

**A STUDY ON SELF MEDICATION PATTERNS AMONG MEDICAL STUDENTS IN SANTHIRAM MEDICAL COLLEGE, NANDYAL**M. Venkateswarlu<sup>1</sup>, M. A. Mushtaq Pasha<sup>2</sup>, Isaac Ebenezer<sup>3</sup>, Afsar Fatima<sup>4</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT: BACKGROUND:** Self-medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms. Self-medication results in wastage of resources, increases resistance of pathogens and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence. This study was undertaken to determine the reasons for self-medication and the pattern of self-medication among medical students. **AIMS AND OBJECTIVES:** To study the prevalence and pattern of use of self-medication among medical students from first year to final year. **METHODS:** This cross-sectional descriptive study was conducted at the Santhiram Medical College, Nandyal, during the period of Dec 10<sup>th</sup> 2013 to Jan 10<sup>th</sup> 2014. Medical students were selected through convenience sampling. The data was collected using a pre-tested semi-structured questionnaire. **RESULTS:** A total of 150 students, 93 (62%) male and 57 (38%) female were included in the study of the medical students surveyed; self-medication was reported among 92%. The respondents who used self-medication found it to be timesaving in providing relief from minor ailments. The most common ailments for which self-medication were used were: the common cold (73%), fever (68%) and headache (62%). The students consulted their textbooks (45%) and seniors or classmates (39%) for the medications. Antipyretics (78%), analgesics (72%), antihistamines (42%) and antibiotics (38%) were the most common self-medicated drugs. Of the respondents, 29% were unaware of the adverse effects of the medication. **CONCLUSION:** Self-medication is becoming an increasingly important area within healthcare. The prevalence of self-medication among medical students is high, facilitated by the easy availability of drugs and information from textbooks or seniors, due to high level of education and professional status are predictive factors for self-medication.

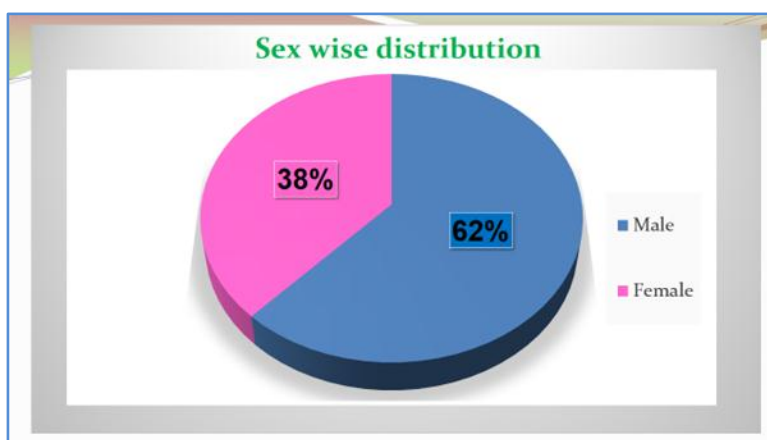
**KEYWORDS:** Self-medication, Medical students.

**INTRODUCTION:** Self-medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms.<sup>1</sup> Self-medication differs from self-care in that it involves drugs that may do good or cause harm.<sup>2</sup> In several studies it has been found that inappropriate self-medication causes wastage of resources, increases resistance of pathogens and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence.<sup>2-5</sup> There are many reasons for the increased likelihood of self-medication among medical students.<sup>2</sup> These students have easy access to information from drug indices, literature, and other medical students to self-diagnose and self-medicate. There is a paucity of studies on self-medication among medical students.<sup>2</sup> The present study was undertaken to identify the reasons for, and the patterns of, self-medication among medical students.

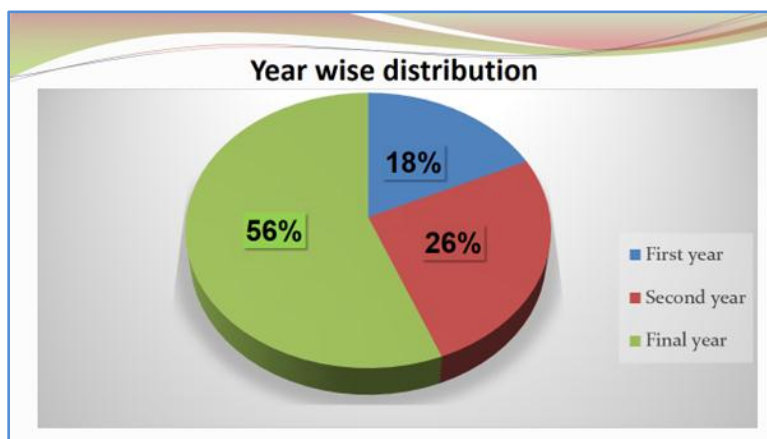
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**METHOD:** This cross-sectional study was undertaken in Santhiram Medical College, Nandyal, India, with approval from the Institutional Ethical Committee. The study population consisted of medical students from first to final year. Students were selected for the study by a convenient sampling method. The participants were briefed about the nature of the study, consent was taken and a pre-tested semi-structured questionnaire administered to them. The information pertaining to the pattern of self-medication, indications for self-medication and drugs used for self-medication were included in the questionnaire. For the purpose of the study, certain medical terms were explained to the first-year students, including antipyretics and analgesics. The data was analyzed using MS Excel 2013.

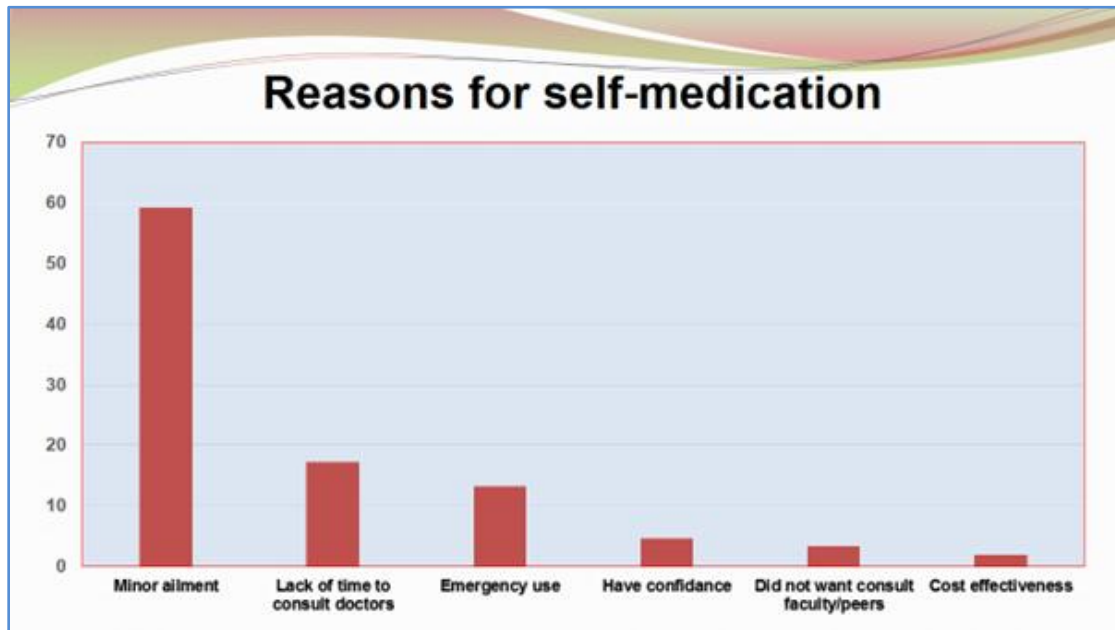
**RESULTS:** A total of 150 students participated in the study, of whom 57(38%) were female and 93 (62%) were male. Among these 150 students, 27 (18%), 39 (26%) and 84 (56%) were studying in their first year, second year and final year respectively (Table 1). All the variables were denoted in multiple response questions.



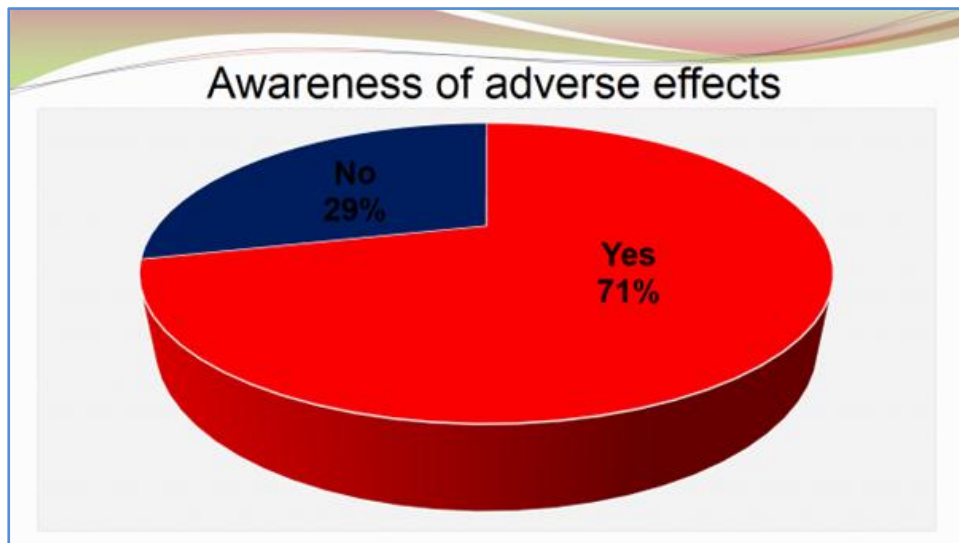
**Table 1:** Sex and year wise distribution of medical students



**Table 2:** Pattern of self-medication among medical students:



The most common reasons for self-medication minor ailment (59.3%), lack of time to consult doctors (17.3%), and emergency use (13.3%). (Table 2).

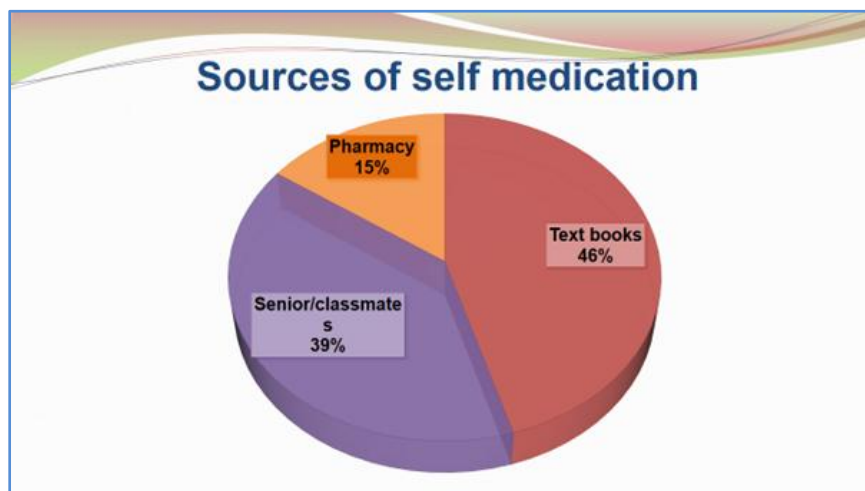


**Table 3:** Awareness of adverse effects

A significant number, 29% of the study group, was unaware of the adverse effects of the drugs.

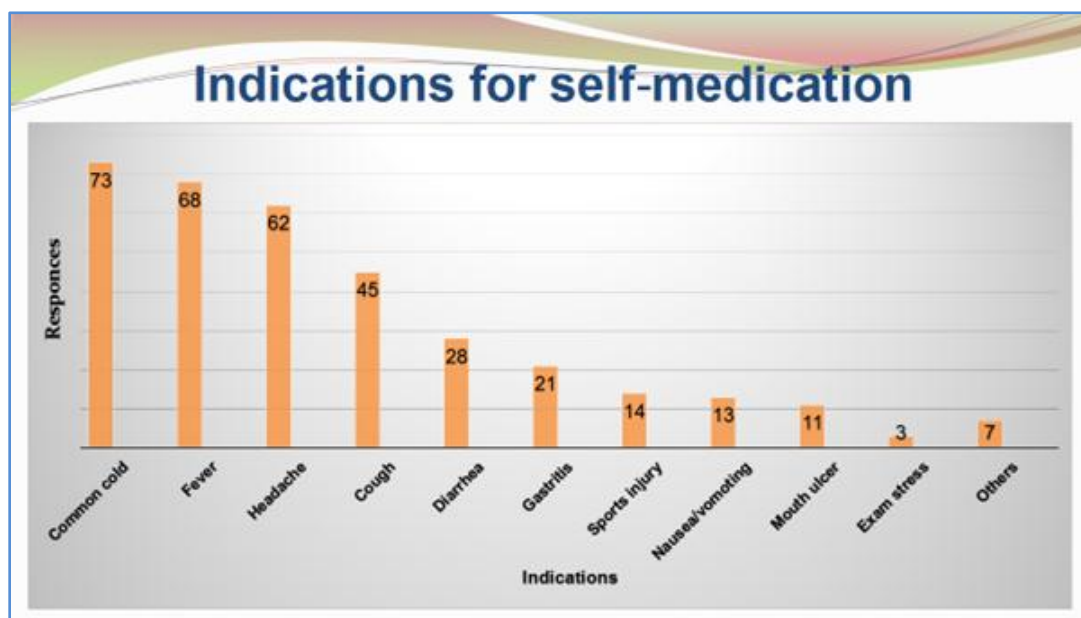
The most common sources of information for self-medication (Table 4), which were denoted in multiple choice questions, were textbooks (46%), seniors or classmates (39%) and pharmacy (15%).

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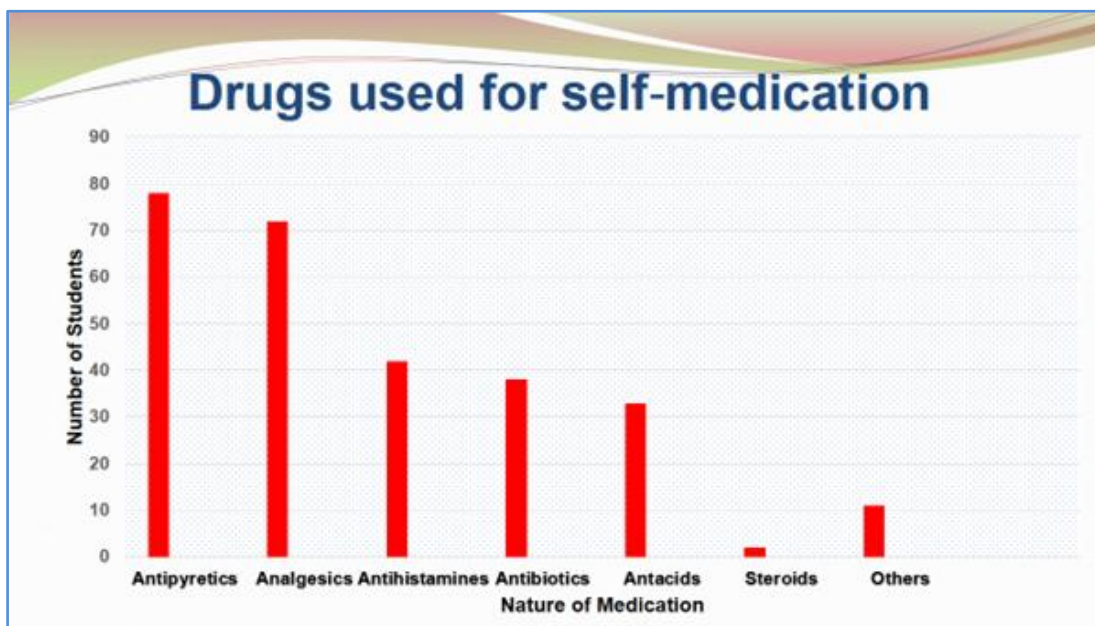
**Table 4:** Sources of self-medication:

The study found that the conditions prompting self-medication (Table 5) were the common cold (73%), fever (68%) and headache (62%), followed by gastrointestinal ailments, i.e. diarrhoea (28%), gastritis (21%) and nausea/vomiting (13%).



**Table 5:** Indications for self-medication:

The classes of drugs that were commonly used (Table 6) were antipyretics (78%), analgesics (72%), antihistamines (42%), antibiotics (38%) and antacids (33%). Some potentially harmful drugs were also used, such as steroids (2%).



**Table 6:** Drugs used for self- medication

**DISCUSSION:** The practice of self-medication is widespread all over the world especially urban and educated population.<sup>6,7</sup> Doctors also tend to self-medicate to the extent feasible due to their knowledge about both diseases and drugs. This study has found a prevalence of self-medication in medical students in contrast to non-medical population in a previous study.<sup>6</sup> It is also noted that a high level of education and professional status are predictive factors for self-medication<sup>2</sup>. This is similar to the findings in a study conducted by Erlend Hem and colleagues<sup>4</sup> (90%) but is higher than the findings (60%) in the study conducted by Henry James and colleagues.<sup>2</sup>

In our study it was found that more male students (62%) practice self-medication than female students (38%). This differs from a previous study conducted among medical students, which showed a greater prevalence among female students (45%) than male students (44%).<sup>2</sup>

Our study denoted that the most common reasons for self-medication were minor ailments (59.3%) and lack of time to consult a doctor (17.3%), which is in concordance with other studies that reported the reasons as mild illness (40%) and shortage of time to consult a doctor (32%).<sup>2</sup> With respect to indications, results were similar to those found in a previous study.<sup>2</sup>

In the study it was noticed that the classes of drugs that were commonly used were antipyretics (78%), analgesics (72%), antihistamines (42%) and antibiotics (38%). This is similar to studies done earlier, which showed antipyretics (43%), analgesics (81%), antibiotics (6%) and antihistamines (13%) were commonly used.<sup>2</sup> In other studies it was found that medical students (N=68) used more types of antibiotics compared to the non-medical students (N=69), which may be because of their knowledge about antibiotics.<sup>7</sup> Some drugs i.e. steroids and stimulants may not be as easily available to the general population as they are to medical students, who can obtain them by virtue of their profession, and previous studies have reported higher use of antimicrobials when the study participant was a health care professional.<sup>2</sup>

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The study group cited their source of information for self-medication in most cases as textbooks (46%) and seniors or classmates (39%); this is similar to other studies, which showed medical students use their academic medical knowledge 50% of the time to self-medicate.<sup>7</sup>

**CONCLUSION:** This descriptive study has found that self-medication is very common among medical students, facilitated by the easy availability of drugs, and information from textbooks/seniors. A significant number of students are unaware of the adverse effects of the medication that they themselves take and suggest to others. Since inappropriate self-medication has the potential to cause serious harm, not only to the students themselves but also to those whom they suggest medication, potential problems of self-medication should be emphasized to the students to minimize this risk.

Restriction of sale of drugs with potentially harmful effects should be implemented effectively with monitoring systems between the physicians and pharmacists. Steps can also be taken to educate pharmacists on the need to cross-check with the prescribing physician while dispensing such drugs. The limitations of this study included the absence of a comparative group, such as students from another field; the small sample size; and the absence of interventions, like providing information regarding hazards of self-medication.

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