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FREQUENCY OF SELF-MEDICATION OF PAINKILLERS IN ISLAMIA UNIVERSITY STUDENTS 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 "use of drugs to treat self-diagnosed disorders or symptoms or the intermittent or continued use of prescribed drug for chronic or recurrent disease or symptoms."*

Objectives: *Objective of this study was to find out the frequency of self-medication among medical students of Islamia University of Bahawalpur.*

Material and methods: *Study design: Non-probability (convenience) sampling. Study setting: Islamia University of Bahawalpur.*

Duration: *21st March 2019 to 25th May 2019.*

Sampling population: University students from 1st year to 5th year of Islamia University BWP during study period were included.

Sample size: 118

Sampling technique: *Convenience sampling. Inclusion criteria: both genders. Exclusion criteria: unwilling students. Ethical issues: Informed consent was taken from all the participants (verbally).*

Data collection: *Pre designed and pre tested questionnaire was used for the collection of data in the research. The questionnaire consisted of two parts. In first part questions about biodata were asked and in second part questions about actual research were asked after taking their verbal consent. Out of total 125 students, 118 students were respondents. The questionnaire was given to them in the morning and was collected back after 2 hours on the same day. Data analysis: The data was analyzed manually. Frequencies were calculated also the tables and figures were made.*

Results: *Out of 118 students, 60(50.8%) were females and 58(49%) were males. 54(46%) out of 118 students did self-medication because of easy availability at pharmacy. Maximum students i.e.76 (64%) used medicines for headache.*

Conclusion: *In this study it was found that majority of students 60(50.8%) self-medicated and most of them were female students.*

Keywords: *Self-medication, Students, Analgesics, Antibiotics, Painkillers*

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INTRODUCTION:

Self-medication is defined as the use of drugs with therapeutic purpose without professional's prescription .It is basically a human behavior in which an individual uses a substance or any exogenous influence to self-administers treatment for physical or psychological ailments .People take their own initiatives for using unprescribed drugs .Thus self-medication forms an integral part of self-care(1) which in fact is the first choice when patient encounters common health problems and doesn't require doctor's visit(2)

Self-medication has become topic of great concern in symptomatic management of common conditions. Major causes of self-medication are escalating health care costs globally (3), shortage of time to visit the doctor, mild illnesses. Moreover, people get courageous about treating their own illnesses by extracting information from online sources, magazines, literature (2).

The trend of self-medication has increased throughout the world and has high prevalence rate in developing countries. Two aspects of drug safety drive responsible self-medication largely how drug is used and intrinsic characteristics of the drug. Proper use of drug depends upon the availability of correct information and how easily the drug is available (3).

Although self-medication is cost effective and can save time when based on authentic medical information. Before endorsing potential benefits of self-medication, several critical health hazards should be considered. When self-medication is not practiced properly, it can cause irrational drug usage, resource wastage, increase in drug resistance, lethal allergic reactions (2).

Pain relief occupies major position within broader context of self-medication. Today pain killers occupy one of the leading self-medication categories (3).

It has been observed that students are commonly involved in the practice of self-medication without complete knowledge of drugs they are taking. On one hand, students become careful in using non - prescribed drugs that their inappropriate usage can be harmful. So they even in situations of minor illnesses prefer taking prescribed medications only. On the other hand, they may become overconfident regarding their bookish knowledge and may implement self-care and suffer setbacks leading to detrimental health or diseased state (4).
These medications have strong abuse potentials. Due to this University students become victim to the abuse (5).

This paper assesses the frequency of self-medication among University students and awareness regarding benefits and harms of self-medication of pain killer to better understand how they are using these products. The present study is planned to rule out pattern of self-medication practices in University students to determine common ailments, common drugs used and common reasons for undertaking self-medication.

Objective:
The objective of my study is to-
"Determine the frequency of self-medication among students of Islamia University Bahawalpur".

METHODOLOGY:

- **Study Setting:** The study was carried out in students of Islamia University Bahawalpur.
- **Study Design:** Cross-sectional observational descriptive study.
- **Duration:** 21st March 2019 to 25th May 2019.
- **Sampling Population:** University students from 1st year to 5th year of Islamia University Bahawalpur during study period were included.
- **Sampling technique:** Convenience Sampling
- **Inclusion criteria:** Both genders.
- **Exclusion criteria:** Unwilling students.
- **Ethical issues:** Informed consent was taken from all the participants (verbal).
- **Data collection:** Pre- designed and pre-tested
  A questionnaire was used for the collection of data in this research. The questionnaire consisted of two parts. In first part questions about bio data were asked and in second part questions about the actual research were asked after taking their verbal consent. Out of total 125 students, 118 students were respondents. The questionnaire was given to them in the morning and was collected back after 2 hours on the same day.

Data Analysis: Data obtained from questionnaire was analyzed manually. Frequencies were calculated also tables and figures were made.

RESULTS:

We conducted a research on self-medication of painkillers in university students. Performas were distributed among 125 students out of which 118 responded. Among which 58 (49%) were males and 60 (50.8%) were females (Table: 1), 66 (56%) were dayscholars and 52 (44%) were hostellers. (Table: 1)
Maximum number of respondents 35 (30%) were in age group 18-19 years and minimum were 1 (0.8%) who were greater than 25 years (Table: 1). Amount of most frequent monthly allowance among

respondents was ranging from Rs. 15000/- to 30000/- , among which 57 (48%) were getting Rs. 300/- to 15000/- and only one of them (0.8%) got monthly allowance greater than Rs. 30000/-.

In the study conducted on 118 respondents, 38 students were in their first year and 9 were in their final year. (Table:
1)

Out of 118 who responded, 75 (63.5%) of them said that they knew about self-medication and 43 (33%) of them did not know. Out of the 75, 55 (46.6%) gave the correct definition of self-medication. "(Self-medication is defined as the use of medication by a patient on his own initiative or on advices of a pharmacist or layman instead of consulting a medical practitioner.)

Maximum respondents 50 (42.4%) confirmed their source of painkillers through family, friends or pharmacist and 20 (16.9%) confirmed through previous exposure or prescription. (Table No.2)

Out of 118 respondents, 50(42.4%) had used painkillers 2-3 times in the last two months and 28(23.72%) used it 4-5 times. Acetaminophen was most frequently used drug almost by 91 (77.12%) and only 6 students (5.08%) used aspirin. (Table No.2)

54 (46%) out 118 students did self-medication because of easy availability at pharmacy and 9 (7.62%) used leftover medicines at home. (Table No.2)

Maximum students i.e. 76 (64%) used medicines for headache and only 2 students (0.1%) used for earache (Figure: 1). 34 (81%) students used painkillers upon doctors advice and 9 (7.62%) out of 118 used painkillers after seeing advertisements. (Table No.2)

Similarly 77 students (65%) read informational page about instructions given in the medicinal box and 41 (34.74%) did not read. Among 77, 37 (31.31%) understood the given information on the page and 6 of them (5.08%) did not understand.

63 students (70.33%) knew that high doses of painkiller can cause liver or stomach disorders while 37 students (31.35%) were not aware of any side effects. (Table No.1)

23 students (21%) practiced the use of antibiotics without consulting a doctor but 67 (57%) did not do so and 28 students failed to answer. (Table No.2)

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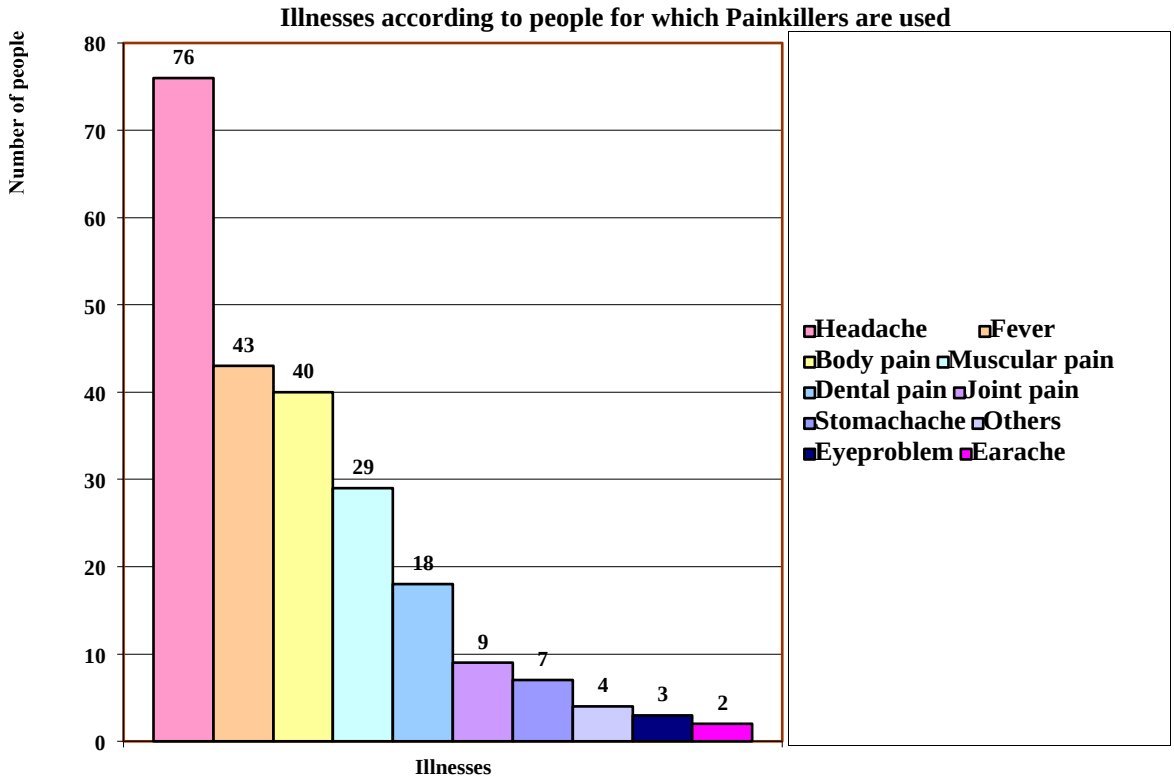

Figure No.1

Table No.1

Gender distribution	Frequency	Percentage
Males	58	49.2
females	60	50.8
Age distribution		
18-19 yrs	35	30
20-21 yrs	38	32
22-23 yrs	34	28.8
24-25 yrs	10	8.5
>25 yrs	1	0.8
Residential area		
Dayscholars	66	56
Hostellers	52	44
Study year		
1st year	38	35
2nd year	22	20
3rd year	20	18
4th year	21	19
5h year	9	8

Table No.2

Use of medicine on whose advice	Frequency	Percentage
Doctor's prescription	34	28.8
Recommendations by family	28	23.7
Recommendations by friends	19	16.1
Recommendations by pharmacist	28	23.7
Based on opinion perceived from advertisements	09	7.7
Source of information		
Already knew through advertisements	26	22
Previous exposure or prescriptions	20	16.9
Through textbooks or literature	22	18.6
Through family, friends or pharmacist	50	42.4
Reasons of self-medication		
High fees of doctors	20	16.9
Easily available at the pharmacy	54	46
Leftover by family members or friends	09	7.62
Time saving	35	29.7
Commonly used medicines		
Acetaminophen	91	77.12
NSAIDS	3	2.54
Aspirin	6	5.08
Others	8	6.78
Awareness about side effects	81	68.6
Use of antibiotics		
Practice self-medication of antibiotics	23	21
No self-medication practice	67	57
No response	28	22

DISCUSSION:

Several studies revealed that self-medication is commonly practiced throughout the world. Trend of self-medication is increasing among the youth and very common among the university students.

Our study shows that females are more prone to self-medication than males. Out of 118 students, 60 females (50.84%) were actively involved in practicing self-medication and 58 males (49.15%) practiced self-medication. Study done in India shows that 54% females and 45.9% males practiced self-medication which corresponds to the study conducted by us.(6)

In our research out of 118 students, 55% were dayscholars and 44% were hostellers hence concluding that dayscholars are more involved in self-medication practices.

Among respondents, participants from age group 18-19 years were 29 %, from 20-21 years were 32.2%, from 22-23 years were 22.03%, and from 24-25 years were 7.62% and 0.8% were greater than 25 years of age.

In our study, 48.3% students had Rs.0-15000 income while 2.54% had Rs.15001-30000 income and only 0.8% had greater than Rs. 30000 income.
In our study, 32.2% students were from first year, 18.6% were from second year, 16.9% were from third year while 17.7% were from fourth year and 7.62% were from final year.

Our study showed that out of 118 students, 75 (60%) students knew about self-medication while 45 (36%) students were not aware. Hence it shows that awareness and knowledge about self-medication is increasing because of prevailing media and technology.

Our study deduced that source of information about drugs being used in self-medication came from advertisements (22%), already present prescriptions (16%), through textbook and literature (18%) and through the channel of friends, family and pharmacists (42%). Similarly study carried out on self-medication in Eritrea shows that source of information about painkillers came from advertisements (26%), previously present prescriptions (13.4%) and through channel of friends and family (39.6%)((7))Another study conducted in Pakistan shows similar results, information about drugs attained from previous experiences is 17.36%.(1.)

Study done by us provides information that 33.89% students used painkillers 0-1 time, 42.37% used 2-3 times and 23.72% used 4-5 times in the last two months hence showing that 2-3 times is the most common frequency.

According to our study, most frequently used painkiller is acetaminophen (68%), followed by NSAIDS (19.4%),
Aspirin (5%) and other painkillers (6%). Another study done in Pakistan shows frequency of NSAIDS used which is 22% (1)while a similar study in Bangladesh shows use of antipyretics (58.4%) for fever and headache.(2)

Results of our study concluded that high fees of doctors (16.9%), easy availability of drugs at pharmacy (45.62%), presence of leftover medicines by family (7.62%) and time saving approach (29.66%) were the reasons that urged students to indulge in practices of self-medication of painkillers. The results clearly indicated that easy availability at pharmacy was the most prevailing reason in favor as requisite of doctor's prescription for these drugs is not necessary. This is in accordance with another study done in Pakistan which showed that 34% students adopted self-medication to save time. Another research carried out in Pakistan depicts that 13.85% people use self-medication to avoid doctor's fees (1)while in India students adopt self-medication due to lack of time (21.3%) and high fees of doctor (10.4%).(6)

Our study described that 65% students do self-medication of painkillers for headache, 36% for fever and 2% for ear related problems. According to a study of Bangladesh 71% students took painkillers for headache, 61% for fever and 2% for ear problems. (2)

Our study deduced that 28% university students took painkillers using doctor's prescription while 23% took upon family's advice, 16% took on friends' recommendations, 23% on pharmacists' advice while only 7% took according to their own opinion. According to the study in china students having funds engaged in non-medical use of prescribed drugs are more towards self-medication. (5) Similarly, study in USA suggested that majority of students obtained prescription pain relievers for peers.

Our study indicated that 65% of the observed students go through the informational page about the instructions given inside the medicinal box. Among these students 48% students understood the content of the page completely. This is because of increasing awareness about the use of medicines among the students.

Our study shows that 68.6% of the students were aware of the side effects of self-medicated painkillers and 31.35% were not. Similarly, a study

in India indicated that 56% of the students were aware of the side effects and 43.9% were not. (6)

Our study showed that 19.49% of students practice self-medication of antibiotics and 56.77% do not which comparable to a study in India that shows 34.21% people take self-medication of antibiotics and 65.79% do not.(6)

Through our study we came to know that 70.33% know that prolonged use of unprescribed painkillers cause liver and stomach disorders while 29.66% disagreed to know. Greater number of students was aware of this because of advancement in knowledge through the channels of media and technology.

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Topic: Frequency of Self-medication of Painkillers in University Students
ANNEXURE

Name (optional):_____Gender: Male / Female
Age: _____ years Dayscholar/Hosteller Semester of Study:_____
Amount of Monthly Allowance You Get: Rs. _____

1. Do you know what self-medication is? Yes / No

If yes, then explain_____
___
_____
___
_____
___ _____

2. What is your source of information about the painkillers? (Tick mark the option)
   a) Already knew through advertisements
   b) Previous exposure or prescription
   c) Through textbooks or literature
   d) Through family, friends or pharmacist
3. How many times have you used painkillers in last two months? _____
4. Which painkiller do you frequently use? Name of the medicine: _____

5. Which of the following were the reasons in favor of using self-medication of painkillers?
   a) High fees of doctor c) Leftover by family members or friends
   b) Easily available at the pharmacy d) Time saving
6. What are the illnesses according to you for which painkillers are used? (encircle the options) Fever ; Headache ; Muscular pain ; Earache ; Eye problems ; Stomachache ; Dental pain ; Joint pain ; Body pain
   Any other please mention _____
7. Upon whose advice do you use the painkillers?
   a) Doctor's prescription
   b) Recommendation By :- Family ; Friends ; Pharmacist
   c) Based on opinion perceived from advertisements
8. Do you study the informational page about the instructions given in the medicinal box? Yes / No If yes then do you understand its content?
   a) Yes, fully b) Yes, partially c) No
9. Are you aware of side effects of self medicated painkillers? Yes / No
10. Are you aware that prolonged use or high dose of painkillers lead to certain diseases like liver or stomach disorders? Yes / No
11. Do you practice self-medication of antibiotics? Yes / No

If yes, which one do you use frequently and for which problems?