

---

PHARMACY, INDUSTRIAL PHARMACY/  
ФАРМАЦІЯ, ПРОМИСЛОВА ФАРМАЦІЯ

---

UDC: 613:616-056.3:9[616.98:578.834COVID19]:(620+536.2+100)''2020/2021''  
[https://doi.org/10.32345/USMYJ.4\(134\).2022.62-70](https://doi.org/10.32345/USMYJ.4(134).2022.62-70)

Received: June 25, 2022

Accepted: October 12, 2022

## Hygienic assessment of effects of the novel coronavirus on the physical, social, and mental health of individuals from Egypt, United Arab Emirates and other countries from 2020 to 2021

Tishya Mukherjee<sup>1</sup>, Hamsa Ali Elsayed<sup>1</sup>, Yomna Mousa A. B<sup>2</sup>, Vavrinevych Olena<sup>3</sup>,  
Borysenko Andrii<sup>4</sup>

<sup>1</sup> 3<sup>rd</sup> Course, Medicine, Bogomolets National Medical University, Kyiv, Ukraine

<sup>2</sup> 3<sup>rd</sup> Course, Medicine, Taras Shevchenko National University, Kyiv, Ukraine

<sup>3</sup> MD, Professor, Bogomolets National Medical University, Kyiv, Ukraine

<sup>4</sup> PhD, Assistant Professor, Bogomolets National Medical University, Kyiv, Ukraine

### Address for correspondence:

Vavrinevych Olena

E-mail: [elena-vavrinevich@ukr.net](mailto:elena-vavrinevich@ukr.net)

**Abstract:** *with the onset of SARS-CoV2 virus, which has led to the loss of human capital, economy, and infrastructure, it was crucial to understanding how this virus affects our daily lives. The Novel Corona Virus outbreak was declared a pandemic on 11 Mar. 2020 by The World Health Organization. In 2021, this situation became a crisis when the second and third waves of infection started to arise in various parts of the world. The purpose of this study is the hygienic assessment of the effects of the novel Corona Virus on our physical, social and mental health in Egypt, the United Arab Emirates and other countries from 2020 to 2021. To achieve this goal, we used the following methods. A questionnaire was developed using Google Forms. The format was based on Short Form Health (SF-36) (SURVEY, 2020) and The Johns Hopkins University COVID-19 survey sheet (QUESTIONNAIRE, 2020) in two languages, English and Arabic. We used Simple Random Sampling in our research. The statistical analysis was done using MS Excel and IBM SPSS Statistical Base v.22. The First step of our study was an analysis of challenges faced during the pandemic and ways to overcome them. Determination of the main problems encountered during the pandemic by both males and females. The next step of our research was the analysis of the structure of physical symptoms and health status of COVID-19-infected individuals. It was determined that 23.34 % of participants were infected by the virus. The average was calculated with symptoms: fever 51.4 %, general lack of energy or malaise 51.4 %, loss of sense of smell and taste 60 %, sore throat 54.3 %, vomiting 20 %, diarrhoea 28.57 %, fatigue 45.7 %, stuffy and runny nose or sneezing 57.14 %, chills 40 %, altered consciousness or feeling like it was challenging to stay awake 25.7 %, shortness of breath at rest 37.14 %, shortness of breath when moving (like walking upstairs) 37.14 % and seizure 5.7 %. Next step, our work was dedicated to calculating the Body-Mass index (BMI) country-wise during the pandemic. The average country-wise BMI calculation compared the index before the pandemic and March 2021. Increase in BMI for females in Egypt from (31.1 to 34.6)*

UAE from (20.1 to 22.6) and other countries from (18.1 to 21.1.). The social stigma toward vaccines between infected and non-infected individuals: infected (n=16) and non-infected (n=35) individuals wants vaccines. 14.2 % infected and 12.2 % non-infected don't believe in vaccines and 42.7 % infected and 12.2 % non-infected have been vaccinated. The conclusions and trends were studied, evaluated and compared with different articles and the reasons of such progressions were noted and discussed. The two main conclusions drawn from this research were 1) A rise in cases of anxiety, depression and stress during the pandemic and 2) The issue of obesity and weight gain due to home quarantine and remote mode of working. Prospects of further research include studying the effects of the virus in its mutated forms as the virus is evolving. Post-acute sequelae of Covid-19 are also being observed and its study can help us understand the effect of the virus on our body in the long run especially for those who have comorbidities like obesity, hypertension, cancer and type II diabetes.

**Key words:** [coronavirus](#), [depression](#), [self-quarantine](#), [social distancing](#), [vaccination](#).

## Introduction

The Novel coronavirus (nCoV) outbreak was declared a pandemic on 11<sup>Mar</sup> 2020 by The World Health Organization. In 2021, this situation became a crisis when second and third waves of infection started to arise in various parts of the world. This spillover event has led to the death of more than 4,000,000 people. With the virus undergoing several mutations and causing new symptoms in infected individuals, there was an urgent and consequential need to study the virus and its way of transmission and understand its effects on our physical, social and mental health. The guidelines provided by the Centre for Disease Control and Prevention and the World Health Organization throw light on the importance of personal hygiene and prophylaxis for the prevention of the virus transmission (K.K., 2021). The challenges and awareness level in ways of sanitization and measures to keep ourselves safe from getting infected were observed. Knowledge and attitude towards the virus, symptoms caused by the infection and its relation with comorbidities like diseases like diabetes, hypertension, obesity and mental disorder, anthropometric measurements like height, body weight and Body Mass Index (BMI) and social stigmatization of vaccination were studied.

## Aim

Hygienic assessment of effects of the novel coronavirus on the physical, social, and mental health of individuals from Egypt, United Arab Emirates and other countries from 2020 to 2021.

## Materials and methods

A questionnaire was developed using Google Forms. The format was based on Short Form Health (SF-36) (SURVEY, 2020) and The Johns

Hopkins University COVID-19 survey sheet (QUESTIONNAIRE, 2020) in two languages, English and Arabic. We used Simple Random Sampling in our research.

The online survey was conducted from 13<sup>Mar</sup> till 15<sup>Mar</sup>, 2021 through WhatsApp. The total response was 150 individuals, out of which 61 (40 %) were males, 89 (59 %) were females and 1 preferred not to say. Age group distribution includes 92 % (n=138) from 15 to 47 years old, 5 % (n=8) from 48 to 63 years old and 3 % (n=4) below 15 years with an average age of males (24.68±1.24) years and females (23.68±0.96) years. The occupational status includes 71 % (n=106) students, 13 % (n=20) employed and 16 % (n=24) unemployed individuals. Table 1 indicates the country-wise distribution of respondents. Information about the health status of individuals is represented in Fig.1.

The statistical analysis was done using MS Excel and IBM SPSS Statistical Base v.22. To an-

**Table 1.** Geography of research

Countries	Absolute no.	% age
Egypt	85	56.67
United Arab Emirates	36	24.00
Sudan	6	4.00
Syria	4	2.67
Palestine	3	2.00
Jordan	3	2.00
Iraq	3	2.00
Others (Oman, Libya, Yemen, Somali, Lebanon, Kuwait, Tunisia)	10	6.67

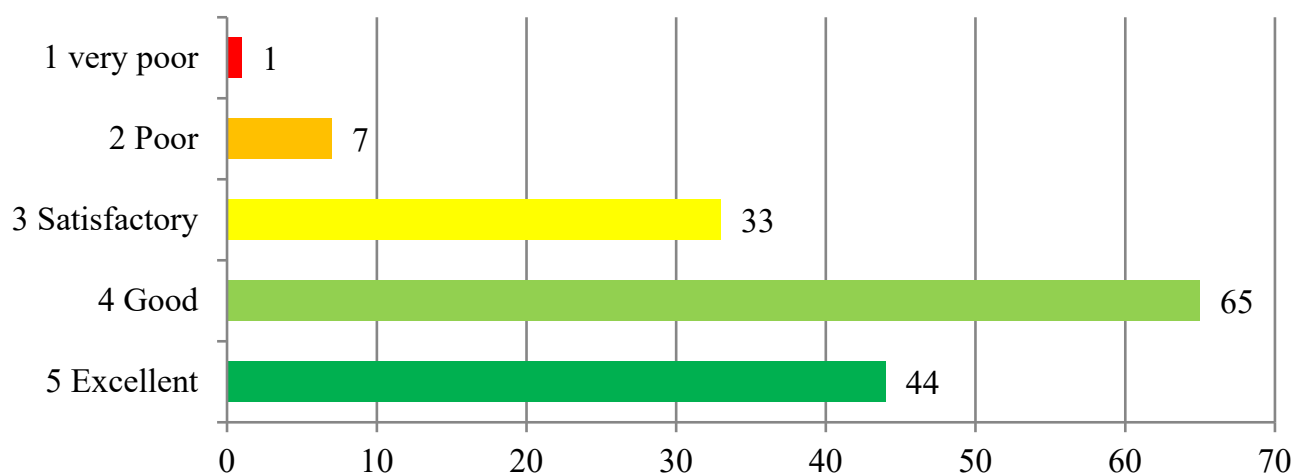


Fig.1. Health status of individuals

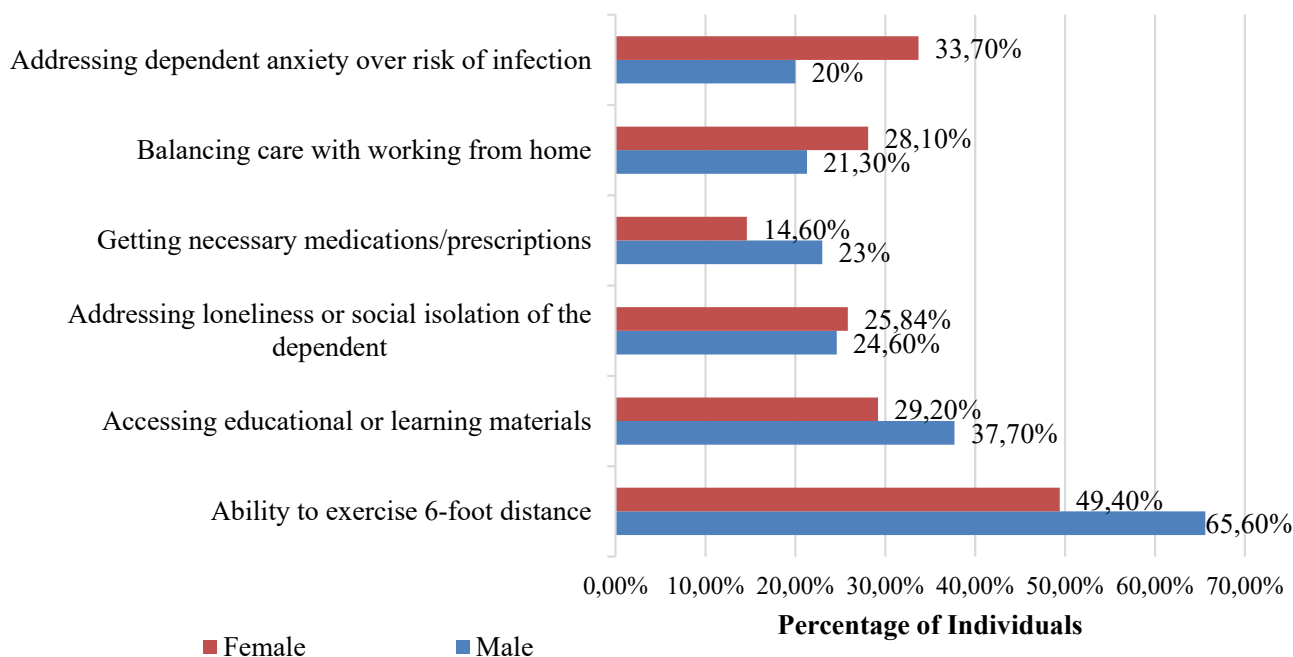
alyze the differences in psychological influence, levels of depression, anxiety and stress, *t*-test was used to compare the mean score of data for anthropometric factors. Percentages of responses were calculated according to the total number of respondents in each category of classification. The BMI results were ‘two-tailed’, with a significance level of  $p < 0.05$ .

### Results

The First step of our research was an analysis of challenges faced during the pandemic and ways to overcome them. We determined main problems faced during the pandemic by both males and females are as follows (Fig 2). Firstly, the ability to maintain social distancing and partake in var-

ious activities 6 feet apart, an average of 57.5 % (M=65.6 %, F=49.4 %). Accessing educational or learning materials with an approximate average of 33 % (M=37.7 %, F=29.2 %). Addressing loneliness or social isolation of any dependents with an average of 25 % (M=24.6 %, F=25.84 %). Addressing dependent anxiety over risk of infection with an average of 26.9 % (M=20 %, F=33.7 %). Balancing care with working from home with an average of 24.7 % (M=21.3 %, F= 28.1 %) and getting necessary medications or prescriptions with an average of 19 % (M=23 %, F=14.6 %). Several methods have been adopted to overcome these challenges. 66 % of individuals changed their nutrition habits, 52 % used immune boost-

Fig 2. Challenges faced during the pandemic



ers, 50.6 % took vitamin supplements and 5.3 % used meditation and yoga.

The Next step of our research was the analysis of the structure of physical symptoms and health status of COVID-19-infected individuals. It was determined that 23.34 % of participants were infected by the virus. The health status of each infected individual was recorded; comparing their health changes out of which, 57.1 % showed improvement, 22.9 % worsened in their health, 14.3% experienced no change and 5.7% had drastic and poor health conditions. Fig. 3 shows the gender-wise distribution of symptoms faced by infected individuals. The average was calculated with symptoms: fever 51.4 %, general lack of energy or malaise 51.4 %, loss of sense of smell and taste 60 %, sore throat 54.3 %, vomiting 20 %, diarrhea 28.57 % fatigue 45.7 %, stuffy and runny nose or sneezing 57.14 %, chills 40 %, altered consciousness or feeling like it was difficult to stay awake 25.7 %, shortness of breath at rest 37.14 %, shortness of breath when moving (like walking upstairs) 37.14 % and seizure 5.7 %.

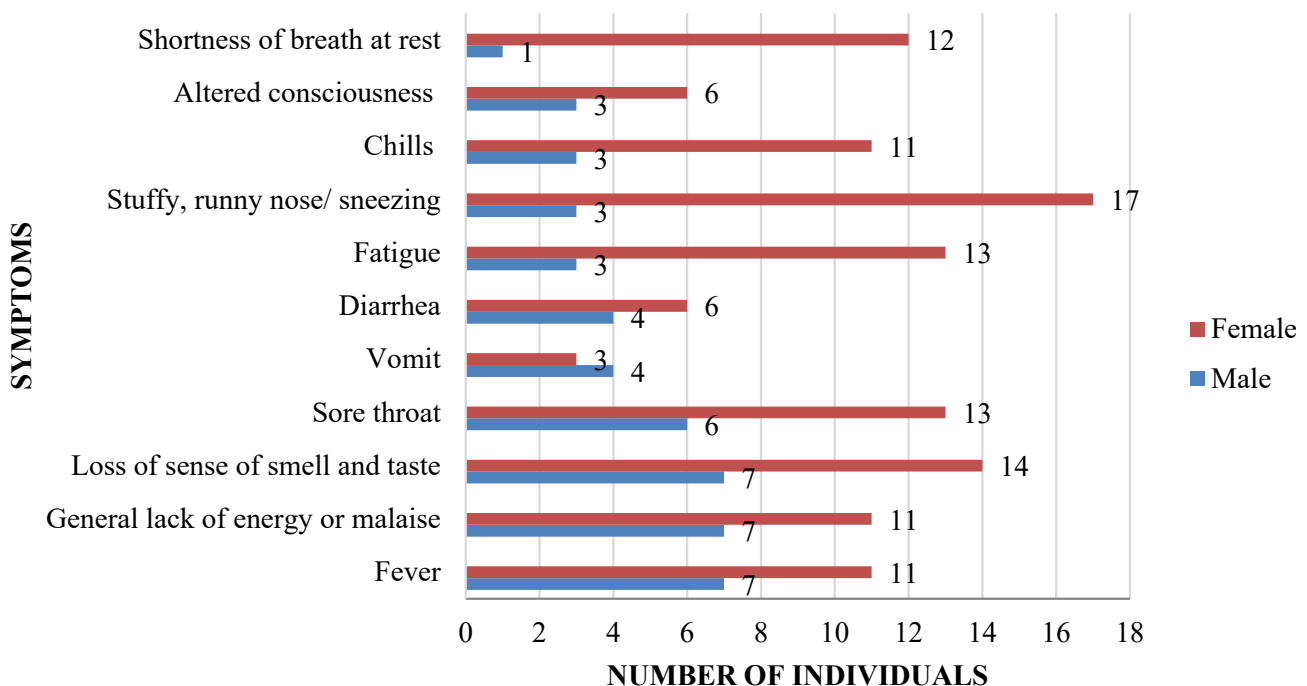
The Next step in our work was dedicated to calculating the Body-Mass index (BMI) country-wise during the pandemic. An anthropometric measurement like BMI is a quantitative approach to study and assess the composition of the body and diagnose if the individual is suffering from obesity, hy-

pertension and diabetes mellitus which are also the comorbidities of COVID-19 disease. Body weight and height data were used to calculate the BMI using the formula of body weight (kg) divided by the square of body height (meters). Table 2 shows the average country-wise BMI calculation comparing the index before the pandemic and March 2021. Increase in BMI for females in Egypt from (31.1 to 34.6) UAE from (20.1 to 22.6) and other countries from (18.1 to 21.1.). Egyptian females are in the obesity zone with ( $p < 0.05$ ). In males, a decrease in BMI in UAE (23.5 to 19.0) is observed and in Egypt (23.4 to 24.4) with ( $p < 0.05$ ).

Individual or personal prophylaxis is the key to preventing the spreading of infectious diseases. That is why the following stage of our research was the assessment of the main ways of prophylaxis to spreading the COVID-19 virus. Information Fig. 4 represents the various possible prevention measures that can be adopted to avoid getting infected in percentage. Most of the females prefer covering themselves when they cough or sneeze which is 70.7 % and self-quarantine if sick (71.9 %), while males prefer avoiding crowds (73.77 %), washing their hands (77.0 %) and self-quarantine if sick (73.77 %) as the best preventive methods.

Our research included questions about Mental Health and its Effect on Body Weight during the

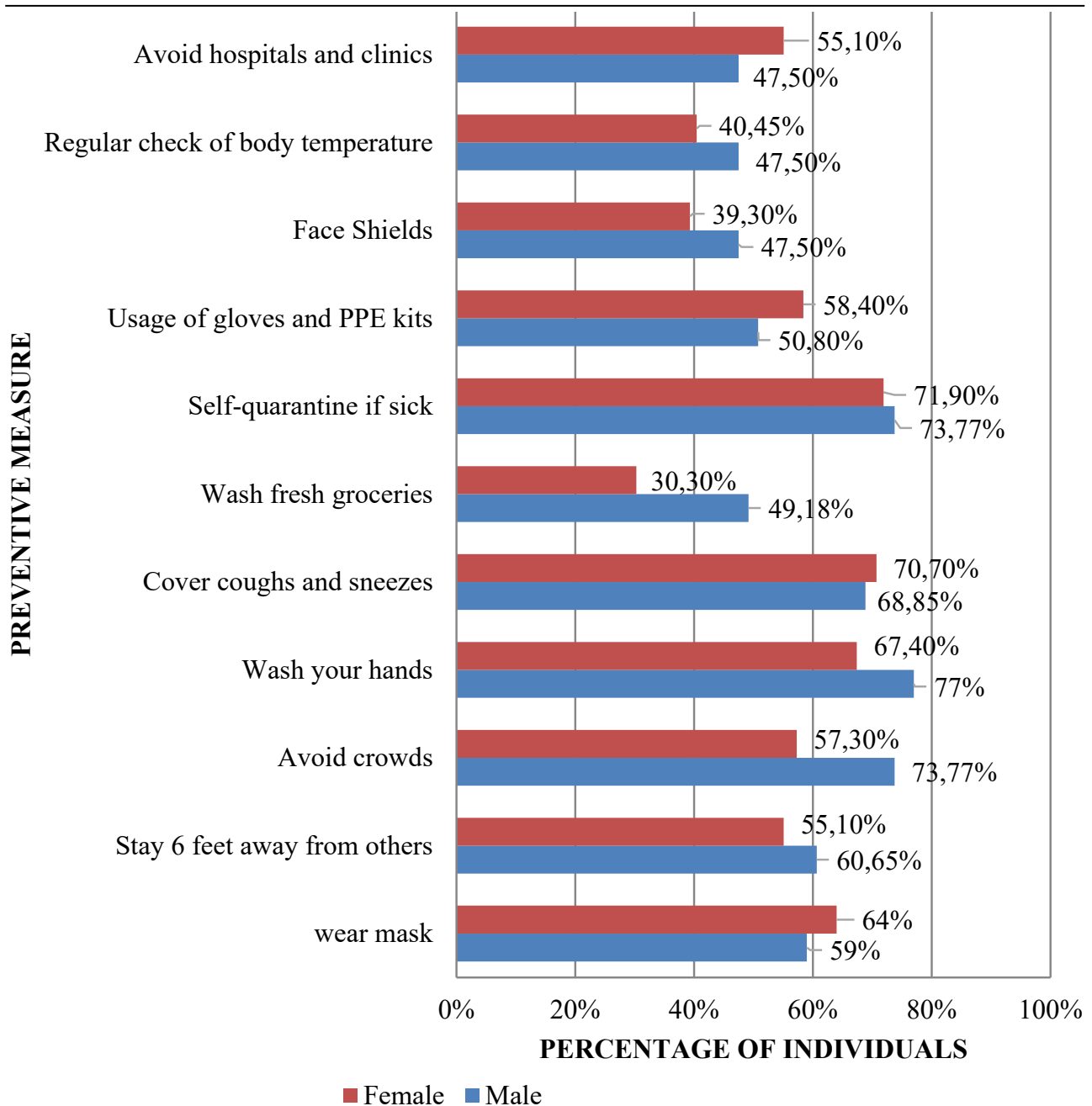
**Fig. 3.** Physical Symptoms of infected Individuals



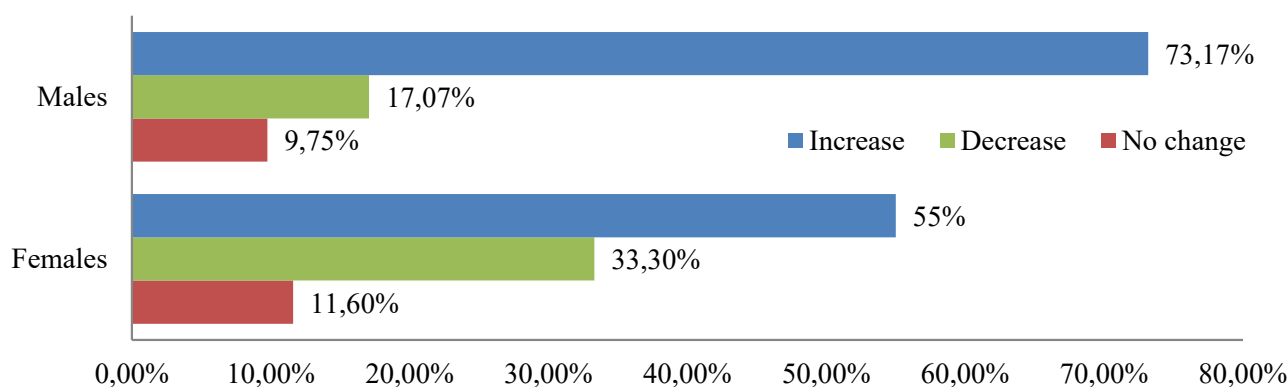
**Table 2.** The average country wise Body Mass Index (kg/m<sup>2</sup>)

Countries	AVERAGE		FEMALES		MALES	
	Before Pan-demic	Current	Before Pan-demic	Current	Before Pan-demic	Current
All Countries	31.14 ± 0.45	34.6 ± 0.487	31.14 ± 0.60	34.60 ± 0.63	23.56 ± 0.67	19.04± 0.73
EGYPT	23.38 ± 0.46	24.39 ± 0.49	31.14 ± 0.71	34.60± 0.74	23.38± 0.68	24.39± 0.79
UAE	23.56 ± 0.46	19.05± 0.5	20.08 ± 0.64	22.59± 0.67	23.56± 0.83	19.05± 0.90
Other countries*	23.13 ± 1.08	29.06± 0.45	18.06 ± 0.79	21.07± 0.81	29.06± 0.68	30.69± 0.76

Note: \*other countries: Lebanon, Oman, Yemen, Sudan, Somali, Syria, Tunisia Jordan, Iraq, Palestine, Kuwait & Libya



**Fig 4.** Prevention measures



**Fig. 5.** Effect of the pandemic on one's mental health and body weight

pandemic. It was found that 110 out of 150 respondents (73.33 %), have had mental issues like depression, anxiety and stress. Total of 69 out of 89 females = 77.25 %, out of which 50.7 % from Egypt, 28.9 % from UAE and 20.4 % from other countries have mental illnesses. Among men, 41 out of 61 (67.21 %) are suffering from the same, 65.9 % from Egypt, 19.51 % from UAE and 14.6 % from other countries. Figure 5 illustrates the effect of the pandemic on one's mental health and body weight. Changes were observed with an increase in weight in 55 % of females and 73.2 % of males and a decrease in weight in 33 % of females and 17 % of males.

Last part of our research was related to an estimation of Social Stigma and Vaccination. Apart from prevention measures, vaccination is an important way to achieve herd immunity and help eradicate this viral disease. Table 3 compares the social stigma towards vaccines between infected and non-infected individuals. Infected (n=16) and non-infected (n=35) individuals want vaccines. 14.2 % infected and 12.2 % non-infected don't believe in vaccines, and 42.7 % infected, and 12.2 % non-infected have been vaccinated.

### Discussion

The main challenges faced by males and females are the ability to exercise and maintain a six-foot distance as it is difficult to follow social

distancing in various public transport systems or institutions. Addressing anxieties over the risk of infection due to social isolation, access to educational materials due to lack of network or study materials available online and balancing homecare with work. The impact of COVID has undoubtedly been felt by everyone on a general level. Everyone including students has their narratives of how the pandemic affected them and their education. The only way to adapt to this challenging time would be to be persistent with their efforts and adapt to the new normal (John J. Ryan & Ferrel Meganne N, 2020). Ways of dealing with them include people changing their nutritional habits by having immunity boosters, and vitamin supplements. Following health regimens like exercise, yoga and meditation. Yoga and meditation regulate the autonomic nervous system and its parasympathetic activity. Gamma-Aminobutyric acid, which is an inhibitory neurotransmitter is secreted from the 10th Cranial nerve with meditation. Pranayama, which is a slow breathing practice at equal time intervals with inspirations and expirations enhances lung capacity and improves respiratory health. It also balances stress hormones like cortisol (Sharma, Kanupriya et al., 2020).

The main symptoms observed in infected individuals were: high body temperature, general

**Table 3.** Social stigmas and vaccination against COVID-19 virus

	COVID Infected, %	Non-Infected, %
Plan to wait or think others need it more	35.7	29.6
Doesn't know if the vaccine will work, its side effects and costing	20.0	17.4
Don't believe in vaccine	14.2	12.2
Believe In vaccine and have been vaccinated.	42.7	12.2

lack of energy or malaise, stuffy, runny nose/sneezing, and loss of sense of smell and taste. This is understandable due to the fact that the virus affects the respiratory system and these symptoms are described by reliable health authorities like World Health Organization. (WHO, 2020).

A comparative study on BMI country-wise shows that most Arab countries have a significant increase ( $P < 0.05$ ) in BMI before the pandemic and now except for men living in UAE, there was a decrease. Noticeable point is that Egyptian females are in the obesity zone ( $31.14 \pm 0.71$  to  $34.6 \pm 0.74$ .) due to unhealthy diet schedules which affect their metabolism. As we see an increase in rates of obesity everywhere, people having a BMI of more than 25 are at high risk of getting infected with coronavirus and vice versa (worldobesity.org, n.d.). In similar research, it was observed in middle eastern countries like UAE, 38%, 55%, and 29% of the sample population were suffering from depression, anxiety and stress respectively. Anxiety is the most common of all. The gender-wise study of these mental health disorders shows a trend that women have more anxiety (61% vs. 47%) and stress (32.2% vs. 24.4) than men (Marzouqi, A.M et al., 2021). The consequences are similar to our research.

Being mentally healthy is as important as physical health. Most of our respondents have mental issues (anxiety, depression and stress) and we observed most of them have an increase in their weight. We can assume that it is due to loss of income and fear of complications associated with the current situation and its stressful consequences. As the pandemic spread far and wide, the first signs of depression and anxiety developed due to the sheer uncertainty of the times, social isolation for an elongated period, the crippling information overload via media and the panic that was spread due to events like bulk buying and running out of essential goods (Ho, Cyrus SH, et al., 2020). Furthermore, it is noticeable that, as the virus infects and causes pathology in the respiratory tract also known as the acute respiratory syndrome, Cytokines and interleukin (IL)-1 $\beta$  and IL-6 are produced which are released when there is depression or other somatic syndromes and comes under “psychoneuroimmunology” (Wang, Cuiyan, et al., 2020). It is one of the main physiological mechanisms of stress in the human body.

## Conclusions

One of the main challenges faced by our respondents is balancing home care with work since in COVID-19 pandemic people have been staying at home working or trying to adapt and manage different tasks from home; this leads to a big home-work conflict.

It is noticeable that the novel coronavirus affects the physical, social and mental health of populations of different countries. Changes were observed with an increase of weight in 55 % of females and in 73.2 % of males and a decrease in weight in 33 % of females and in 17 % of males; 73.33 % of the respondents have had mental issues like depression, anxiety and stress.

It was shown that Individual or personal prophylaxis is the key to preventing the spreading of infectious diseases nowadays.

Vaccination against COVID-19 is one of the main ways of preventing the spreading of the novel coronavirus and reducing complications.

## Limitation

The limitation of this research is that it was conducted online and was in two languages, English and Arabic. The translations were subjective to interpretations as the survey had a few open-ended questions with biased responses.

## Financing

This study was not externally funded.

## Conflict of interest

The authors declare no potential or apparent conflicts of interest related to the manuscript.

## Consent to publication

All authors have read the text of the manuscript and have given their consent for its publication

## ORCID ID and Authors contribution

[0000-0003-0524-0671](https://orcid.org/0000-0003-0524-0671) (A, B, C, D) Tishya Mukherjee

[0000-0001-6497-9543](https://orcid.org/0000-0001-6497-9543) (B, C, D, E) Hamsa Ali Elsayed

(A, B, C, E) Yomna Mousa A. B.

[0000-0002-4871-0840](https://orcid.org/0000-0002-4871-0840) (A, F) Vavrinevych Olena

[0000-0002-0211-607X](https://orcid.org/0000-0002-0211-607X) (E, F) Borysenko Andrii

A – Research concept and design, B – Collection and/or assembly of data, C – Data analysis and interpretation, D – Writing the article, E – Critical revision of the article, F – Final approval

## REFERENCES

- Ho, Cyrus SH, et al. (2020). Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Ann Acad Med Singapore*, 1-3.
- John J. Ryan & Ferrel Meganne N, 2020. (2020). The impact of COVID-19 on medical education. *Cureus*, 12.3.
- To KK, Sridhar S, Chiu KH, et al. Lessons learned 1 year after SARS-CoV-2 emergence leading to COVID-19 pandemic. *Emerg Microbes Infect.* 2021;10(1):507-535. <https://doi.org/10.1080/22221751.2021.1898291>
- Marzouqi, A.M et al. (2021). Al Marzouqi, A. M., Otim, M. E., Alblooshi, A., Al Marzouqi, S., Talal, M., & Wassim, F. (2021). Prevalence of Depression, Anxiety, and Stress Among Undergraduate Students in the Middle East: a Cross-sectional Survey in United Arab Emirates.
- Pecetta, Simone et al. (2020). Quantum leap of monoclonal antibody (mAb) discovery and development in the COVID-19 era. *Seminars in immunology*.
- QUESTIONNAIRE. (n.d.). Retrieved from [https://www.nlm.nih.gov/dr2/JHU\\_COVID-19\\_Community\\_Response\\_Survey\\_v1.3.pdf](https://www.nlm.nih.gov/dr2/JHU_COVID-19_Community_Response_Survey_v1.3.pdf)
- Sharma, Kanupriya et al. (2020). Retrieved from Sharma, Kanupriya, Anand, Akshay, and Kumar, Raj. 'The Role of Yoga in Working from Home During the COVID-19 Global Lockdown'. 1 Jan. 2020 : 731 – 737.
- Sonigara, B.S et al. (2020). Sonigara, B. S., Sarangdevot, K., & Ranawat, M. S. Corona Virus and Soap: The Supramolecular Chemistry.
- SURVEY, C.-1. C. (n.d.). Retrieved from [https://www.nlm.nih.gov/dr2/JHU\\_COVID-19\\_Community\\_Response\\_Survey\\_v1.3.pdf](https://www.nlm.nih.gov/dr2/JHU_COVID-19_Community_Response_Survey_v1.3.pdf)
- Wang, Cuiyan, et al. (2020). A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. *Brain, behavior, and immunity*, 40-48.
- WHO. (2020). Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- worldobesity.org. (n.d.). Retrieved from <https://www.worldobesity.org/news/statement-coronavirus-covid-19-obesity>

### **Гігієнічна оцінка впливу нового коронавірусу фізичне, соціальне та психічне здоров'я людей в Єгипті, Об'єднаних Арабських Еміратах та інших країнах з 2020 по 2021 роки**

**Tishya Mukherjee<sup>1</sup>, Hamsa Ali Elsayed<sup>1</sup>, Yomna Mousa A. B<sup>2</sup>, Вавріневич Олена<sup>3</sup>,  
Борисенко Андрій<sup>4</sup>**

<sup>1</sup> 3<sup>й</sup> курс, медицина, НМУ імені О.О. Богомольця, Київ, Україна

<sup>2</sup> 3<sup>й</sup> курс, медицина, КНУ імені Тараса Шевченка, Київ, Україна

<sup>3</sup> Д.мед.н., професор кафедри гігієни та екології № 1, НМУ імені О.О. Богомольця, Київ, Україна

<sup>4</sup> К.мед.н., доцент кафедри гігієни та екології № 1, НМУ імені О.О. Богомольця, Київ, Україна

#### **Address for correspondence:**

Vavrinevych Olena

E-mail: [elena-vavrinevich@ukr.net](mailto:elena-vavrinevich@ukr.net)

**Анотація:** в появу вірусу SARS-CoV2, який призвів до втрати людського капіталу, економіки та інфраструктури, було дуже важливо зрозуміти, як цей вірус впливає на наше повсякденне життя. 11 березня 2020 року Всесвітня організація охорони здоров'я оголосила спалах пандемії нового коронавірусу. У 2021 році ця ситуація стала кризовою, коли в різних частинах світу почали виникати друга і третя хвилі зараження. Метою цього дослідження була гігієнічна оцінка впливу нового коронавірусу на наше фізичне, соціальне та психічне здоров'я в



Єгипті, Об'єднаних Арабських Еміратах та інших країнах з 2020 по 2021 роки. Для досягнення цієї мети ми використали сучасні методи. Анкета була розроблена за допомогою Google Forms. Вона базувалася на короткій формі охорони здоров'я (SF-36) (ОПИТУВАННЯ, 2020 р.) та анкеті Університету Джонса Хопкінса щодо COVID-19 (АНКЕТА, 2020 р.) двома мовами, англійською та арабською. У нашому дослідженні ми використовували Просту випадкову вибірку. Статистичний аналіз проводився за допомогою MS Excel та IBM SPSS Statistical Base v.22. Першим кроком нашого дослідження став аналіз викликів, які постали під час пандемії, та шляхів їх подолання. Визначено основні проблеми, з якими стикаються під час пандемії як чоловіки, так і жінки. Наступним кроком нашого дослідження став аналіз структури фізичних симптомів та стану здоров'я інфікованих Covid-19. Встановлено, що 23,34% учасників були інфіковані вірусом. Середнє значення було розраховано за симптомами: висока температура тіла 51,4 %, загальна втрата енергії або нездужання 51,4 %, втрата нюху та смаку 60 %, біль у горлі 54,3 %, блювання 20 %, діарея 28,57 %, втома 45,7 %, закладеність і нежить або чхання 57,14 %, озноб 40 %, порушення свідомості або порушення сну 25,7 %, задишка у спокої 37,14 %, задишка під час руху (наприклад, підйом по сходах) 37,14 % і судоми 5,7 %. Наступним кроком нашої роботи було обчислення індексу маси тіла (ІМТ) у країнах під час пандемії. Розрахунок середнього індексу маси тіла для країни з порівнянням індексу до пандемії та березня 2021 року. Збільшення ІМТ для жінок у Єгипті з (31,1 до 34,6), ОАЕ з (20,1 до 22,6) та інших країнах з (18,1 до 21,1). Соціальна стигма щодо вакцин між інфікованими та неінфікованими особами: інфіковані (n=16) та неінфіковані (n=35) особи хочуть вакцини. 14,2% інфікованих і 12,2% неінфікованих не вірять у вакцини, а 42,7% інфікованих і 12,2% неінфікованих зробили щеплення. Висновки та тенденції були вивчені, оцінені та порівняні з різними статтями та визначені причини цих явищ. У цьому дослідженні було зроблено два основні висновки: 1) виявлено зростання випадків тривоги, депресії та стресу під час пандемії; 2) збільшення випадків ожиріння та збільшення ваги через домашній карантин та віддалений режим роботи. Перспективи подальших досліджень включають вивчення впливу вірусу в його мутованих формах. Також вивчення пістгострих наслідків COVID-19, що може допомогти нам зрозуміти вплив вірусу на наш організм у довгостроковій перспективі, особливо для тих, хто має супутні захворювання, такі як ожиріння, гіпертонія, рак і діабет II типу.

**Ключові слова:** коронавірус, депресія, самоізоляція, соціальна дистанція, вакцинація, профілактика.



Copyright: © 2022 by the authors.  
Licensee USMYJ, Kyiv, Ukraine.  
This article is an **open access** article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.