

A Study of Over-The-Counter (OTC) Drug Usage Pattern among the Patients attending a Medical College Hospital

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Abstract

Background: Over the counter drug abuse is a growing problem and it needs more recognition. This current study is aimed to assess the pattern of over the counter drug usage among the patients attending Saveetha medical college hospital, Chennai, Tamil Nadu.

Method: This cross-sectional questionnaire based study was conducted at Saveetha medical college and hospital, Chennai, Tamil Nadu. The patients who signed the informed consent form were the study participants, a total of 100 patients were involved. The study period lasted from 23rd January 2019 to 30th March 2019. After the data was obtained they were analyzed using Microsoft excel. Percentages and frequency were calculated.

Result: A total of 100 filled questionnaires were collected from the study participants. Majority of the participants (63%) bought OTC drugs on occasion and the rest (37%) bought them always. Most of them (43%) consumed OTC drugs when the symptoms were minor/manageable, 33% of them whenever they felt sick and 24% when they couldn't go to a doctor. Many (41%) believed they could relieve fever by using OTC drugs, 20% to relieve nausea and 39% to relieve headache. Antipyretics (47%) were the most commonly consumed OTC drug. Most (38%) common reason for choosing OTC drug was to save time.

Conclusion: This study helped gauge the general public's views on OTC drug usage and gives an idea about the amount of work that is yet to be done or has to be done to bring OTC drug abuse under control. It is almost obligatory to make the patients understand the detrimental effects of OTC misuse and abuse- and the most effective way to achieve this is by making the people aware of them in the first place. Even though OTC drug abuse is a largely recognized problem, we still have a long way to go in terms of actually solving it.

Keywords: Over the counter drug, OTC drug misuse and abuse, self-medication.

Introduction

A drug is a substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease.

OTC drugs are:

- Drugs that do not require a doctor's prescription
- Bought off-the-shelf in stores
- Regulated by FDA through OTC drug monographs¹.

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OTC drug monographs are a kind of "recipe book" covering acceptable ingredients, doses, formulations and labeling. Monographs will continually be updated adding additional ingredients and labeling as needed. Products conforming to a monograph may be marketed

without further FDA clearance, while those that do not, must undergo separate review and approval through the “New Drug Approval System”^{1,2}

Simply put, Over the Counter (OTC) drugs are medicines available without a prescription at pharmacies and are a part of self-medication process.

OTC medications have become a mainstay of Indian healthcare as more and more people are self-medicating.

A survey conducted in 2015, participated by 20,000 people from 10 Indian cities through an online doctor consulting platform, found that 52% of the participants practiced self-medication - citing lack of time to visit a doctor, wanting to save on consultation fee, reliance on internet for solutions as the major reasons².

Patients rely more on their friendly neighbourhood chemists to give them their appropriate medication for ailments such as cough, cold, allergies, headache, fever and even skin-related conditions².

OTC drugs can provide immediate relief and are safe to an extent but people should realize that even an aspirin has adverse effects or can cause harm. People should realize that OTC medications are intended to treat short term illnesses and symptoms. Many OTC drugs are formulations of several medications which could interact with each other and cause harm. According to the FDA the most vulnerable people i.e. people most at risk are young children, adults over 55 and patients using drugs that affect kidneys.

Globally there is a demarcation – a separate category for drugs that can be sold without a prescription, but India doesn't have one^{4,5}. If regulated properly – armed by more patient education, OTC medications can be a useful tool to deal with the problems of rising out-of-pocket healthcare costs, inadequate doctor-patient ratio and, weak and overburdened public healthcare system.

OTC medication abuse is a recognized problem and more research is needed to quantify the problem. This questionnaire based study is aimed to access the pattern of OTC drug usage and make people aware of the risks of self-medication. People should consciously take steps to- go to the doctor, avoid unnecessary self-medications, adhere to the recommended dosage and read the labeling. Reporting any and all of the adverse

effects experienced due to the consumption of an OTC drug ensures that proper pharmacovigilant actions can be taken. Following which the harmful effects of OTC drug usage can be minimized. Bottom line is that we should educate the patient before they self-medicate, so that they can make the right choices.

Materials and Method

This cross-sectional, questionnaire based study was conducted to assess the pattern of OTC drug usage among the patients attending Saveetha Medical College hospital Chennai. The duration of the study was from 23rd January 2019 to 30th March 2019.

The study was conducted after obtaining permission and approval from the IRB. The participants in the study were the patients who attended Saveetha Medical college, Thandalam. Objectives and procedure of the study were explained to the participants and those who signed the informed consent form were enrolled in the study. Those who hesitated to participate were excluded from the study.

The questionnaire containing various questions regarding OTC drug usage, like place of purchase of OTC drug, frequency of buying OTC drugs, common reason for consuming OTC drug etc was administered to each participant. The filled questionnaires were then retrieved from 100 participants.

Statistical tool: All the data obtained were analyzed through Microsoft excel. Percentages were calculated and chi-square test was done.

Result

Gender:

Both women and men who took part in the survey were equally likely to use OTC medications.

Place of purchase of OTC drugs:

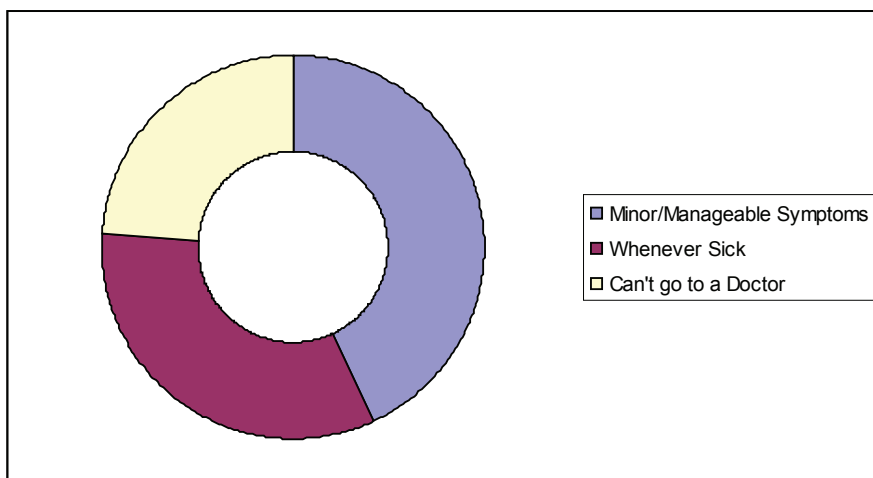
It was observed that 49% of the participants purchased OTC drugs from outside pharmacies, while 33% got them from hospital pharmacies and 18% got them from friends or relatives.

Frequency of buying OTC medications:

63% of the participants bought OTC drugs on

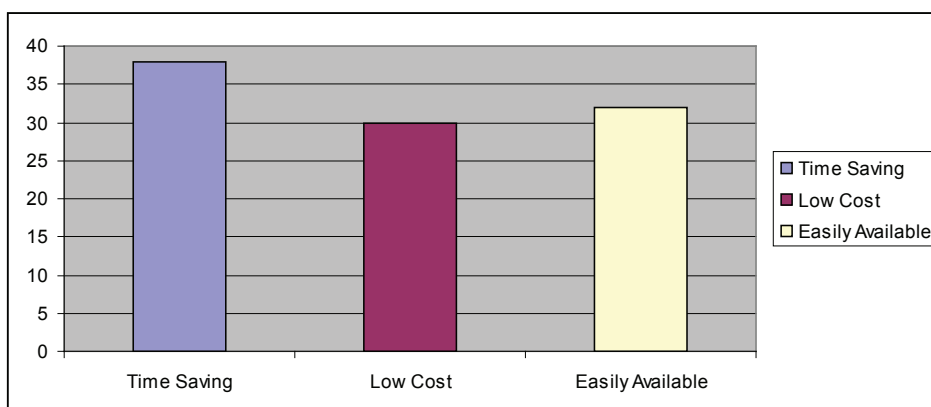
occasion while 37% of the participants opted to buy OTC drugs always.

Figure 1: Time of consumption of OTC drugs



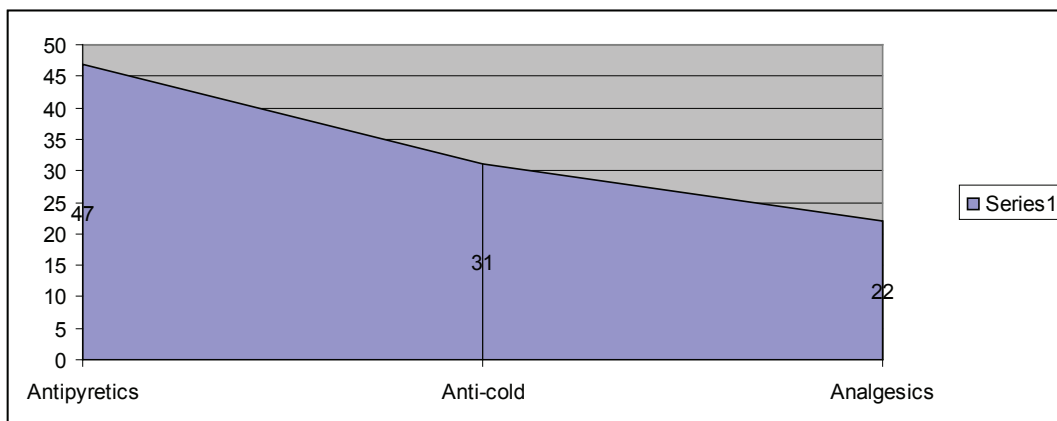
43% of the participants consumed OTC drugs when the symptoms were minor or manageable, 33% whenever they felt sick and 24% when they couldn't go to a doctor (Figure 1)

Figure 2: Most common reason for purchase of OTC drugs



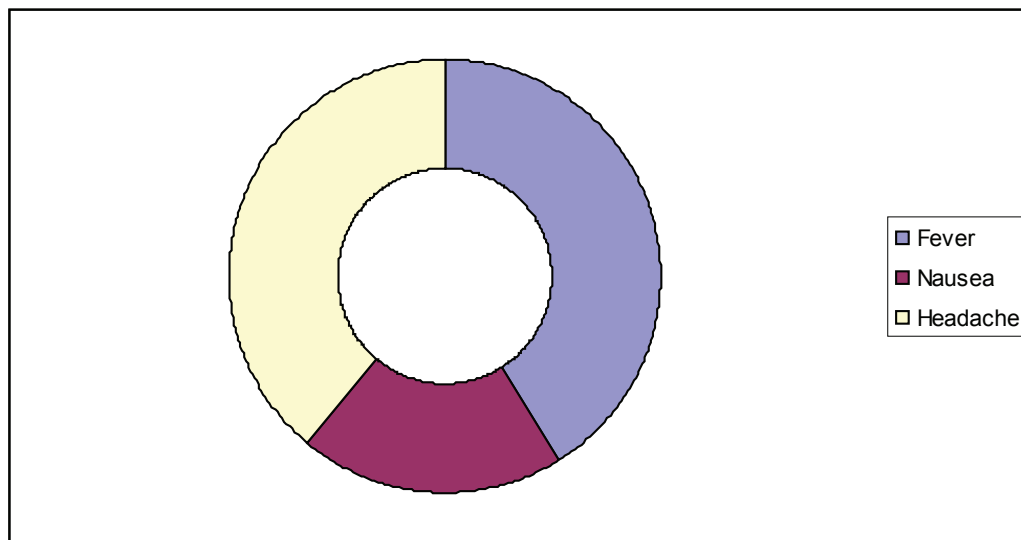
38% of the participants cited time saving as the reason for using OTC drugs, 30% of the participants used OTC drugs as they were a cheaper option and 32% used OTC drugs as they were easily available (Figure 2)

Figure 3: Most common OTC drug consumed



47% of the participants bought antipyretics the most, 31% bought anti-cold and 22% bought analgesics (Figure 3)

Figure 4: Most common ailment they consume OTC drug for



41% of the participants took OTC drugs because of fever, 20% to relieve nausea and 39% to relieve headache (Figure 4)

TABLE 1: Taking the recommended dose

Options	Percentage
Took more than the recommended dose	23%
Took only the recommended dose	77%

On asking whether they took more than the recommended dosage of the OTC drug, 23% of the participants agreed to over medicating and 77% of the participants said they only took the recommended dosage even if they weren't relieved of their symptoms or problem.

TABLE 2: Adverse effect because of the OTC drug

Options	Percentage
Has experienced adverse effect	28%
Has not experienced any adverse effect	72%

28% of the participants had experienced an adverse effect from taking the OTC drug while 72% of the participants had not experienced any adverse effect.

Discussion

The frequency of usage of OTC medications in developing countries is believed to show an increase^{6,7}. There are various studies that suggest that sociodemographic factor plays an important role in OTC drug consumption. Socioeconomic factor also affects

the consumption of OTC drug in a particular demographic area⁸. In our country there are no specific regulations or rules laid down yet that can help bring down OTC medication misuse and abuse². Abusing OTC drugs can lead to a variety of health problem ranging from gastric ulcers to kidney failure and death³. It could worsen the condition of the patient by causing other debilitating diseases or making the disease itself to progress. There

have been many studies before with similar intentions and tones as this one; to raise awareness about the ill-effects of OTC drug abuse.

In the study done by Parikh.D, Sattigeri.B.M, Kumar.A, Brahmhatt.S, 87% of the participants shared OTC drugs among their friends and relatives¹⁰. In this study however only 18% percentage of the participants received OTC drugs from friends or relatives.

Easy availability of OTC drugs, chance to avoid the doctor's consultation fee, and save time were among the most common reasons for choosing to buy OTC drugs instead of directly consulting a doctor. As observed by this study, the most common reason for purchase of OTC drugs was to save time (38%) but in the study done by Mourya, A., Mary, C., James, C., Jose, J., & Srinivasan the most common reason was easy accessibility.

In this study, it was found that majority of the participants took OTC drugs as a remedy for fever (41%). While in the study done by Parikh.D, Sattigeri.B.M, Kumar.A, Brahmhatt.S the frequently reported illnesses that prompted self-medication were headache, cough and cold¹⁰.

In another study¹³, the most common drug used for self-medicating was paracetamol, this is in line with the current study, according to which antipyretics (47%) were most commonly consumed by the participants.

Another study, from the Journal of Public done by Niamh AFingleton, Margaret C Watson, Eilidh M Duncan, came to the conclusion that analgesics were the drugs commonly misused or abused (dependence was reported) and the most common illnesses were cough and cold¹⁴. This is in contrast with the current study, which gathered that the most common OTC used were antipyretics and the most common illness was fever.

It was found that 28% of the participants in the current study had experienced adverse reactions from taking OTC drugs, while in a different study 18.62% of the participants had experienced side effects from consuming OTC drugs¹⁶.

The variation in the results obtained by all the past studies and this one is probably due to the difference in sociodemographic details of the study.

Conclusion

OTC medication misuse and abuse is a growing problem, especially in developing countries like ours and it has been overlooked. Raising awareness about the adverse effects of self-medication is the best way to counter this problem. It should be an obligatory part of the duties of a health care professional.

Educating the public or the patients on how to self-medicate is an important step that can be taken to reduce the chances of them misusing or abusing OTC medications. A patient or person solely dependent on themselves or blindly trusting their local pharmacists for the right remedy might end up with a bigger disease or problem than with what they started. They focus on just treating the symptom and might even let the underlying disease progress into a severe or fatal form.

Interventions at different levels (accessibility, affordability) that will change the public's perception of OTC medication usage and vigilance during drug dispensation may help reduce the OTC medication abuse.

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Ethical Clearance : Obtained

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