

Prevalence, Source and Reasons of Self-Medication among the Patients; A Cross Sectional Study

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ABSTRACT

Background: Self-medication is widely practiced worldwide. Hence, this study was designed to determine the prevalence of self-medication for dental problems before dental consultation and its associated factors among patients attending the hospital. **Objective:** The aim and objective of this study was to assess self-medication practice. To determine the factors associated with self-medication practice and to identify most frequently used drugs by patients. **Study Design:** Cross sectional study. **Settings:** Lahore University College of Medicine and Dentistry, Lahore Pakistan. **Duration:** One month, April 2022. **Methods:** Sample size of 130 was calculated and data were analyzed with simple descriptive statistics. This study was approved ethically by the ethical review committee of the University College of Dentistry, University of Lahore, Lahore Pakistan. **Results:** Results showed that there was high prevalence of self-medication in our population especially among female patients. **Conclusion:** Self-medication was quite high in our population. It could be due to the fact that medications are easily accessible at the pharmacies. People can easily take the medicines without prescription of the doctors which is wrong on part of the community as they are not aware about the harmful effects of medications.

Keywords: Self-medication, Analgesics, Antibiotics.

INTRODUCTION

Self-medication means use of pharmacological and non-pharmacological ways to prevent or treat the disease.¹ Many people use different ways to manage their illnesses either by changing the lifestyle or taking drugs.² There is a high prevalence of use of self-medication among the patients and university students worldwide. In United States almost 82% of women and 71% of men self-medicated themselves in last 6 month.³ In Ireland and United Kingdom, 41.5% of people used over the counter (OTC) medicines.⁴ There are many reasons for self-medication in different countries among different people. Long waiting list for appointments, easily accessible medications from the pharmacies and high cost for

visiting the doctors are the main reason why people use self-medications.⁵ Absence of regulatory laws or enforcement bodies is the second major reason for availability of OTC medicines in developing countries.⁶

There are many harm effects of using the self-medication. Few of them are over or under medication for an illness, antibiotic resistance and wastage of money for improper medications.⁷ In Pakistan, there is high trend of using the antibiotics among the dental patients. Many patients self-medicate them before visiting the dentists. It's a major reason for antibiotic resistance.⁸⁻¹⁰

This study aimed to determine the prevalence of self-medication among dental patients, identify drugs that are

commonly self-medication, identify the sources of these drugs, analyses the reasons for self-medication and the level of awareness of complications of self-medication among dental patients. Significantly, this study will contribute to the existing knowledge on self-medication.

METHODS

This study was conducted at the University College of Medicine and Dentistry, the University of Lahore, after taking approval from the ethical board. The duration of the study was one month. Sample size of 130 patients was calculated with 90% confidence level, 7.1% margin of error and by taking expected percentage of self-medication as 41.5% by using this formula.

$n = \frac{Z^{2(1-P)} P (1-P)}{d^2}$. $n =$ Sample Size=130, $d =$ margin of error=7%, $Z_{2(1-P)/2} =$ confidence level= 90%, $P =$ Percentage of Self-medication among dental patients=41.5%.

Pre-validated questionnaire was used. There were total 17 questions, out of which 15 were close ended questions and 2 were open ended questions. The first section of the questionnaire elicited information on demographic characteristics like age, gender, and education level. The second section had close ended questions on health seeking behavior and self-medication practice by respondents about the types of medications, duration, frequency and who recommended the self-medication for the respondents.

The targeted audience included patients who visited University dental hospital for dental treatment and gave informed consent. While the patients who refused to fill out the questionnaire and were unable to understand English language were excluded.

Data entry and analysis was carried out by SPSS version 25. Quantitative variables were presented with mean & standard deviation. Qualitative variables were presented with frequencies and percentages. Bar charts were used to present data.

RESULTS

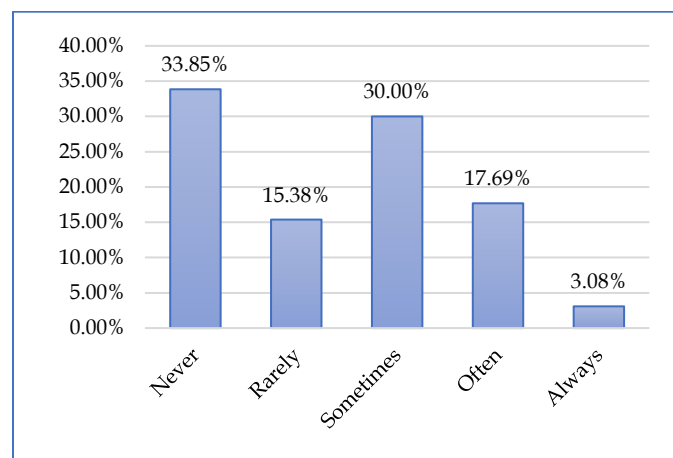
Out of 130 patients, there were 63% of female and 37% of male patients. There was a higher frequency of young participants aged 23-30 years (56%). In terms of education level participants with bachelor's degree comprised the largest group of those practicing self-medication (59%).

There were 86.92% of patients who were practicing self-medication to treat their dental problems while 13.08% were not self-medicating themselves.

Our results revealed that 33.85% of patients responded that they never used the same prescription as their family members used previously for the same reasons, 15.38% of patients responded rarely, 30% of patients responded

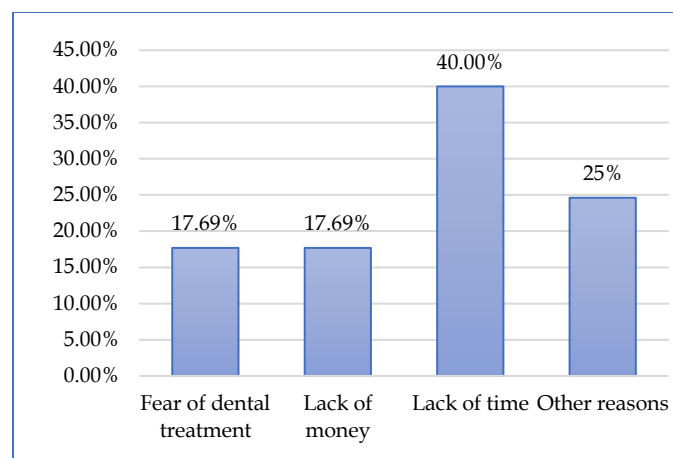
sometimes, 17.69% responded often and 3.08% of patients responded always used the same prescription as their family members (Fig. 1).

Figure 1: Patients reference of using same prescription as their family members



Out of the 130 participants who engage in self-medication, 17.69% of patients responded fear of dental treatment and lack of money as reason for self-medication. 40% of patients responded to lack of time and 25% of patients responded to other reasons (Fig. 2).

Figure 2: Reasons for practicing self-medication



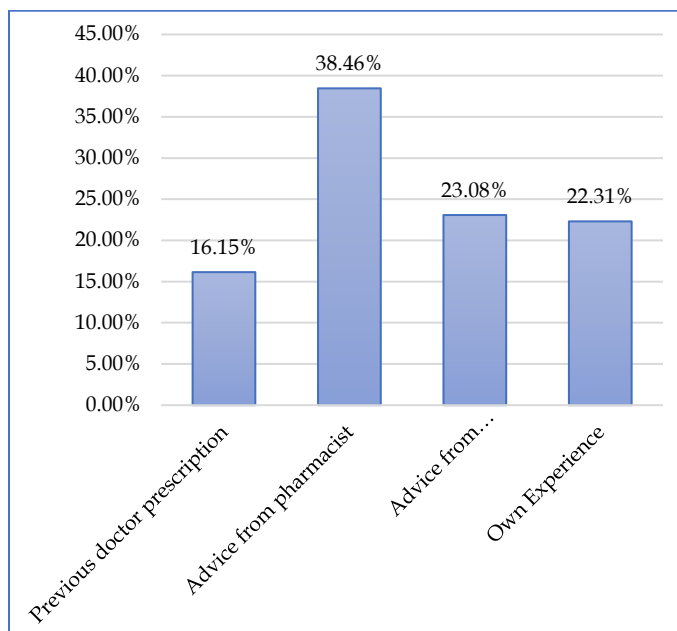
Regarding checking the expiry date of medicines, 95.40% of patients responded that they check the expiry date of medicine before taking it and 4.6% of patients said they don't check.

We asked the patients did they have awareness of harmful effects by the self-medications. About 52.30% of patients were aware about the harmful effects of self-medications, 20.80% of patients responded no, whereas 26.90% patient responded that they were sometimes knew the harmful effects.

The most of the participants (38.46%) claimed that they got self-medication from pharmacies, 16.15% of patients

used their pervious doctor prescription as a source of self-medication, 23.08% of patients used the drugs advised by friends / relatives and 22.31% of patients responded that they used their own experience to medicate them.

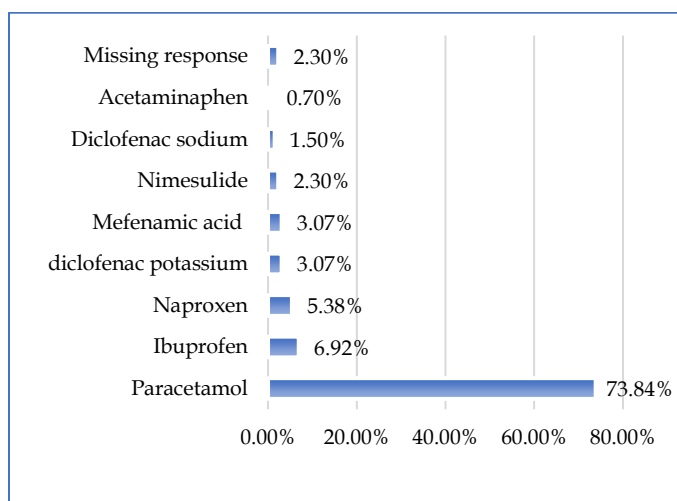
Figure 3: Source of self-medication



The most used pain killer by patients was Panadol (75%), followed by the Ibuprofen (7%), Naproxen (5%), Diclofenic potassium (3%), Mefenamic acid (2%) and Diclofenic sodium (1%). Two percent patients didn't respond to this question.

The most commonly used antibiotic by the patients was Co-amoxiclav (43%), followed by Amoxycillin (17%), metronidazole (10%), few responded azithromycin, clarithromycin and ciprofloxacin. Twenty five percent patients didn't respond to this question.

Figure 1 The most commonly used analgesics as a self-medication



DISCUSSION

This study investigated self-medication patterns among dental patients by exploring reasons, types of medications and sources of self-medication. Our study showed that 86.92% of population was practicing self-medications. The prevalence of self-medication is more in female (63%) than male patients (37%). A similar study conducted in Nigeria showed that 41.5% of the patients were using self-medication and 58.5% were not using self medication. A high prevalence of self-medication was noted among females (55.1%) than male patients (44.9%).¹¹

Our study showed that 38.06% of the participants consider pharmacy as a source of getting self-medication. While the study conducted in Riyadh also showed that the 67.3% of the participants consider pharmacies as a source of self-medication.¹² In Pakistan, drugs are easily available in the pharmacies and they sale medications without prescriptions. This might be the main reason for self-medications. Low socioeconomic status and lack of knowledge are the second reasons worldwide.^{13,14} People do not visit the doctors due to their financial issues and long appointment time of doctors.

A study conducted in Riyad, showed that 87.6% of population checks the expiry date before using self medication.¹⁵ According to our study 95.4% of participants check the expiry date before using medicine. This might be the fact that most of patients think about the expiry date the reason for harmful effects. So they prefer to check the expiry dates before taking the medicines.

In a Nigerian study, that most used pain killer was Paracetamol followed by Ibuprofen and antibiotics included Ampicillin, Metronidazole and then Amoxicillin.¹⁶ Our results shows that the most commonly used pain killer by patients was Paracetamol, Ibuprofen and Naproxen and three most commonly antibiotic includes Co-amoxiclav, Amoxil and Metronidazole.

CONCLUSION

Self-medication was quite high in our population. It could be due to the fact that medications are effortlessly accessible at the pharmacies. People can easily take the medicines without prescription of the doctors which is wrong on part of the community as they are not aware about the harmful effects of medications

LIMITATIONS

- Limited sample size
- Single institute study
- Self-administered questionnaire

SUGGESTIONS / RECOMMENDATIONS

To create awareness that self-medication results in resistance to antibiotics and wastage of money. Health Education sessions should be conducted. Strict laws should also be planned by the authorities that without prescription of doctor no medicine should be given by pharmacies. Regulatory bodies should have check on the sales of medicines available in the market.

CONFLICT OF INTEREST / DISCLOSURE

None.

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