

PREVALENCE OF SELF-MEDICATION PRACTICES AMONG ZAMBIAN STUDENTS IN ITM UNIVERSITY GWALIOR, INDIA

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ABSTRACT

Aims: This study was undertaken to determine the attitude and practice of self medication among Zambian students in India. **Methods:** this study was anonymous, questionnaire-based, descriptive study. A self-developed, pre-validated questionnaire consisting of both open ended and closed-ended questions was filled by Zambian students pursuing various courses in ITM University Gwalior. Data was reviewed, organized and summarized as counts, percentage and evaluated using descriptive statistics. **Result:** The prevalence of self-medication was 87.5%. Antipyretics were most commonly self-medicated by the students (93.38%) and the most common indication for the usage of self-medication was found as Fever, Headache and cough/ cold with

the reason illness was too trivial. Common source of information for self-medication was found to be Pharmacy. **Conclusion:** The study findings concluded that Self-medication is prevalent in Zambian students. However, multi-centric studies on prevalence of self-medication are required to be conducted with a sample large enough to represent the whole Zambia population.

KEYWORDS: Self-medication, Zambia, drug abuse, minor illness.

INTRODUCTION

According to World Health Organization, Self medication involves selection and use of medicines by individuals to treat self-diagnosed illness or symptoms.^[1] Self medication is a growing concern throughout the world.^[2,3] Various studies on self-medication reported that it is a fairly common practice, especially in economically underprivileged countries. Various

factors like economical, political, and cultural factors are associated with constant increase in self-medication practice worldwide.^[2,4] Self-medication is common practice among students. The increased quantities, varieties of pharmaceuticals and excessive advertising of pharmaceutical goods poses a larger threat of self-medication to the younger population in general, as these activities ease the accessibility of medicines by consumers thereby providing options for misuse.^[5] Various studies done in India reported self-medication is a common practice among medical, nursing, pharmacy, management and engineering students.^[6,7] A study from coastal south India reported self-medication as a common practice among medical undergraduate students. The prevalence of self-medication was 76% and a large number of females (81.2%) were self-medicating than males (75.3%).^[11] A study conducted in 5 universities in Khartoum state, Sudan has observed self-medication as a common practice among undergraduate students in Sudan.^[8] ITM University Gwalior is a multidisciplinary university based in Gwalior, India. Currently it is training students in the Sciences, Engineering, Management, Fine arts, Social sciences, Arts, Pharmacy, Optometry and Nursing. The University is established by the Act of State Legislature Madhya Pradesh and is notified in the Official Gazette (extraordinary) of the State Government. ITM University Gwalior has been the education hub in central India for students from the countries such as Bhutan, Zimbabwe, Sudan, Zambia, Botswana, Afghanistan Bangladesh etc. There is a paucity of literature on the prevalence of self medication among Zambian Population and their attitude towards the same. The present study was hence, conducted to assess the prevalence of self-medication among the undergraduate Zambian students in ITM University Gwalior, India and to assess the prevalence of self medication among Zambian students and associated factors.

MATERIAL AND METHODS

A cross sectional descriptive study was conducted within undergraduate Zambian students of ITM University Gwalior. All students who were willing to participate in the study were enrolled. Students were briefed about the nature of the study, and the procedures of completing the questionnaire were explained. This study was anonymous, questionnaire-based, descriptive study. A self-developed, pre-validated questionnaire consisting of both open ended items were used. The study was conducted at ITM University campus with 62 samples who matched the inclusion criteria were selected by convenient sampling technique. The inclusion criteria for the selection of students was age 18 years and above. Incomplete filling of questionnaires were set as exclusion criteria. Confidentiality was maintained

throughout the study. This study was descriptive and data was summarized as counts and percentages. Collected data were analyzed by using descriptive statistics.

RESULTS

Baseline characteristics of participants: All the students (n=62) responded to the questionnaires, of whom 07 students were excluded in accordance with exclusion criteria like incomplete information. Remaining 56 (90.32%) student's questionnaires were considered for evaluation. Their mean age in years \pm SD was 20.98 ± 2.76 (from 18-26 years).

Percent of male and females: Out of 56 respondents 34 (60.71%) were males and 22 (39.28%) were females.

Prevalence of self medication: About 49 (87.5%) positive respondents committed that they were involved with self-medication practices. A proportionately large number of males (n=30, 88.23%) were self medicating than females (n=19, 86.36%). The distribution of self-medication practice among students is shown in the Table 1.

Table 1: Gender wise distribution of self-medication practice (n=56).

Self Medication	Male	Female
Taken (%)	30 (88.23)	19 (86.36)
Not taken (%)	04 (11.77)	03 (13.63)
Total (%)	34 (100)	22(100)

Drug categories commonly used for self-medication (n=49): Antipyretics were the most common category of drugs used for self-medication by the majority of participants (93.38%), followed by Analgesic (73.4%) and Antibiotics (65.30%). It was also observed that 38.78% of the respondents reported to have self-medicated with Multi-vitamins [Table 2].

Table 2: Categories of commonly self-medicated drugs (n=49).

Categories	n (%)
Antipyretics	46 (93.38%)
Analgesic	36 (73.4%)
Antitussives	20 (40.81%)
Antihistamines	16 (32.65%)
Antibiotics	32 (65.30%)
Multi-vitamins	19 (38.78%)
Antidiarrhoeal	13 (26.53 %)
Antiulcer	07 (14.28%)
Anthelmintic	04 (8.16%)

Reason for Self medication (n=49): among the 49 respondents who committed of practicing self medication, 26 (53.06%) students reported the reason of self medication to be mild illness, 15 (30.61%) students reported to self-medicate due to previous experience of treating similar ailment. The characteristics of the students indulged in self-medication are shown in Table 3.

Table 3: Reasons for Self-medication (n=49).

Reasons for self-medication	n (%)
Mild illness	26 (53.06%)
Previous experience of treating similar ailment	15 (30.61%)
To save money	08 (16.32%)
No doctor were readily accessible	10 (20.41%)
To save time	05 (10.20%)

Source of information about drugs (n=49): Out of 49 participants that give history of self-medication, 22 (44.89%) of students had taken medicines from pharmacists. 19 (44.89%) students reported to use the drug based on the information obtained from friends or relatives. Other sources of information are shown in Table 4.

Table 4: Source of information (n=49).

Source of information about drugs	n (%)
Pharmacist	22 (44.89%)
Friends/relatives	19 (38.78%)
Old prescription	05 (10.20%)
Advertisements	03

Common indications for self-medication (n=49): Among the various indications for self-medication reported by the participants [Table 5], fever was the most common (83.67%), followed by headache (59.18%) and cough/cold (46.93%).

Table 5: Indications for self-medication (n=49).

Indications	n (%)
Fever	41 (83.67%)
Headache	29 (59.18%)
Cough/cold/flu	23 (46.93%)
Rash/allergies	16 (32.65%)
Diarrhea	09 (18.36%)
Mouth ulcers	07 (14.28%)

DISCUSSION

The World Health Organization defines self-medication as selection and use of medicines by individuals to treat self-diagnosed illnesses. Various studies conducted throughout the world, suggested that students are prone to self-medication practice. The prevalence of self-medication in this study was found to be 87.5%. In studies conducted in African countries, the prevalence of self-medication among students was shown to be, 25.4% and 43.2% in Ethiopia,^[9,10] 55% in Egypt,^[11] 56.9% in Nigeria,^[12] 79.5% in Sudan,^[8] and 55.8% in Mozambique.^[13] In studies conducted within Asian countries, the prevalence of self-medication was shown to be 80.9% in Malaysia,^[14] 84.98% in Nepal^[15] and 55.3% in Pakistan.^[16] Similarly, in studies done within India, the prevalence of self medication was reported to be 78.6%.^[1] In our study, the prevalence of self-medication was observed to be higher among males (88.23%). Similar observations were made in studies from India^[17] and Slovenia.^[2] In our study, Anti-pyretics (93.38%) were the most common category of drugs self-medicated by the students. Similar observations were made in a study from South India.^[1] However, in studies from Pakistan, analgesics were the most common class of drugs self-medicated.^[16] Fever (83.67%) was the most common indication for self-medication followed by headache (59.18%) and cough & cold (46.93%). The same was reported in studies from Ethiopia.^[9] Contrary to our observations, Diarrhea was the most common indication for self-medication in Nigeria,^[12] cough & cold in western part of India.^[17] 44.89% of students marked Pharmacists to be their source of information for self-medication which was similar to observations made in India,^[18] while 38.78% of students reported to gain information from friends and relatives. A study from Nepal reported Friends & relatives as the primary source of information for self-medication.^[19]

Among reasons for self-medication practice, about half of the respondents (53.06%) cited mild illness as the primary reason while 30.61% preferred it because of previous experience of treating similar ailment. Similar observations were reported in studies from India.^[1,17]

Another alarming observation was that 65.30% respondents used Antibiotics for self-medication. Results were consistent to the observations reported in study from Nepal.^[20]

CONCLUSION

Thus, it is concluded from our study that self-medication is a common practice among the Zambian students. Antipyretics were the commonly used drugs and mild illness was the most common reason for self-medication. Higher percentages of self-medication practices were

seen among male students. To our knowledge, this study is one of its kinds on Zambian population. The sample size was too small to represent whole Zambian population. Furthermore, multi-centric studies on the prevalence of self medication are required to be conducted with a sample large enough to represent the whole population. Health education to students is necessary to prevent indiscriminate use of drugs.

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REFERENCES

1. Kumar N, Kanchan T, Unnikrishnan B, Rekha T, Mithra P, et al. Perceptions and Practices of Self-Medication among Medical Students in Coastal South India. PLoS ONE, 2013; 8(8): e72247. doi:10.1371/journal.pone.0072247.
2. Klemenc-Ketis Z, Hladnik Z, Kersnik J. Self-Medication among Healthcare and Non-Healthcare Students at University of Ljubljana, Slovenia. Med Princ Pract, 2010; 19(5): 395-401.
3. Abahussain E, Matowe LK, Nicholls PJ. Self- reported medication use among adolescents in Kuwait. Med Princ Pract, 2005; 14(3): 161-4.
4. Sawalha AF. Assessment of self-medication practice among university students in Palestine: therapeutic and toxicity implications. The Islamic University Journal (Series of Natural Studies and Engineering), 2007; 15(2): 67-82.
5. Burak LJ, Damico A. College students' use of widely advertised medications. J Am Coll Health, 2000; 49(3): 118-21.
6. Parakh R, Sharma N, Choudhary V, et al. A comparative study of self -medication practice among medical & engineering students in a private university in north India. World J Pharm Pharma Sci, 2014; 3(5): 933-44.
7. Stephen S, Sukanya M, Scaria T, Sunny TT, Shettigar D. Selfmedication practices among undergraduate nursing students in south India: a cross-sectional study. Am Int J Res Sci Technol Eng Math, 2013; 3: 159-62.
8. Awad AI, Eltayeb IB. Self-medication practices with antibiotics and antimalarials among Sudanese undergraduate university students. Ann Pharmacother, 2007; 41(7): 1249-55. Epub 2007 Jun 12.

9. Abay SM, Amelo W. Assessment of self-medication practices among medical, pharmacy, and health science students in Gondar University, Ethiopia. *J Young Pharm*, 2010; 2(3): 306–310.
10. Gutema GB, Gadisa DA, Kidanemariam ZA, Berhe DF, BerheAH, et al. Self-medication practices among health sciences students: the case of mekelle university. *J Appl Pharmaceutical Sci*, 2011; 01(10): 183–189.
11. El Ezz NF, Ez-Elarab HS. Knowledge, attitude and practice of medical students towards self-medication at Ain Shams University, Egypt. *J Prev Med Hyg*, 2011; 52(4): 196–200.
12. Fadare JO, Tamuno I. Antibiotic self-medication among university medical undergraduates in Northern Nigeria. *J Public Health Epidemiol*, 2011; 3(5): 217–220.
13. Lucas R, Lunet N, Carvalho R, Langa J, Muanantatha M, et al. Patterns in the use of medicines by university students in Maputo, Mozambique. *Cad Saude Publica*, 2007; 23(12): 2845–2852.
14. Ali SE, Ibrahim MIM, Palaian S. Medication storage and self-medication behaviour amongst female students in Malaysia. *Pharm Pract*, 2010; 8(4): 226–232.
15. Pirzadeh A, Mostafavi F. Self-medication among students in Isfahan University of Medical Sciences based on Health Belief Model. *J Edu Health Promot*, 2014; 3: 112.
16. Zafar SN, Syed R, Waqar S, Irani FA, Saleem S. Prescription of medicines by medical Students of Karachi, Pakistan: a cross-sectional study. *BMC Public Health*, 2008; 19: 162.
17. Banerjee I, Bhadury T. Self-medication practice among undergraduate medical students in a tertiary care medical college. West Bengal. *J Postgrad Med*, 2012; 58: 127-31.
18. Patel MM, Singh U, Sapre C, et al. Self-medication practices among college students: a cross sectional study in Gujarat. *National J Med Res*, 2013; 3(3): 257-60.
19. Bhattarai N. Self-medication practice among undergraduate pharmacy students in Kathmandu Valley, Nepal. *Int J Pharma Sci Res*, 2014; 5(11): 737-46.
20. Shankar PR, Partha P, Shenoy N. Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal: A questionnaire based study. *BMC Fam Pract*, 2002; 3: 17.