mortality also.^[1] The SM practice has been observed worldwide, both in developed and developing countries due to lack of medical facilities in rural and in certain urban areas also. SM provides an individual a low-cost option, for those who cannot afford the high cost benefits of clinical service. On the other hand if SM is practiced

properly, with certain degree of knowledge it can be used positively to treat various minor symptoms, can save time and money, and also save lives in acute conditions.

The World Health Organization (WHO) has pointed out that a responsible SM can help to prevent and treat minor complains that don't require medical consultation all the time and can provide a good low cost alternative for treating certain common illnesses. However, it is also recognized that responsible SM must be accompanied by appropriate health information.^[3]

Self-medication plays a very important role among medical students as they are the students of today and medical practitioners of future and have a role to play in counselling the patients about the benefits and harmful effects of self-medication. Medical students also differ from the general population as they are well-exposed to the knowledge about diseases and drugs.

Over all the prevalence of SM was found to vary among medical students of different countries worldwide. In the earlier studies^[4-9] which was done to see the SM practice among medical students, it was seen that the prevalence of self-medication practice was found to vary among different medical students of different countries. Headache, cough and cold, body ache, fever, acidity

have been mentioned as the primary indications for taking self-medication. Factors influencing frequency of self-medication in the previous studies are age, educational level, family attitudes, advertising of drug manufacturers, legislation regulating dispensing and sale of drugs, previous experiences with the symptoms or disease, significance attributed to the disease.^[10] Home-kept prescription drugs^[11] and economic situation of respondents^[12] along with depression and anxiety^[13] may also be connected with self-medication. The drugs commonly used in SM are analgesics, antacids, antipyretic and antibiotics. The main reasons for taking these self-medication as mentioned in the majority of the literature are knowledge gained as a result of prior experience of treating similar illness and mild form of illness.

Since majority of the above mentioned studies were conducted outside India so the exact pattern of SM practices in our country remained unidentified. With respect to this the present study was conducted to see the pattern of SM practices, to find out the common complains and common drugs used, reasons for SM along with establishing a relationship between the level of medical knowledge and the SM practices among medical undergraduates.

MATERIALS AND METHODS

After obtaining an approval from the Institutional Ethical Committee, the need for the study was explained to participating students and an informed consent was taken from each student before conducting the study. A cross-sectional questionnaire-based study was carried out on 285 medical students of 2nd, 3rd year and 4th MBBS at AIIMS PATNA.

All the medical students of 2nd, 3rd year and 4th MBBS of either sex and age were included in the study. Absent students, submission of incomplete form and 1st year MBBS students (as they have just joined the course) were all excluded from the study. The questionnaire were designed and pre tested on 18 students (6 students of each MBBS batch) which were later not included in the study.

A structured and validated questionnaire was prepared consisting of 14 questions based on previous studies on SM. Questionnaire was prepared in terms year of MBBS batch, gender, age and sex wise distribution, students who practiced and those who have not practiced SM in last 1 year, no of times self medication taken in last 1 year, which form of medicine used as SM, common complains which led to SM, class of drugs used for SM, need of SM, source of information for SM, source from where they acquired medicine for SM, and whether SM must be encouraged or discouraged. If encouraged in certain conditions then what are the different ways of improving safe SM and if discouraged what are the different ways of preventing the process of SM also

whether medical knowledge is necessary for self medication.

Data were analyzed statistically using SPSS version 17 for counts and percentage.

Question no 7,8,9,10,12 and 13 had multiple answers as a response.

RESULTS

Table 1:

Batch	Male	Female	Total
II MBBS	53	43	96
III MBBS	46	51	97
IV MBBS	52	40	92
Total	151	134	285
Percentage	53%	47%	100%

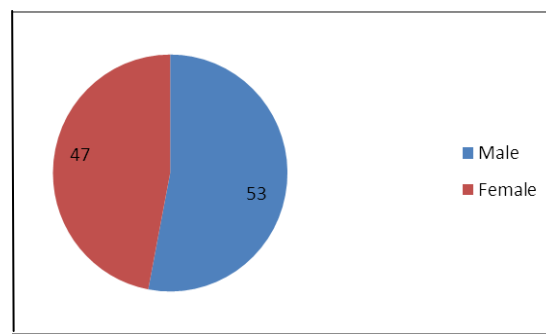


Figure 1: Shows percentage of male and female.

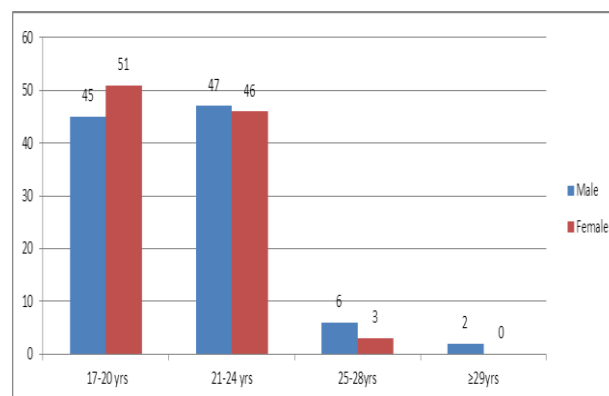


Figure 2: Age and sex wise distribution of the study population in percentage.

Table 2:

Batch	Practiced SM	Not practiced SM	Total
II MBBS	57	39	96
III MBBS	75	22	97
IV MBBS	84	8	92
Total	216	69	285
Percentage	76%	24%	100%

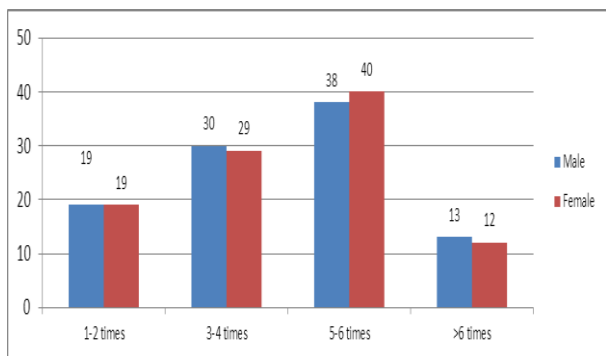


Figure 3: Number of times SM practiced in last 1 year in percentage.

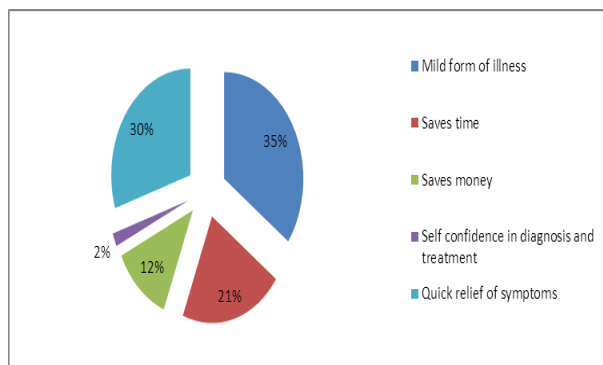


Figure 5: Need for SM.

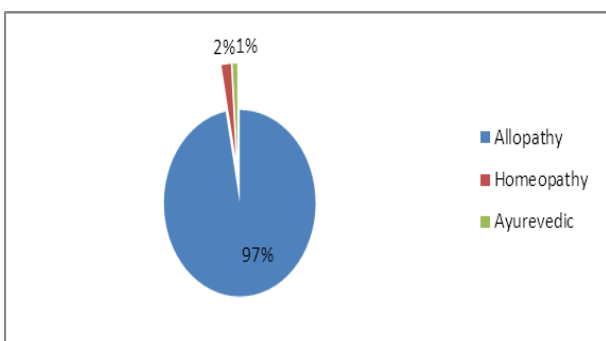


Figure 4: Shows different forms of medicine practiced as SM.

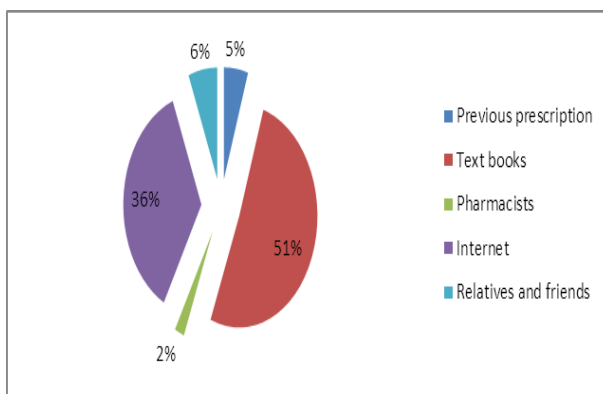


Figure 6: It shows the source of information for practicing SM.

Table 3: For what complain SM was practiced.

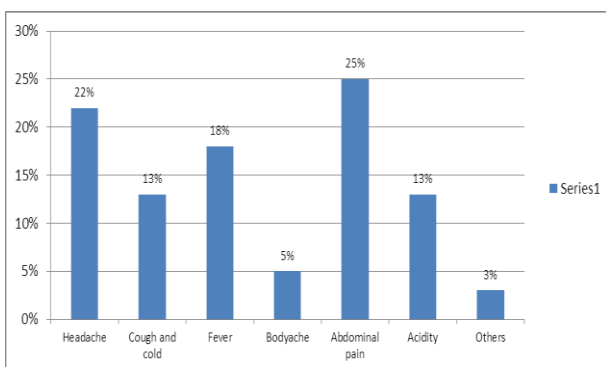


Table 4: Class of drugs used for SM.

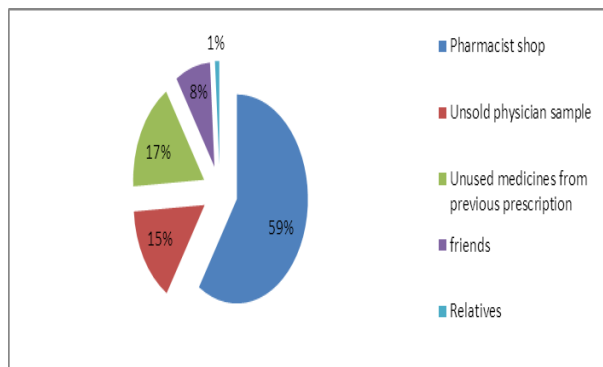
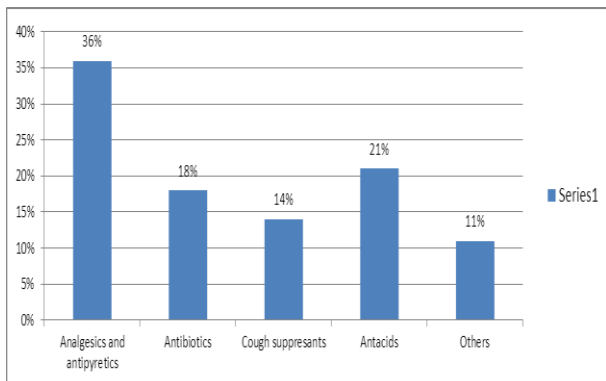


Figure 7: Shows source of acquiring medicines for SM.

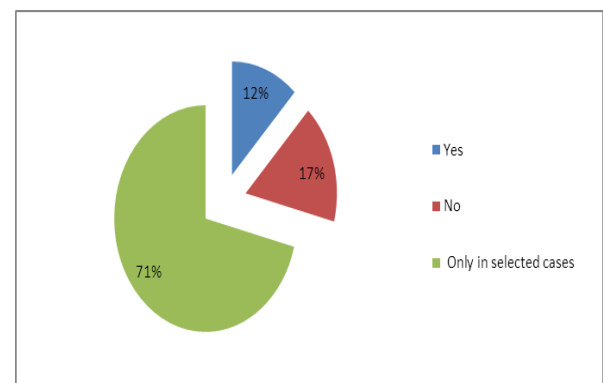


Figure 8: Shows view point of the students about encouraging SM.

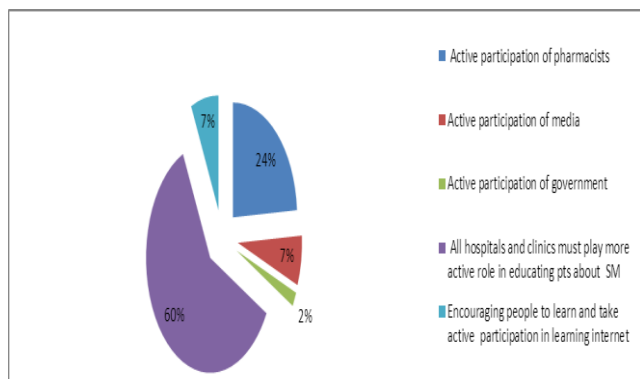


Figure 9: If SM is encouraged in some cases than what are the various methods to enhance.

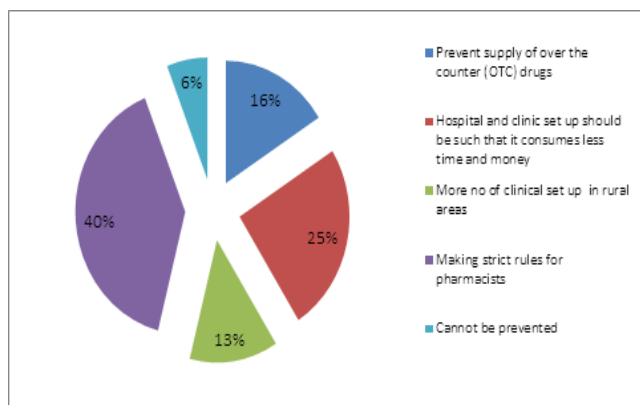


Figure 10: Shows if SM is not encouraged than various methods to stop it.

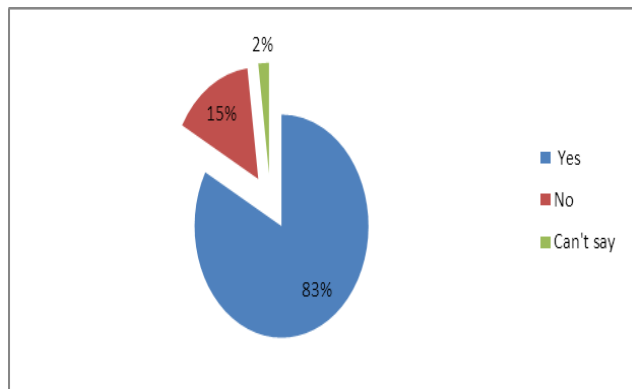


Figure 11: Whether for SM some knowledge is necessary.

DISCUSSION

Table 1 shows the demographic pattern of our study and total number of students who participated in our study. Total students were 285 from 2nd 3rd and 4th year MBBS.

Figure 1 shows percentage of male and female population in our study. Total no of male were 53% (n= 151) and female 47% (n= 134). The demographic pattern of this study was slightly different from the past study.^[14]

Figure 2 shows the age and sex wise distribution of both males and females in percentage. The maximum number of our study population were in the age group 17-20yrs

(M=45%, F= 51%) and 21-24 (M=47%, F=46%). (M= 47% F= 51%) followed by 25-28 years (M=6%, f=3%F) and only 2% male of 29 and above.

Table 2 shows the total no of students who practised SM were 216 out of 285. Maximum SM done by 4th year students and least by 2nd year which was understandable as with there increasing knowledge on medicine the practice of SM also increased.

Figure 3 shows no of times SM taken in last 1 year. Maximum no of times SM taken in last 1 year has been 5 to 6 times (M= 38%, F= 40%) followed by 3 to 4 times in both the sexes. (M=30% F=29%) While 19% of both the sexes have taken SM 1- 2times in past 1 year while more than 6 times in past 1 year taken by 13%in male and 12% in female population.

Figure 4 shows types of medicine practiced by students as SM. For which majority of them practice allopathy as SM (97%) followed by homeopathy 2% and Ayurveda 1%.

Table 3 shows various complains for practicing SM. Here 25% took SM for abdominal pain followed by 22% for headache followed by 18% for fever here the present study was slight different from the past study^[14] for cough and cold and acidity it was 13% each while 5% for generalised bodyache and other reason for SM were 3% which included vomiting, constipation, diarrhoea and allergic reactions.

Table 4 shows various class of drugs used for SM 36% used analgesics and antipyretics the result was similar to past studies^[5,6,7,8] followed by 21% who used antacids followed by 18% who used antibiotics. 14% used various types of cough suppressants 11% used antiemetics, anti histaminics, Oral rehydration solution and lactulose.

Figure 5 shows the need for practicing self medication. Here 35% of the students agreed to counter mild form of illness as their reason for self medication, while 30% of them said that for quick relief, while 21% said that SM saves time, other 12% said that SM saves money and remaining 2% said they had self confidence in diagnosis and treatment. Here more than one option was chosen by many students.

Figure 6 shows the source of information for SM. 51% of them said they referred to medical books while 36% of them answered going to internet was their source of information. 6% of them said relatives and friends while 5% of them referred to previous prescriptions and remaining 2 % said it was pharmacists.

Figure 7 shows their source of acquiring or getting medicines for SM. 59% of the students acquired medicine from pharmacist shops, 17% of them used medicine from unused medicines from previous prescription, 15% acquired from unsold physician

sample and rest 8% acquired from seniors and friends and 1% from relatives.

Figure 8 shows percentage of students who either agree or disagree with SM. 12% fully agree with practicing S while 17% did not agree with SM practicing while remaining 71% agreed that SM must be practiced only in selected cases.

Figure 9 shows that if SM is encouraged in selected cases than various methods to enhance better and safe SM. 60% said that all hospitals and clinics must play a more active role in educating people about SM, 24% said more active participation of the pharmacists, 7% each agreed that people should play more active role in learning internet and media can also play more active role while only 2% said more participation of the government.

Figure 10 shows if SM is not encouraged than various methods to stop SM. Here 40% said make strict rule for pharmacists while 25% said that hospitals and clinics set up should be such that it consumes less time and money, 13% said more clinical set up at rural areas, 16% said OTC supply of drugs should be stopped while remaining 6% said that it cannot be stopped.

Figure 11 shows for SM some medical knowledge is required, for which 83% agreed that some amount of medical knowledge is required while 15% said it can be practiced even without any medical knowledge. Rest 5% were not sure.

CONCLUSION

From our study we concluded that SM are practiced by most students of different medical colleges and hospitals. Practicing SM are very common among most medical students however in seniors it was more. These students of today will be the doctors of tomorrow. So it is very important to educate them about safety parameters of practicing SM. To eradicate SM completely is not possible.

SM is not bad all the time considering the nature of our hospitals and clinic set up and distance of some of these hospitals from rural areas, but for that more active participation from hospitals, pharmacists, government and media has to be there to educate people on various aspects of practicing SM in selected cases.

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