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Original Research Article

A Study on Knowledge, Attitude and Practice of Self Medication for Diarrhoea Among Undergraduate Medical Students in A Tertiary Care Hospital in Bihar

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Abstract

Objectives: This study was to evaluate the knowledge, attitude and practice of self-medication for the treatment of diarrhea among undergraduate medical students in a tertiary care hospital in Bihar, India.

Methods: A random sampling method was used for the data collection. 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.

Results: A total of 100 undergraduate medical students were included in this study. Mean age of students were 23. Male and female ratio was 11:9. Most of the students 87(87%%) were responded self-medication. Most common cause were time saving36(36%). Most common source of self-medication was 50(50%) medical stores. Most common drugs used as a self-medication were ORS 49(49%), metronidazole 26(26%) and ofloxacin 20(20%). Only 20(20%) students were aware for the harmful effect of self-medication.

Conclusions: Most of the common cause of self-medication for the treatment of diarrhoea in undergraduate medical is time saving. Common source of drugs for self-medication is medical stores. Oral rehydration solution (ORS), metronidazole and ofloxacin are the common drugs used as a self-medication for the treatment of diarrhoea. Hence, under graduate medical students have lack of knowledge on dose, frequency and adverse effects of drugs, they should be educated about merits and demerits of self-medication and ask them to acquire the knowledge about drugs before using them. So that, regulatory authorities need strict implementation of rules on distribution of drugs by pharmacists in medical stores.

Keywords: Knowledge, Attitude, Practice, Diarrhoea, Self-medication, Undergraduate medical students.

Introduction

Self-medication is defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment [1]. Self-medication with antibiotics is a global public health problem with major implications for developing countries [2]. An increase in drug resistance has led to an exponential rise in the cost of treatment for infections, treatment failures, and increased mortality from life-threatening infectious diseases [3]. The prevalence rates of self-medication are high all over the world recorded up to 68% in European countries, while it is much higher in the developing countries with rates as high as 92% in Kuwait, 76% in Pakistan, 59% in Nepal and 52% in India [4].

Many factors influence self-medication like socioeconomic factors, lifestyle, and the increased potential to manage certain illnesses through self-care, greater availability of medicinal products, and availability of healthcare and health professionals, exposure to advertisement; education and professional status [5]. General public medical students are more likely to be influenced towards practice of self-medication. They have easy access to information from various sources to self-diagnose and self-medicate [6]. The practice of self medication is very common among the health professional students who are more exposed to the knowledge of different drugs during their training period as compared to general population. The studies have reported high prevalence ranging from 57.7% to 76% [7].

Overuse and inappropriate prescribing of broad-spectrum antibiotics is a driving factor of antibiotic resistance. Studies have reported that at least half of prescribed antibiotics are not necessary or are incorrectly chosen [8]. This leads to an increase in leftover drugs at homes which serves as easy access when one experiences similar symptoms. Watkins and colleagues assessed the community perceptions of antibiotic access and use and reported that participants who stopped taking antibiotics because they felt better kept leftovers [9]. Objectives of this present study was to evaluate the knowledge, attitude and practice of self-medication for diarrhea among under graduate medical students in a tertiary care hospital in Bihar, India.

Materials & Methods

This present study was conducted in Department of Pharmacology, Jawahar Lal Nehru Medical College, Bhagalpur, Bihar during a period from September 2019 to December 2019. Entire subjects signed an informed consent approved by institutional ethical committee, of Jawahar Lal Nehru Medical College, Bhagalpur was sought.

A random sampling method was used for the data collection. A total 100 under graduate medical students were enrolled in this study. Sample size was calculated using Epi Info 7. 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 [10,11].

Statistical Analysis

Data was analyzed by using simple statistical methods with the help of SPSS software. All data was tabulated, Mean and percentages were calculated.

Observations

A total of 100 undergraduate medical students were included in this study. Mean age of students were 23. Out of 100, males were 55(55%) and females were 45(45%). Male and female ratio was 11:9.

Table 1: Practice self -medication for diarrhoea.

Subjects	No. of subjects	Percentages
Practicing self- medication	87	87%
Not practicing self- medication	13	13%
Total	100	100%

Most of the students were taken practicing self-medication for the treatment of diarroea.

Table 2: Showing the causes for practising self-medication for diarrhoea.

Study subjects	No. of subject	Percentages
No need to visit doctor for minor illness	18	18%
Time saving	36	36%
Cost saving	13	13%
Crowd avoidance	14	14%
Ease and convenience	12	12%
Others	7	100%

Most of the students 18(18%) were taken self-medication for the saving of time. 18(18%) students had minor illness, so that there was no need to visit doctor.

Table 3: Showing the sources of drug information:

Source of drug	No. of subjects	Percentages
Medical textbooks	40	40%
Class room teaching	28	28%
Advertisement	3	3%
Internet	23	23%
Previous prescription	6	6%
Total	100	100%

Most of the students 40(40%) were taken self-medication by the study of medical textbook. 28(28%) were taken with the help of teacher in class room teaching. 23(23%) students were taken self-medication by internet surfing.

Table 5: Sources of medicine for self-medication of diarrhoea.

Sources of medication	No. of subjects	Percentages
Seniors	11	11%
Left over medicine	21	21%
Medical stores	50	50%
Doctor parents	4	4%
Home	14	14%
Total	100	100%

Most of the students 50(50%) were taken medicine for self-medication from medical stores. 21(21%) students from left over medicine.

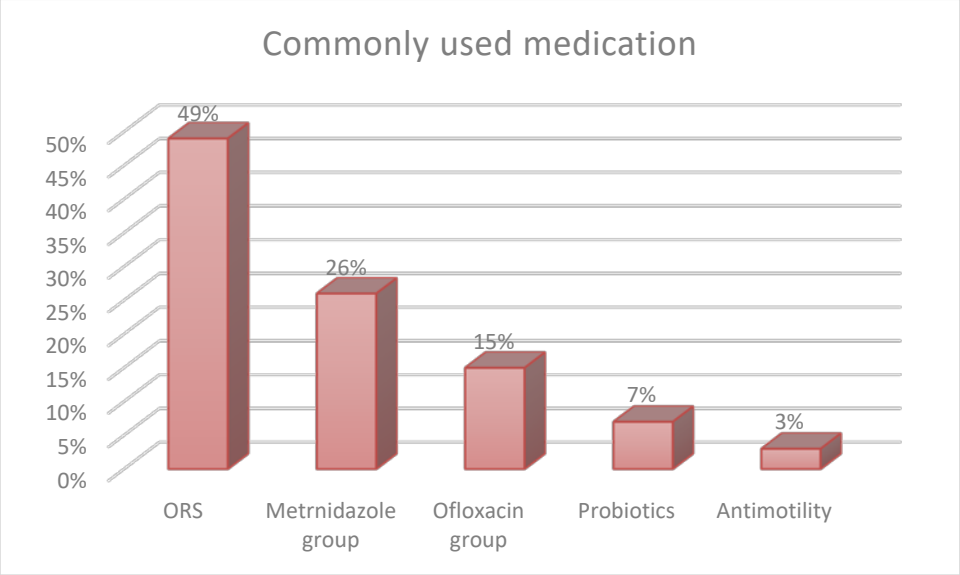

Figure 1: Commonly used self-medication for treatment of diarrhoea.

Most of the students 49(49%) were taken ORS as self-medication for the treatment of diarrhoea. 26(26%) students were taken metronidazole group medicine as self medication.

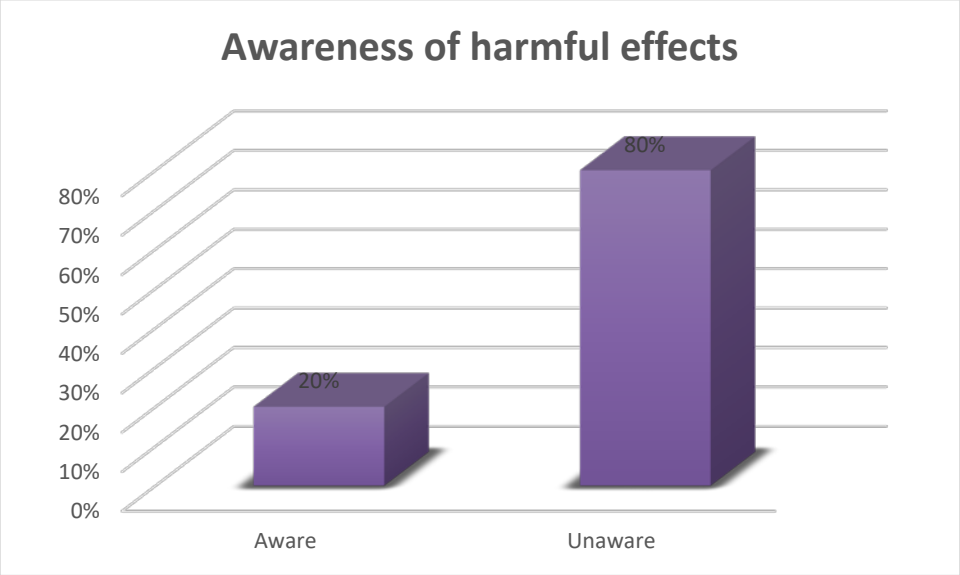

Figure 2: Awareness of harmful effects of self-medication for diarrhoea.

Majorities of the students 80(80%) were not aware for harmful effect of self-medication. And remaining 20(20%) were aware for the harmful effect of self-medication for the treatment of diarrhoea.

Discussions

Various studies show that college students have very low tendency to consult health professionals to seek health-related information, to get treatment, or to obtain other healthcare services [12]. In the recent years of increased social media influence, students rely more on the Internet for information regarding their health rather than consulting healthcare professionals [13]. (is increases the likelihood of practicing self-medication among college students to treat self-diagnosed illnesses [14].

In this present study, A total of 100 undergraduate medical students were

included in this study. Mean age of students was 23 years. Out of 100, males were 55(55%) and females were 45(45%). Male and female ratio was 11:9. 87(87% students responded for practising self-medication for the treatment of diarrhoea. The most common cause for practicing self-medication was for time saving 36(36%) and source of information was from medical textbooks 40(40%). They obtained medications mostly from medical stores 50(50%). The most commonly used drugs for self-treating diarrhoea were Oral Rehydration Solution (ORS) 49(49%), Metronidazole 26(26%), Ofloxacin 15(15%), probiotics 7(7%) and antimotility drugs 3(3%). Only 20(20%) of students were aware of the harmful effects of self-medication for diarrhoea.

Agarwal et al. [15] 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.

According to review of literature, Bhatia et al. [10] 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. 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.

Some studies show more females (52.9–91.7%) than male students (28–87%) practicing self-medication [4,16,17]. It shows females are showing more interest in self-care than males. Most common system of medicine used in the current study was allopathic and results are in consistent with other studies like Kumar et al. (72.7%, 2013), Kasulkar and Gupta (90.9%, 2015) and Rohit et al. (82.9%, 2010) [18,19,20]. Most of the students take medications symptomatically, common symptoms observed are fever, cold and cough, headache, pain, etc., and commonly consumed medicines are antipyretics, analgesics and anti-inflammatory, cough suppressants, antihistamines, etc. Most common use of antipyretics and analgesic (esp paracetamol) in our study was consistent with most parts of India and across the world like costal part (74%)[18] South India[6] Gujarat (43%),[4] Nagpur (80.6%),[19] Uttar Pradesh (61.2%),[20] Rajastan (73.77%)[21] Nepal,[22] Pakistan,[23] Egypt,[24] Mozambique[25] Iran,[26] and Ethiopia [27]. Most common source of information for selection and procurement of drug was old prescription [28]; it may be because of physicians repeating similar prescription for similar symptoms. In Kasulkar and Gupta (2015) study, only 17% students used old prescription but majority of students used reading materials (52.3%) as source of information [19]. Second common source of information was from pharmacists (30%),[4] who are easily accessible in India and do not need prescription for dispensing most of drugs which was also seen in Gujarat (68.18%)[4] and Ethiopia [27]. Influence of friends and seniors was less and consistent with other studies like

18.4%,[18] 11.4%,[19] 16.98%[21] and 5.6% [29]. Minute percentage of students were also influenced by advertisements and internet which is similar to other studies [18,20,29].

Conclusions

This present study concluded that the most of the common cause of self-medication for the treatment of diarrhoea in undergraduate medical is time saving. Common source of drugs for self-medication is medical stores. Oral rehydration solution (ORS), metronidazole and ofloxacin are the common drugs used as a self-medication for the treatment of diarrhoea. Hence, under graduate medical students have lack of knowledge on dose, frequency and adverse effects of drugs, they should be educated about merits and demerits of self-medication and ask them to acquire the knowledge about drugs before using them. So that, regulatory authorities need strict implementation of rules on distribution of drugs by pharmacists in medical stores.

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