

## OTC MISUSE ASSESMENT: ITS HAZARDS & PREVALENC IN OUR SOCIETY SOCIETY

Maria Ayub\*, Shiza Ahmed, Saima Jabeen, Fariyah Maryum, Javeria Israr, Rabeea

Lecturer, Faculty of Pharmacy, Jinnah University for Women, Karachi 74600, Pakistan.

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**\*Correspondence for  
Author**

**Maria Ayub**

Lecturer, Faculty of  
Pharmacy, Jinnah

University for Women,  
Karachi 74600, Pakistan.

### ABSTRACT

Over the counter (OTC) drugs represent a group of drugs and medicines that can be directly sold to the patients without any prescription from the doctor and health care professional. In this study we aimed to determine how commonly people are self medicating also to find out how frequently population in Karachi (Pakistan) is misusing OTC cough and anxiolytic drugs. For this purpose a questionnaire was designed and distributed to a large group of people. This survey was conducted for one week i.e. from May 1<sup>st</sup> 2015 to 8<sup>th</sup> may. After the survey was finally completed results were compiled and from the results it was clearly shown that almost 95% of people were addicted to certain drugs they were consuming and only 5% population said that

they are not addicted to the drug in any way. Also these results verify that young people (between the age of 18-23) not only are more subjected to self-medicate drugs but are also use to or addicted to it. This is a very critical condition which requires serious considerations and support is needed for such persons especially by the doctors, pharmacists, health care professionals and by their families to bring these person back to lead a normal healthy life as well as for the growth and development of country.

**KEYWORDS:** Drug addiction, cough syrups, Over-the-counter, anxiolytic drugs, substance abuse.

### INTRODUCTION

A pharmacist in today's world has a great responsibility to help and educate patients about diverse ways for effective self-treatment. Whereas self-care is becoming increasingly popular among patients. Today the availability of over-the-counter medications makes it possible for patients to treat numerous conditions on their own but still under the supervision of a

healthcare provider.<sup>[1]</sup> There are over 100,000 over-the-counter (OTC) medications available in the market.<sup>[2]</sup> Over-the-counter (OTC) drugs are those that are available without a prescription. OTC drugs enable people to relieve many annoying symptoms and to cure some diseases simply and without the cost of seeing a doctor. However, safe use of these drugs requires knowledge, common sense, and responsibility. Some toothpastes, some mouthwashes, some types of eye drops, wart removers, first aid creams and ointments that contain antibiotics, and even dandruff shampoos are considered OTC drugs. Some OTC drugs were originally available only by prescription.<sup>[3]</sup>

Even though OTC drugs are readily available and are regulated by the U.S. Food and Drug Administration (FDA) and Health Care, they may still be harmful for patients including risks of storage and side-effect profiles of nonprescription medications, as well as they do for prescription medications, because they assume that there will be no consequences to their health. Consequently, many people may benefit from having their OTC medications monitored by a health care professional. In older adults, the chances of a serious drug reaction are increased because of altered pharmacokinetics, pharmacodynamics, impaired renal function, reduced hepatic blood flow and liver size, increased body fat, decreased lean body mass, changes in receptor sensitivity, and increased number of medical conditions, so the frequent use of OTC drugs makes older adults even more vulnerable to the risks of concurrent or inappropriate medication consumption self-medication can lead to many different problems, in which ADRs are the most serious. Medication interactions are believed to be the leading cause of ADRs.

In the 21st century, as stronger and more powerful medications are reaching OTC status, patients will need advice and counseling from pharmacists more than ever. In the World of pharmacy counseling is obligatory and it is the pharmacist's task to be sure the patient knows the name of the drug, what it is for, how and when it is to be taken, how to minimize possible interactions with other drugs (prescription or OTC), foods, beverages and its storage. The purpose of this article is to review the major side effects of common OTC medications and how to recognize these adverse effects, and to provide health care professionals with information to offer older adults and their caregivers about safe OTC medication use.<sup>[4]</sup>

This survey is held to find out how many people in Karachi, Pakistan are consuming drugs without the knowledge of their doctor or pharmacist or in other words self-medicating drugs and among them how many have become addicted to those medications.

## METHODOLOGY

This study about OTC misuse in society was conducted in Karachi from May 1<sup>st</sup> 2015 – May 8<sup>th</sup> 2015. this, survey was conducted in JINNAH UNIVERSITY, local areas near this university, and different workers and staff members were also a part of this survey. For the collection of data about OTC misuse, certain questions were designed and were distributed to be filled by different people having diverse age groups. The questionnaire contained four main concerns addressing (a) how often, if at all, have you used over-the-counter medications? (b) The name and purpose for consuming the drug? (c) Have you become use to or addicted to the drug? (d) Any visible side effect/s? This survey was continuously conducted for one week straight after that final results were devised based on the information collected during this work.

## RESULT

After a week, the results were prepared according to the age group of people on whom this survey was conducted, if they have taken the particular medicine on doctor's prescription or on their own will (see fig.2), whether they have become addictive of the specific drug or not (as shown in fig. 3) and which drug is most commonly used in an abusive way (fig. 4). The results achieved are:

### ACCORDING TO AGE GROUP

Hundreds of people were selected for the survey and they were distributed according to their age group ranges from: 18-23, 24-30, 31-40, 41-75. [shown in Figure 1]

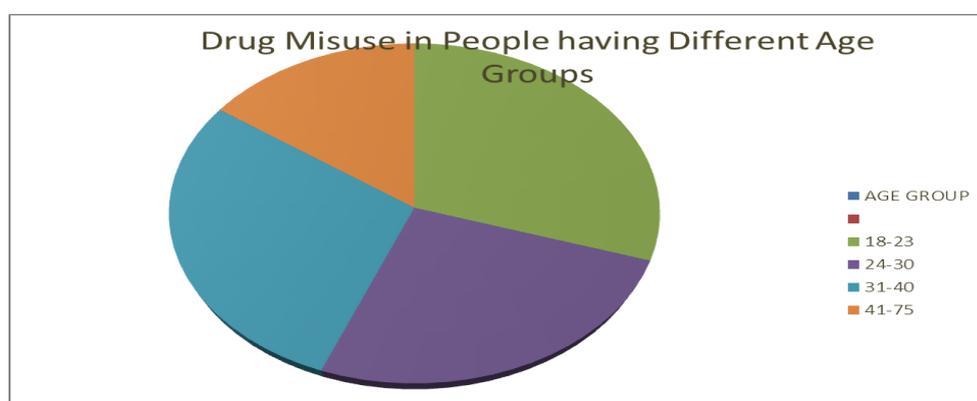
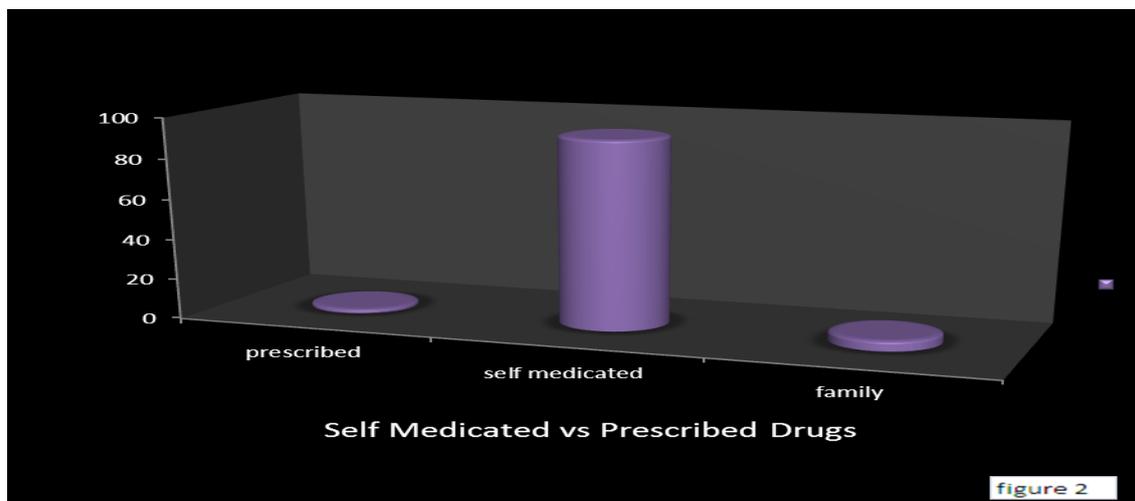


Figure 1 age group distribution

The results clearly show that the younger generation is more likely to misuse a particular drug than others. After the youth, the adult and then the elderly are subjected towards abusing OTC drug respectively.

**Data collected on the basis of prescription**

the following chart shows the percentage of people who self medicate drugs and those who have used the medicines after a family member or a doctor have advised them to do so.



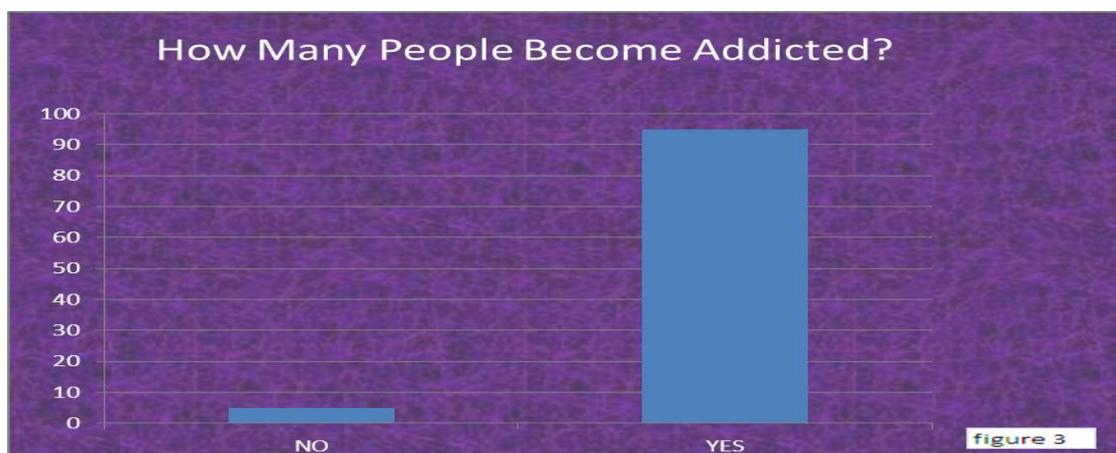
**Figure. 2 self medication prevalence**

As it can be seen here, there is a high percentage (80-100%) of people who self-medicated drugs rather than taking it on a doctor’s prescription.[shown in figure 2]

**Percentage of people become addicted**

5% population says: no

95% population says: yes



**Figure 3 percentage of addiction**

The above chart demonstrates the percent of people who became addicted to the certain drug they are using and those who do not. 5% of the population said they weren’t addicted of the

drug they are using and 95% of population was addicted of the specific drug they were taking. [shown in figure 3]

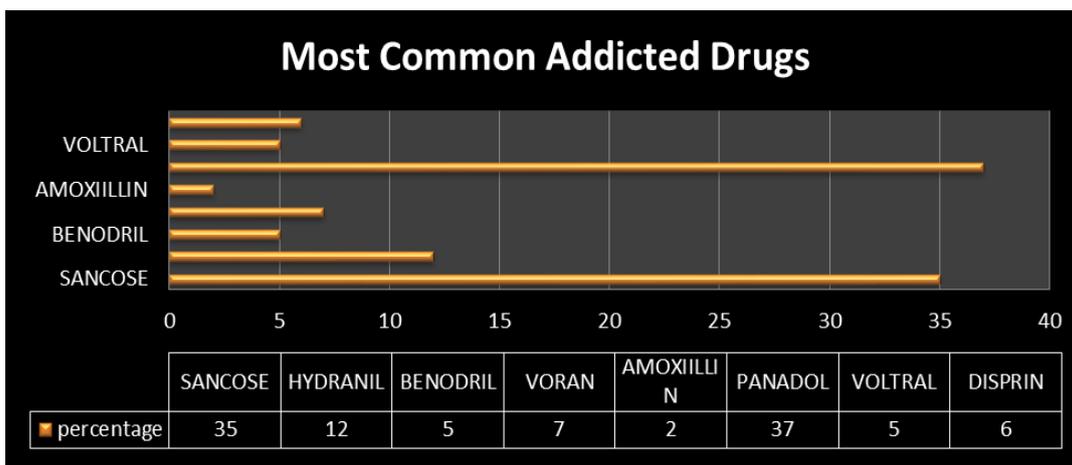


Figure 4 shows which drug is most commonly misused in society

It is clear from the above graph that sancose and panadol are the most misused drug in our society.

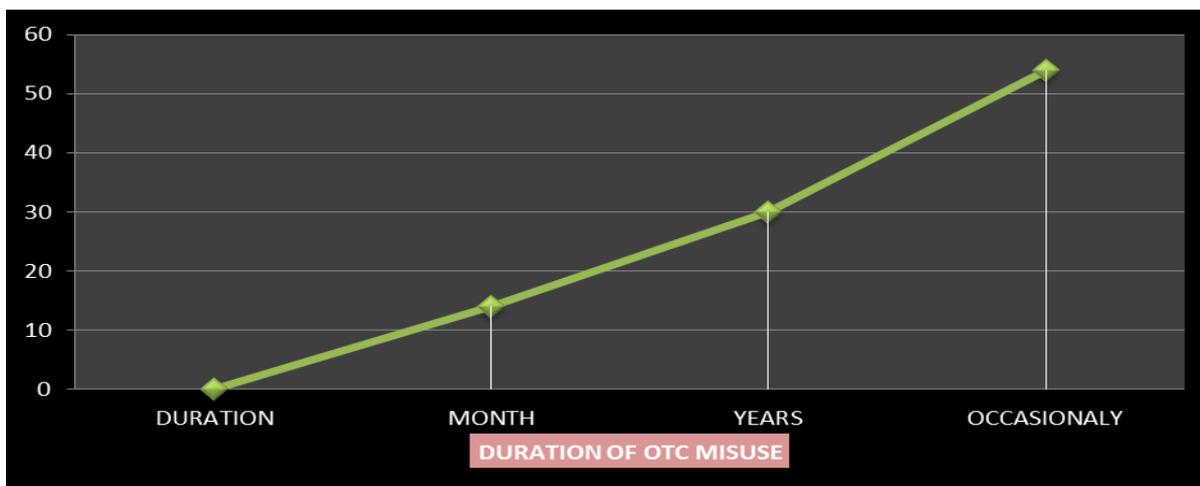


Figure No 5 Duration of drug misusing

**DISCUSSION**

A survey was conducted about misusing and abuse of OTC (specifically cough and anxiolytic) drugs in Karachi (Pakistan). Data and results were collected after asking certain questions (included in the survey paper) to many people of varying ages, including both the genders.

The results we achieved indicate that 90% population in our society is self-medicating drugs in which 90% people admitted for abusing OTC medication. After completion of the survey

an interesting fact was also found that the younger generation (18-30 years of age) was more subjected towards drug abuse than the others. After the youth, adults were more likely to self medicate and abuse drugs and the least ratio were of the elderly population. Study also shows the most commonly misused drugs are panadol and sancose. Since sancose is cough syrup so it produces sedative effect which is soothing and relaxing to people,<sup>[5]</sup> that is why more and more people attract towards this particular drug and hence not knowing what hazards it can cause they slowly become addicted to this drug. The survey concludes that 95% population has become addicted n only 5% has not. (Here population refers to the people on whom the survey was conducted).

These findings may indicate that OTC medication could serve as a gateway to the abuse of other substances (like cigarette smoking or alcohol).<sup>[6]</sup> because eventually a time will come when people taking OTC medication in an abusive way will become resistant to it and so they will approach bigger substances to satisfy their needs. Since according to the results we achieved, adults have some general awareness about the abuse of OTC medication and youth are more prone to it so naturally being in that period of age they will be more attracted towards the negative approach rather than the positive. It's human nature that it wants more and more, never content with what he possesses and once they (the OTC abusive young generation) begin over-the-counter drug abuse these people will move to the misuse of bigger and better substances (for instance heroine, alcohol etc).<sup>[7-9]</sup>

Here, the role of a pharmacist is very essential and important. This study indicates that the pharmacist n health care provider could be more proactive in controlling OTC misuse or substance dependence in order to create a society of well beings.<sup>[10]</sup>

## CONCLUSION

By summing up all the results we achieved, it is clearly seen that the youth (18-23 years of age) in a population are more subjected in misusing OTC medications than the adults and elderly people (as shown in figure 1). It may be due to the reason that mostly in this particular part of one's life one wants to be independent. They are energetic and have a mindset that they know all the good and bad things about their life and they can live it well n fully without the adult supervision. So, having such thinking, whenever they are stressed or depressed, they attract towards the negative approach i.e. abuse of OTC medications usually cough syrups and anxiolytic drugs as they have sedative action, without consulting a doctor or some healthcare professional. It is seen in the survey that eventually they become addicted to the

specific drug they are consuming and hence by their own will put their lives in danger. The survey shows that 95% of the population on whom this survey was conducted was addicted to certain drugs they were taking and only 5% people said that they do not become use to or addicted of the drug they are taking without doctor's advice(as it can be seen in fig.3). This shows how certain medicines if taken excessively can affect human's health and also behavior.

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