

## Determination of OTC Use Among Young Adults

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### ABSTRACT

**Aim:** The aim of the study is to determine the over-the-counter drug use in young adults.

**Materials and Methods:** The sample of the study consisted of 724 students studying at a public university in Central Anatolia between 01/04/2022-30/04/2022.

**Results:** Of the young adults who participated in the study, 43% used painkillers without a doctor's advice, 5.4% used drugs to watchfulness, 8.7% used hormone-derived drugs, 0.4% took drugs to prevent anxiety, 3.5% used special drugs prescription, 36.9% used protein-containing products for bodybuilding. 63.7% had knowledge that over-the-counter drugs could endanger life, 30.2% of drugs It was determined that they knew the damage they could cause to the tissues, and 57% of them used the drugs only for the duration and dose given by the doctor.

**Conclusion:** The use of drugs without doctor's approval is becoming increasingly addictive and governments need to find a solution to this situation urgently. Protecting the health of young people, who are our future, should be the most basic and primary task.

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### Introduction

Studies on the costs of over-the-counter drug use on public health and over-the-counter drug use by individuals are ongoing. There are different definitions of over-the-counter drug use in the literature. While some studies indicate the use of over-the-counter drugs as the use of drugs not prescribed by the doctor, some studies have also stated that the patient does not apply the recommended dose even if the drugs are prescribed by the doctor [1,2].

Some studies have also stated that the doctor's prescribing drugs under pressure from the patient as over-the-counter drug use [3].

The World Health Organization has defined a drug as "a substance or product that is used or intended to be used for the benefit of the recipient in order to alter physiological systems or pathological conditions" [4,5]. It has a sensitive place in human and public health because it is a chemical substance that can end life when used incorrectly, while eliminating the negativities that threaten human health and life when used correctly [6,7].

There are two ways to access drugs without a prescription. One of them is over the counter drug (OTC). It means over-the-counter and is a short-term, temporary, side-effects drug that is used for the relief of simple ailments without the need for physician

approval and does not pose a danger when taken with the advice of a pharmacist [4,5]. Vitamin and mineral supplements, analgesics, antipyretics and gastrointestinal drugs (antihelmentics, antacids, laxatives), antihistamines, antitussives, nasal decongestants, skin and topical drugs, antifungal drugs, hemorrhoid compounds are OTC class drugs [5]. Over-the-counter, or behind the counter (BTC) group drugs are also an intermediate category between OTC and over-the-counter drugs, and refers to drugs that can be taken after consulting a pharmacist and making identification.

Without a prescription, people's use of drugs with their own preferences can also cause some problems. It causes serious risks such as misdiagnosis, drug addiction and intoxication, occurrence of anomalies, prolonged hospitalization and recovery time, organ failure and death [8].

In addition, depending on the continuous use of none steroid anti-inflammatory drugs, cell and receptor insensitivity will develop. Especially drugs that act within biochemical mechanisms, cellular desensitization, difficulties in binding to receptors, unresponsiveness in 2nd messengers may occur due to the continuous active state of these mechanisms. After using the same drug for a while, it will not have the same effect, and the drug will need to be changed or the dose increased. Today, it can be expressed that drug interaction reactions do not occur (ineffectiveness) in the living body or that resistance to drugs due to continuous use is acquired [9-15].

In Addition that, drug use rates are increasing in the world. According to the United Nations world drug report, it has been reported that there is a decrease in the global use of cannabis and synthetic-based narcotic drugs, and an increase in the use of opioid-derived drugs [16].

Especially in societies with a better income level, access to drugs is easier and their supply is more convenient. For this reason, medicine addiction is more common in developed countries than in developing countries [17-22].

Being more involved in digital life with the developing and changing world, weak physical social relations among young people, weak family ties and the presence of individuals who abuse drugs in the family can also lead young people to drug abuse [23].

Over-the-counter drug use is a problem that needs to be addressed and prevented. Therefore, in this study, it was aimed to determine the use of over-the-counter drugs in young adults and to raise awareness on this issue.

### Materyal-Metot Type of Research

This descriptive and cross-sectional study was conducted to determine over-the-counter drug use in young adults and to raise awareness on this issue.

### Samples of Study

The population of the research consisted of 1400 students enrolled in a vocational school of health services at a university in Central Anatolia. The research was completed with 724 students aged between 18-30, who did not have any chronic diseases and did not use regular medication. The sample of the study consisted of students who were at school between 01/04/2022-30/04/2022. The questionnaire forms were collected face-to-face before the lesson started by entering the classes of the students according to the curriculum on the specified dates.

### Data Collection Tools

The data were collected by the researchers using a questionnaire prepared in line with the literature.

**Questionnaire form:** A 24-item questionnaire was used, which included questions to determine students' demographic characteristics (age, gender, class, marital status, etc.) and drug addiction.

### Evaluation of Data

Data were evaluated on the computer using numbers, percentages, means and standard deviations.

### Ethical Dimension of Research

Ethics Committee approval (Approval Number 62444) and permission from the institution where the research was conducted were obtained in order to conduct the research.

### Results

The demographic data of the participants in the study are given in Table 1. It was determined that 72.5% of the participants were male, 50.1% were 1st year students, 95.9% were single, and 47.5% had a lower income than their expenses.

**Table 1: Distribution of some socio-demographic characteristics of the students (n=724)**

Features		
Averageage (years)	20.83±1.85	
Gender	n	%
Woman	525	72,5
Male	199	27,5
<b>Class</b>		
First class	363	50,1
Second class	63	8,7
Thirdgrade	283	39,1
Fourthgrade	15	2,1
<b>Marital Status</b>		
Married	30	4,1
Single	694	95,9
<b>Income status</b>		
Income less than expenses	344	47,5
Income equal to expenses	340	47,0
Income higher than expenses	40	5,5

Table 2 shows the non-prescription drug use status of the young adults participating in the study. Of the young adults participating in the study, 43% used painkillers without a doctor's advice, 5.4% used drugs for watchfulness, 8.7% used hormone-derived drugs, 0.4% used drugs to prevent anxiety, 3.5% used drugs that require a special prescription, 36.9% used protein-containing products for bodybuilding, 63.7% had knowledge that over-the-counter drugs could endanger life, 30.2% of them were able to administer drugs to tissues. stated that they knew the harms and 57% of them used the drugs only for the duration and dose given by the doctor.

**Table 2: Characteristics of students about drug use**

Features	n	%
<b>Opioid use without doctor's advice</b>		
Yes	311	43,0
No	413	57,0
<b>The state of using stimulant drugs for distraction</b>		
Yes	39	5,4
No	685	94,6
<b>Hormone use status</b>		
Yes	63	8,7
No	661	91,3
<b>The state of using medication to relieve anxiety</b>		
Yes	3	0,4
No	721	99,6
<b>Drug use that requires a special prescription (Red-Green Prescription)</b>		
Yes	25	3,5
No	699	96,5
<b>The use of protein-containing products for bodybuilding purposes</b>		
Yes	267	36,9
No	457	63,1
<b>Life-threatening knowledge of over-the-counter drugs</b>		

Yes	461	63,7
No	138	19,1
Partially	97	13,4
I'm undecided	28	3,9
<b>Knowledge of the harm that non-prescription drugs can cause to tissues</b>		
Yes	219	30,2
No	263	36,3
Partially	218	30,1
I'm undecided	24	3,3
<b>The case of not using the drugs given by the doctor out of dose and time</b>		
Yes	413	57,0
No	191	26,4
Partially	78	10,8
I'm undecided	42	5,8

## Discussion

The use of drugs without a doctor's advice is a common behavior in developed and developing countries. In many countries such as Turkey, consumers can easily buy many drugs from drug stores without the approval of a doctor. This leads to over-the-counter drug addiction among some consumers. Although drugs are stated in the instructions for use, they are chemical substances that can have side effects. Medicine addicts ignore these situations and use them uncontrollably. In addition, uncontrolled drug use causes the masking of conditions such as pain, psychological discomfort and infection. The use of individual drugs leads to the postponement of admissions to hospitals for early diagnosis of many diseases. This situation both endanger life and burden the health sector with long and costly treatments. In addition, another situation that is ignored is the desensitization of the living body to drugs. Chronic, continuous and unnecessary drug use both tires many tissues such as liver and kidney, and causes the mechanisms of action of drugs to not work/desensitize.

Young adults between the ages of 18-30 and studying at the university were included in our study. It is evaluated that the participants in the study are young, have a university level education and will contribute to the literature on drug addiction that develops due to drug use.

In our study, it was determined that 43% of the participants used opioid drugs without a doctor's advice. Kuehn (2007) and Fortuna et al. (2010) reported in their studies that the use of painkillers has increased continuously since the beginning of the 21st century [24,25].

Mallow et al. (2019) reported that 6.7 to 7.6 million people in the USA have an opioid use disorder [26].

In our study, opioid use disorder was not questioned, but it was determined that the use of opioids without a doctor's examination, which is the easiest solution during any pain, is common (almost one out of every two people). It can be said that our study is compatible with the literature. It was determined that 5.4% of the participants in our study used wachfulness drugs. Distractibility is becoming more and more common among teenagers and children. King et al. (2022), it was determined that the rate of use of non-prescription stimulant drugs against distraction was 3.1% among young university students [27].

Quednow et al. (2022), it was determined that the use of stimulant drugs among young people was 16%. Our study findings are among the literature values [28].

It was determined that 0.4% of the young adults who participated in our study used drugs to relieve their anxiety. Horigian et al. (2021), anxiety was reported among young people with a rate of 61%. Slee et al. (2021) stated in their study that anxiety was 2.3% among women and 1.1% among men. Although our study is different from the literature, it can be stated that the anxiety states of young adults or the use of drugs for anxiety are limited in Turkey [29,30].

Another finding obtained in our study is that the use of drugs given by doctors within the given dose and duration is 57%. In addition, the level of knowing the damage to the tissues of the drugs used unless prescribed by the doctor was determined as 30%. In the literature, there is no other study in which the use of prescription drugs in the given dose and duration is questioned, and the state of knowing the damage that the use of non-prescription drugs will cause to the tissues. It is thought that our study will contribute to the literature with this dimension.

## Conclusion

The number of individuals addicted to over-the-counter using drugs without a doctor's advice is increasing day by day. However, their use of drugs and their knowledge about the drug do not increase at the same rate. In particular, unconsciously used drugs cause various harms to the body and insensitivity to drugs that should be used when necessary. In addition, depending on the use of drugs, other organs such as liver and kidney may also be damaged, and the amounts of these damages can be learned by various biochemical methods. For all these reasons, medicine use without a doctor's approval is becoming increasingly addictive, and governments need to find a solution to this situation urgently. Protecting the health of young people, who are our future, should be the most basic and primary task.

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