

Evaluation of knowledge, attitude and practice of self medication among second year undergraduate students in Bastar Region: a questionnaire based study

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ABSTRACT

Background: Self medication is becoming very popular among medical students as they get exposed to knowledge about diseases and drugs, but which is very superficial in second year undergraduates, so the present study was conducted to evaluate the knowledge, attitude and practice (KAP) of self medication among second year undergraduate students.

Methods: A questionnaire based study containing 12 questions was conducted in 175 second year undergraduate students after taking informed consent. Statistical analysis was done by using descriptive statistics by Graph Pad Prism version 6.01.

Results: Out of the 175 students, 155 (88.57%) students have taken self medication. The common reason for taking it was no need to visit the doctor for minor illness (64%), quick relief (48.57%) and time saving (34.29%). The common indications for taking self medication were fever (69.14%) and cough and cold (69.14%) followed by headache (64%). Although students rarely practised it due to risk associated like adverse effects 131 (74.86%) and lack of proper knowledge about drugs 118 (67.3%).

Conclusions: Self medication is highly prevalent among students, as most of the students get it from pharmacies, it is necessary to make strict guidelines for availability of such medicines over the counter and also there is need to educate the students about harmful consequences of self medication to make them responsible future doctors.

Keywords: KAP study, Questionnaire based, Self medication, Undergraduate students

INTRODUCTION

Self medication is defined as 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 Paucity of drug related information and easy accessibility of over- the-counter (OTC) drugs has contributed to the high incidence of self-medication. Self medication is widely practiced worldwide both in urban and rural population including India, because

various drugs are dispensed over-the-counter without prescription which provides a low cost alternative to people.^{2,3} In a developing country like India, a large percentage of population, when they fall sick, do not consult a physician for economic reasons. They either consult a drug store (retail pharmacy) and obtain medicine from the self, or consult a neighbour who may be having some left-over tablets from his/her previous illness.^{4,5} There are potential risks of self-medication practices such as incorrect self-diagnosis, delay in seeking medical advice when needed, infrequent but severe adverse

reactions, dangerous drug interactions, incorrect route of administration and dosing, masking of a severe disease and risk of dependence and abuse.⁶ Medicines act as a double edged sword, they can restore the health and improve the quality of life, at the same time, if not used correctly can cause serious harm to the body. On the contrary, some literature says that self medication is now increasingly being considered as a component of self-care.⁷ According to WHO guidelines also, responsible self-medication can help prevent and treat diseases that do not require medical services for relief of minor ailments especially when resources are limited.⁸ In our country practice of self-medication is very common, even most of the medical students practice it and recommend to other people before becoming graduates. So, it is very much needed to assess their skill and knowledge regarding self-medication. With the above mentioned concern, this study is designed to evaluate the knowledge, attitude and practice of self-medication among second year undergraduate students.

METHODS

This questionnaire based study was conducted in the Department of Pharmacology, Late Baliram Kashyap Memorial Government Medical College, Jagdalpur, Chhattisgarh during the month of December 2018.

After taking the signed informed consent, a pre-validated questionnaire was distributed to 175 second year MBBS students. The purpose of the study was explained to the students and those who were not willing to take part in the study were excluded.

The questionnaire consists of 12 questions pertaining to the demographic profile of the students, their knowledge regarding self-medication, sources of self-medication, reason behind using and not using self-medication and the common drugs which can be used as self-medication. The questionnaire was adapted from the similar study conducted earlier.⁹ Ethical committee approval was obtained from the Institutional Ethics Committee, prior to the commencement of the study.

Statistical analysis

The filled questionnaire feedbacks were retrieved from the students and data were analysed using descriptive statistics by Graph Pad Prism version 6.01. Results were presented as counts and percentage.

RESULTS

Out of 175 students which were analysed for knowledge, attitude, perception and practice about self medication, 87 (49.7%) were males and 88 (50.3%) were females. The mean age of students was 20.7 years; range was from 18 to 25 years. Out of 175 students total 155 (88.57%) students have taken self medication and rest 20 (11.43%) students have accepted that they have never taken self medication till now.

The common reasons for taking self medication were that there is no need to visit the doctor for minor illness (64%), quick relief (48.57%), time saving (34.29%), ease and convenience (33.71%) and confidence on their knowledge about medicines (21.7%) as compared to other reasons like economical, learning opportunity and crowd avoidance as shown in Table 1.

Table 1: Common reasons for taking self medication.

Reasons for taking self medication	No. of students (%)
No need to visit the doctor for minor illness	112 (64%)
Quick relief	85 (48.57%)
Time saving	60 (34.29%)
Confidence on your knowledge about medicines	38 (21.7%)
Economical	27 (15.43%)
Ease and convenience	59 (33.71%)
Learning opportunity	20 (11.43%)
Crowd avoidance	20 (11.43%)

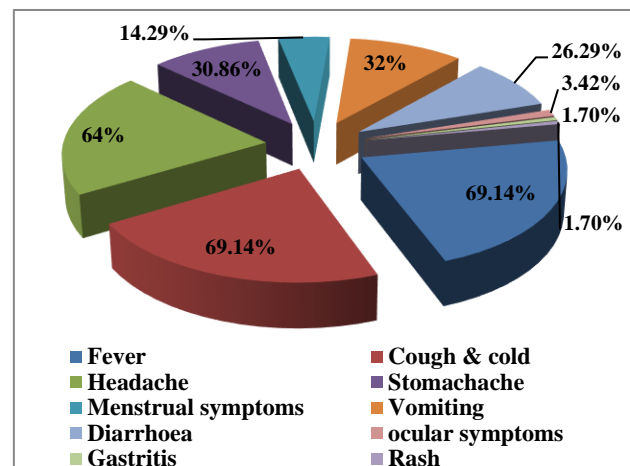


Figure 1: Common indications for self medication.

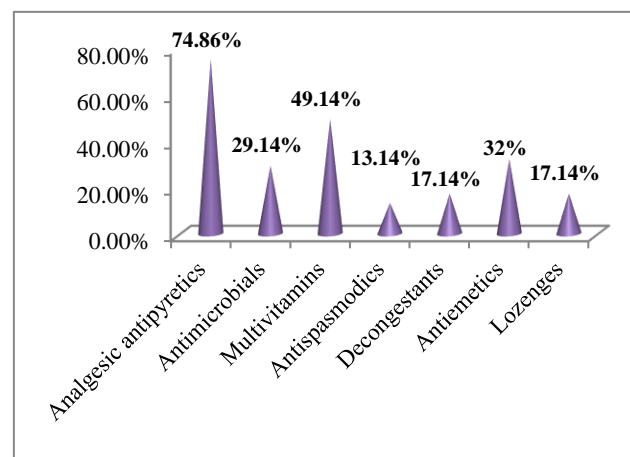


Figure 2: Common medications used for self medication.

The common indications for which self medication was taken were fever (69.14%), cough and cold (69.14%), headache (64%), stomach ache (30.86%) followed by vomiting, diarrhoea, menstrual symptoms, ocular symptoms, gastritis and rashes as depicted in Figure 1.

The common medications taken were analgesic antipyretic (74.86%), multivitamins (49.14%), antiemetics (32%), antimicrobials (29.14%), antispasmodics, decongestants and lozenges as shown in Figure 2.

The source of information for self medication was previous prescription 107 (61.14%) for most of the students, while other sources stated by them were text book 15 (8.57%), advertisement 14 (8%), lectures 8 (4.57%) and combination of textbook and lecture 11 (6.29%). Total 114 (65.14%) students obtained the drug for self medication from medical store while 30 (17.14%) students used the left-over medicines from previous illness at home.

Table 2: Various reasons for not taking the self medication routinely.

Reasons for not taking self medication routinely	No. of students (%)
Lack of knowledge about medicines	118 (67.43%)
Risk of adverse effects	131 (74.86%)
Risk of using wrong drugs	105 (60%)
Risk of misdiagnosing	79 (45.14%)
Risk of drug dependence	45 (25.71%)
Risk of using drugs wrongly	86 (49.14%)

The common reasons for not taking self medication routinely were risk of adverse effects 131 (74.86%), lack of knowledge about drugs 118 (67.43%), risk of using wrong drugs 105 (60%) followed by risk of misdiagnosis, risk of using drugs wrongly, risk of drug dependence etc. as shown in Table 2.

Out of 155 students, who took self medication 95 students sometimes practised while 60 students rarely practised self medication due to the above stated reasons.

DISCUSSION

This study was conducted with the objective to evaluate the knowledge, attitude and practice about self medication in second year undergraduate students. In this study the proportion of males and females was equal as compared by the study conducted by Sankadia et al, where the pattern of self medication was higher in females as compared to the males.⁹ The prevalence of self medication was quite higher in this study as 88.57% students have taken it as compared to the study conducted at other parts of India like 36% in Pondicherry and 77.89% in Nagpur, Maharashtra.^{10,11}

The common reason behind taking self medication was stated as, no need to visit the doctor for minor illness and quick relief, which was similar to study conducted by

Sankadia et al.⁹ In this study the most common indication for which self medication was taken were cough and cold (69.14%) and fever (69.14%), this may be due to cold climate of this Bastar region, similar findings were also there in study conducted by Patil while study conducted by Sankadia et al, found headache as the common indication.^{9,12}

The results of many studies showed that analgesics were the most commonly used self medication followed by cough remedies and supplements.¹²⁻¹⁴ This study showed that analgesic and antipyretics were commonly used drugs followed by vitamin supplements, which is similar to study conducted by Patil SB, where vitamins were more commonly used than rest of the medications.¹²

This study found the main source of information for self medication was previous prescription which may be the reason for the increased prevalence of self medication in this study as once the students had visited to the doctors for any illness they don't think it necessary to visit again for the similar kind of ailments.

The study also found that major source for obtaining the drug was medical store as many drugs are available now-a-days as over the counter (OTC) medication and they are convenient to get without the need of any written prescription. Similar results were also found with the study conducted by Patil SB.¹²

Students in this study were also aware about the harmful effects of practicing the self medication as they rarely practise to take it routinely due to reasons stated as lack of proper knowledge about medicines, risk of adverse effects and risk of using wrong drugs. As this study conducted in second year undergraduate students, they are not confident enough about their knowledge of drug dosing and their adverse effect profile. Similar findings were also there with studies conducted by Sankadia et al, and James et al.^{9,15}

CONCLUSION

This study showed that self medication is highly prevalent among medical students. As self medication can act as double-edged sword, there is an immense need to educate the students about its pros and cons. Also, there is need to check the availability of over the counter (OTC) medicines at pharmacies, as most of the students get the medicines easily from there. The education of self medication is also very mandatory as there is alarming increment in the cases of antimicrobial resistance. Hence, there is need to educate the students about self medication and also state regulatory authority should make guidelines to reduce the availability of OTC medicines to prevent the practice of it.

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REFERENCES

1. World Health Organization: Guidelines for the regulatory assessment of Medicinal Products for use in self-medication. Available at: WHO/EDM/QSM/00.1, 2000. Accessed on 3 October 2018.
2. Raja TA, Senthil G. Self-medication practices among II MBBS medical students in a tertiary care hospital-A cross sectional study. *Pharma Innovation.* 2016 Apr 1;5(4, Part A):4.
3. Hussain S, Malik F, Hameed A, Ahmad S, Riaz H. Exploring health seeking behavior, medicine use and self medication in urban and rural Pakistan. *Southern Med Review.* 2010 Oct 1;3(2):32-5.
4. Ahmad A, Parimalakrishnan S, Patel I, Kumar NV, Balkrishnan TR, Mohanta GP. Evaluation of self-medication antibiotics use pattern among patients attending community pharmacies in rural India, Uttar Pradesh. *J Pharm Res.* 2012;5(2):765-8.
5. Barar FS. Dangers of self-medication. 2005. Available at: <http://www.boloji.com>. Accessed on 27 September 2018.
6. Kenna GA, Wood. Prescription subscription use by pharmacists and other health professionals. *J Am Pharmacy Assoc.* 2004;44(6):684- 93.
7. Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self medication. *Drug safety.* 2001 Dec 1;24(14):1027-37.
8. World Health Organization: report of the WHO expert committee on National Drug Policies 1995. Available at: <http://apps.who.int/medicinedocs/documents/S16221e/s16221e.pdf>. Accessed on October 3, 2018.
9. Sankdia RK, Agrawal M, Rekha PB, Kothari N. A Questionnaire Based Study Regarding the Knowledge, Attitude and Practice of Self-Medication Among Second Year Undergraduate Medical Students. *Int J Pharmacol.* 2017 Mar;6(1):1-5.
10. Nayaka SR, Anand SJV. A questionnaire based study to assess the knowledge of 2nd year medical students on self medication/OTC. *Int J Res in Pharmacol Pharmacotherapeut.* 2017;6(2):127-33.
11. Sontakke SD, Bajait CS, Pimpalkhute SA, Jaiswal KM, Jaiswal SR. Comparative study of evaluation of self-medication practices in first and third year medical students. *Int J Biol Med Res.* 2011 Apr 30;2(2):561-4.
12. Patil SB. Self medication: Awareness and attitude among undergraduate medical students in a tertiary care medical college, Dhule. *Ntl J of Community Med* 2015;6(2):65-9.
13. Cuzzolin L, Benoni G. Safety of non-prescription medicines: knowledge and attitude of Italian pharmacy customers. *Pharm World Sci.* 2010;32:97-102.
14. Zafar SN, Syed R, Waqar S, Zubairi AJ, Waqar T, Shaikh M, et al. Self-medication amongst university students of Karachi: prevalence, knowledge and attitudes. *J Pakistan Med Assoc.* 2008;58(4):214.
15. James H, Handu SS, Al Khaja KA, Ootom S, Sequeria RP. Evaluation of knowledge, attitude and practice of self medication among first year medical students. *Med Prine Pract.* 2006;15(4):270-5.

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