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ORIGINAL ARTICLE

Self-Medication Practice among Medical Students of a Tertiary Teaching Hospital in Dhaka City

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Abstract

Background: Self-medication is a common practice worldwide and the irrational use of drugs is a cause of concern. **Objective:** This present study was designed to assess the rate of self-medication among the medical students in a tertiary teaching hospital in Dhaka. **Methodology:** This descriptive cross-sectional study was conducted in the Department of Pharmacology at Shaheed Suhrawardy Medical College, Dhaka, Bangladesh from October to December 2017 for a period of three (03) months. The participants were briefed about the nature of the study; the consent was taken and a pre-tested semi-structured questionnaire was administered to them. The information pertaining to the pattern of self-medication, indications for self-medication and drugs used for self-medication was included in the questionnaire. **Result:** A total of 303 students were included in this study. The rate of self-medication was 100.0%. A larger number of females were self-medicating (81.2%) than males (75.3%). The majority of the students self-medicated because of the illness being too trivial for consultation (43.2%) and previous experience of illness (43.2%). Fever (73.3%) and headache (65%) are the most common cause of self-medication. Antipyretics were most commonly self–medicated by the participants (98%). 45.5% 0f students told that self-medication is not an acceptable practice. 40% of the participants opined that self-medication was a part of self-care. **Conclusion:** In conclusion self-medication is widely practiced among students of the institute. [*Journal of Current and Advance Medical Research 2019;6(1):28-31*]

Keywords: Self-medication; practice; medical students

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Introduction

Self-care is the primary public health resource in the health care system. It consists of the health activities and health-related decision-making of individuals, families, friends, colleagues at work, and so on[1]. It includes self-medication, non-drug self-treatment, social support in illness, and first aid in everyday life[2]. Self-medication is defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment[3]. This includes 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[4].

There is a public and professional concern about the irrational use of drugs[5]. The rates are high all over the world; up to 68.0% in European countries[3], while much higher in the developing countries[4] with rates going as high as 92.0% in the adolescents of Kuwait[5]. The neighboring countries have a prevalence rate of 31.0% in India[6] and 59.0% in Nepal[4]. Very few studies regarding self-medication have been conducted in Pakistan which have also confirmed high rates of around 51.0%[7]. It is also alarming that the prevalence rates are on the rise despite efforts to limit this problem[8].

Self-medication in a country with low literacy rate like Bangladesh is very important, where prescription only medicines are freely available. This may pose serious risks related to inappropriate and irrational personal use of medicines. The widespread availability of prescription only medicines, hence it can be assumed that self-medication is more widely practiced among health care professionals in Bangladesh more than the general population and medical students are no exceptions. There are many reasons for the increased likelihood of self- medication among medical students.[3] These students have easy access to information from drug indices, literature, and other medical students to self-diagnose and self-medicate.

Self-medication assumes a special significance among the medical students as they are the future medical practitioners and have a potential role in counseling the patients about the advantages and disadvantages of self-medication. Medical students also differ from the general population because they are well-exposed to the knowledge about diseases and drugs. Therefore, this present study was undertaken to assess the rate of self-medication among the medical students in a tertiary teaching hospital in Dhaka.

Methodology

This questionnaire based, cross-sectional study was carried out among the medical students of a tertiary care teaching hospital from October to December 2017 for a period of three (03) months. This study was undertaken in the Department of Pharmacology at Shaheed Suhrawardy Medical College, Dhaka, Bangladesh with the approval from the Institutional Ethics Committee. The study population consisted of medical students from second to fourth year, within the age group of 19 to 22 years. Students was selected for the study by a convenient sampling method. The participants were briefed about the nature of the study; the consent was taken and a pre-tested semi-structured questionnaire was administered to them. The information pertaining to the pattern of self-medication, indications for self-medication and drugs used for self-medication was included in the questionnaire. The investigators were present when the respondents required assistance. For the purpose of the study, certain medical terms were explained to the first-year students, including dysmenorrhea, antipyretics and analgesics. The returned questionnaires were checked for completeness of data. The data obtained from the completed questionnaires was analyzed in the computer by using SPSS version 20.0. The qualitative data were expressed as frequency and percentage and the quantitative data were expressed as mean and standard deviation.

Result

A total of 303 students voluntarily participated in this study, of whom 171(56.4%) were female and 132(43.6%) were male. The mean age of the student was 20.6. Among these 303 students, 97(32%), 93(30.7%) and 113(49.8%) were studying in second year, third year and fourth year respectively.

Table 1: Socio-demographic characteristics of study population

Socio-demographic factors		Frequency	Percent
Gender	Male	132	43.6
	Female	171	56.4
Age Group	19-20	152	50.2
	21-22	151	49.8
Year of study	Second year	97	32
	Third year	93	30.7
	Fourth year	113	37

All the participants those were participated in this study said that they practiced self-medication. All

the variables were denoted in multiple response questions (Table 1).

Reasons for self-medication

The most common factors that led to it were prior experience of illness (43.2% n=131) and self-perception of illness too minor for consultation (43.2% n=131) (Table 2).

Table 2: Reasons among the respondents of self-medication with medicine (n=303)

Factor	Frequency	Percent
Illness too minor for consultation	131	43.2
Prior illness experience	131	43.2
Self-confidence regarding awareness about medicine	65	21.5
Quick relief	14	4.6
Avoiding excessive crowds in hospital	14	4.6

Complaints among the respondents of self-medication with medicine

The most common symptoms that led students to indulge in self-medication were fever (73.3%), headache (65%), running nose (33%), cough (29%), diarrhea (27.1%) and pain in lower abdomen (20.5%) (Table 3).

Table 3: Complaints among the respondents of self-medication with medicine (n=303)

Complaints among the respondents of self-medication	Frequency	Percent
Fever	222	73.3
Headache	197	65.0
Running Nose	100	33.0
Cough	88	29.0
Diarrhoea	82	27.1
Lower Abdomen Pain	62	20.5
Heart Burn	56	18.5
Food Poisoning	42	13.9

Name of the drug used for self-medication

Painkillers (88.1%), fever relieving medication (65.0%), anti-allergic (43.9%) and antibiotics (35.0%) were among the most commonly used drugs. Therefore, from this result it was very clear that the NSAIDs were the most common drugs which were consumed by the medical students as self-medicated drugs (Table 4).

Table 4: Name of the drug used for self-medication

Drug Used For Self-Medication	Frequency	Percent
Paracetamol	197	65.0
Anti-allergic	133	43.9
Painkiller	267	88.1
Antibiotic	106	35.0

Perceptions of respondents about self-medication

Table 5 showed perceptions of respondents about self-medication. Here perceptions of majority of the respondents were not acceptable practice which was 138(45.5%) respondents and minority was good practice which was 43(14.2%) respondents.

Table 5: Perceptions of respondents about self-medication

Perceptions	Frequency	Percent
Not acceptable practice	138	45.5
Acceptable practice	122	40.3
Good practice	43	14.2

Discussion

Self-medication is becoming an increasingly important area within healthcare[9-10] and this study has shown that it is even more prevalent among medical students. This study has found a rate of self-medication in 100.0% among the medical students in. It is also noted that a high level of education and professional status are predictive factors for self-medication[3]. This is almost similar to the findings in a study[6] but is higher than the findings (60%) in the study conducted by James and colleagues[5].

In this study it was found that more female students (56.4%) practice self-medication than male students (43.6%). This similar to a previous study conducted among medical students, which showed a greater rate among female students (45.0%) than male students (44.0%)[11]. This present study has denoted that the most common factors that led to it were "prior experience of illness" (43.2%) and self-perception of "illness too minor for consultation" (43.2%) which is in concordance with other studies that reported the reasons as mild illness (40.0%) and shortage of time to consult a doctor (32%)[11]. The next common reason for self-medication in this study among medical students is their confidence in self-diagnosis (21.5%), which is unique to this

study group. Misplaced confidence can lead to inappropriate self-medication and can expose the participants to all the risks associated with inappropriate use of medications[3].

With respect to indications, results were similar to those found in a previous study[3]. It has been also found that medical student's self-medicate for unusual reasons like sports injuries, hangovers, exam stress and recreational drug use which may not be common in the general public. In this study it has been noticed that the classes of drugs that are commonly used are antipyretics (71.0%), analgesics (65.0%), antihistamines (37.0%) and antibiotics (34.0%). This is similar to studies done earlier which showed antipyretics (43.0%), analgesics (81%), antibiotics (6.0%) and antihistamines (13.0%) were commonly used[3]. In other studies, it was found that medical students used more types of antibiotics compared to the non-medical students which may be because of their knowledge about antibiotics[7]. However, it has been found that 11(5.5%) of the medical students are not afraid of using drugs with potentially harmful adverse effects and potential for addiction and abuse like sleeping pills (2.0%), steroids (2.0%) and stimulants (1.5%). These drugs may not be as easily available to the general population as they are medical students who can obtain them by virtue of their profession. Previous studies have reported a higher use of antimicrobials when the study participant is a healthcare professional[3].

Despite studying in detail about all these drug reactions, 32.6% of the students were unaware of the adverse effects of the drugs they used for self-medication. In addition to this, 5.4% of the study group reported experiencing adverse effects for which they either consulted a doctor or stopped the medication.

The study group cited their source of information for self- medication in most cases as textbooks (39.0%) and seniors or classmates (38%); this is similar to other studies, which has been showed medical students use their academic medical knowledge during self-medication[7].

There are some limitations of this study like absence of a comparative group are, such as students from another field; the small sample size and the absence of interventions, like providing information regarding hazards of self-medication.

Conclusion

This study shows that self-medication is widely practiced among students of the institute. This descriptive study has found that self-medication is very common among medical students, facilitated by the easy availability of drugs, and information from textbooks/seniors. A significant number of students are unaware of the adverse effects of the medication that they themselves take and suggest to others. Potential problems of self- medication should be emphasized to the students to minimize this risk.

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