

## Anxiety and Depression among Applied Medical Science Faculty Students during COVID-19 Pandemic

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### Abstract:

**Background:** This study aims to assess the depression and anxiety among students of the Faculty of Applied Medical Science at Al-Baha University during COVID-19 pandemic. **Methods:** A cross-sectional descriptive approach was used for this study. A questionnaire was designed to collect data; it was distributed among the students by link using Google format. To take part in the study, 410 students from Al-Baha University's Faculty of Applied Medical Sciences were randomly selected. The Google Drive statistic and SPSS were both used to examine the data. **Results:** The study findings showed that the students' anxiety and depression levels during the pandemic were high, with various factors contributing to these feelings, such as concerns about the current situation, neglect of preventive measures, and fear of losing a family member due to the virus. It concluded that neither gender nor marital status appear to have an influence on anxiety and depression levels among these students during COVID-19 pandemic. **Conclusion:** there is a high level of depression and anxiety among the students of the Faculty of Applied Medical Sciences at Al-Baha University. The female and single students were significantly more anxious and depressed regarding COVID-19 pandemics.

**Keywords:** Anxiety, depression, students of the Faculty of Applied Medical Science, COVID-19.

### Introduction:

A novel coronavirus known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) first appeared in Wuhan, China, in December 2019, resulting in an unprecedented global health catastrophe (Al-Qahtani, 2020). The World Health Organization (WHO) declared a global pandemic as a result of the virus' rapid spread (Jernigan et al., 2020). As a result of this calamity, countries all over the world, including the Kingdom of Saudi Arabia, implemented stringent measures like lockdowns and quarantines to restrict the virus' spread (Zhou et al., 2020, Covid and Team, 2020, Al-Qahtani, 2020, Ahmed, 2022, Alshameri et al., 2022). These behaviors had a significant impact on people's daily activities, which caused a range of psychological responses (Alshameri et al., 2022).

COVID-19 pandemic has far-reaching consequences on mental health in addition to its effects on physical health (Onyeaka et al., 2021). The epidemic has altered societal conventions, the economy, healthcare systems, and global movement rapidly and significantly, entangling the entire world during the grip of the virus (Tooze, 2021). The psychological cost of COVID-19 pandemic is high and includes emotions like worry, excitement, fear, loneliness, tension, and sadness (Mariani et al., 2020, Khodami et al., 2022). Governmental rules like curfews and quarantines, led to feelings of loneliness, isolation, and uncertainty, which further formed this psychological landscape (Alshameri et al., 2022, Ganesan et al., 2021).

Throughout the pandemic, the psychological landscape had become more and more obvious that different populations, especially the students, had encountered

particular difficulties regarding the adjustment to such psychological effects (Inchausti et al., 2020, Cheng et al., 2021). The Saudi Arabian Ministry of health implemented measures to contain the virus's spread in response to these issues. People of various ages and socioeconomic levels are nonetheless affected by such psychological impacts (Alhazmi et al., 2020, Salam et al., 2022, Sayed, 2021).

Students at Al-Baha University's Faculty of Applied Medical Science are among the afflicted groups, and they form a particularly significant cohort. This study intends to measure the levels of depression and anxiety experienced by students during COVID-19 epidemic since it is important to understand these kids' mental health. In order to address the issues brought on by COVID-19 epidemic, the main goal of this study is to ascertain the severity of depression and anxious symptoms among students enrolled in the Faculty of Applied Medical Science at Al-Baha University.

By focusing on these goals, this study advanced level of knowledge about the psychological effects of COVID-19 epidemic on a significant population as the students and suggested prospective solutions to decrease the mental health problems brought on by this worldwide emergency.

### **Material and Methods:**

#### **Study design:**

A descriptive, cross-sectional approach was used to conduct this study among students of the Faculty of Applied Medical Sciences, at Al-Baha University.

#### **Study Area:**

The study was conducted in the Faculty of Applied Medical Sciences at Al-Baha University. It is one of the governmental universities which is located at Al-Baha region, Saudi Arabia.

#### **Study Population:**

The study was conducted among Faculty of Applied Medical Sciences students at Al-

Baha University, Saudi Arabian. The total registered students at the faculty were 1409.

#### **Sampling and sample size:**

A simple random sampling technique was used to select the calculated sample size of 410 students out of the total number of students, 1409 in the faculty of Applied Medical Sciences at Al-Baha University. They were selected from the departments of nursing, laboratory medicine, public health, and dental health.

#### **Data Collection:**

The data was collected by questionnaire, which was designed to collect data; it was distributed among the sample of the study population using Google format link. The questionnaire consisted of two sections: the demographic part for (Age, Gender, Social Status, and Department) and Assessment of Depression and Anxiety which consists of (25) questions, the answering options provided were (never, sometimes, usually, and always). The questionnaire was developed by the researcher and revised by two expert in field of public health and psychiatric, they approved the used version.

#### **Data Analysis:**

Data was analyzed using the SPSS version 24. A descriptive statistic was applied for frequency and percentage of demographic variables, while the inferential analysis was applied for testing relationships between demographics and level of anxiety and depression among students using Chi square test.

### **Results:**

Student demographics data at Saudi Arabian, Faculty of Applied Medical Sciences are shown in **Table 1**. According to the age breakdown, 30.3% of students were between the ages of 18 and 20 years old, 28.3% were between the ages of 21 and 23 years old, 10.7% were between the ages of 24 and 25 years old, and 30.7% were over the age of 25 years old. While 52.9 percent of the students was male and 47.1 percent was female. Among the students,

54.9% were from the department of public health, followed by nursing (22.4%), laboratory medicine (14.9%), and dental health (7.8%). The majority of students (67.8%) were single, followed by married students (31.7%) and widowed students (0.5%).

**Table 2** showed that COVID-19 level of anxiety and sadness among students at Al-Baha University. The pandemic was the causes of a variety of feelings and emotions expressed by the students. Concerns about anxiety and depression which were noted among the students in a variety of contexts, as: feeling of anxious and depressed about the present situation due to the pandemic as the following (27.3% - never, 30.8% - sometimes, 23.7% - usually, 18.5 % - always); feeling anxious and depressed because of a variety of factors, such as neglecting the prevention measures (25.1% - never, 25.6% - sometimes, 25.15% - usually, 24.15% - always). While overall, approximately 38.7% of students reported never feeling anxious or depressed, while 25.9% sometimes, 20.2% usually, and 15.2% always, indicating that a significant portion of the students experienced anxiety and depression symptoms during COVID-19 pandemic.

The association between student demographics data and their COVID-19-related

levels of anxiety and despair is examined in **Table 3**.

Age groups did not show significant differ between anxiety and depressive symptoms, with percentages ranging from 16.4% to 25.1% for "always" and 23.3% to 35.7% for "never." However, there was a substantial gender difference, with male students who reporting lower levels of anxiety and sadness (17.5 % always, 39.2 % never) than female students (22.3% - never, 24.3% - always). With percentages ranging throughout the categories, and department affiliation who did not demonstrate a meaningful link. The marital status showed significant, difference between the single students who reporting lower levels of anxiety and sadness than married students with (28.1% never, 16.2% always) and (26.5% - never, 14.1% - always). Respectively. Notably, widowed students male and female reported 50% among both as "never," and "sometimes" respectively categories, while no response was recorded as "usually", and "always" categories. These findings suggest that gender and marital status may influence anxiety and depression levels which related to COVID-19 pandemic among students at Al-Baha University.

**Table 1: Demographic characteristics of students at the Faculty of Applied Medical Sciences, Al-Baha University, Saudi Arabia**

Variables		Freq.	Percent
Age	18-<20 years	124	30.3%
	20-<23 years	116	28.3%
	23-<25 years	44	10.7%
	25+ years	126	30.7%
Sex	Male	217	52.9%
	Female	193	47.1%
Department	Public Health	225	54.9%
	Nursing	92	22.4%
	Laboratory Medicine	61	14.9%
	Dental Health	32	7.8%
Marital status	Single	278	67.8%
	Married	130	31.7%
	Widowed	2	0.5%

**Table 2: Level of anxiety and depression related to COVID-19 among students at Al-Baha University**

Variables	Never	Sometimes	Usually	always
Feeling anxious and depressed about the current situation in light of the Corona pandemic	27.30%	30.80%	23.70%	18.50%
Feeling anxious and depressed because some citizens are neglecting disease prevention measures	25.10%	25.60%	25.15%	24.15%
Feeling depressed due to social distancing and lack of family visits	31.30%	26.70%	21.30%	20.70%
Feeling like the world will end soon	58.00%	21.20%	11.50%	9.30%
Having the idea of dying because of Corona	60.70%	21.20%	11.30%	6.80%
Fear of losing someone in the family because of Corona	34.90%	29.80%	22.00%	13.40%
Fear of getting the corona virus	40.00%	26.30%	20.50%	13.20%
Worrying about getting the virus when having to go out of the house	40.00%	30.00%	15.40%	14.60%
Fear of the negative impact of the Corona virus on the health	36.60%	28.50%	20.00%	14.90%
Having the issue of the Corona virus lot of minds	40.00%	28.80%	16.10%	15.10%
Spending most of time sitting at home and away from people	38.80%	26.30%	18.80%	16.10%
The negative effect of Corona pandemic on the economic situation of the family causes depression and anxiety	48.00%	23.40%	15.40%	13.20%
Worrying about the high prices in light of the Corona pandemic	26.60%	20.20%	35.10%	18.10%
Feeling unable to adapt to the sudden change in lifestyle due to the Coronavirus	38.50%	28.50%	16.50%	16.50%

Not having the enough energy to study under the corona pandemic	36.30%	29.00%	20.10%	14.60%
Suffering from interrupted sleep due to a lot of thinking about the possibility of infection with the Corona virus	54.10%	21.00%	13.70%	11.20%
Suffering from insomnia due to fear of infection with the virus	60.00%	19.50%	10.50%	10.00%
The desire to welcome people in home in light of the corona pandemic	43.70%	28.50%	14.90%	12.90%
Avoiding meeting friends in light of the Corona pandemic	42.20%	31.20%	12.90%	13.70%
Feeling that distance education is useless in light of the Corona pandemic	44.10%	20.00%	20.50%	15.40%
Feeling bored with routine during the Corona pandemic	30.50%	29.50%	25.60%	14.40%
Trying to adapt to the routine imposed by the Corona pandemic	22.90%	27.60%	29.30%	20.20%
Trying to occupy with things that benefit in the home quarantine	25.60%	22.90%	31.00%	20.50%
Strictly adhering to preventive measures when dealing with people	24.20%	25.60%	31.70%	18.50%
Total	38.70%	25.90%	20.20%	15.20%

**Table 3: The relation between demographic characteristics of students and level of anxiety and depression related to COVID-19 pandemic.**

Variable		Never	Sometimes	Usually	Always	p-value
Age	18-20 years	28.3	29.8	22.5	19.4	> 0.05
	21-23 years	23.3	32.7	27.6	16.4	
	24-25 years	25.1	22.6	27.2	25.1	
	> 25 years	35.7	19.8	21.5	23	
Sex	Male	39.2	21.2	22.1	17.5	< 0.05*
	Female	22.3	23.4	30	24.3	
Department	Public Health	24.9	26.7	28.9	19.5	> 0.05
	Nursing	38.1	35.8	17.4	8.7	
	Laboratory Medicine	31.3	27.8	22.9	18	
	Dental Health	37.5	25	28.1	9.4	
Marital status	Single	28.1	31.3	24.4	16.2	< 0.05*
	Married	26.5	24.2	35.2	14.1	
	Widowed	50	50	0	0	

(\*) Significant

### Discussion:

The findings of the current study showed that more than one third of students at the Faculty of Applied Medical Sciences in Al-Baha University experienced levels of anxiety or depression. The percentages in some statements are almost near, but the largest percentages are for who said that they sometimes feel anxious and depressed about the current situation in the light of the COVID-19, as some students are neglecting disease prevention measures, but they never feel depressed due to social distancing and lack of family visits. They are also never afraid of losing someone in their families because of Corona, nor of the negative impact of the Corona virus on their health. However, they are usually worried about the high prices considering the Corona pandemic.

It was noted that, there was no high level of depression and anxiety among the students at the Faculty of Applied Medical Sciences in Al-Baha University. The findings of the current study not matching the findings shown a study done by **Mechili et al., (2021)** who indicated that quarantine measures had a significant impact on the levels of depression among both university students and their family members (**Mechili et al., 2021**). Similarly, a study done

by **Khoshaim et al., 2020**, showed that the students in Saudi Arabia experienced some high levels of anxiety and depression.

More than half of the students never feel that the world will end soon, as they never had the idea of dying because of Corona. Also, they never suffer from interrupted sleep due to a lot of thinking about the possibility of infection with the Corona virus, and they never suffer from insomnia due to fear of infection with the virus. This finding similar to the findings of previous study conducted among students in Saudi universities (**Alshameri et al., 2022**). On the other hand, this result differs with the findings of a study done by **Majumdar et al., (2020)** who reported that the chronic stress of living through a pandemic led to a host of physical symptoms, like headaches, insomnia, digestive problems, hormonal imbalances, and fatigue.

About the half of the participants were never afraid of getting corona virus, as they never worry about getting the virus when they had to go out of their houses, avoid meeting their friends in light of Corona pandemic. Corona pandemic had never negatively affected the economic situation of their families, causing depression and anxiety for them. However, they never like to welcome people in their homes in light of the corona pandemic. They also never

feel that distance education is useless in light of Corona pandemic; this differs was found in a study done by **Fawaz and Samaha (2021)** who reported the sudden shift to exclusive e-learning methods of instruction produced anxiety and depression symptoms among a significant portion of the students due to the stressful load of work required.

A high percentage of the participants never spend most of their times sitting at home and away from people. They also said that the issue of Corona virus is never in their minds, as they never feel unable to adapt to the sudden change in their lifestyles due to Coronavirus. They also had enough energy to study under corona pandemic circumstances. In addition, they never feel bored with routine during Corona pandemic, as they are usually trying to adapt to the routine imposed by the Corona pandemic, and to occupy themselves with things that benefit themselves in the home quarantine. Nevertheless, they are usually strictly adhering to preventive measures when dealing with people. They deal with the depression and anxiety during Corona Pandemic by watching movies and series.

### Conclusion:

To conclude, there is a high level of depression and anxiety among the students of the Faculty of Applied Medical Sciences at Al-Baha University. The female and single students were significantly more anxious and depressed due to COVID-19 pandemic. The researcher recommend that students should continue to follow the preventive precautions until the pandemic is completely over, and it is also recommended that universities should prepare useful educational entertainment programs for students in order to be used during their free time appropriately that serves the interests of students.

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