

# FREQUENCY OF SELF MEDICATION AMONG PATIENTS PRESENTING WITH COMMON INFECTIOUS DISEASES AT KHYBER TEACHING HOSPITAL PESHAWAR, KPK, PAKISTAN

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## ABSTRACT

**Objective:** To determine the frequency of self medications among patients of infectious diseases at Khyber teaching hospital Peshawar and to determine the type of medicines most commonly used for self medications in infectious diseases.

**Materials and Methods:** It was a descriptive type of cross-sectional study and was conducted from 1st Dec 2018 to 31st July 2019. A consecutive non probability sampling of 310 people was taken from both the inpatient and outpatient departments of Khyber Teaching Hospital, Peshawar.

**Results:** Of the 310 subjects included in the research 161 were female while 149 male. The prevalence of self-medication was found to be 65.79%. Commonly used medicines were antibiotics (28.49%), antipyretics (24.58%) and analgesics (10.06%). The most common (46.04%) reason for self-medicating was previous use of that drug while the choice of drug was most commonly (39.11%) based on a previous doctor prescription.

**Conclusion:** Prevalence of self-medication was 65.79%. and was high in the educated population despite majority being aware of its harmful effects., in addition every stake holder in the health set up needs to play its part in curbing this practice.

**Keywords:** Self medication, Infectious diseases, Antibiotics, Analgesics

## INTRODUCTION

Self-medication is defined as the use of a drug by a person on his own initiative without a proper consultation with a medical practitioner<sup>1</sup>. Cough syrups containing codeine are available over the counter which usually prolongs the infection<sup>2</sup>. Steroids are another class of drugs that patients administer themselves for quick relief of symptoms; its long term use can cause infections such as infections of the skin or eczema<sup>3</sup>. Oral loperamide may be used to treat acute episodes of diarrhea which may

otherwise cause social dysfunction and unnecessary inconvenience to the patient<sup>4</sup>. Self-medication is commonly practiced throughout the world regardless of age, gender & occupation. Practicing self medication is common in all types of medicines for infectious diseases.<sup>5</sup> Self-medication of antibiotics may initiate multidrug resistance to antibiotics which will prolong stay in hospital.<sup>6</sup> In a university in Punjab, 58.3% of students practiced self-medication in spite of the knowledge of their side effects.<sup>7</sup> In study done in Peshawar shows prevalence of 72.2% use of self medication with antibiotics.<sup>8</sup> Since infectious diseases are on rise in Pakistan, self medication with anti-microbial drugs are also on rise<sup>9</sup>. Self medication in Srilanka on national level athletes, 60.8% were taking self medication & majority ie.77.2%

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were taking medicines from pharmacies without prescription.<sup>10</sup> In a rural area of India 50% of the general public practice self medication for common infections<sup>11</sup>. Self medications in patients (85%) in Karachi for different diseases needs implementation of.<sup>12</sup> Self medication is also at peak in Peshawar.<sup>13</sup>

Studies have not been done in Peshawar for self medication in patients of infectious diseases. We conducted this study to assess the self-medication practices & its relationship with infectious diseases in Peshawar. The main objective of this study is to assess the frequency of self medications among patients of infectious diseases and to determine the type of medicines most commonly used at Khyber teaching hospital Peshawar.

## MATERIALS AND METHODS

It was a descriptive type of cross-sectional study conducted from 1<sup>st</sup> Dec 2018 to 31<sup>st</sup> July 2019. A consecutive non probability sampling of 310 people was taken from both the inpatient and outpatient departments of Khyber Teaching Hospital, Peshawar. Adult male and females patients (18 years & above age) with History of fever for more than 05 days in both Indoor and outdoor patient departments were included in the study. Patients who were not willing to give consent or unable to recall his previous medications record. Detailed information was provided to participants about nature of study and types of questions. Infectious diseases were taken as per their diagnostic & confirmatory tests like Serological tests, blood tests, X rays chest, Blood and urine cultures & ELISA method. Questionnaire having both open ended & closed ended questions were used. Data was analyzed using S.P.S.S version 20 for windows.

## RESULTS

A total of 310 subjects were included in the study. 52.96% of the participants were females while 47.04 % were males. The age distribution was calculated as mean and SD. Mean age in years of the respondents was 33.76 with standard deviation of

13.45. Of the total 310, 200 (65.79 %) had practiced self medication while 110 of the total had not. Participants from Urban area were 61.61% and 38.39% were from Rural area. A vast majority of these individuals (58.88%) had completed their secondary education as compared to 41.12% of individuals that had not. Frequency of self medication among females was 51% and that in males was 49%. Antibiotics (28.49%) were the most commonly Self-medicated drugs. Antipyretics use was 24.58%. While 19.55% had used at least 2 of the categories mentioned.

## DISCUSSION

Self medication is a major public health issue and has disastrous effects on human health including resistance to drugs, wastage of resources and Health deterioration of the community.

Beginning with International studies, one such project in France<sup>14</sup> showed that patients in the emergency department had overwhelmingly practiced self medication similar to the results in our study. Similarly in Nigeria, a study targeted self medication amongst undergraduate students<sup>15</sup> practiced self-medication (59.60%). This showed that many of students, who are deemed to be educated persons, also chose to self medicate in great majority especially using antibiotics.

Antibiotics are amongst one of the most abused drugs in our set up. Self-medication is one of the leading causes of antimicrobial resistance. Antimicrobial resistance is the greatest threat to human health by WHO. Students with secondary education are mainly involved in self-medication as highlighted in other studies.<sup>16</sup>

This one also showed that self medication is widely preferred over a trip to the doctors to get a prescription (86% self medicated). Again, we saw that antibiotics were the most used category of drugs with a leading 36% of participants. Interestingly, 28.49% of the people who self medicated in our study claimed that they used antibiotics. This further

**Table 1: Frequency of Self medication among male and female**

Self medication	Male	Female	Total
Yes	98 (49 %)	102 (51 %)	200 (65.79 %)
No	48 (43.64 %)	62 (56.36 %)	110 (34.21 %)
Total	146 (47.10 %)	164 (52.90 %)	310

strengthens the status of antibiotics which leads to their abuse. Self-medication was practiced by great majority of health care professionals (77.6%), but this was because they were familiar with the usage of such drugs<sup>17</sup>. Research on Mexican immigrants<sup>18,19</sup> also showed that they preferred self medication. A staggering 100% (23 out of 23 participants) admitted to having self medicated. Looking at the national level, many researches were carried out on the same topic in Karachi<sup>20,21</sup>. This was even true for students in medical colleges in Karachi.

However, one can argue that this practice may pose its threats not only to the health of the individual but the community as a whole. This is because some of the drugs available OTC may have disastrous side effects. This is particularly worrying because these people will continue to use the drug until their condition worsens to such an extent that it poses their life in danger. A typical example in this case would be steroids, which are handed very readily by quacks and hakims alike to patients.

## CONCLUSIONS

Among the self-medicated drugs, use of antibiotics was seen to be most prevalent followed closely by the use of anti-pyretics. The vast majority of people that adopted the practice of self-medication were well educated, having at least completed their secondary education. Strict legislations should be introduced to regulate the type of drugs available without a prescription.

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