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Medications without Prescription at Saudi community: extent and Perception.

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ABSTRACT

Over the counter drugs (OTC) are medications directly bought from markets without a prescription , there are many groups and categories for symptoms relief or treatment with different action methods. Taking OTC medicines still has risks. Some of them pose risks for people with certain medical conditions and for pregnant women. Some drugs can cause reactions when mixed with other medications or certain foods or drinks. The purpose of this study was to identify these non-prescribed drugs both in pharmacies and supermarkets. Also, to aware the society from the danger of using non-prescribing drugs. Between November 2014 and February 2015 medical students volunteers in Makkah-KSA visit a number of supermarkets looking for OTC drugs and collect names and families of drugs which are frequently sold as OTC drugs And some pharmacies to see the medication that sold without prescription. Makkah was divided between volunteers for covering a total of 100 pharmacies, and further sub-divided into chain and single pharmacies. A total of 10 supermarkets were randomly included in this study ; 100% of the medical students working were females, 80% of them were 4th year medical students and only 20 % were 5th medical students. In total of 6 agents, All supermarkets (100%) were sold paracetamol, (50%) were sold of multivitamins , (35.7%) were sold medical agents containing citric acid or bezalkonium choride, (57%) were sold creams with petroleum jell containing and (35.7%) were sold antacid agents. As regard result concerning pharmacies ; A total of 100 pharmacies were randomly included in this study; 100% of the pharmacists working were male, most of them were non-Saudis. In a total of 70 drugs , (100%) of them can prescribe antihistaminics, antihypertensives, antibiotic and anti diabetic drugs without prescription or just by guessing of patients condition requirement or even just by patients samples of medications . All that except of antidepressant medications which are never sold without prescription in all pharmacies.

Keywords : over the counter , non-prescribing drug , health problem , primary health care .

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INTRODUCTION

Over the counter drugs are medications directly bought from markets without a prescription , there are many groups and categories for symptoms relief or treatment with different action methods ¹

These drugs are often located on shelves in pharmacies with easy access by patients, but may also be located in non-pharmacy outlets, such as grocery stores, convenience marts and large discount retailers.²

In the United States, the Food and Drug Administration decides whether a medicine is safe enough to sell over-the-counter. Taking OTC medicines still has risks.¹

Some OTC medications pose risks for people with certain medical conditions and for pregnant women. Some drugs can cause reactions when mixed with other medications or certain foods or drinks.³ In recent years, the non-medical use of prescription drugs has increased spontaneously. And has been paid less attention to the intentional misuse of over-the-counter medications. Misuse of OTC medications has negative health outcome including psychosis, tachycardia, seizures and agitation. Also they are be more dangerous When mixed with alcohol or other drugs. OTC-related emergency room visits increased 70% from 2004 to 2008⁴.

There are some types of OTC medication and their uses:

1. Pain is the most common reason for people to seek medical advice, pain medicine is the most frequently purchased OTC medication.
2. There are two different categories of analgesics: internal and external. Internal analgesics are pain relievers and fever reducers. These medicines are intended for internal use and are either taken by mouth in the form of pills and liquids, or inserted into the rectum in suppository form. External analgesics are topical pain relievers and are not intended to reduce fever. These medicines are for external use only and are applied directly to the outer body surface in lotions, sprays, and other forms.
3. Fever is one of the most common reasons that children visit the doctor. Moreover, one in five emergency room visits for children is due to fever. Since OTC medicines that are effective in treating pain also are effective at reducing fever .⁵

The three classes of OTC analgesic/antipyretic medications are:

1. Salicylates: aspirin (also called acetylsalicylic acid or ASA), choline salicylate, magnesium salicylate, and sodium salicylate;
2. Acetaminophen

3. Nonsteroidal anti-inflammatory drugs (NSAIDs): ibuprofen, naproxen sodium, and ketoprofen. (Aspirin is also an NSAID, but it is considered separately from the other NSAIDs because it has some unique properties)⁶.

Most of the time, a cough doesn't require treatment. A cough from a cold or flu (influenza) will usually go away on its own. Non-prescription antitussives that are available OTC to treat cough are dextromethorphan and diphenhydramine ⁷.

There are 2 types of OTC cough medicines: antitussives (suppress the cough centre) and expectorants(thinning the mucus) . There is no good evidence for or against the effectiveness of OTC medicines in acute cough. The results of this review have to be interpreted with caution due to differences in study characteristics and quality. Studies often showed conflicting results with uncertainty regarding clinical relevance. Higher quality evidence is needed to determine the effectiveness of self care treatments for acute cough” ⁸.

Antacids neutralize stomach acid to help relieve heartburn, sour stomach, acid indigestion, and stomach upset. They are also occasionally recommended to help relieve the pain of ulcers. Some antacids contain ingredients that can cause diarrhea, such as magnesium, or constipation, such as aluminum⁹.

In a study done in 2012 showed that ,” “Because there are approximately 100 over-the-counter (OTC) products available for self-treatment of acute diarrhea, it is difficult for consumers or even pharmacists and physicians to be sure which products are both safe and effective. Until Congress expanded the authority of the Food and Drug Administration in 1962, manufacturers only had to prove that their products were safe” ¹⁰.

There are two types of antidiarrheal medications, those that thicken the stool by increase its bulk and those that slow intestinal spasms and give more time for better absorption.

Antihistamines are commonly used to treat allergic rhinitis . They block histamine, which is produced by body when have an allergic reaction. Blocking histamine can help control sneezing, itching, runny nose, and hives. Many people take antihistamine medications proactively — before they think their allergies may flare-up each allergy season. OTC antihistamines, such as Benedryl, Claritin, Zyrtec, Chlor-Trimeton, and Alavert are available orally. Long-acting antihistamines provide symptom relief for eight to 12 hours, while four-hour antihistamines don't last as long but begin working faster.¹¹

-OTC medications for pregnant women are assumed mainly to be harmless because they aren't need a prescription. Some women do not consider them to be drugs and may not realize their potential to harm them or their fetuses¹². Although most of them with an excellent safety profile, and some have unproven safety or are known to have adversely affection for fetus. some medication safety profile may change according to the gestational

age of the fetus. Because an estimated about 10 percent or more of birth defects result from maternal exposure of drugs, the U.S. Food and Drug Administration has assigned a risk category to each drug.

Of the commonly used OTC medications, acetaminophen, chlorpheniramine, kaolin and pectin preparations, and most antacids have a good safety profile record. Other drugs, such as H₂- blockers, pseudoephedrine, and atropine/diphenoxylate should be used with some caution¹³.

Self-medication with OTC is a good economical choice of treatment for common self-limiting and mild illnesses. As more OTC medications are made available, and as the population of older adults continues to increase use them, so, more need arises to monitor how elderly individuals use these agents¹⁴. In a study, A sample of 186 adults age 65 years and over was interviewed to describe their use of 16 OTC substances and their management of the most commonly used OTC medications. Few subjects identified precautions associated with the OTC medications. The results of the study indicate the need for educational programs for older adults and further research about OTC substance use among these individuals¹⁵.

Aim :

In Saudi Arabia , some drugs can be purchased from pharmacists without a prescription and there is no legal classification corresponding to the international term OTC ". The purpose of this study was to identify these non-prescribed drugs both in pharmacies and supermarkets.

- To define the role of pharmacists in their sale and their use in primary healthcare .
- To aware the society from the danger of using non-prescribing drugs .
- The prevalence of drugs sold without prescription in Makkah .

MATERIALS AND METHOD

Between November 2014 and February 2015 medical students volunteers in Makkah-KSA visit a number of supermarkets looking for OTC drugs and collect names and families of drugs which are frequently sold as OTC drugs as Paracetamol, Citric acid, bezalkonium chloride, Petroleum jell, Multivitamins and Gavison(antacid).Also, they visit some pharmacies to see following types of medication that sold without prescription as:

Antihistaminic (Loratidin), Antidepressant (fluoxctin), Antihypertensive (captopril - concor), Anti-diabetics (glucophage), Antibiotics (Augmentin-Cefaclor and Doxycycline). Makkah was divided between volunteers for covering a total of 100 pharmacies, and further sub-divided into chain and single pharmacies. During the training of the volunteers on how to perform the study's scenario, they were advised to ask the pharmacist if he sells the above mentioned drugs without prescription .

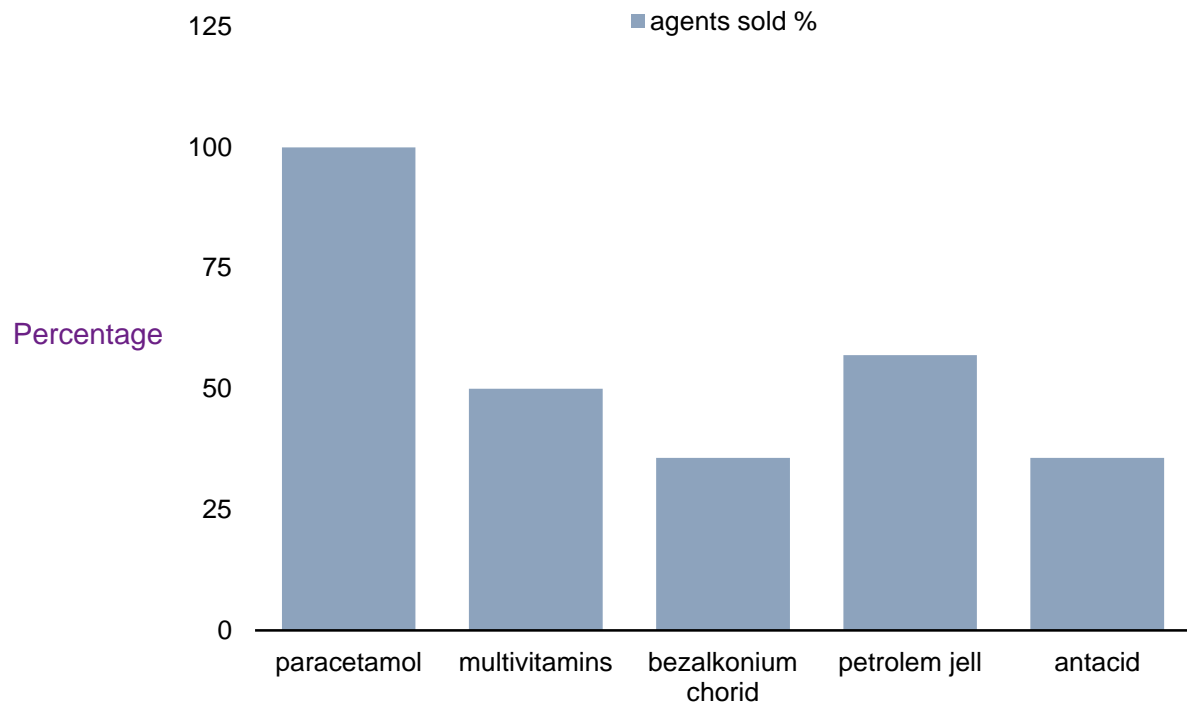


Figure 1: Medication sold in pharmacies

RESULTS AND DISCUSSION

A total of 10 supermarkets were randomly included in this study ; 100% of the medical students working were females, 80% of them were 4th year medical students and only 20 % were 5th medical students, in total of 6 agents, All supermarkets (100%) were sold paracetamol, (50%) were sold of multivitamins , (35.7%) were sold medical agents containing citric acid or bezalkonium chloride, (57%) were sold creams with petroleum jell containing and (35.7%) were sold antacid agents. (see figure below) As regard result concerning pharmacies ; A total of 100 pharmacies were randomly included in this study; 100% of the pharmacists working were male, most of them were non-Saudis. In a total of 70 drugs , (100%) of them can prescribe antihistaminic, antihypertensive, antibiotic and anti diabetic drugs without prescription or just by guessing of patients condition requirement or even just by patients samples of medications . All that except of antidepressant medications which are never sold without prescription in all pharmacies.

DISCUSSION:

The results of this study showed that most drugs -despite its class- could be easily sold in Saudi pharmacies even the customers do not have prescription . Unfortunately, hardly any pharmacist refused to dispense antibiotics and anti-hypertensives, in fact none of them asked for justification for the purchase even if the collaborator seemed to be in good health 16. But antipsychotics, were restricted in all visited pharmacies. Concerning the purchase of

antibiotics, historically speaking, the number has not changed much, but rather increased for the total number of pharmacies violating the law. Even though antibiotic resistance is a growing health hazard in society, pharmacies overlook the risk of developing this growing resistance.

Pharmacists never asked questions regarding antibiotic previous use, resistance or allergies. and all that increase risk of resistance which leads in turn to increased broader-spectrum agents use, more visits to medical physician, which may lead to hospitalizations for antibiotic failures and increase costs to the community.

Eliminating unnecessary antibiotic use cannot stop resistance emerging, but can reduce its frequency and prolong the useful life of older and cheaper antibiotics.

Antihypertensive one of most drugs class to be dispensed; no pharmacist refused to dispense Captopril without asking for any justification for the purchase. pharmacists indirectly diagnosed and prescribed a non-OTC drug. However, only they has the right to sold to the patient with symptomatic – over the counter – relievers and ask the patient to see a doctor if symptoms seemed to persist. And in more serious, They are only recommend the patient to visit his doctor if the patient showed a bad response to the medication or a side effect.

In Antipsychotics medication, results show that all of pharmacists were concerned, encouraged the collaborator to see a doctor first. But No pharmacist refused to dispense Fluoxetine (Prozac) and they mention that it is a chronic medication and can be dispense it if the patient on use. In case of major depression, obsessive-compulsive disorder, bulimia nervosa and panic disorders were treated by Prozac which is approved by the US-FDA. Proper diagnosis by a psychiatrist is a necessity in dispensing of antidepressants because they can increase the risk of suicidal thinking and behaviour in children, adolescents, and young adults and this drugs are prescribed only after failing many non-pharmacological approaches.

Additionally, pharmacists never asked the drug was recently or chronically used and no patient dosing information or education. However, all ages patients who are recently started on antidepressants or those taking a new dose should be closely monitoring for unusual behaviour or clinical worsening. On the whole, no instructions were given at all for that prescription medications were made available and when asked by name. It was find that some pharmacists debated; all drugs available in retail pharmacies are OTC-drugs, and the prescription drugs are only available at hospitals (50%). Out of all one hundred pharmacies visited, only one had an OTC list – that was not even provided by the *Saudi officials*- but rather done by a pharmaceutical company titled “The Saudi OTC directory” which was approved by the MOH (Ministry Of Health) and was the 8th edition (2009/1430). This “list”

is supposed to be reviewed periodically – if not annually- and published by those responsible of the society's health and made available in every pharmacy around the country.

Most pharmacists prescribe antibiotics without mentioned how much that antibiotics are harmful to patients, undermining the degree of pharmacy and knowledge of a pharmacist, and this represents the risk implied to society.¹⁷

On the whole, prescription medications were made available and when asked by name, no instructions were given at all. It was rather surprising and concerning to find that some pharmacists debated; all drugs available in retail pharmacies are OTC-drugs, and the prescription drugs are only available at hospitals.

This is a huge responsibility owing to the fact that pharmacists have not studied the Saudi pharmacy law nor read the regulations or guidelines of the country they're practicing pharmacy in, leading to further drawbacks.¹⁷

This study is an attempt to shed light on the some pharmacies behaviour with prescribing of most drugs use in Saudi community.

CONCLUSION AND RECOMMENDATION

In conclusion, the majority of pharmacists are violating the pharmacy law without recognizing the potential harm they're imposing the community to in Saudi Arabia. The Saudi regulatory authority could adopt several approaches, to stimulate both pharmacists' and public awareness.

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