

## Impact of self-medication among first and second year para medical students of a teaching hospital in Dakshina Kannada, South India: A comparative assessment

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### Abstract

**Introduction:** Self-medication is said to be widely practiced among students perceiving careers in medical and health related courses and learning pharmacology might further influence this practice. Hence this study is done to assess the knowledge, attitude and self-medication practices among first and second year paramedical students & to assess the role of studying Pharmacology in this behavior.

**Materials and Methods:** A cross-sectional study was conducted during May 2017 with a self-structured and pre-validated questionnaire. Study population consisted of two groups, mainly 1<sup>st</sup> and 2<sup>nd</sup> year paramedical students who have completed the Pharmacology course. Data were analyzed using descriptive analyses.

**Results:** 95% of respondents from group I and 93% from group II have practiced self-medication at least once. 3.8% of respondents had experienced adverse effects. Drugs commonly used for self-medication were analgesics (58% of group I & 49% of group II) antibiotics (32% of group I & 40% of group II). Awareness about dosage, ADR's, antibiotic resistance was significantly higher in group II. Both groups demonstrated adequate knowledge regarding self-medication.

**Conclusion:** Second year paramedical students had a better knowledge about self-medication, which reflects the influence of medical training.

**Keywords:** Paramedical students, Pharmacology, Self-medication, Teaching.

### Introduction

The use of drugs without the doctor's advice is considered as self-medication and it is common throughout the world, mainly in economically poor communities. Few of the motives for this practice include suppliers of medicines without any license, free obtainability of medications, actions of unregistered medical practitioner, using the medicines which were left after previous use and medications acquired from the members of the family or friends who had used those medicines for similar indications.

The younger generation's use of medication on their own is mainly influenced by advertisement of medicines. Easy obtainability of extensive variety of medicines together with scarce health facilities are the major reasons in developing countries like India, for the increased magnitude of usage of medications on their own match to prescribed drugs. Many physiological changes like absorption, first pass metabolism, protein binding, distribution and removal of the medicine could vary after using medications on their own. A dose which is suitable for one individual can be an overdose for the other individual thus, the person may expose himself to potentially unsafe self-medication. The dearth of clinical assessment of the patients which could give rise to wrong diagnosis and delay in suitable management is the major disadvantage of this practice.

An unwanted expenses and drug-induced ailments are the major setback of unsuitable self-medication at the public level. In the meantime, the medicines available over the counter can be used for self-medication without the advice of the physician and those medicines may not have been recorded in the specific treatment history.

Compare to general population the practice of self-medication is more common among students of medicinal, pharmacy and nursing courses and many factors like age, gender, income and medical knowledge has an influences on it. Taking medications by students without the prescription has turn out to be a grave problem. The young population faces a greater risk because of the increased exposure to the media and the promotion of medications. There is a dearth of studies on self-medication amid students perceiving health associated courses. These students may vary from the universal population because they are wide-open to knowledge about illnesses and medications.

The practice of using drugs on his own without the doctor's advice is more common among students perceiving careers in medical and health related courses and learning pharmacology might further influence this practice. Hence this study is carried out to evaluate the information, approach and self-medication practices amid the paramedical students who are studying in first and second year & to evaluate the role of knowledge of Pharmacology in this actions.

### Review of Literature

The students who are studying health related subjects will get easy information and knowledge from medicine indices, literature and teachers, which may promote them to diagnose themselves and use medications on their own.<sup>1</sup>

Individual and healthcare system will have a positive impact, when self-medication is practiced appropriately. It permits the patients to save the time from waiting for doctor's consultation and gives them the confidence to cope with their health related problems and even save a life in

critical condition and may help to decrease the cost of health care.<sup>2</sup>

The exposure of the young students to the media and increased promotion of medicines results in improper self-diagnosis, misuse of medications without prescriptions. This increases the doubts of drug interaction and use of medicines other than for their regular indication and has become a grave problem. According to the analysis on extensively promoted medicines, many college students used at least one of the promoted medicines, without taking any suggestions with their doctors.<sup>3</sup> It has been established by many studies that using medications without doctor's advice is related with many problems like waste of funds, developing resistance to pathogens, leading to adverse drug reactions, interactions between the drugs and developing dependency to drugs.<sup>4</sup>

According to the World Health Organization (WHO), occurrence and spread of antimicrobial resistance are mainly due to the practices of prescribing antibiotics indiscriminately, inadequate dosing and discontinuation of the medicines once symptomatic relief is

Achieved.<sup>5</sup> About 76% of university students in Karachi, Pakistan, 45% in Turkey, 88% in Croatia, and 94% in Hong Kong have practiced self-medication.<sup>6</sup>

According to the study conducted for pharmacy and nursing students of a tertiary care teaching hospital in Andhra Pradesh, about 86.54% of the students have practiced self-medication and their use of medications were influenced by their medical teaching.<sup>7</sup>

According to the World Health Organization, self-medication may be practiced if it is properly taught and regulated.<sup>8</sup>

Therefore, the administration should take essential steps to control accountable self-medication. This can be done by making availability of safe drugs along with proper instructions about its use and if in need consulting a physician.<sup>9</sup>

### Objectives

1. To conclude the understanding, approach and use of self-medication amongst the students of the I year and II-year paramedical course.
2. To relate the influence of pharmacology teaching amongst them.

**Table 1**

	No. of Students used self-medication	No. of students experienced adverse drug reaction	Students used analgesics as self-medication	Students used antibiotic as self-medication	Other drugs as self-medication
Group 1	36	1	22	12	4
Group 2	39	2	19	16	5

### Materials and Methods

This cross-sectional study was done in the month of June 2017 with a self- designed and pre-authenticated form. The students involved in the study are of two groups, mainly I year paramedical students who have not studied pharmacology and II year paramedical students who have completed the Pharmacology course. Total of 100 students, 50 each from I year and II year were involved in this study.

This fact-finding study was based on the questionnaire. A self-developed questionnaire comprising of both open-ended and close-ended questions were arranged and given to students of first and second year paramedical course. The Chi square test was used to evaluate the information and relations. Through the counts and percentages the results were stated.

### Discussion

**Knowledge:** The study group comprised of two groups involving I year and II year paramedical students. The knowledge about self-medication is almost same among both groups of students. II year paramedical students had knowledge about acute medical problems, dose of drugs, antibiotic resistance and risk of using wrong medications.

**Attitude:** Amongst the students who have answered the questions, majority from both I year and II year thought that self-medication is dangerous if taken without appropriate information of medications and ailments. Students of both the groups thought that medical training is essential for the superior use of medications without doctors advise.

**Practice:** According to this study, 90% of the I year and 95% of the II year students of paramedical course have practiced self-medication. The most commonly used drugs were analgesics and antibiotics.

### Results

Among the respondents, 95% of students of group I and 90% of the group II have used medications without doctor's advice at least once. 3.8% of them had experienced adverse effects. The commonly used medicines were analgesics (58% of group I & 49% of group II) antibiotics (32% of group I & 40% of group II). Awareness about dosage, ADR's, antibiotic resistance was significantly higher in group II. Both groups demonstrated adequate knowledge regarding self-medication.

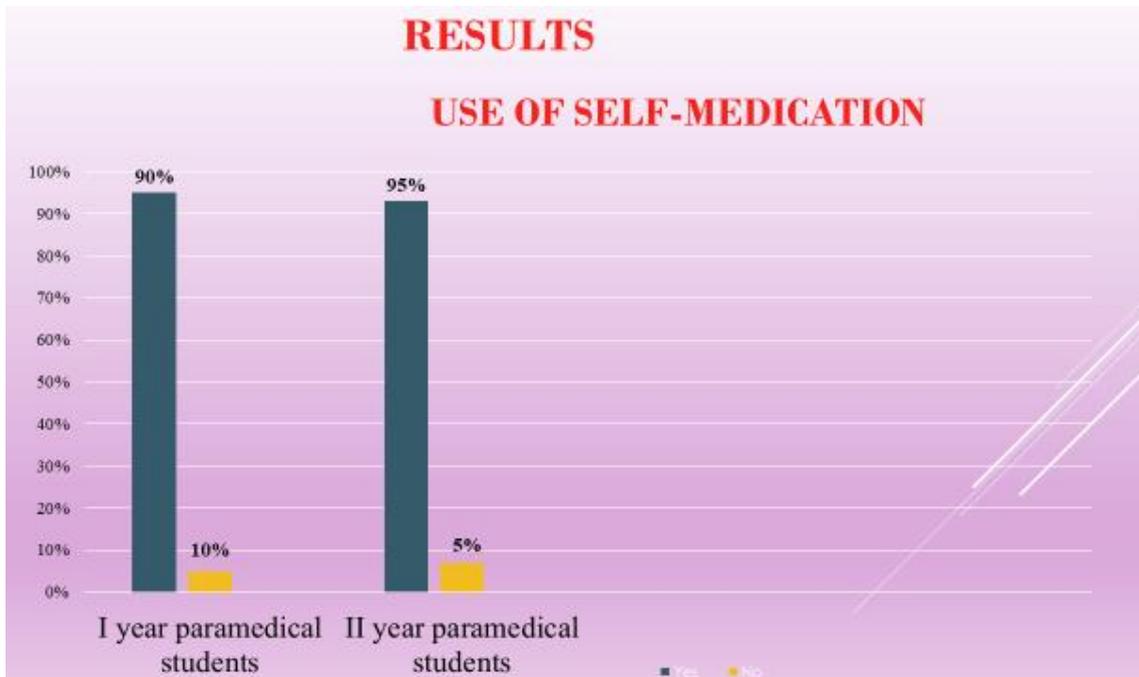


Fig. 1

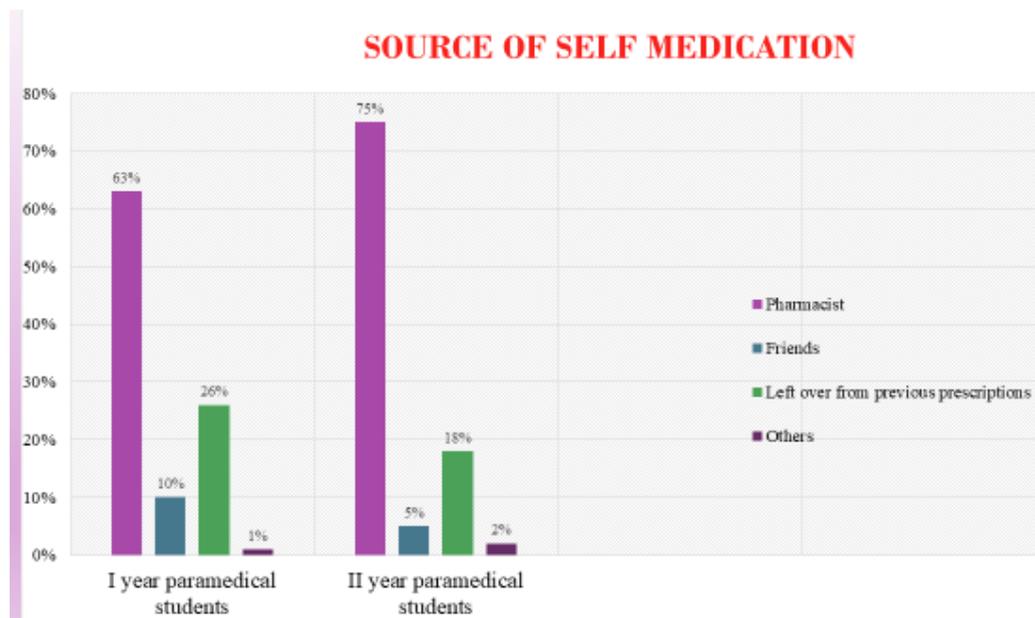


Fig. 2

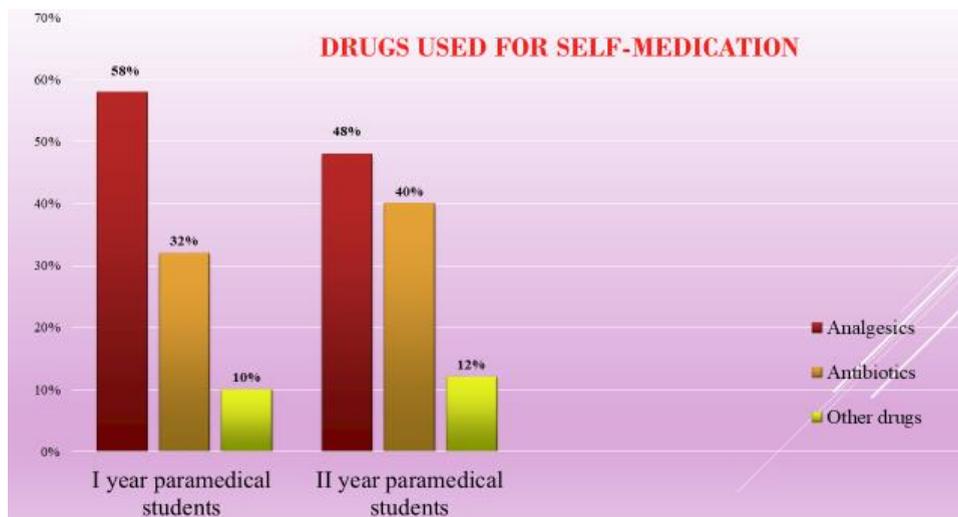


Fig. 3

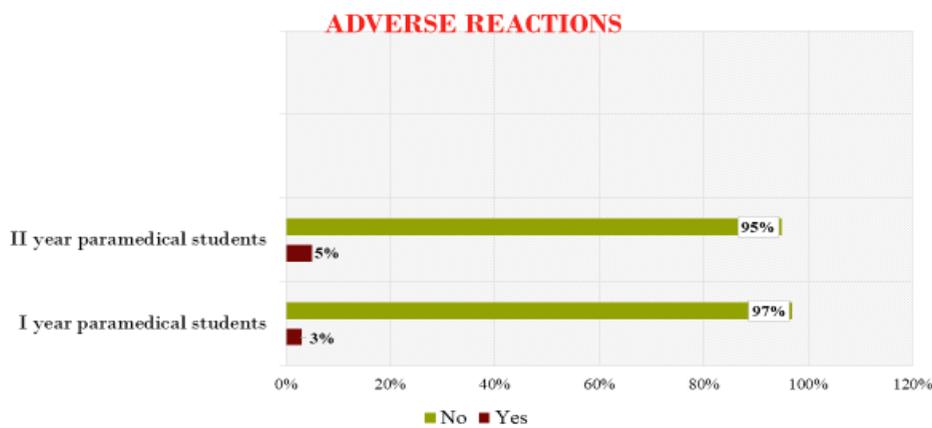


Fig. 4

## Conclusion

The students who are studying in second year paramedical course had a superior information about self-medication, which reveals the effect of medical teaching.

## References

1. Stephen S, Sukanya M, Scaria T, Sunny TT, Shettigar D. Self-medication practices among undergraduate nursing students in south India: a cross-sectional study. *Am Int J Res Sci Technol Eng Math* 2013;3:159-162.
2. Zafar SN, Syed R, Waqar S, Zubairi AJ, Vaqar T, Shaikh M, Yousaf W, Shahid S, Saleem S. Self-medication amongst university students of Karachi: prevalence, knowledge and attitudes. *J Pak Med Assoc* 2008;58(4):214-217.
3. Among university students in south-western Nigeria. *Trop J Pharm Res* 2012;11:683-689.
4. Badiger S. Self-medication pattern among medical students in south India. *Australas Med J* 2012;5(4):217-220.
5. Stephen S, Sukanya M, Scaria T, Sunny TT, Shettigar D. Self-medication practices among undergraduate nursing students in south India: a cross-sectional study. *Am Int J Res Sci Technol Eng Math* 2013;3:159-162.
6. Ali SE, Ibrahim MIM, Palaian S. Medication storage and self-medication behavior amongst female students in Malaysia. *Pharm Pract* 2010; 8:226-232.
7. KP Osemene and A Lamikanra. A Study of the Prevalence of Self-Medication Practice among University Students in Southwestern Nigeria. *Trop J Pharm* 2012;11(4):683-689.
8. Vizhi SK, Senapathi R. Evaluation of the perception, attitude and practice of self-medication among business students in 3 select Cities, South India. *Int J Enterprise Innov Manag Stud (IJEIMS)*. 2010;1(3):40-44.
9. World Health Organization: Report of the WHO Expert Committee on National Drug Policies 1995. Available from: <http://www.who.int/medicines/library/dap/who-dap-95-9/who-dap-95.9.shtml>. [Last accessed on 8-9-2010]

**How to cite this article:** Shetty R, Kumar S. K. Impact of self-medication among first and second year para medical students of a teaching hospital in Dakshina Kannada, South India: A comparative assessment. *Int J Comprehensive Adv Pharmacol* 2018;3(4):138-141.