

**EVALUATION OF THE KNOWLEDGE, ATTITUDE AND PRACTICE OF SELF-MEDICATION AMONG B.Sc NURSING STUDENTS**Gajendra Naidu. J<sup>1</sup>, Vamsi Krishna<sup>2</sup>, Rao B. V<sup>3</sup>**HOW TO CITE THIS ARTICLE:**

Gajendra Naidu. J, Vamsi Krishna, Rao B. V. "Evaluation of the Knowledge, Attitude and Practice of Self Medication among B.Sc Nursing Students". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 46, June 08; Page: 8054-8060, DOI: 10.14260/jemds/2015/1168

**ABSTRACT: INTRODUCTION:** This study was undertaken to determine the knowledge, attitude and practice of self-medication among nursing students of the NRIIMS, Visakhapatnam. **MATERIALS & METHODS:** This was an anonymous, questionnaire-based, descriptive study. A prevalidated questionnaire, containing open-ended and close-ended questions, was administered to the subjects. Data were analyzed using MS-Excel and the results were expressed as counts and percentages. **RESULTS:** Out of the 140 respondents, everyone responded with one or the other drug. The respondents' knowledge about appropriate self-medication was poor, but knowledge of the benefits and risks of self-medication was adequate. The respondents found self-medication to be time-saving, economical, convenient and providing quick relief in common illnesses. Important disadvantages of self-medication mentioned were the risk of making a wrong diagnosis, inappropriate drug use and adverse effects. The majority (42%) of the respondents had a positive attitude favoring self-medication. The most common indications for self-medication were to relieve the symptoms of headache (36.43%), fever (34.02), cough & cold (21.42%). Analgesics (37.14%) were the most common drugs used for self-medication. Knowledge about appropriate self-medication was adequate, attitude towards self-medication was positive, and the practice of self-medication was common and often inappropriate.

**KEYWORDS:** Self-medication, Questionnaire-based study.

**INTRODUCTION:** Self-medication involves the use of medicinal products by the individuals to treat self-recognized disorders or symptoms, or the intermittent or continuous use of a medication prescribed by a physician for chronic or recurring diseases or symptoms.<sup>[1]</sup> Self-medication involves acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one's social circle or using leftover medicines stored at home.<sup>[2]</sup> Self-medication thus forms an integral part of self-care, which can be defined as the primary public health resource in the health care system. It includes self-medication, non-drug self-treatment, social support in illness, and first aid in everyday life.<sup>[1]</sup> Use of self-medication is highly prevalent in both urban and rural community varying from 32.5% to 81.5%.<sup>[3-5]</sup>

The practice of self-medication in the general population in the form of OTC (Over the counter) drugs have been on a rapid rise. Unaware of the appropriate drugs for the particular illnesses, their doses, and adverse effects, the misuse of medications as prescribed by the pharmacist, or a family member, or anyone in general may lead to such people literally playing with their lives at their own mercy. But with illiteracy, there is no stop to this. On the contrary, the situation is entirely different in the case of medicos/dental or nursing students. As soon as these students enter their second year, they have to study the details of various drugs, the diseases where they can be administered, the side effects, the contraindications and their drug interactions in the subject of

## ORIGINAL ARTICLE

pharmacology. On one hand, students become more and more cautious in practicing self-medication, knowing that irrational and inappropriate usage of them might be more harmful than useful, so they, even in situations of minor illness prefer taking any medication only after consultation from a qualified practitioner. On the other hand they may become confident and in most cases, overconfident, regarding their "BOOKISH" knowledge and may start implementing self-care. They may either become successful in this attempt boosting up their confidence levels, hence encouraging them for its continued use or even over use, or may suffer such setbacks leading to a detrimental health or a diseased state.

There is a paucity of studies on self-medication among nursing students. This study aims at assessing the Knowledge, Attitude and Practice of self-medication and the reason for self-medication among B.Sc. Nursing students of private nursing college, attached to a Medical college in Visakhapatnam.

**MATERIALS & METHODS:** This study was an anonymous, questionnaire based survey. It was undertaken in the month of March 2015. A self-developed, pre-validated questionnaire was used. The study population comprised of B.Sc Nursing students of a private nursing college attached to a medical college in Visakhapatnam.

As the batch comprised only of girls there was no difference based on gender. The mean age of the students was 19 years (SD±0.82). A brief description of the nature of the study and the procedure of completing the questionnaire was explained to them, the time given for filling up the form (Questionnaire) was half an-hour.

The survey was descriptive and data was summarized as counts and percentage. MS Excel was used for data analysis.

**RESULTS:** Out of 140 students, all responded (100%). The important source of information for self-medication was INTERNET 55.18 percent followed by 24.29 percent of students have the knowledge from print media among students. (Table 1).

The most common condition/symptoms for self-medication in students were fever (31.43%) as well as headache, body ache & toothache (31.43%) followed by common cold (22.83%). The most commonly used drugs for self-medication were analgesics followed by antipyretics. (Fig. 1)

About 66% of the students opined in favor of self-medication. Most common reason for favoring self-medication were knowledge gaining (42.86%) followed by increase in self-confidence (34.29%). (Fig. 2)

Out of 140 respondents 77(55 percent) of students expressed reasons against practice of self-medication is risk of adverse effects followed by 30 percent of students attributed for as wrong diagnosis. (Table 2).

Source of information	No.	Percentage
Television	11	7.86
Inter Net	78	55.18
Print Media	34	24.29
Friends/Relatives	05	3.58
Past Exposures	12	8.58
<b>Total</b>	<b>140</b>	<b>100.0</b>

Table 1: Showing Source of Information Regarding Drugs (N = 140)

## ORIGINAL ARTICLE

Source of information about use of drugs through internet is 55.18 percent followed by 24.29 percent of students have the knowledge from print media.

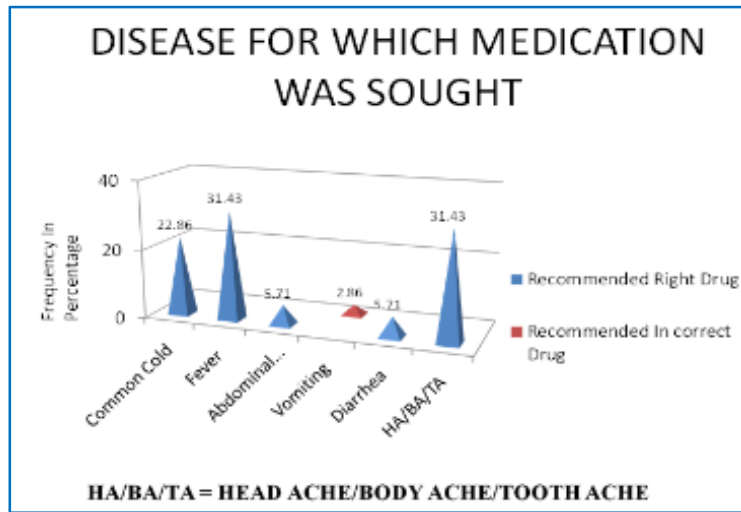


Fig. 1

Fig. 2: 42.86 percent of students attributed that it is knowledge gaining followed by 34.29 percent attributed that it increase self-confidence.

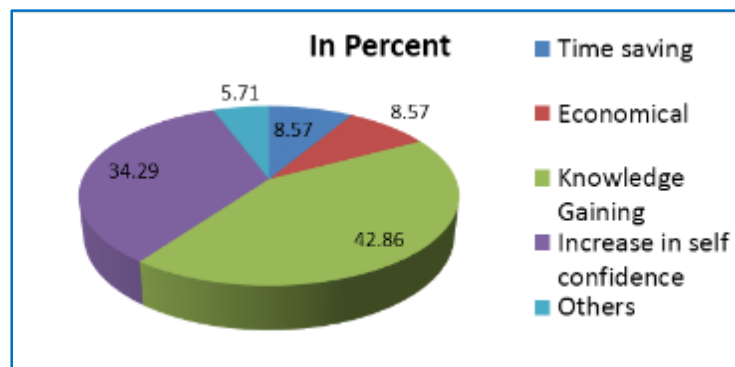


Fig. 2

Reasons Against Practice of Self-Medication	No.
1. Risk of Adverse effects	77(55%)
2. Risk of wrong diagnosis	42(30%)
3. Risk of dependence	21(15%)
<b>Total</b>	<b>140(100%)</b>

Table 2: Showing Reasons Against Self Medication (N= 140)

55 percent of students expressed it is risk of adverse effects followed by 30 percent of students attributed for as wrong diagnosis.

## ORIGINAL ARTICLE

---

**DISCUSSION:** The International Pharmaceutical Federation defines self-medication as the use of non-prescription medicines by people on their own initiative.<sup>[6]</sup> Self-medication is considered an element of self-care.<sup>[7]</sup> Self-care, including self-medication, has been a feature of healthcare for many years and people have always been keen to accept more personal responsibility for their health status.<sup>[6]</sup> The present study was conducted to evaluate the practices, attitude and perception of self-medication among nursing students. The prevalence of self-medication in our study was found to be 100%.

In studies conducted within India, the prevalence of self-medication among the medical students was shown to be ranging between 57.1% and 92%.<sup>[8-10]</sup> Other studies on Indian students from non-medical background showed a prevalence of 80.1% in Tamil Nadu,<sup>[11]</sup> and 87% in Uttar Pradesh.<sup>[12]</sup> In studies conducted in developing countries, the prevalence of self-medication was shown to be 25.4% and 43.2% in Ethiopia,<sup>[13,14]</sup> 51% in Slovenia,<sup>[15]</sup> 55.3% in Pakistan,<sup>[16]</sup> 55% in Egypt,<sup>[17]</sup> 56.9% in Nigeria,<sup>[18]</sup> and 80.9% in Malaysia.<sup>[19]</sup>

In our study the most common reason for self-medication reported by a large number of participants was that it increases the knowledge regarding drugs and their use. However, in a study from Tamil Nadu<sup>[11]</sup> most students practiced self-medication as it was time saving, whereas in Punjab<sup>[20]</sup> the most common reason for self-medication was for quick relief.

Antipyretics & analgesics were the most common class of drugs self-medicated by majority of the participants in our study. Paracetamol and other types of NSAIDs were the most common type of analgesics used for self-medication. However, in studies from Iran,<sup>[21]</sup> Mozambique,<sup>[22]</sup> Pakistan,<sup>[16]</sup> and Egypt,<sup>[22]</sup> analgesics were the most common group of drugs self-medicated. These results are similar to other studies conducted in other countries.<sup>[23-27]</sup>

Fever was the most common indication for self-medication in our study which was similar to observations made in Tamil Nadu.<sup>[16]</sup> However, in studies from Western,<sup>[8]</sup> and Southern part of India,<sup>[10]</sup> cough & cold was the most common symptom for self-medication. A study from Ethiopia,<sup>[13]</sup> reported fever as the most common symptom for self-medication. In the present study 57% of the participants felt that self-medication was part of self-care which was higher to that reported in studies from Ethiopia,<sup>[14]</sup> and Karachi.<sup>[16]</sup> More than 50% of the participants wished to continue with self-medication/start self-medication.

Regarding a change in attitude about self-medication same results were obtained i. e. 45% of the students were not in favour to change their attitude about self-medication whereas 40% were in favour of change in their attitude towards self-medication.

More than 65% of respondents were aware of the adverse effects associated with self-medication as compared to just above 30% in the study by Badiger et al.<sup>[10]</sup>

**CONCLUSION:** The study showed that nursing students after studying second year subjects (Especially Pharmacology) become more aware about drugs, their uses, adverse effects and contraindications. This helped them practice self-medication. However, even though most of the students still feared having adverse effects due to self-medication, yet not many had any experience. This promoted their practice of self-medication.

Analgesics were the most commonly used drugs. It would be interesting to evaluate the changes in self-medication pattern through their future nursing courses and in clinical practice.

## ORIGINAL ARTICLE

**LIMITATIONS OF THE STUDY:** This study is limited to self-medication practices among B.Sc nursing students only. It did not extend to other medical students. Also the strength of students limited to 140 students only by random selection. This limitation, however, does not affect the validity of the results with regard to the parameters assessed.

**ACKNOWLEDGEMENTS:** The authors are grateful to all the informants, who willingly contributed their knowledge and perceptions to us. The authors especially thank Rao B. V, assistant professor, Community Medicine, NRIIMS, Vizag for his contribution to the study.

### REFERENCES:

1. Guidelines for the regulatory assessment of medicinal products for use in Self-medication, WHO 2000. Available: <http://apps.who.int/medicinedocs/pdf/s2218e/s2218e.pdf>. Accessed: 2013 Feb 26.
2. Loyola Filho AI, Lima-Costa MF, Uchôa E (2004) Bambuí Project: a qualitative approach to self-medication. *Cad Saude Publica* 20 (6) 1661–1669.
3. Lam CL, Catarivas MG, Munro C, Lauder IJ. Self-medication among HongKong Chinese. *Soc Sci Med* 1994; 39: 1641-7.
4. Sanghani S, Zaveri HG, Patel VJ. Self-medication: Prevalence & pattern in urban community. *J Pharmacovigilance Drug Safety* 2008; 5: 95-8.
5. Phalke VD, Phalke DB, Durgawale PM. Self-medication practices in rural Maharashtra. *Indian J Community Medicine* 2006; 31: 34-5.
6. Joint Statement by the International Pharmaceutical Federation and the World Self-Medication Industry. Available: [http://www.fip.org/www/uploads/database\\_file.php?id=241&table\\_id](http://www.fip.org/www/uploads/database_file.php?id=241&table_id). Accessed: 2013 Feb 27.
7. The Role of the Pharmacist in Self-Care and Self-Medication. Available: <http://apps.who.int/medicinedocs/pdf/whozip32e/whozip32e.pdf>. Accessed: 2013 Feb 27.
8. Banerjee I, Bhadury T (2012) Self-medication practice among undergraduate medical students in a tertiary care medical college, West Bengal *J Postgrad Med* 58 (2) 127–131.
9. Sontakke SD, Bajait CS, Pimpalkhute SA, Jaiswal KM, Jaiswal SR (2011) Comparative study of evaluation of self-medication practices in first and third year medical students. *Int J Biol Med Res* 2 (2) 561–564.
10. Badiger S, Kundapur R, Jain A, Kumar A, Pattanshetty S, et al. (2012) Self-medication patterns among medical students in South India. *Australas Med J* 5 (4) 217–220.
11. Kayalvizhi S, Senapathi R (2010) Evaluation of the perception, attitude and practice of self-medication among business students in 3 select cities, South India. *IJEIMS* 1 (3) 40– 44 Available: <http://www.ijcns.com/pdf/40-44>. Accessed: 2013 Feb 27.
12. Verma RK, Mohan L, Pandey M (2010) Evaluation of self-medication among professional students in North India: proper statutory drug control must be implemented. *Asian J Pharmaceutical Clin Res* 3 (1) 60–64.
13. Abay SM, Amelo W (2010) Assessment of self-medication practices among medical, pharmacy, and health science students in Gondar University, Ethiopia. *J Young Pharm* 2 (3) 306–310.
14. Gutema GB, Gadisa DA, Kidanemariam ZA, Berhe DF, Berhe AH, et al. (2011) Self-Medication Practices among Health Sciences Students: The Case of Mekelle University *J Appl Pharmaceutical Sci* 01 (10) 183–189.

## ORIGINAL ARTICLE

---

15. Smogavec M, Softič N, Kersnik J, Klemenc-Ketiš Z (2010) An overview of self-treatment and self-medication practices among Slovenian citizens. *Slovenian Med J* 79: 757–763.
16. Zafar SN, Syed R, Waqar S, Irani FA, Saleem S (2008) Prescription of medicines by medical Students of Karachi, Pakistan: a cross-sectional study. *BMC Public Health* 19: 162.
17. El Ezz NF, Ez-Elarab HS (2011) Knowledge, attitude and practice of medical students towards self-medication at Ain Shams University, . *Egypt J Prev Med Hyg* 52 (4) 196–200.
18. Fadare JO, Tamuno I (2011) Antibiotic self-medication among university medical undergraduates in Northern Nigeria. *J Public Health Epidemiol* 3(5) 217–220.
19. Ali SE, Ibrahim MIM, Palaian S (2010) Medication storage and self-medication behaviour amongst female students in Malaysia. *Pharm Pract* 8 (4) 226–232.
20. Gupta V, Bansal P, Manhas R, Singh Z, Ghaiye P (2011) Preferred system of medicine and reasons of self-medication among college students in Malwa region of Punjab. *J Drug Deliv and Ther* 1 (2) 27–29.
21. Sarahroodi S, Maleki-Jamshid A, Sawalha AF, Mikaili P, Safaeian L (2012) Pattern of self-medication with analgesics among Iranian University students in central Iran. *J Family Community Med* 19 (2) 125–129.
22. Lucas R, Lunet N, Carvalho R, Langa J, Muanantatha M, et al. (2007) Patterns in the use of medicines by university students in Maputo, Mozambique. *Cad SaudePublica* 23 (12) 2845–2852.
23. Drug utilization research group, Latin America (1997). Multicenter study on self-medication and self-prescription in six Latin American countries. *Clinical Pharmacy and Therapeutics*, 61 (4), 488-493.
24. James, H., Handu, S. S., Al Khaja, K. A. J., Otoom, S., &Sequeira, R. P. (2006). Evaluation of the knowledge, attitude and practice of self-medication among first-year medical students. *Medical Principles and Practice*, 15, 270-275.
25. Arrais, P. S. , Coelho, H. L. , Batista, M. C. , Carvalho, M. L. , Righi, R. E. , &Arnau, J. M. (1997) . Profile of self-medication in Brazil. *Revista de SaudePublica*, 31 (1), 71-77.
26. Lau, G. S., Lee, K. K., &Luk, C. T. (1995). Self-medication among University students in Hong Kong. *Asia-Pacific Journal of Public Health*, 8 (3), 153-157.
27. Shankar, P. R., Partha, P., &Shenoy, N. (2003). Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal: a questionnaire-based study. *BMC Family Practice*, 3, 17-24.

**AUTHORS:**

1. Gajendra Naidu J.
2. Vamsi Krishna
3. Rao B. V.

**PARTICULARS OF CONTRIBUTORS:**

1. Assistant Professor, Department of Pharmacology, NRIIMS, Visakhapatnam,
2. Tutor, Department of Pharmacology, NRIIMS, Visakhapatnam,

**FINANCIAL OR OTHER**

**COMPETING INTERESTS:** None

3. Assistant Professor, Department of Social and Preventive Medicine, NRIIMS, Visakhapatnam.

**NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:**

Gajendra Naidu J,  
Associate Professor,  
Department of Pharmacology, NRIIMS,  
Sangivalasa, Vizag - 531162.  
E-mail: drgaja2002@yahoo.co.in

Date of Submission: 18/05/2015.  
Date of Peer Review: 19/05/2015.  
Date of Acceptance: 30/05/2015.  
Date of Publishing: 08/06/2015.