

# Knowledge and Attitude toward the Use of Pain Medications in Saudi Arabia

<sup>1</sup>Abidah Hasan Mohsen Al-esawi, <sup>2</sup>Eman Hamzah Alkarimi,  
<sup>3</sup>Dr. Huda Mohammed Alkreathy

<sup>1,2</sup>King Abdul-Aziz University, Jeddah, <sup>3</sup>Head of pharmacology department

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**Abstract:** Self-medications, usually with over-the-counter (OTC) pain medications, is reported as a community health problem that affects many people worldwide. Many people unaware of proper dosing, adverse drug reactions and side effects and possible drug interactions that may not be clearly labeled.

**Materials and Methods:** The study was a cross sectional prospective consists of a questionnaire of 25-questions. Electronic survey were distributed among 1808 participants through social network sites from the period 11 November to 12 November 2014, then data analysis had be done.

**Summary of Results:** A total of 1808 questionnaire were collected and analysed. Analgesics were used in 61% without prescription. Sixty seven percent use analgesics only for severe pain. Ninty percent mentioned that analgesics should not be administered with other medications. Thirty eight percent reported that analgesics had antipyretic effect, while 15% reported that it had antiinflammatory effect. Eighty percent had the habit of reading pamphlets, while 77% take care of the expiary date.

**Conclusion and Recommendations:** More education is needed and Provide health care professionals with information to offer to the patients.

**Keywords:** over-the-counter (OTC), pain medications, Self-medications.

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## 1. INTRODUCTION

One of the most important reasons for irrational usage of drugs is its self-medication using OTC drugs. The reason for this may be related to economic reasons or social habits that force them to take medications without diagnosis (Almalak et al., 2014).

Non-steroidal anti-inflammatory drugs (NSAIDs) are among the widely used over the counter drugs. It is self-prescribed although it has the potential of inducing side effects. Twenty percent of patients cannot tolerate NSAIDs due to heart burn, abdominal pain and diarrhea. Treatment for long time may cause duodenal or gastric ulcers (Coelho-de-Souza et al., 2013).

Pain medication need to be selected according to type, cause and severity of pain. Self-medications, usually with over-the-counter (OTC) pain medications, is reported as a community health problem that affects many people worldwide which leads to many adverse effects by using these drugs. such as: gastrointestinal ulceration/ bleeding, nausea, diarrhea, headache and hypertension. So, The public need to be aware that habits of use of OTC pain medications should be changed and they have be advised to adhere to a prescription written by specialist taking in consideration the type of medication, the recommended dose, contraindications and interactions. The aim of our research is to confirm that general population needs more awareness about how they are using pain medications (WHO, 2000).

Although the burden reduced on the medical sector by using the available OTC, some problems elaborated, firstly, those related to the pharmacological effect of drug misuse, secondly, the harms related to adverse effects due to overdoses, thirdly, those related to economic cost related to misuse of these drugs (Cooper, 2013).

The purpose of this article is to review the knowledge and attitude of people about the use of frequently used OTC, analgesic drugs.

## 2. SUBJECTS AND METHODS

### Population:

Participants were allowed to complete well-designed questionnaire through an on-line survey released through google drive in Saudi Arabia.

**Study type:** The study was a cross sectional prospective consists of a questionnaire of 25-questions. Electronic survey were distributed among participants through social network sites from the period 11 November to 12 November 2014 , then data were analysis.

### Inclusion criteria:

Male and female

Age: 18- more than 60

Questionnaire was composed of three parts:

I- Demographic data: Which include (age, gender, marital status, nationality, place of residence, level of education, field of work, family income). Also they were asked if they had any chronic medical condition.

II- Assessing the knowledge of participants about analgesics: They were asked about (sources of use of painkillers, frequently used of painkillers, if it harm to the pregnancy, other uses of painkillers, its adverse effect, knowledge of the correct dose need of painkillers, if painkillers use to reduce fever, anti-inflammation and blood thinners, the appropriate age to use an aspirin and the time of intake of painkillers.

III-Assessing the attitude of participants toward use of analgesics: they were asked about (symptoms need painkillers without consultation, the severity of pain forcing to use painkillers, use of painkillers with other types of medications, read product information before using painkillers, and know the expiration date of painkillers.

### Statistical analysis:

Data were, entered, coded, and analyzed using a Statistical Package of Social Science (SPSS) software; version 20.0. Data were presented as percentage for each answer.

## 3. RESULTS

A total of 1808 questionnaire were collected and analysed. Analgesics were used in 61% without prescription. Sixty seven percent use analgesics only for severe pain. Ninty percent mentioned that analgesics should not be administered with other medications. Thirty eight percent reported that analgesics had antipyretic effect, while 15% reported that it had antiinflammatory effect. Eighty percent had the habit of reading pamphlets, while 77% take care of the expiry date.

**Table (1): Demographic data of participants**

Item	Frequency	Percentage
<b>Sex</b>		
Male	509	28%
Female	1299	72%
<b>Age</b>		
15-25	582	32%
26-35	677	37%
36-45	353	20%
46-59	154	90%
>=60	43	2%
<b>Average monthly income</b>		
Less than 3000	240	13%
3000-5000	356	20%
5000-10000	568	31%
More than 10000	644	36%
<b>Education level</b>		
Uneducated	4	0%
Primary	23	1%

intermediate	83	5%
Secondary	466	26%
academic	1232	68%
<b>Marital status</b>		
Unmarried	510	28%
Married	1298	72%
<b>Living</b>		
Popular house	213	12%
Apartment	1030	57%
Villa	565	31%
<b>Occupation</b>		
Student	525	29%
Officer	686	38%
other	597	33%

**Table (2): Knowledge and attitude of participants towards the use of analgesics**

Item	Frequency	Percentage
<b>Source of use of painkillers</b>		
Previous prescription	972	54%
Recipe from a pharmacist	742	41%
Advice from friend or relative	455	25%
Media	80	4%
other	177	10%
<b>Frequently used painkiller</b>		
Paracetamol	51	29%
Fevadol	30	17%
Adol	16	9%
Lenadol	2	1%
Tylenol	1	0%
Ibuprofen	17	9%
Advil	2	1%
Sabofen	2	1%
Voltaren	8	4%
Aspirin	1	0%
Solpadeine	6	3%
Rofenac	3	1.5%
<b>Painkillers harm to the pregnancy</b>		
Yes	1448	80%
No	360	20%
<b>Uses of pain killer</b>		
Reduce the fever	27	38.02
Help to get sleep	9	12.67
Fatigue	5	7
Flu symptoms	3	4.22
Anti- inflammatory	11	15.49
<b>Adverse effect of the pain killer</b>		
Peptic ulcer	1299	72%
Shortness of breathe	339	19%
Allergies	528	29%
Others	167	9%
<b>Correct therapeutic dose that you need from the painkillers</b>		
Yes	1383	76%
No	425	24%
<b>Use painkillers to reduce the fever, anti-inflammatory, and Blood thinners</b>		
Yes	1224	68%
No	584	32%

<b>The appropriate age for a child to use aspirin</b>		
Less than 12years old	184	10%
12 years old and more	1624	90%
<b>Timing of intake of the painkillers</b>		
With meals	1652	91%
On empty stomach	156	9%

Table (3): Attitude of participant toward the use of analgesics

Item	Frequency	Percentage
<b>Symptoms need painkillers without medical consult</b>		
Abdominal pain	231	13%
Headache	1395	77%
Pain menstrual cycle	584	32%
Allergies	148	8%
others	280	15%
<b>Severity of pain that forcing you to take painkillers?</b>		
Mild	51	3%
Moderate	538	30%
Sever	1219	67%
<b>Use the painkillers concomitant with other types of medication?</b>		
Yes	1293	72%
No	515	28%
<b>Use painkillers for other causes other than pain relive</b>		
Yes	185	10%
No	1623	90%
<b>Read the products information's before using the painkillers</b>		
Yes	1439	80%
No	369	20%
<b>Do you know the Expiration date of the analgesic that used?</b>		
Yes	1393	77%
No	415	23%

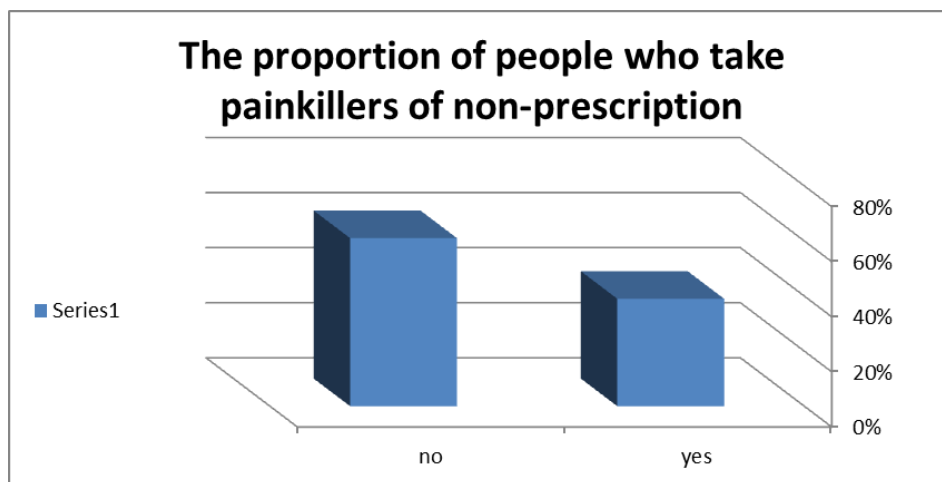


Figure (1): Prevalence of respondents who use of OTC analgesics

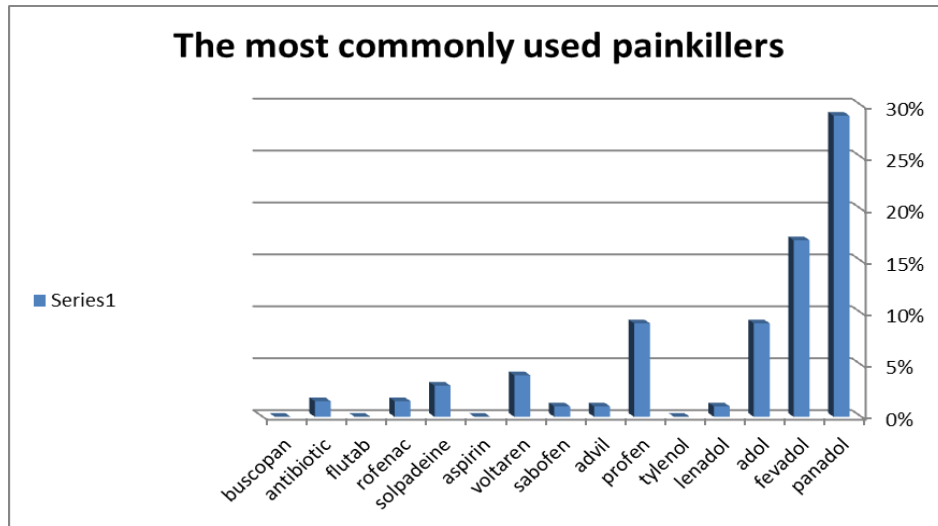


Figure (2): Prevalence of use of pain killer without prescription among respondents

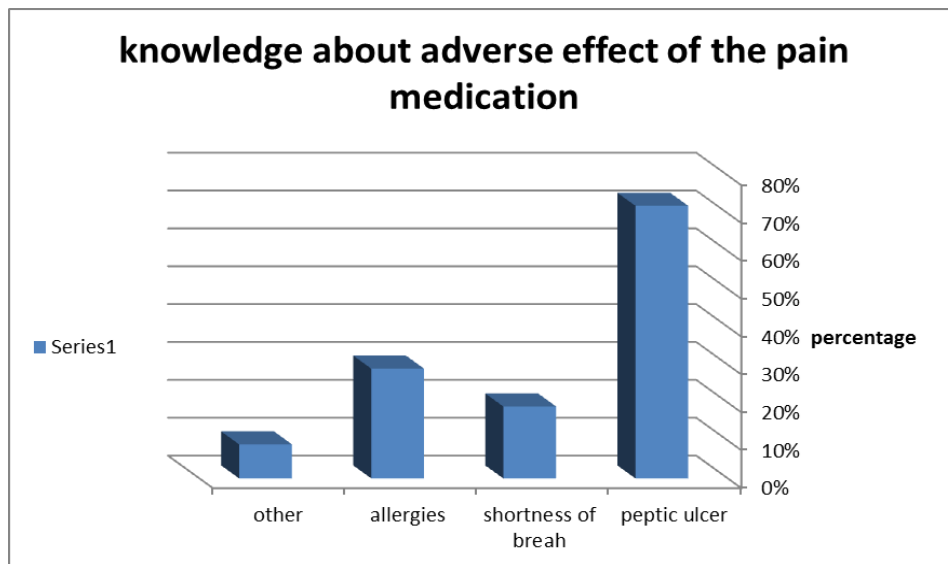


Figure (3) peptic ulcer is the most adverse effect of analgesics known by General population.

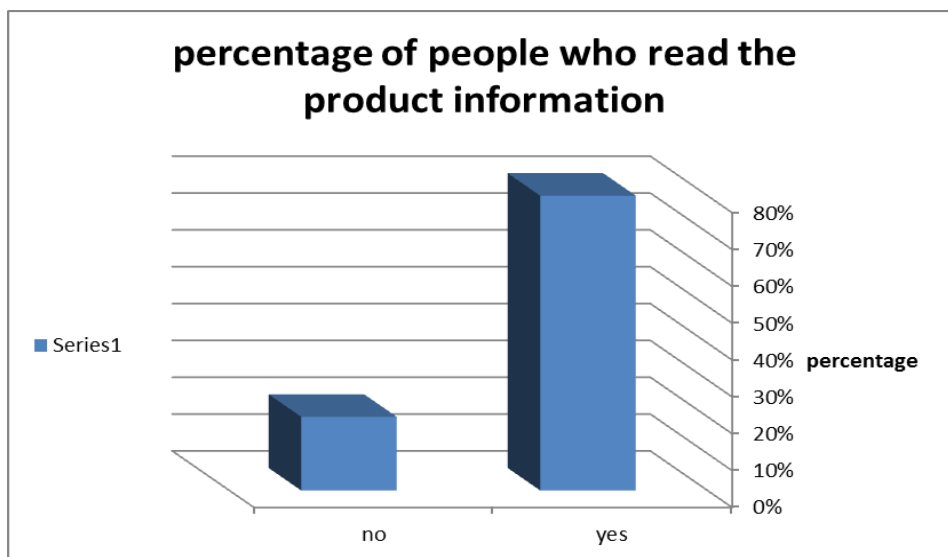


Figure (4) prevalence of people who read product information of analgesics; 80% of general population read the product information

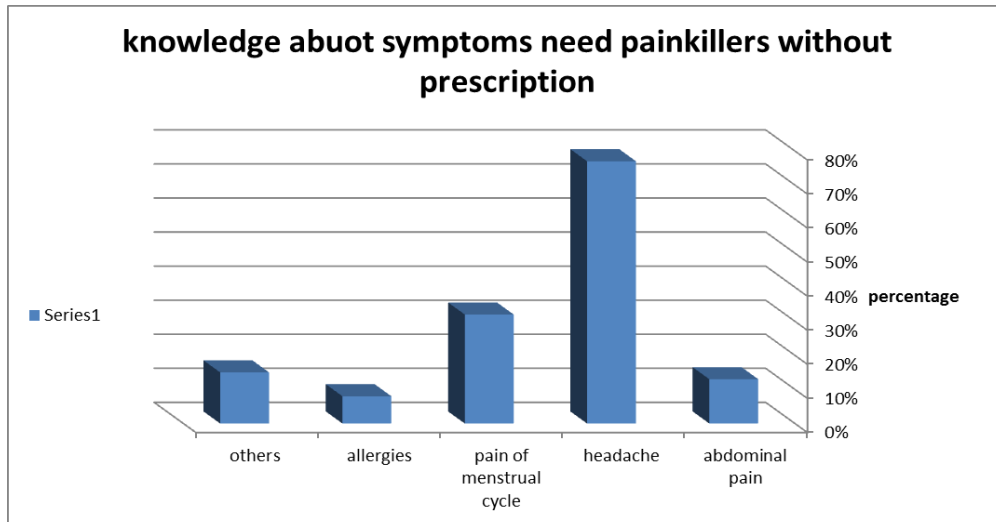


Figure (5) prevalence of symptoms need painkillers without prescription; most people believe that the headache is he most symptom need painkiller without prescription.

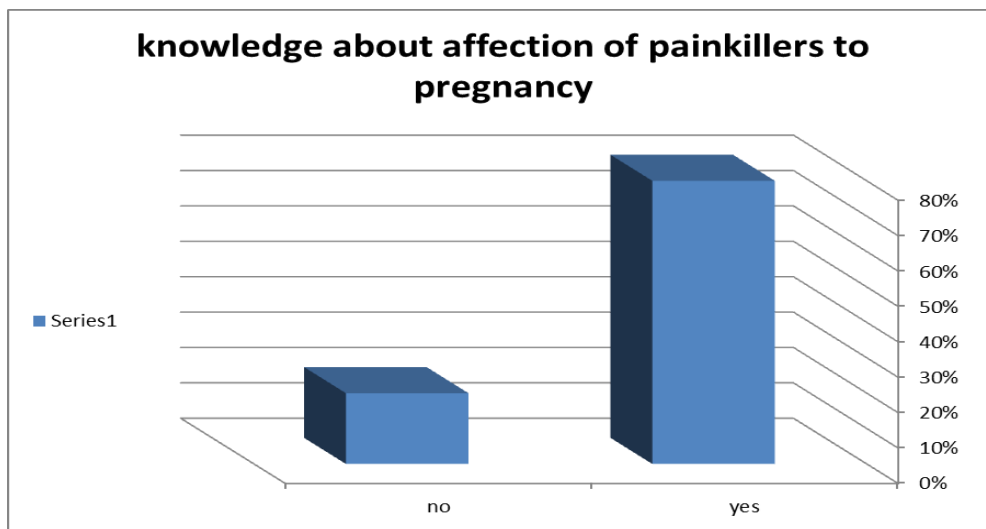


Figure (6) prevalence of people who thought painkillers harm to the pregnancy; 80% of general population think painkiller harm to the pregnancy

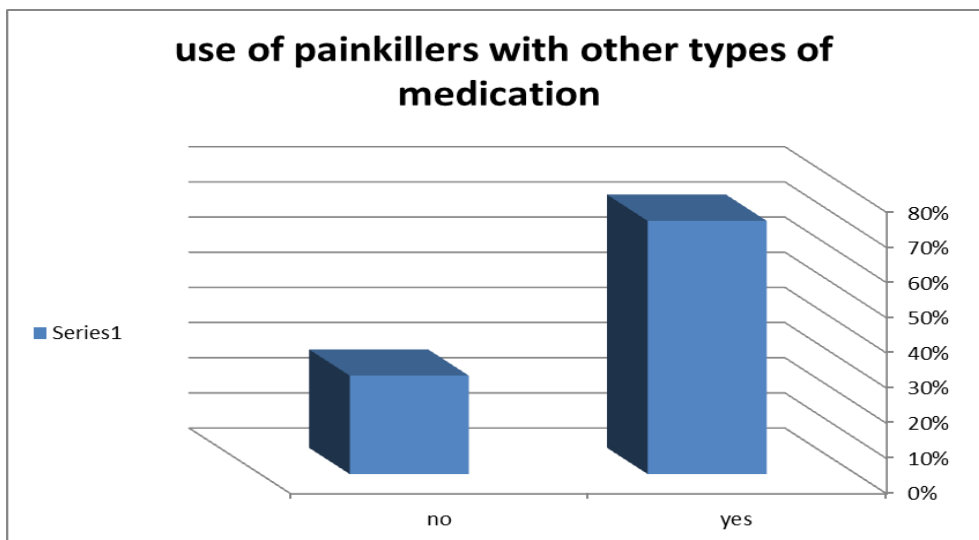


Figure (7) prevalence of use of painkillers with other types of medication; 72% of general population use painkillers with other types of medication

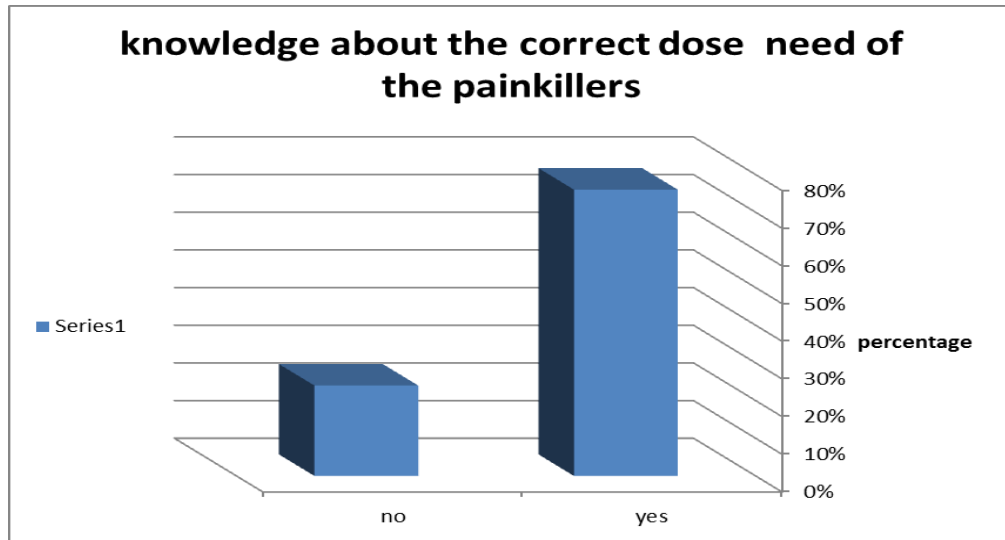


Figure (8) prevalence of people who know the correct dose of painkillers

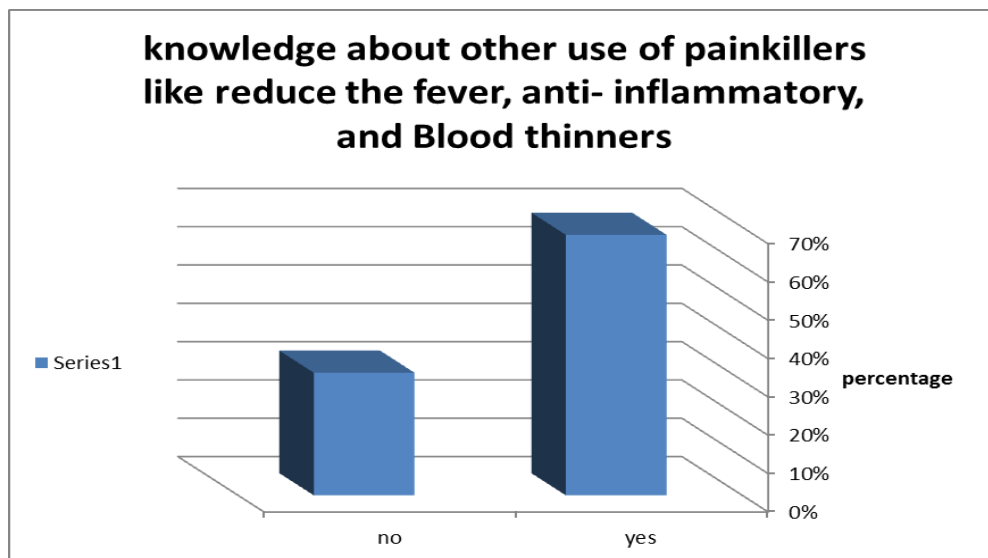


Figure (9) prevalence of people who know the other uses of painkillers; 68% of general population know the other uses of painkillers.

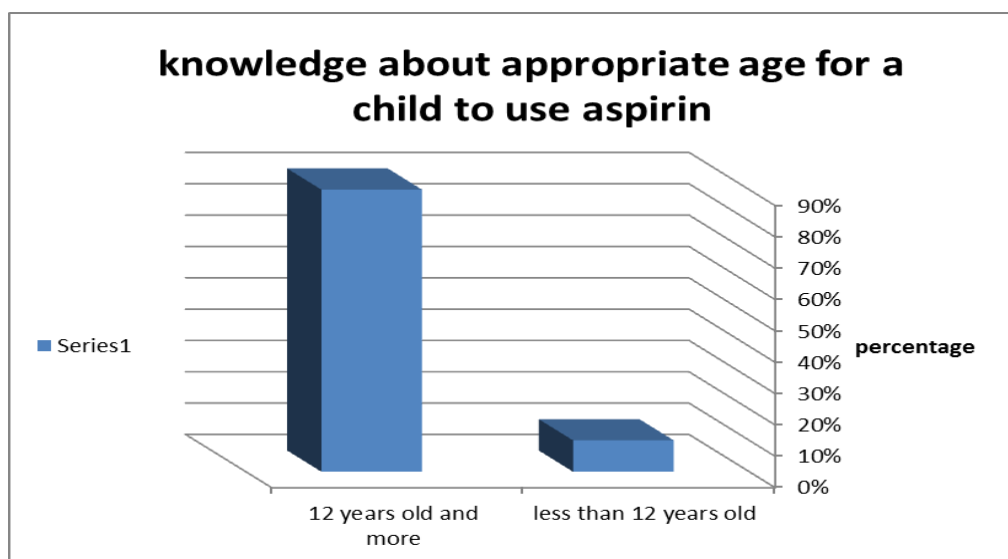


Figure (10) prevalence of people who know the appropriate age of using an aspirin.

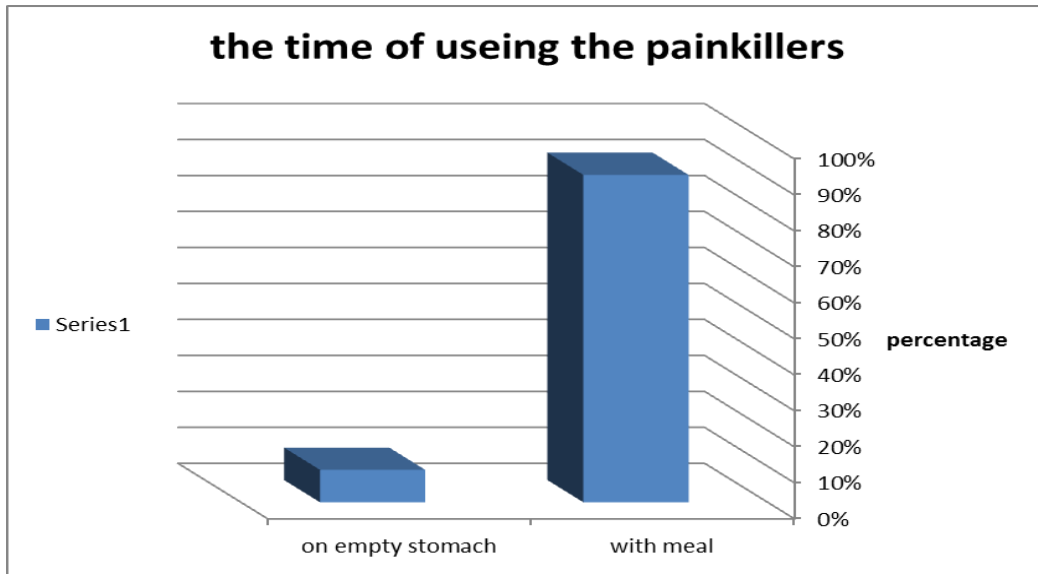


Figure (11) prevalence of people who use painkillers with the meal

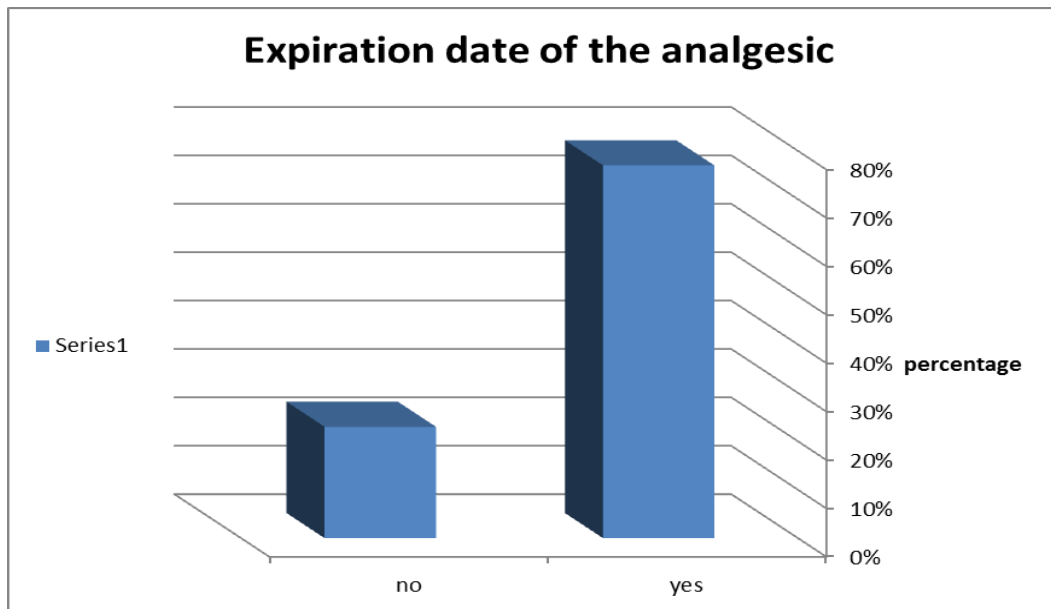


Figure (12) prevalence of people who know the expiration date of analgesics

#### 4. DISCUSSION

Individuals can self-manage themselves by taking OTC medicines from pharmacies. However, harm may be recognized increasingly due to defective knowledge about the use, indications, adverse effects and contraindications of some OTC drugs. This article explores the current knowledge and attitude toward the use of analgesic OTC medicine.

In the present study, 72% of females use OTC analgesics, most of the respondents were between 26-35 years and 29% were students. Almalak et al., (2014) reported that university students (48.1%) are among the users of OTC. Female more frequently use OTC than male, in addition they are more knowledgeable than male.

In the present study, 76% of respondent reported that they took the therapeutic dose. Twenty nine percent of respondent use paracetamol without prescription, 17% use fevadol, 9% use ibuprofen and nobody use aspirin. While, Wolf et al., (2011) conducted a survey on athletes and found that 37% self-administer a dose more than the therapeutic dose, 80% of them use ibuprofen, while paracetamol (29%), and aspirin (71%).

In the present study 54% of respondents use OTC depending on previous prescription, Ez-Elarab (2011) reported that 87.2% of medical students use analgesic without prescription, compared to 52% in the present study, 13.6% repeated the



drug according to previous prescription, compared to 54% in the present study, 60% take more than the therapeutic dose without taking advice from physicians, 1.6% of medical students reported that side effect occur due to increasing the dose, 4.8% due to drug interaction.

It is concluded that inadequate knowledge and attitude toward the use of OTC analgesics. Some limitations in the present study related to the online questionnaire that enable to certain sector of population to use it, neglected those who do not use the computer. It is recommended that awareness programs are needed to provide knowledge to public about taking medications following a prescription in order to change the habits of self-prescription.

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