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Research Article

Frequency of Self Medication among Medical Students of QAMC Bahawalpur

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ABSTRACT

Introduction: self medication is widely practiced worldwide especially in developing countries as many drugs are dispensed over the counter without prescription self medication is defined as the use of drugs to treat self diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptom

Objective: the objective of this study was to find out the frequency of self medication among student of qamcbahawalpur

Study Design:non probability sampling setting quaid-e-azam medical college bahawalpur

Results: out of 250 sample size(50 questionnares),an alarming number of 225 students practiced self medication and most of them weremale students.the most common response opted for self medication was convenience(74.4%).most common complaint for self medication was sore throat(45.6%)

Conclusion: in this study it was found that majority of students(225) self medicated and most of them were male students self medication,medical students,analgesia,antibiotics

Keywords: self medication,medical students,analgesia,antibiotics

INTRODUCTION:

Self-medication is defined as the use of non-prescription medicines or old prescription by people on their own initiative. It involves the use of medicinal product by an individual to treat self-perceived ailments in himself, family members or friends. People take self-medication as integral part of self-care.Availability of over the counter drugs, cost saving, convenience, lack of trust in doctors and advertisement on print and electronic media lead to development of self-meditative behavior in population. Despite of these factors researchers proved that the major factors in this sense are education, family background, social customs, laws of community and age of an individual.It's a common observation that literate people tend to practice self-medication more than illiterates. Moreover, prevalence of self-medication is higher among low and middle income countries where community laws are not strictly followed or applied. Similarly, studies reveal the fact that young adults show more interest in self-medication as compared to older or middle aged people. Most common drugs that are used for self-meditative purposes are analgesics and antibiotics.There is growing concern about the consumption of medication. Since majority of the side effect which developed as a result of this self-induced practice are more serious than the original disease itself. Because self-medication

renders momentary relief which may mask underlying cause and aggravate the disease.self-medication may result in number of side effects. Among them drugs resistance, dependence, drugs interaction are the major ones. Repeated exposure to antibiotics may propitiate the emergence of bacterial strains which would be difficult to treat. Consumption of medication may result in physiological and psychological dependence.Moreover, researchers explain that death rates in community and hospitals have increased due to drug interaction with the worst and life threatening side effect of self-medication.Keeping the above picture in mind a study is conducted at Quaid-e-Azam Medical College Bahawalpur, Pakistan to access the knowledge, attitude and prevalence regarding the self-medication among medical students.

LITERATURE REVIEW

According to the William Osler, great feature which distinguishes man from animals is the desire to take medicine. Self-medication involves the use of medicines produced by the individuals to treat self-recognized symptoms or disorder, or the intermittent or continuous use of a medication prescribed by a physician for chronic or recurring disease or symptom.(4)According to the study done by medical students of Karachi out of 572 participants (age 21 years) make female ration 1:1.5 prevalence of self-medication was 76%,43% student stated that they altered the regiment of prescribed medicine while 61.9%stated that they have stopped taking prescribed medicine without consulting a doctor. Most common reason of self-medication was previous experience (50.1%) most common symptoms headache 72.4% flu 65.5%, fever55.1% commonly used medicines were analgesics 88.3% antipyretic 65.1% and antibiotics 35.2%, 87% students thought that self-medication could be harmful, 82.5% students considered that it is necessary to consider a doctor before taking a new medicine.(1)Another study carried out in medical students of coastal South India had following results. Total 440 students were included in study. (4) Prevalence of self-medications was 78.6%. A large no of females were self-medicating 81.2% than males 75.3%. Majority of students self-medicated because illness was too trivial for consultation (70.5%). Antipyretics were most commonly used (74.8%). Only 47% students opined that self-medication were part of self-care it needs to be encouraged, 39.3% of participants perceived that the supply of medicine without prescription by pharmacist can prevent the growing trend of self-medication easy availability and accessibility to health care facilities remains corner stone for reducing the practice of self-medication. Another study of self-medication conducted among medical students of Chitwan medical college Nepal included 75 students age 20 year 65.3% were in the age group of 17-20 years most of them were females (72%) prevalence rate of self-medication of one year period seems high in females 84% most common sources of information were pharmacist 60.3% a text book 46.03%. (5) More than half of the respondent had good knowledge about definition of self-medication adverse effects & different types of drugs main symptoms treated were cold and cough 85.7% pain 76.2% & dysmenorrheal 46% drugs used include analgesics 75.8% antacids 53.2% and antipyretic 46.3%, reason for self-medication 79.2% felt that illness was minor. 61.9% considered it because of previous experience. (3)Another study conducted in Mekelleuniversity Ethiopia had 307 students under age 18-25 years. Most frequent symptom was headache 51.56% followed by cough & cold 44.8% two main reasons were prior experience 39.10% mildness of disease 37.50%. Commonly used medicines were paracetamol48.44% NSAIDS 42.20% self-medications were made by 64% students while 31.65 did so under the influence of family & friends. More than half of respondents disagreed with the practice of self-medication in present study. (2)

OBJECTIVE

The objective of my study is to:

Determine the frequency of self-medication among medical students of QAMC Bahawalpur.

METHODOLOGY

Setting: Quaid-e-Azam medical College Bahawalpur

Study design

Non probability sampling (convenience)

Duration of Study:

25-03-2017 to 25-05-2017

Sampling Size:

There were 250 students among them 25 girls, 25 boys, from each class of MBBS.

Sampling Technique:

Non probability sampling (Convenience)

Ethical Issues:

Verbal consent was taken from all individuals, data collected was confidential

Eligibility Criteria:

Inclusion Criteria

1. All MBBS students of QAMC
2. Both gender included

Exclusion Criteria

1. Unwilling students

DATA COLLECTION:

We distributed perform and pretested questionnaires among 250 students of QAMC Bahawalpur. It had two parts A and B. Part A were concerned with the bio data of students. Part B was concerned with the questions regarding self-medication. After 2 hours we recollected data from them.

DATA ANALYSIS:

Data was analyzed manually, frequency was calculated. Tables and figures have been made.

RESULTS:

Out of 250 sample size, 50 Questionnaires were distributed to each of the five classes of QAMC, BWP. A random sample of 25 females & 25 males from 1st year given the Questioners of featuring 12 important questions. This research study was conducted to ascertain the frequency of self-medication among medical students of QAMC.Out 250 samples size, alarming 225 students practiced self-medication. Among these of the male student dominated which 120 out of 225 self-medicated comparing to 105 female (84%). (Figure 1)Among the self-medicated students the most common reason opted of for this behavior was due to convenience 186 (74.4%) and other 46 (18.4%) cost saving and lack of trust had near negligible effect on their use. (Table 1)The most common complaint for which self-medication was attempt was the sore throat by 114 students (45.6%) followed by cough at 44 (17.6%) & fever at 44 (17.6%). (Table 2)The subject selected their choice of antibiotic on the basis of past experience 106 (42.41%), previous prescription 63 (25.2%) and the recommendation of medical representative 25 (10%). (Figure 2)The source of drug procurement for the majority was private pharmacy 176(70.4%) with hospital pharmacy 18 97.2% and left over previous prescription 24(9.6%). (Figure 3)We further checked the awareness of our self-medicating students by questioning the reason for selection, their propensity to read instruction in leaflet and their decision on the indication 119 (47.6%), types of antibiotics 58 (23.2%) and brand of antibiotics 40(16%). (Table 3)Regarding reading of instructions only 56 (22.4%) always read the instruction, with a size able 157 students (62.8%) sometimes reading and only insignificant 29 (11.6%) never reading. (Figure 4)

The dosage was established from previous experience 119 (47.6%) or confirmed by changing dosage on the box 74 (29.6%) or the advice of family member 31 (12.4%). (Table 4)A size able 82 (38.8%) never changed their dose during the course with the majority changing their dose some times 145(58%) . (Figure 6)However the students are split nearly in the middle with 123 (49.2%) changing the antibiotics and 120 (48%) not changing attempting to do

so.(Figure 6)Of the once switching antibiotics did the imminent change due to no effect of antibiotics 84 (64.3%) and only 20.3% did so at the advice of the doctor. Most students stopped their course of antibiotics when the symptoms disappeared 115 (46%) with 105 (42%) completing their course. (Figure 7)The most common antibiotics most students reached for were penicillin with β lactam leading with 131 (52.4%) flour quinolone by 62 (24.8%) of students. (Table 5).

The antibiotics that were particularly favorites of QAMC sample were augmentin, amoxicillin, vibromycine, levofloxacin, ciprofloxacin, erythromycin, azithromycine, clarithromycin, metronidazole, entamizole.

Table No.1 Most common reasons to use antibiotics

Reason	Frequency	Percentage
Convenience	186	74.4%
Cost saving	30	12%
Lack of trust on doctor	16	8.4%

Table No.2 Most common Complaints

Reason	Frequency	Percentage
Sore Throat	144	45.6%
Cough	44	17.6%
Fever	44	17.6%

Table No.3 Selection of Antibiotics

Reason	Frequency	Percentage
indications	119	47.6%
Type of antibiotics	58	23.3%
Brand of antibiotics	40	16%
Price of antibiotics	33	13.1%

Table No.4 Dosage Of Antibiotics

Reason	Frequency	Percentage
Previous Experience	119	47.6%
Checking Dosage on box	74	29.6%
Advice of family member	31	12.4%

Table No.5 Commonly used Antibiotics

Antibiotics	Frequency	Percentage
Pencillin	131	52.4%
Flouroquinolone	62	24.8%
Marcolides	17	7.5%
Aminoglycosides	15	6.66%

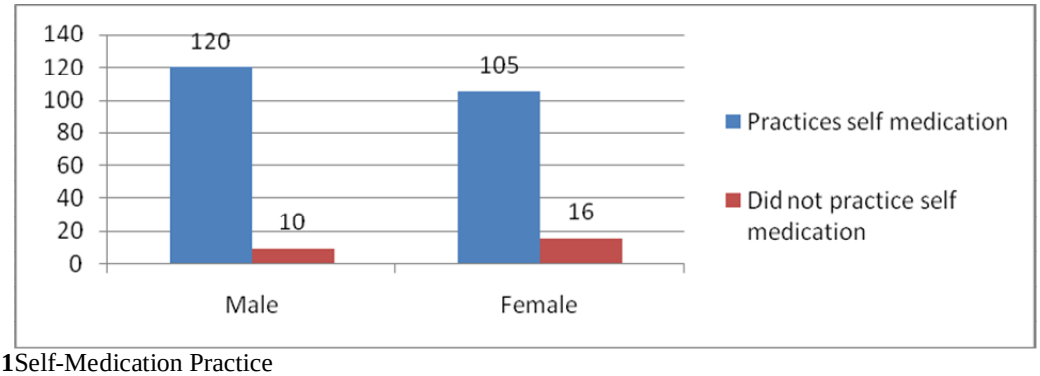

Figure 1 Self-Medication Practice

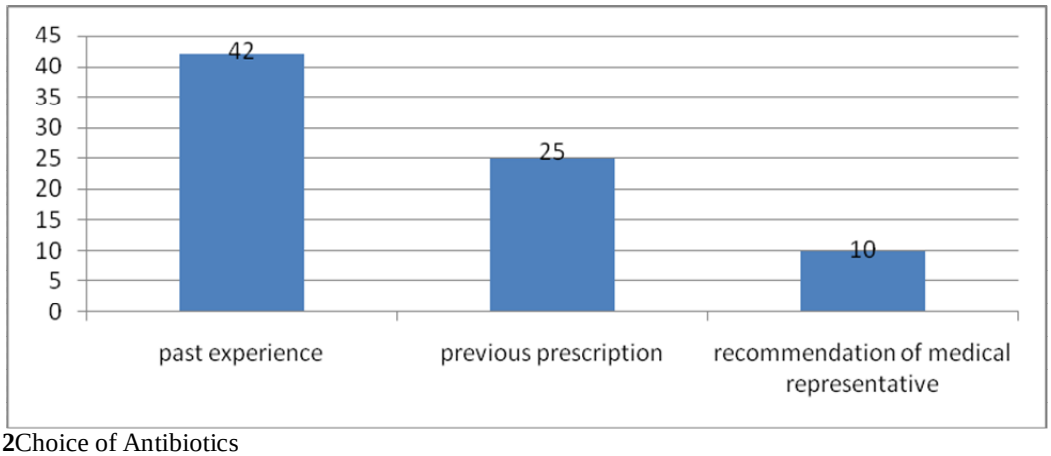

Figure 2 Choice of Antibiotics

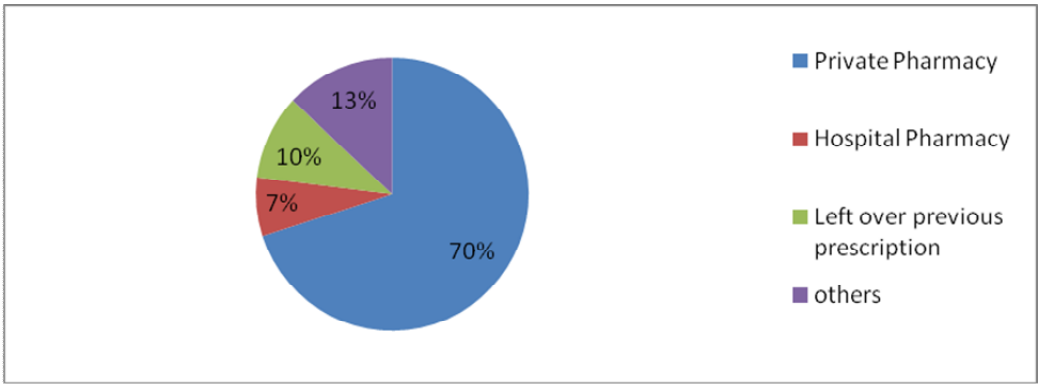

Figure 3 Source of Drug Procurement

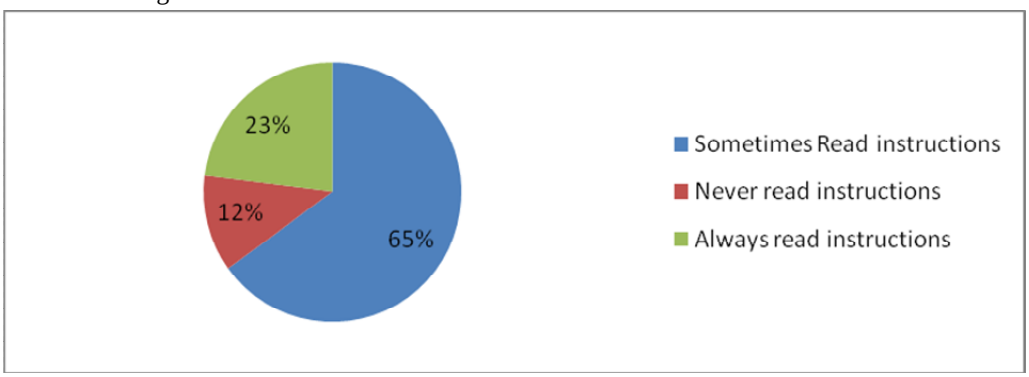

Figure 4 Instruction reading

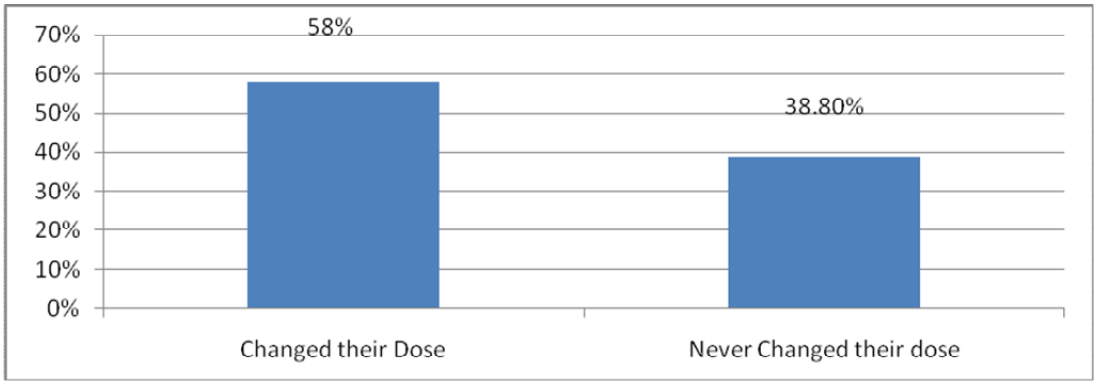

Figure 5 Change of Dose

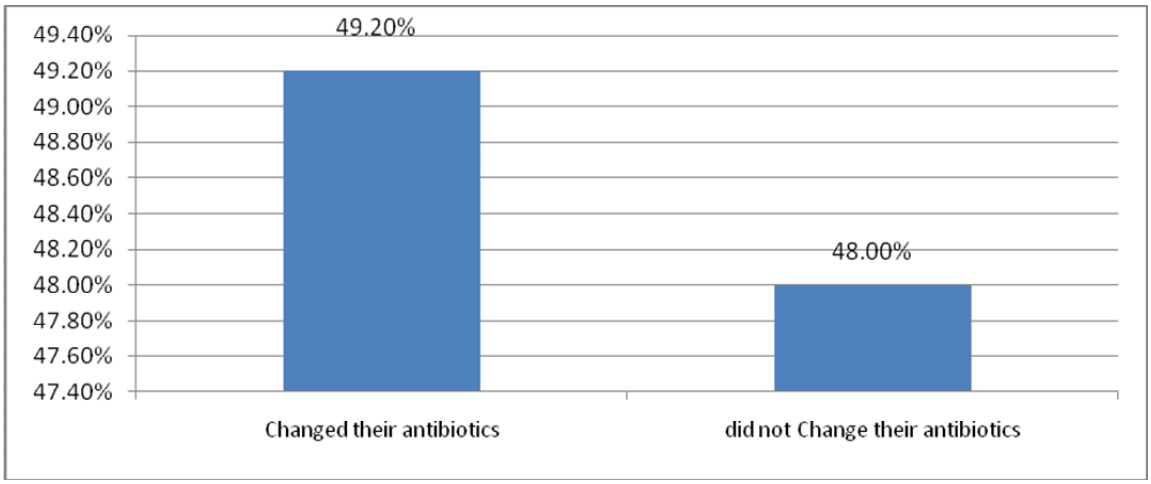

Figure 6 Change of Antibiotics

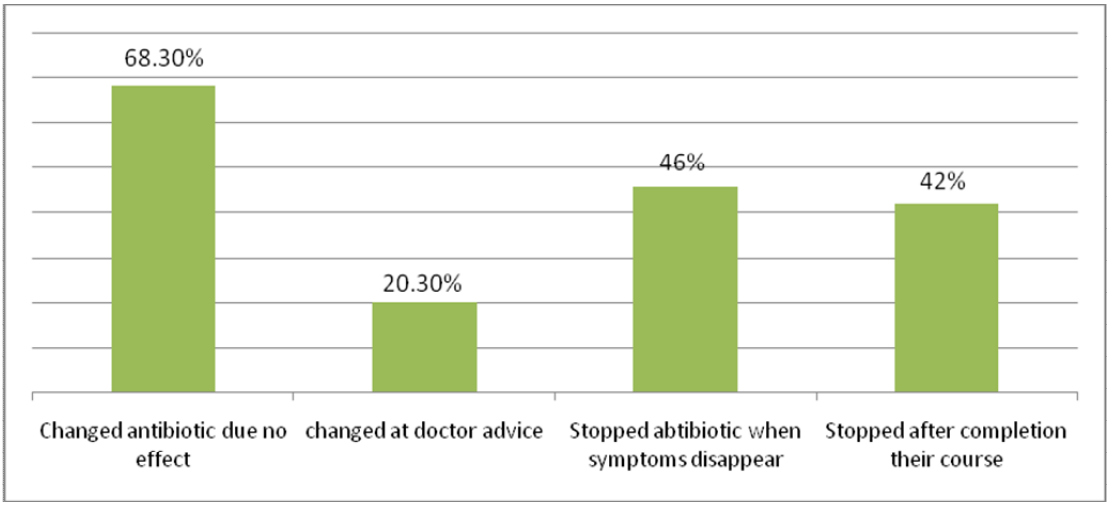

Figure 7 Reasons for change of Antibiotics

DISCUSSION:

Self-medication is being practiced more and more these days, especially in our country as it carries with itself both beneficial and harmful aspects. At one hand it gives an opportunity to reduce the burden on health system as in our country. On the other hand it has its own limitations such as wrong diagnosis.

In this study done on self-medication among the students of QAMC Bahawalpur, about 90% of students of self-medicate.Itis quite similar to other studies done in Islamabad medical and dental college (88%) and liaqat university jamshore (80%). Similar results were found in studies done in saudia tertiary institute (83.7%). (2)Most motivated factor for student were found to be convenience (14.4%) but in other studies as in IMDC time saving (57%) was considered to the most motivating factors. In saudia tertiary institute students considered that they have lesser knowledge about drugs and disease (80%). (2)

Sore that is the most common indication for which the students of QAMC self-medicated. For fever about 17.6% of students self-medicated in QAMC.InLiaquat University Jamshore and Karachi University about 19.5% and 18.5&self-medicated for fever respectively.In this study most of the participants choose to self-medicate on the basis of their previous experience (42.2%). In IMDC the students attributed their source of information to electronic media 27.9%. in other studies done in India about 65% of

people chose it on and the base of previous experience. (4)About 70.4% obtained drugs from a private pharmacy as in AllamaIqbal /medical College where 68.3% obtained drugs from a private pharmacy. In India also about 86% obtained drugs from a private pharmacy. In a study done Sertia at about 73.9%of students had home pharmacies as their source of drug. (4)When it came down it read indications about drugs 47.6% of participants did that in our study. Liaquat University Jamshore students (47%) also have knowledge about contraindications of drug 85% of participants in a study in west Bengal read the instructions.

Among the drug which is most people used, amoxicilline, levofloxacine, ciprofloxacim, were particular favorite. In a study done in Karachi most used drugs was amoxicillin (41.4%). So the result are quite similar in these studies. (1)In our society we are dire need of public education about the use of drugs. We need to regulate our pharmacies also.

Limitation of Study

This study does not have a comparison group. Its result is not applicable to the general public.

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Frequency of Self-Medication amongst Medical Students of QAMC, Bahawalpur

Class:_____ Roll No:_____

Age:_____ Gender: M/F

Status: Hostel lite/day scholar

Q 1: Have you ever treated yourself with antibiotics?

A. Yes B. No

➔ If No _____ do you know what antibiotics are?

A. Yes B. No

- What are antibiotics used for? _____
- Viral Infection
- Bacterial infection
- Others (Specify)_____

➔ If yes _____ how many times in past three months have you used antibiotics_____

Q2: What was the reason of self-medication with antibiotics?

A. Cost saving _____
B. Convenience_____
C. Lack of trust on doctor_____
D. Others_____

Q 3: For which of the following complaints did you use antibiotics?

A. Running nose_____
B. Cough _____
C. Fever_____

D. Sore thorat_____
E. Body ache_____
F. Vomiting_____
G. Diarrhea_____
H. Wound infection_____
I. Others_____

Q4: your selection of antibiotic was based on

A. Recommendation of medical raps _____
B. Opinion of friends _____
C. Previous experience _____
D. Option of family members _____
E. Previous prescription _____

Q 5: what thing do you consider while selecting antibiotics?

A. Type of antibiotic (I,II,III) Genration
B. Brand of antibiotics
C. Price
D. Indication
E. Others _____

Q 6: Where did you usually get the medication for self- medication?

A. Hospital pharmacy
B. Medical raps
C. Private pharmacy
D. Left over from previous prescription

Q 7: do you read the instruction coming with the package insert of antibiotics?

A. Always
B. Never
C. Sometimes

Q 8: how did know the dosage of antibiotics?

A. By asking dosage on box
B. By asking friends
C. By asking family members
D. From the internet
E. From my previous experience

Q 9: did you ever change the dose during the treatment?

A. Yes always
B. Yes, sometimes
C. No, never

Q 10: did you ever change the antibiotics during of treatment?

A. Yes B. No

➔ **If yes, then why?**

- After few days regardless of symptoms
- When symptoms disappear
- After completion of course
- After medicine ran out

Q 12: Name commonly used antibiotic you self-medicate with?

1. _____
2._____
3._____
4. _____
5._____

Signature of student: _____