

**ORIGINAL RESEARCH**

## **Self-Medication from COVID-19 among Students at the University of Tripoli, Libya**

**Arij.M.Mousa\*<sup>1</sup>, Ibrahim. S. Alarabi<sup>1</sup>, Rehab Jerbi<sup>2</sup>, Manal Abuagela<sup>1</sup>, Eman Abdulwahed<sup>3</sup>, Ahmed Atia<sup>4</sup>, Najia Alwaseea<sup>1</sup>, Fawzia Ahmed<sup>1</sup>, Eman Alaqeli<sup>5</sup>, Abir Ben Ashur<sup>3</sup>, and Hamida El Magrahi<sup>3</sup>**

<sup>1</sup>*Department of Public Health, Faculty of Medical Technology, the University of Tripoli, Tripoli, Libya.*

<sup>2</sup>*Department of Community and Family Medicine, Faculty of Medicine, University of Tripoli, Libya, Tripoli, Libya.*

<sup>3</sup>*Department of Medical Laboratories Sciences, Faculty of Medical Technology, University of Tripoli, Tripoli, Libya.*

<sup>4</sup>*Department of Anesthesia and Intensive Care, Faculty of Medical Technology, University of Tripoli, Tripoli, Libya.*

<sup>5</sup>*Department of Health Services Administration, Faculty of Public Health, University of Benghazi, Benghazi, Libya.*

**Corresponding Author:** *Arij.M.Mousa, Department of Public Health, Faculty of Medical Technology, the University of Tripoli, Tripoli, Libya. E.mail: Ar.mousa@uot.edu.ly, ajawad2008@gmail.com.*

**Received:** 10 April 2023

**Accepted:** 11 May 2023

**Published:** 20 June 2023

**ABSTRACT:** Self-medication is a common practice among students, especially during the COVID-19 pandemic. This raises concerns for public health



policymakers, necessitating further investigation. The aim of this study was to assess university students' level of awareness about self-medication during the COVID-19 pandemic. A descriptive questionnaire-based study was conducted from March to April 2021 to evaluate the practice of self-medication among university students at the University of Tripoli. Participants were surveyed through face-to-face interviews after obtaining verbal consent. Data was analyzed using MS Excel and presented as counts and percentages. A total of 100 students participated in the study, including 41 males and 59 females. Of these, 35% had been exposed to coronavirus while 65% had not. Among the participants, 10% reported dispensing antibiotics, while 65% took nutritional supplements (vitamins). Information on self-medication was obtained from a doctor by 50%, family by 5%, social media by 40%, and friends by 5%. The study concluded that university students have good awareness and healthy behavior regarding self-medication during the COVID-19 pandemic, such as taking nutritional supplements.

**KEYWORDS:** Self-Medication, Covid 19, Awareness, University Students'.

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## INTRODUCTION

COVID-19 has spread worldwide since the first documented case in December 2019 in Wuhan, China. On March 11, 2020, the World Health Organization (WHO) declared it a pandemic. As of May 28, 2020, the disease has claimed over 360,308 lives](Orcid Jude, 2021). The COVID-19 pandemic has resulted in a global lockdown, leaving people with the impression that self-help, self-care, and self-medication are their only options. This has provided insight into possible preventive or treatment options. However, self-medication can have both negative and positive impacts on people's health during the COVID-19 pandemic ](Quispe Franco, 2021). Emerging adulthood is a stage of cognitive, physical, affective, sexual, familial, and social development that includes higher education students. However, empirical evidence shows that a significant number of university students engage in health-risk behaviours. Additionally, university students should be considered as emergent developmental actors with the premise that they are still developing and growing.

That, as a result of their academic credentials, they have privileged knowledge and, as a result, the power to influence population health(Alves Regina, 2020). Self-medication is defined as the selection and use of medicines by individuals (or a member of the individuals' family) to treat self-recognized or self-diagnosed conditions or symptoms. Several benefits have been linked to appropriate self- medication, among them: increased access to medication and relief for the patient, the active role of the patient in his or her own health care, However, self-medication is far from being a completely safe practice, in particular in the case of non-responsible self-medication. Potential risks of self-medication practices include: incorrect self- diagnosis, delays in seeking medical advice when needed, infrequent but severe adverse reactions, dangerous drug interactions,

incorrect manner of administration, incorrect dosage, incorrect choice of therapy, masking of a severe disease and risk of dependence and abuse (Ruiz Maria, 2010).

Self-medication, also known as self-care or self-administration, is a worldwide practice in which individuals, families, and/or communities choose pharmaceuticals to treat health conditions or indications without a physician (Onchonga David, 2020)

The development of COVID-19 treatment candidates is enhancing clinical care of infected patients, but it also raises the possibility of self-medication among the general public. Attempts to self-medicate using repurposed medications have been observed in the public despite the lack of clear proof (Mallhi Tauqeer, 2020).

## **MATERIALS AND METHODS**

A cross-sectional study was conducted on 100 students from different faculties at the University of Tripoli with the aim of describing their awareness related to self-medication during the COVID-19 epidemic. The questionnaire was pre-validated on a sample of 10 students and their comments were taken into consideration. Participants were interviewed face-to-face using a structured questionnaire that was divided into two sections. The first section comprised socio-demographic information about the students, while the second section focused on their practices related to self-medication during the COVID-19 epidemic.

These questions were as the following:

Q1: Have you been exposed to the Coronavirus? Q2\_ During the last period, did

you take medicines to prevent corona virus?

Q3: If your answer is yes, what is the name of the medicine you used? Q4\_ If you used medicine to prevent corona virus, where do you get advice? Q5\_ Do you think that the antibiotic is a treatment for the Corona virus?

Q6: During the last period, did you take nutritional supplements?

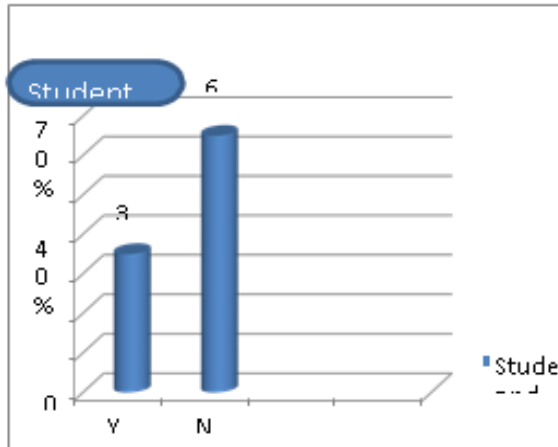
Data was collected and further analyzed using MS office version.

## **RESULTS AND DISCUSSION**

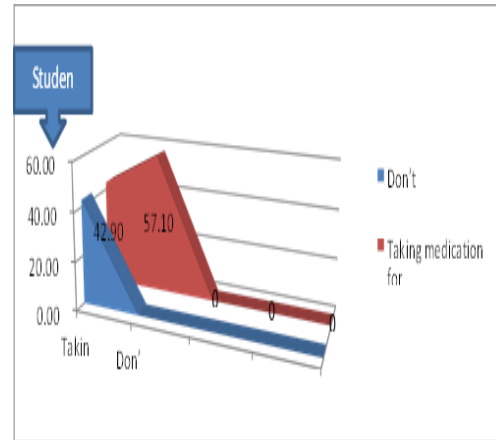
In this study, 100 students participated, 41 males and 59 females. About 45% from the student from medium economic level. Which Socio-economic status is always measuring the financial, social, cultural and human available for the students (Cowan et al., 2012). As defined in many studies that Socio-economic status referred to as “the relative position for the family or individual on a hierarchical social structure, based on their access to, or control over, wealth, prestige and power” (Mueller and Parcel, 1981).

The study found that 35% were exposed to exposed to the Coronavirus and 65% were not exposed. As shown in figure (1). This result has been detected by researchers which found that, in young age the ability to fight new infections, such as Coronavirus is successful (Bajaj1,2021).

In another study they found thatdescribes” the age-associated shift in both innate and adaptive immune systems that leads to the reduced ability to fight novel infections and contributes to the development of a chronic state of inflammation]“(Stahl and Brown, 2015).



**Figure (1).** The exposure to Coronavirus



**Figure (2)** Taking medicine for prevention

The questioner question about possibility of taking over counter medications, the results showed that, 57.1% have answered "Yes" and 42.9% have answered

No As shown in figure (2). Most of the medications used were (vitamins and nutrition supplements).

Many studies have been revealed that the immune system and antibody boosting are affected by taking Vitamin C, a water-soluble vitamin.

It has been recommended before taking vitamins has important role in symptoms mitigation in the common cold and infections(Hemilä H, 2013).

Most of medication were used among the sample were as the following: 10% took antibiotics (not recognised a specific type in the study), 25% Panadol, 65% nutritional supplements (vitamins).

The findings of another study indicated that vitamin D supplementation was safe and preventive against acute respiratory infection in general(Martineau Adrian , 2017).

However, advices and instructions to take medications about a new infection is very important, the study was asked the students about their sources of information regarding to Corona Virus, the study found that 50% from the participants get Corona related information from doctor, while, 5% get the information from their families, 40% from different social

media, and 5% friends. The study also, have asked the students about the effectiveness of using the antibiotic as a treatment for Coronavirus, 68.6% they answered "Yes", 31.4% said"

The WHO recommended that antibiotic therapy or prophylaxis recommended that patients with mild and moderate Covid-19 shouldn't use antibiotic therapy or prophylaxis.

Another report from WHO,2021 Found that some African countries (which Libya as an example) consider "watch" (antibiotics that have higher resistance potential).

This may increase the potential hazard from using antibiotic in Covid-19.as mention in question 7 in this study where question was to ask the participants whether they took nutritional supplements, such as herbs, 74.3% answered " Yes" and 25.7% answered "No".

As shown figure. .Many previous studies proved that there are a strong association between zinc, selenium, and vitamin D, and COVID-19,which an accurate dose from these vitamins can resist the viral infection , enhance the immune system function and decrease inflammations (Alexander J,2020).

## **CONCLUSION**

Our study revealed high level of awareness among UOT students related to the self-medication practices. It is a significant community alertness especially during the pandemic times, Further measures are needed to improve healthcare.

Further measures are needed to improve healthcare. Future studies should also assess students' attitude toward self-medication, their knowledge regarding drug dosage and potential side effects, and the role of medical colleges to better learn toward self-medication.

## **ACKNOWLEDGEMENT**

Special thank Sondus A.Al-Nasser for collection of the questioner..

## **ETHICS**

The questionnaire began with a paragraph that asked the participant if they agreed to participate in the study.

This paragraph is essential to answer the remaining questions. If the participant disagreed, they would not be included in the study sample.

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### **الملخص**

يُعدّ العلاج الذاتي ممارسة شائعة بين الطلاب، لا سيما خلال جائحة كوفيد-19. وهذا يُثير مخاوف لدى واضعي سياسات الصحة العامة، مما يستدعي إجراء المزيد من البحوث. هدفت هذه الدراسة إلى تقييم مستوى وعي طلاب الجامعة بشأن العلاج الذاتي خلال جائحة كوفيد-19. أُجريت دراسة وصفية قائمة على الاستبيان خلال الفترة من مارس إلى أبريل 2021 لتقييم ممارسة العلاج الذاتي بين طلاب جامعة طرابلس. تم

استطلاع آراء المشاركين من خلال مقابلات شخصية بعد الحصول على موافقة شفوية. تم تحليل البيانات باستخدام برنامج مايكروسوفت إكسل وعرضها على شكل أعداد ونسب مئوية. شارك في الدراسة 100 طالب، منهم 41 طالبًا و59 طالبة. من بين هؤلاء، تعرّض 35% لفيروس كورونا، بينما لم يتعرّض له 65%. أفاد 10% من المشاركين بتناولهم مضادات حيوية، بينما تناول 65% مكملات غذائية (فيتامينات). حصل 50% من المشاركين على معلومات حول العلاج الذاتي، بينما حصل 5% على معلومات من العائلة، و40% على معلومات من وسائل التواصل الاجتماعي، و5% على معلومات من الأصدقاء. وخلصت الدراسة إلى أن طلاب الجامعات يتمتعون بوعي جيد وسلوك صحي فيما يتعلق بالعلاج الذاتي خلال جائحة كوفيد-19، مثل تناول المكملات الغذائية.

**الكلمات المفتاحية:** العلاج الذاتي، كوفيد-19، الوعي، طلاب الجامعات.

