A STUDY ON KNOWLEDGE, ATTITUDE AND PRACTICE OF SELF MEDICATION FOR DIARRHOEA AMONG UNDERGRADUATE MEDICAL STUDENTS IN A TERTIARY CARE HOSPITAL OF ASSAM

Pharmacology

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ABSTRACT

Introduction: Self medication is referred to the use of medications to treat self-diagnosed disorders or symptoms without a valid prescription. Self medication practice is seen widely due to availability of over the counter drugs and lack of awareness of adverse drug reactions. **Aims and Objectives:** To study the knowledge, attitude and practice of self medication for diarrhoea among undergraduate medical students in a tertiary care hospital of Assam. **Materials and methods:** A cross-sectional questionnaire based study was carried out among the Undergraduate medical students of Assam Medical College & Hospital, Dibrugarh. The questionnaire was designed to assess the Knowledge, attitude and practice of self-medication for diarrhoea. A total of 130 students were included in the study after obtaining written informed consent from them. The data of the completely filled up questionnaire was analyzed and presented as mean and percentage. **Results:** Out of 130 students 89.23% practised self-medication for diarrhoea. The most common cause of self medication practice was to save time and source of information was from medical textbooks. The most common source of medicines was medical stores and commonly used drugs for diarrhoea were ORS, Metronidazole, Ofloxacin, probiotics and anti-motility drugs. Only 17.25% of students had awareness of the harmful effects of self medication for diarrhoea. **Conclusion:** There is high prevalence of self-medication practice to treat diarrhoea among undergraduate medical students which necessitates proper education and awareness regarding the benefits and hazards associated with self medication practice.

KEYWORDS

Self-medication, knowledge, attitude, practice

INTRODUCTION:

When a person uses medicinal products for treating self-recognized symptoms or disorders without a valid prescription it is called as self medication. It also refers to obtaining medications by giving old prescriptions, sharing medicines among other people or using leftover medicines. With the rise in awareness and knowledge related to medications, self-medication practice is widely escalating in developing countries like India.¹

Non-Prescription or Over the Counter (OTC) drugs are available to people through pharmacies without a physician's prescription. These OTC drugs are mostly used for self medication purposes.^{2,3}

Self-medication practices among medical students have been studied in many aspects. According to literature search, a high prevalence of self-medication is present among both medical and paramedical students. Medical students cannot prescribe medications but as they progress through the course of study they gain knowledge about medicines and their rational uses. Self-medication is highly prevalent among medical students as they have easy access to drug information sources. As they progress through the course their knowledge about various diseases and drugs increases. This knowledge may lead them to self-diagnose the disease and also to self-medicate.⁴

There are many negative aspects of self medication practice exist. It may lead to inaccurate diagnosis, masking of an underlying disease, inaccurate drug therapy, severe adverse effects, antimicrobial resistance, failure to recognise any contraindication or precaution, interactions, and wastage of money. Improper self-medication may also cause drug resistance, drug-induced disease and financial burden on the community.⁵⁻¹⁰

AIMS AND OBJECTIVES:

In the present study, we aimed to study the knowledge, attitude and practice of self medication for diarrhoea among undergraduate medical students in a tertiary care hospital of Assam.

MATERIALS AND METHODS:

This cross sectional study was conducted among Undergraduate medical students of Assam Medical College and Hospital in a time period of three months. The total number of undergraduate students included in the study was 130 and sample size was calculated using Epi Info 7. A prior written informed consent was obtained from the study participants before conducting the study. A face to face questionnaire based interview was held for collecting the data regarding self-medication practice. The predesigned pretested questionnaire

consisted of thirty questions under four sections. The first section consisted of the demographic information of the participants, the second, third and fourth sections consisted of questions on knowledge, attitude and practice of self-medication for diarrhoea respectively. After collecting the questionnaire the data were analysed using Microsoft Excel and results were expressed as mean and percentage.^{9,11,12}

RESULTS AND OBSERVATIONS:

Demographic characteristics:

In the present study, among 130 study participants 68 (52.30%) were females and 62 (47.69%) were males. The mean age of study participants was calculated to be 22. The response rate was 100%.

Figure 1: Gender distribution

Practice of self-medication for diarrhoea:

Among 130 study participants, 116 (89.23%) practiced self-medication for diarrhoea and 14 (10.76%) did not practiced it.

Figure 2: Practice of self-medication for diarrhoea

Causes for practising self-medication for diarrhoea:

The most common cause for practising self-medication for diarrhoea

among undergraduate medical students was to save time (32.75%) followed by to save cost of prescribed medications (18.96%), no need to visit the doctors for minor illness (17.24%), to avoid crowd (13.79%), for ease and convenience (12.93%) and others (4.31%).

Figure 3: Causes of self-medication practice

Sources of drug information:

Medical textbooks (38.79%) were the most common sources for information about medications for diarrhoea among medical students. Classroom teaching (26.72%) and internet (22.41%) were also common drug information sources.

Figure 4: Sources of drug information

Sources of medications for self-medication of diarrhoea:

Medical stores (48.28%) and left over medicines (23.27%) from previous prescriptions were the two most common sources of drugs for practising self-medication for diarrhoea.

Figure 5: Sources of medications

Commonly used medications in self-medication for diarrhoea:

Oral Rehydration Solution (47.41%) followed by Metronidazole group of drugs (26.72%), fluoroquinolones like ofloxacin (13.79%), probiotics (8.62%) and antimotility drugs (3.44%) are commonly used.

Figure 6: Commonly used medications

Awareness of harmful effects of self-medication for diarrhoea:

Among 130 undergraduate medical students, 17.25% are aware of the harmful effects of self-medication practice for diarrhoea but 82.75% students are unaware of this practice.

Figure 7: Awareness of harmful effects of self-medication for diarrhoea

DISCUSSION:

In the present study, out of 130 students 62 (47.69%) were male and 68 (52.30%) were female. Mean age of students was 22. Out of all, 116 students responded for practising self medication for diarrhoea. So percentage of students practising self medication was 89.23%. The most common cause for practicing self medication was for time saving and source of information was from medical textbooks. They obtained medications mostly from medical stores. The most commonly used drugs for self-treating diarrhoea were Oral Rehydration Solution (ORS), Metronidazole, Ofloxacin, probiotics and antimotility drugs. Only 17.25% of students were aware of the harmful effects of self medication for diarrhoea.

According to review of literature, Bhatia et al. studied knowledge, attitude and practice of self medication among undergraduate medical students of Punjab using a pre-formed detailed questionnaire. The study suggested that, self-medication is highly prevalent amongst undergraduate medical students.⁹

Similar type of questionnaire based cross-sectional studies on Knowledge, perception and practice of self-medication among undergraduate medical students were done by Shankar et al. and Kumari et al. at Xavier University School of Medicine and Govt. Medical College Jammu respectively. These two studies also suggested that self-medication practice was common among medical students.^{2,4}

Agarwal et al. evaluated the knowledge, attitude and practice of self medication among second year undergraduate students in Bastar region using questionnaire. In the study, 88.57% students practised self medication. The common reason for practicing self medication was no need to visit the doctor for minor illness and the most common indications for taking self medication were fever, cough and headache. The common medications taken were antipyretics, multivitamins, anti-emetics and antimicrobials. The most common source of information for self medication was previous prescription for most of the students.¹³

Another questionnaire based study was done on knowledge, attitude and practice of self-medication among basic science undergraduate medical students in a medical school in Western Nepal. The study also concluded that the prevalence of self-medication among medical students was high.¹⁴

CONCLUSION:

Diarrhoea is a self limiting condition in most of the cases requiring sufficient amount of fluid replacement therapy. Undue and unnecessary use of antimicrobial drugs can lead to antibiotic resistance, adverse drug reaction and waste of money. Due to lack of adequate fluid replacement there will be high chance of dehydration and electrolyte imbalance. From the present study it can be concluded that, self-medication practice for diarrhoea is highly prevalent among undergraduate medical students. Hence proper education and counselling should be initiated among medical students to increase the awareness of self medication.

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