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A SURVEY ON DANGEROUS SIDE EFFECTS OF OTC MEDICATION ON HUMAN HEALTH

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ABSTRACT

OTC drugs are those drugs which are safe and effective for use by the general public without a doctor's prescription. It is also called prescription de controlled drugs. These drugs are the non prescription or over-the-counter drugs. These have little significant pharmacological activity and therefore the physician need not to be very much concerned about their use by the patients themselves. It is used primarily for symptomatic relief and not as substitutes for prescription drugs. Associated harms included direct physiological or psychological harm (e.g. opiate addiction), harm from another ingredient (e.g. ibuprofen-related gastric bleeding) and associated social and economic problems.

Keywords: OTC drugs, Prescription, Side effect, Human health, OTC medication.

INTRODUCTION

According to Consumer Healthcare Products Association (CHPA) – 73% Americans would rather treat themselves at home than to see a doctor. Americans buy more than 5 billion OTC (Over the Counter) drug products each year – 60% of drugs used. There is a misconception that because OTC drugs are more readily available than illegal drug and prescription drugs they are safer while again OTC drugs are safe when used responsibly hundreds of OTC drugs contain psychoactive chemicals that people may try to maximize for their social acceptance and partly because of their wide spread availability, OTC

drugs can seem like an easy and relatively safe option.

So, our main objectives are:

- To investigate and discuss the knowledge of patients with regard to the side effect of OTC medicines.
- Interpret OTC and prescription medication, instruction, warning and label.

OTC Medications are broadly classified into two types:-

1. Prescription controlled medications
2. Prescription uncontrolled medications

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1. Prescription controlled medications: This class involves the drugs and medicines which needed a signified prescription of eligible authority that is physician or a registered medical practitioner.

2. Prescription uncontrolled medications: These class involves the drugs and medicines which do not require a written prescription of a physician or a medical practitioner, such medications can be directly purchases over the chemist bench. Those drugs are called as a over the counter drugs or non prescribed drugs

Significance

- Comparatively cheaper
- Chemist himself may prescribe OTC
- Consumers are able to Self diagnose

Self treat Self manage

- OTC considered as time saving medications. Some patients do not want to spend much time at physician's clinic.
- Lesser number of side effects compared to prescription medications.

Advantages of OTC Drugs:

- Benefits outweigh risks
- Low misuse & abuse potential
- Consumers are able to Self diagnose Self treat Self manage
- Adequately labelled
- Health practitioners are not needed.

Disadvantages of OTC Drugs:

- Reduced opportunities to receive counselling about possible lifestyle therapies (e.g. exercise & diet)
- Poorer compliance,
- Misdiagnosis, patient's won't benefit from the drug but will be exposed to its risks,
- More difficult to study a drugs effects.

The Label:

According to the law, OTC drug labeling must include "all of the information that an ordinary consumer needs for safe and effective use."

- Active ingredient
- Uses "indications"
- Warnings
- Directions
- Other information
- Inactive ingredients

- Questions or Comments

The OTC drugs:

- Labeling is regulated by FDA
- Advertising by Federal Trade Commission (FTC).
- Prescription drugs advertising are strictly regulated only by FDA.

OTC drug regulation:

- May 1972, before & after.
- Ingredients fell into three categories.
 - Category I : GRASE
 - Category II : not GRASE
 - Category III : cannot determine if safe and effective

History of OTC medicine:

At one time, most drugs were available without a prescription. Before the Food and Drug Administration (FDA) existed, just about anything could be put in a bottle and sold as a sure-fire cure. Alcohol, cocaine, marijuana, and opium were included in some over-the-counter (OTC) products without notification to users. The Food, Drug, and Cosmetic (FD&C) Act, enacted in 1938, gave the FDA some authority to issue regulations, but the act did not provide clear guidelines as to which drugs could be sold by prescription only and which could be sold over the counter. An amendment to the FD&C Act in 1951 attempted to clarify the difference between OTC and prescription drugs and to deal with issues of drug safety. Prescription drugs were defined as compounds that could be habit forming, toxic, or unsafe for use except under a doctor's supervision. Anything else could be sold over the counter. As noted by an amendment to the FD&C Act of 1962, OTC drugs were required to be both effective and safe. However, determining effectiveness and safety can be difficult. What is effective for one person may not be for another, and any drug may cause unwanted side effects (also called adverse effects, adverse events, or adverse drug reaction). There was no organized system in the United States for reporting the adverse effects of OTC drugs until 2007, when a new law became effective that required companies to report

serious adverse events associated with OTC drugs (see OTC products and dietary supplements).

Some Unpleasant Adverse Effects of OTC Drugs:-

- Side effect/ allergic reactions
- Drug-drug interactions
- Food-drug interactions

It is best to be aware of the risks of OTC medicines so that you know how to avoid them

1] Drug-drug interactions:-

The body processes every medicine differently. When medicines are used together, the ways they affect the body can change. This is called a drug-drug interaction. It happens whether they are prescription or OTC medicines. It can increase the chance that you will have side effects from medicines you are taking.

The main interaction types are:

A) **Duplication:** This is when you take 2 medicines that have similar active ingredients. It can give you more medicine than you need. An example is when you take OTC ibuprofen (Advil, Motrin) plus a prescription anti-inflammatory medicine. Too much of either an anti-inflammatory or pain reliever can hurt your kidneys or liver

B) **Opposition:** Medicines with active ingredients that have opposite effects on your body can interact. This may reduce the effectiveness of 1 or both medicines. For example, OTC decongestants may raise your blood pressure. This can work against (cause opposition to) medicines that lower your blood pressure.

C) **Alteration:** One medicine may change the way your body absorbs, spreads, or processes another medicine. For example, aspirin can change the way some prescription blood-thinning medicines work.

If you see more than 1 doctor, tell each of them about the medicines you take. Do this even if you take something for just a short time. Include any herbal supplements, vitamins, and minerals you take. Once a year, take all of your medicines and supplements with you when you see your doctor.

You should also do this if your medications change at any time.

2] Drug-food interactions:-

Food may change how your body processes some OTC or prescription medicines. This is called a drug-food (or drug-nutrient) interaction. Sometimes what you eat and drink can affect the ingredients in a medicine you're taking. This can prevent the medicine from working the way it should. For example, medicines taken by mouth are usually absorbed through the lining of the stomach. The nutrients from the food you eat are also absorbed this way. If you take a medicine with food but the directions say not to, your body might not be able to absorb the medicine the right way.

Food does not affect all OTC medicines. But what you eat and when you eat it does matter with some medicines. This is why some medicines should be taken on an empty stomach. That means 1 hour before or 2 hours after eating. At the same time, some medicines are absorbed or processed better when you take them with food. Read the drug facts label carefully. See if you should take your medicine with food or on an empty stomach. If the label doesn't give specific instructions, it probably doesn't matter when you take it. If you have any questions, ask your family doctor or pharmacist. They can also warn you about possible interactions with your prescription medicines.

3] Allergic reactions:-

It's not common, but some people are allergic to certain medicines. Signs of an allergic reaction include itching, rash, hives, and breathing problems. If you've ever had an allergic reaction to a medicine, avoid medicines that contain the same ingredients. Call your doctor or seek immediate medical help if you think you're having an allergic reaction. Keep in mind that side effects are not true allergic reactions.

Path to Improved Health:-

Certain situations put you at higher risk for adverse effects. The possible adverse effects differ from 1 OTC medicine to another, so it's best to carefully read the drug facts label of any

OTC medicine. Then you will know what to expect.

Here are some more tips to help you avoid adverse effects.

- Try to limit how often you use OTC medicines. Don't use them unless you really need them.
- If you take any prescription medicines, ask your doctor before taking an OTC medicine.
- Read the drug facts label on the medicine carefully. Make sure you know what ingredients the medicine contains. Also make sure you understand any warnings or possible adverse effects.
- If you don't understand something about the medicine, ask your doctor or pharmacist.
- Take the medicine just as your doctor or the drug facts label instructs. Don't take a higher dose of the medicine than recommended. Don't take the medicine more frequently than the label says. Don't take it for a longer period of time than recommended.
- When giving medicine to children, use the correct measuring device to make sure they get the right amount. This could be a spoon made for measuring medicine, or a syringe or cup.
- Don't take capsules apart or stir medicine into your food unless your doctor says it's okay. This may change the way the medicine works.
- Don't take medicine with alcoholic drinks.
- Don't mix medicine into hot drinks unless the label tells you to. The heat may keep the medicine from working as it should.
- Don't take vitamin pills at the same time you take medicine. Vitamins and minerals can cause problems if taken with some medicines.
- Keep track of any allergies and adverse reactions you have had to OTC medicines in the past. Avoid medicines that contain the same ingredients.
- Check drug facts labels and avoid taking medicines that contain the same active

ingredients at the same time. This can help you avoid taking too much of a certain medicine.

- Remember that even if you took a medicine in the past with no problems, you could still have a reaction when you take it now.

Misuse is defined as using an OTC product for a legitimate medical reason but in higher doses or for a longer period than recommended, e.g. taking more of a painkiller than recommended to treat headache. Abuse is the non-medical use of OTC drugs, e.g. to experience a 'high' or lose weight.

The questionnaire was divided into four sections:

- (a) Attitudes towards community pharmacy and patient contact with pharmacies
- (b) Attitudes towards the use of OTC medicines
- (c) Views on OTC medicines' use in terms of safety, potency and effectiveness
- (d) An exploration of knowledge and opinion on the inappropriate use of OTC medicines.

In these latter questions, the terms 'abuse' and 'misuse' were carefully explained to respondents (as defined in the Introduction). Demographic data for each respondent were collected to assist with data interpretation and analysis. The National Statistics Socio-Economic Classification (NS-SEC) was used to classify participants' occupations.

OTC Drugs' means drugs legally allowed to be sold 'Over the Counter', i.e. without the prescription of a Registered Medical Practitioner. OTC drugs plays vital role in healthcare system. A huge part of population rely on OTC for the treatment of common ailments like headache, cold, fever, and cough, indigestion, flu and dermatitis. Therefore, wide safety margin must be established for the OTC drugs. OTC product benefits must outweigh the risk and the chances of misuse of it should be low.

The sale of over-the-counter (OTC) medicines from pharmacies can help individuals self-manage symptoms. However, some OTC medicines may be abused, with addiction and harms being increasingly recognised. This review describes the current knowledge and

understanding of OTC medicine abuse. Comprehensive search of international empirical and review literature between 1990 and 2011. OTC MEDICINE ABUSE WAS IDENTIFIED IN MANY COUNTRIES AND ALTHOUGH IMPLICATED PRODUCTS VARIED, FIVE KEY GROUPS EMERGED.

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