Research Article

INTERNATIONAL RESEARCH JOURNAL OF PHARMACY

www.irjponline.com

ISSN 2230-8407 [LINKING]

QUESTIONNAIRE-BASED CROSS-SECTIONAL STUDY ON RATIONALE MEDICINE USE IN MEDICAL STUDENTS

Dr. Amol K. Saravade

Assistant Professor, Department of Community Medicine, Abhishek I Mishra Memorial Medical College & Research, Bhilai, Chhattisgarh

Email id: amsaravade12@gmail.com

How to cite: Saravade AK. Questionnaire- based cross-sectional study on rationale medicine use in medical students. International Research Journal of Pharmacy. 2024;15:3:38-41.
Doi: 10.56802/2230-8407.1304307

==========

ABSTRACT

Background: The primary goal of clinical pharmacology training and teaching medical students concepts for the application of rationale medicine is to equip them with the knowledge and abilities necessary to function as clinicians in the future and to evaluate the possible risks and benefits of a treatment as well as its cost-effectiveness.

Aim: The purpose of this study was to evaluate medical students' attitudes, perceptions, and knowledge about the use of reason medicine.

Methods: 304 medical students participated in the current cross-sectional questionnaire-based study. A questionnaire that was pre-designed to evaluate medical students' perceptions and knowledge on the judicious use of medications was used to evaluate the included students. The collected data was examined in order to formulate the results.

Results: According to 72% of participants who answered the questionnaire, the study's findings indicated that most individuals were aware of the usage of over-the-counter drugs.

86% of the survey participants showed awareness of the importance of reading the medication's label. Additionally, the majority of these subjects—84 percent—purchased all of the medications listed on their prescriptions.

Conclusion: The current study comes to the conclusion that the majority of medical students are aware of the rational use of medication, which is linked to a favorable finding regarding medical students' perceptions and understanding of this topic.

Keywords: Rationale medicine use, pharmacology, medical students, perception

INTRODUCTION

Cost-effectiveness, accessibility, and the reason for medication usage are essential components for a high-functioning healthcare system. Reasonable use of medicine entails ensuring that patients receive the medications required for clinical purposes, in dosages appropriate for their particular requirements, for the appropriate amount of time, and in ways that are economical for the community and patients. Enforcement of the rational usage concept of medicine in healthcare professionals and doctors can significantly prevent money-driven prescription approaches, prescribing pressure, patients' lack of knowledge, regulatory agencies' lack of monitoring, pharmaceutical industries' lucrative promotional biases, prescribers' money-driven approach, and false beliefs. Irritating prescribing habits can result in significant resource waste, increased treatment costs, the development of antibacterial resistance, and more adverse drug reactions. to stop this practice of prescribing without reason.[1]

To implement logical, efficient, and targeted prescribing practices, a measurement must be created. Since several prior research have evaluated perspectives, attitudes, and knowledge of prescribers, pharmacists, pharmacy students, and nurses about the use of rationale medicine, these individuals are highlighted as essential stakeholders. Since medical students will eventually become physicians, it is essential to instill healthy practices early on by teaching them notions of logical

usage. Currently, medical curricula emphasize symptoms and accurate diagnosis, with little attention paid to the knowledge and abilities required for the application of rational medicine. 2.

The World Health Organization (WHO) has suggested six stages for prescribing sensible medications. WHO has suggested six stages to be followed sequentially in the right reasoning prescription method, which include accurately describing the patient's condition, defining the therapeutic goal, selecting the right medication, writing the prescription clearly and accurately, providing the patient with the right instructions and cautions, and promptly monitoring or stopping the course of therapy.3

Previous research evaluating interns' prescription knowledge has documented a lack of pharmacology instruction for undergraduate students and came to the conclusion that, in order to reduce prescription errors, interns and medical students should be evaluated on a regular basis regarding their prescription skills and knowledge during undergraduate training. Therefore, evaluating medical students' understanding of self-medication and sensible pharmaceutical usage is essential. 4. Therefore, the current study sought to evaluate medical students' perceptions, attitudes, and knowledge about the use of reason medicine.

MATERIALS AND METHODS

The goal of the current cross-sectional questionnaire-based study was to evaluate medical students' perceptions, attitudes, and knowledge about the use of reason medicine. The research participants came from the Institute's outpatient department. Prior to their involvement in the study, all individuals gave their written and verbal informed consent. The research evaluated 304 courses from the medical undergraduate program. The study's participants were vetted before being accepted. All participant data remained anonymous and was not shared.

A pre-made, structured questionnaire was used in the study to gauge medical students' perceptions and understanding of the justifications for prescription drug prescriptions. The questionnaire used had semi-structured, open-ended, closed-ended, and pre-validated items. Modifications were made considering the opinion by the experts. The questionnaire was created with the purpose of gathering data on several topics for the prudent use of medications. Everyone at the medical school received the completed questionnaire.

Using ANOVA, the chi-square test, the student's t-test, Fisher's exact test, the Mann Whitney U test, and SPSS software, the collected data were statistically examined. The significance threshold was set at a p-value of less than 0.05.

RESULTS

Assessing medical students' perceptions, attitudes, and understanding about the use of reason medicine was the goal of the current cross-sectional questionnaire-based study. This study, which used a cross-sectional questionnaire, involved 304 medical students. A pre-made questionnaire was used to evaluate the perceptions and understanding of medical students about the judicious use of medications.

On assessing the participant’s knowledge concerning medicine use rationale, 98% of the respondents were aware of the expiry date of the drugs, 68% that any tablet can be divided and given to pediatric subjects, 78% aware concerning precautions of using drugs in elderly subjects, 84% were aware of special precaution in children before giving drug, 90% were aware of special precaution in pregnant and lactating before giving drug 68% were aware of marked variations in costs of various brands of same drugs, Eighty-four percent knew that the same generic medications have different brand names, eight percent knew that over-the-counter medications may be taken safely with prescription medications, and seventy-two percent knew about over-the-counter medications (Table 1).

When evaluating respondents' attitudes toward the prudent use of medications, it was found that 12% of physicians can rely entirely on information provided by the pharmaceutical industry, 98% agreed that government hospital medications are comparable to those sold in private pharmacies, 65% agreed that more prescribed medications provide earlier and better relief, 10% agreed that medications produced by multinational corporations abroad are superior, and 16% agreed that more expensive medications are superior to less expensive ones (Table 2).

The study results showed that on evaluating the perceptions of traditional medicine use, According to Table 3, 95% of respondents agreed that it is essential to see a doctor before stopping any medication, 77% knew that central drug control standard organizations advise doctors to prescribe only generic drugs, 84% bought all of their medications from prescriptions, 22% combined allopathy management with hemopathy, tradition, or ayurvedic treatment, 2% agreed that more than one doctor should treat the same patient at the same time, 12% bought any medication online, 4% agreed that the same prescription should be used again for the same patient, and 86% always read the label before using over-the-counter medications (Table 3).

DISCUSSION

304 medical students participated in the current cross-sectional questionnaire-based investigation. A questionnaire that was pre-designed to evaluate medical students' perceptions and knowledge on the judicious use of medications was used to evaluate the included students.

According to an assessment of participants' knowledge on the rationale behind the usage of medications, 98% of them knew when the medications were due to expire. These findings were equivalent to those of research by Cameron A. et al. (2012) and Maxwell S. et al. (2002), whose authors reported findings resembling those of the current investigation.

According to the study's findings, 68% of participants agreed that any tablet could be divided and given to children, 78% were aware of the risks associated with drug use in elderly people, 84% knew that children should receive special precautions before receiving drugs, and 90% knew that pregnant and nursing women should receive special precautions before receiving drugs. 68% of respondents knew that different brands of the same medications had significantly different prices.

84% of respondents knew that several brand names are used for the same generic medications, 8% knew that over-the-counter medications can be used safely alongside prescription medications, and 72% knew about over-the-counter medications. These findings were in line with those of Naik M et al. (2015) and De-Sousa F et al. (2010), who found that medical students' attitudes on the use of rationale medicine were similar to those of the authors' research. When evaluating respondents' attitudes toward the prudent use of medications, it was found that 98% of them agreed that government hospital medications are comparable to those found in private pharmacies, and 12% of physicians said they could rely entirely on information about pharmaceuticals provided by the pharmaceutical industry. 65% of respondents agreed that more prescribed medications provide sooner and greater relief, 10% said that medications made by multinational corporations abroad are superior, and 16% agreed that more expensive medications are superior to less expensive ones. These results were consistent with the findings of Patrício KP et al. (2012) and Sontakke SD et al. (2011), whose authors similarly revealed respondents' opinions toward the sensible use of medications comparable to the present study.

77% of respondents were aware that central drug control standard organizations urge physicians to prescribe only generic medications, and 95% agreed that it is essential to speak with a doctor before quitting any medication, Eighty-four percent bought all of their medications from prescriptions, twenty-two percent combined allopathic management with hemopathy, traditional, or ayurvedic treatment, two percent agreed that more than one doctor should treat the same issue at the same time, twelve percent bought any medication online, four percent agreed that the same prescription should be used again for the same cause, and eighty-six percent always read the label before taking an over-the-counter medication. Our findings were consistent with those of Oshikoya KA et al. (2013) and James H et al. (2006), whose evaluations of writers' attitudes on the use of traditional medicine were similar to ours.

CONCLUSION

The conclusion is that the majority of medical students are aware of the rational use of medication, which is associated with good findings about medical students' perceptions and understanding of this topic.

REFERENCES

1. Sharma S. Promoting Rational drug use under National Rural Health Mission, National Health Resources Centre. Ministry of Health and Family Welfare, Government of India; 2009.
2. Toklu HZ, Demirdamar R, Gümü¸sel B, Yarı¸s EE, Dülger G. Rational drug use awareness of the nurses in the turkish republic of northern cyprus near east university hospital. Marmara Pharm J. 2012;16:150– 4.
3. Holloway K. Promoting rational use of medicines. Contact a publication of World Council of churches; 2006.
4. World Health Organisation: Guide to Good Prescribing, Geneva. World Health Organisation; 1994.
5. Sontakke S, Budania R, Paranjape S. Evaluation of knowledge, attitude, and behavior about the rational use of medicines in second-year medical students. Int J Basic Clin Pharmacol. 2013;2:617–21.
6. Maxwell S, Walley T, Ferner RE. Using drugs safely. BMJ. 2002;324:930–1.
7. Cameron A, Mantel-Teeuwisse AK, Leufkens HGM, Laing RO. Switching from Originator Brand Medicines to Generic Equivalents in Selected Developing Countries: How Much Could Be Saved? Value Health. 2012;15:664–73.
8. Naik M, Nerurkar R, Phatak A, Panchal S, Paunikar A. A questionnaire-based study to assess rational prescribing practice among interns. Natl J Physiol Pharm Pharmacol. 2015;5:323–7.

9. De-Sousa F, Andressa B, Fernanda B, Fernandes MS. Rational use of medicines report of an experience in medical education at unesc criciúma, santa catarina state, brazil. Rev Bras Educ Med. 2010;34:438–45.
10. Patrício KP, Alves NB, Arenales NG, Queluz TT. Teaching the Rational Use of Medicinesto medical students: a qualitative research. BMC Med Educ. 2012;12:56.
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;2:561–4
12. James H, Handu SS, Khaja KA, Otoom S, Sequeira RP. Evaluation of the Knowledge, Attitude, and Practice of Self-Medication among First-Year Medical Students. Med Princ Pract. 2006;15:270–5.
13. Oshikoya KA, Senbanjo IO, Amole OO. Interns' knowledge of clinical pharmacology and therapeutics after undergraduate and ongoing internship training in Nigeria: a pilot study. BMC Med Educ. 2009;9:50.

S. No	Items	Respondents (%)
1.	Aware of the expiry date of drugs	98
2.	Any tablet can be divided and given to pediatric subjects	68
3.	Aware concerning precautions of using drugs in elderly subjects	78
4.	Aware of special precautions in children before giving drug	84
5.	Aware of special precautions in pregnant and lactating before giving drug	90
6.	Aware of marked variations in costs of various brands of the same drugs	68
7.	Aware that the same generic drugs have varying brand names	84
8.	OTC medicine is taken safely along with prescribed medicine	8
9.	Aware of OTC drugs	72

Table 1: Assessment of participant's knowledge concerning medicine use rationale

S. No	Items	Respondents (%)
1.	Doctors can rely completely on information concerning drugs given by the pharma sector	12
2.	Medicine from government hospitals is similar to private medical shops	98
3.	A higher number of medicines prescribed have earlier and better relief	65
4.	Medicine manufactured by foreign multinational companies is better	10
5.	Costlier medicines are better than cheap medicine	16

Table 2: Assessment of the attitude of respondents concerning the rationale use of medicines

S. No	Items	Respondents (%)
1.	Consult a doctor before stopping the medicine	95
2.	Aware that central drug control standard organizations advise doctors to prescribe only generic drugs	77
3.	Purchase all medicine from prescription	84
4.	Mix allopathy management with hemopathy/traditional/ayurvedic treatment	22
5.	Mixing of treatment from >1 doctor simultaneously for the same concern	2
6.	Purchase any medicine online	12
7.	Reusing the same prescription for a similar complaint in another person	4
8.	Always read the label on OTC medicine before use	86

Table 3: Assessment of perceptions of traditional medicine use