



## The impact of the Corona pandemic on psychological and mental health among students of the University of Mosul isolated at home

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### Abstract

**Background and Aim:** Home quarantine or home isolate is an uncomfortable experience for most people because it restricts their freedom and causes them to be fearful of losing their employment, being bored, becoming isolated from others, fearing illnesses, experiencing sadness, and experiencing anxiety. This study aimed to assess the prevalence and associated factors of anxiety, depression, and stress among graduating class students. The purpose of this study was to determine the degree of stress, anxiety, and depression among university students. To explore the relationships among mental health state (stress, anxiety, and depression) and demographic variables (gender, marital status, occupation, residence, and family Infected with COVID- 19.

**Method:** A cross-sectional design using online data collection using Google forms was carried out from 27th June 2021 through 29th September 2021 to achieve the present study's objectives. A probability sample (random) consisted of 252 students consist of (150) male, (102) females were from the University of Mosul. The DASS is a 42-item questionnaire that contains three self-report measures for measuring depression, anxiety, and stress.

**Results:** Male students scored higher average scores than female students in stress and depression, while females scored higher average scores in anxiety. Single students scored higher average scores than married in stress, anxiety, and depression. Students who had work scored higher than others in stress and depression.

**Conclusions:** stress, anxiety, and depression were significantly positively correlated with each other ( $P_s < 0.01$ ). Also, stress, anxiety, and depression were significantly correlated with each occupation and marital status ( $P_s < 0.01$ ). Students who had Relatives infected with COVID-19 were significantly positively correlated with each stress and depression.

**Recommendations:** Students' psychological state must be constantly measured, especially those who were infected with the virus or a member of their family, as well as lost their job and have a wife and children because they are the most psychologically affected groups due to the Corona pandemic.

**Keywords:** Corona pandemic, psychological and mental health, University students.

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## Introduction

According to the World Health Organization, coronavirus illness (COVID-19) has been designated a pandemic Public Health Emergency (WHO, 2020). More than 40 million cases have been recorded and verified in more than 220 countries in the months after the beginning of the illness, resulting in more than one million fatalities (WHO, 2020).

People find home quarantine or home isolation to be a frustrating experience because it restricts their freedom, causing them to be fearful of losing their jobs, feeling bored, disconnecting from others, being concerned about illnesses, feeling sad, and suffering from anxiety and depression (Le, et al, 2020, Wu, et al, 2009). For example, university students who are obliged to remain at home and fully adhere to online education, which is unfamiliar and unexpected for many, particularly those who have no prior experience with online education or the necessary facilities, fall into this category. Previously, it has been shown that such groups do not possess the required psychological abilities to meet their psychological and academic obligations (Hamaideh & Hamdan-Mansour, 2014), that they experience a high degree of academic stress and efficacy (Shehadeh, 2020), and that they are more susceptible to psychosocial disruptions (Hamaideh, 2018). As a result, the COVID-19 epidemic and "home quarantine" are anticipated to have an impact on the physical and psychological health of university students (Al-Rabiaah, et al, 2020).

The COVID-19 pandemic is a public health emergency that has the potential to have a detrimental effect on people's mental health. The effects of public health crises may range from fear and bewilderment to emotional isolation and economic losses at the individual and societal levels, job and school closures and an insufficient allocation of medical

services (Pfefferbaum & North, 2020). Stress, worry, sadness, and other unpleasant feelings they had been shown to be increased in the general population in many other nations as a result of pandemic preventive measures such as national lockdowns, working from home, and limiting social interaction with others (Cooke, et al ,2020; Liu & Liu, 2020; Mazza, et al, 2020; Nelson, et al, 2020; Okan, et al, 2020).

Because of the closure of institutions, it was necessary to continue teaching online. In general, this represented a significant paradigm change for both students and teaching staff who had little or no prior experience with online learning environments. In 190 countries, the pandemic has caused the most significant disruption of the education system ever recorded. School or university closures affect 94 % of the student population and 99 % of the people in low- and lower-middle-income countries. The pandemic has caused the most significant disruption of the education system ever recorded in 190 countries (UN, 2020). Students' education processes and mental health are often negatively impacted by the transition from face-to-face to online classes, often exacerbated by a lack of information technology (IT) resources and an Internet connection. It is also challenging to rearrange home environments for work and study, and it isn't easy to assess and evaluate students' education processes and mental health (Sahu, 2020).

According to longitudinal research findings, students' stress, anxiety, and depression increased compared to their levels before the epidemic (Elmer, et al, 2020).

According to the same study, growing concerns about one's health, family, friends, and the future have replaced earlier anxieties. Following up with students who had been exposed to the COVID-19 pandemic in Croatia for eight weeks revealed that they had experienced

more significant levels of stress, anxiety, and sadness during the early stages of the pandemic, with the severity of symptoms diminishing throughout the research (Vulić-Prtorić, et al,2020). Students who reported having family or friends infected with COVID-19 were three times more likely to feel more significant anxiety than those who did not report having such relatives or contacts (Cao, et al,2020). Cao et al. (2020) discovered a similar relationship between anxiety symptoms and worries about economic repercussions and delays in academic activities in their research. Additionally, students reported increased concern about their academic performance and a decrease in social interaction as a consequence of pandemic-related conditions (Son, et al, 2020). According to studies, students' worry and sorrow were also seen in other countries during the COVID-19 pandemic. Akhtarul, et al, 2020; Marelli, et al, 2020; Mechili, et al, 2020; Odriozola-Gonzalez, et al, 2020; Vulić-Prtorić, et al, 2020).

**Methodology**

A cross-sectional design using online data collection using Google forms was carried out from 27<sup>th</sup> June 2021 through 29<sup>th</sup> September 2021 to achieve the present study's objectives. A probability sample (random) consisted of 252 students consist of (150) male (102) females were from the

University of Mosul. The DASS is a 42-item questionnaire that contains three self-report measures for measuring depression, anxiety, and stress. Each of the three scales includes 14 items, which are further subdivided into subscales of two to five identical items. The Depression scale quantifies dysphoria, despair, life devaluation, self-deprecation, apathy/involvement, anhedonia, and inertia. The Anxiety scale measures autonomic arousal, skeletal muscle effects, situational anxiety, and subjective anxiety experience. The Stress scale (items) is responsive to persistent levels of generalized arousal. It measures difficulties relaxing, anxious alertness, and being quickly agitated/upset, irritable/overly reacting, and impatient. Respondents are asked to evaluate the degree to which they have experienced each state during the last week using four-point severity/frequency measures. The dependability of these scales was evaluated by computing Cronbach Alpha Correlation coefficients using the split-half method. To ensure the validity of the scales, method and procedure proposed to be carried out during the study, ten experts of different specialties related to the field of the present study were chosen. They were asked to review the scales format for clarity and adequacy to achieve the present study objective.

**Results**

**(Table- 1) Students and demographical aspects concerns associated with stress, anxiety, and depression.**

Variables		Frequency (%)	Stress, M(SD)	Anxiety, M(SD)	Depression, M(SD)
<b>Gender</b>	<b>male</b>	152 (60.3)	2.69 (1.56)	3.50 (1.46)	3.19 (1.40)
	<b>female</b>	100 (39.7)	2.50 (1.54)	3.54 (1.47)	3.04 (1.38)
			<i>t= .982; p=.327</i>	<i>t=.211; p=.833</i>	<i>t=.837, p=.403</i>
<b>Marital status</b>	<b>Married</b>	59 (23.4)	2.03 (1.35)	3.03 (1.61)	2.22 (1.16)
	<b>Single</b>	193 (76.6)	2.79 (1.57)	3.66 (1.39)	3.40 (1.34)

			$t=3.357;$ $p= .001$	$t= 2.919;$ $p= .004$	$t= 6.117;$ $p= .000$
			2.80 (1.53)	3.22 (1.64)	3.40 (1.32)
			2.23 (1.55)	3.65 (1.36)	2.54 (1.36)
<b>Occupation</b>	<b>yes</b>	81 (32.1)			
<b>No</b>		181 (67.9)	$t=2.72;$ $p=0.007$	$t=2.19;$ $p=.005$	$t=4.789;$ $p=.000$
			2.60 (1.55)	3.52 (1.46)	3.12 (1.39)
			2.66 (1.57)	3.48 (1.48)	3.14 (1.41)
<b>Residence</b>	<b>urban</b>	198 (78.6)			
<b>Rural</b>		54 (21.4)	$t=.252;$ $p= .801.$	$t= .193;$ $p= .847.$	$t= .102;$ $p= .919.$
			3.05 (1.34)	3.88 (1.07)	2.89 (1.41)
			2.42 (1.61)	3.35 (1.59)	3.66 (1.22)
<b>Family Infected with COVID-19</b>	<b>yes</b>	175 (69.4)			
<b>No</b>		77 (30.6)	$t=2.966;$ $p= .003$	$t= 2.661;$ $p= .008$	$t= 4.128;$ $p= .000$

(Table-2) Severity of psychological and mental disorders among university students.

Severity	Stress F (%)		Anxiety F (%)		Depression F (%)	
<b>Normal</b>	<b>97</b>	<b>(38.5)</b>	46	(18.3)	60	(23.8)
<b>Mild</b>	35	(13.9)	9	(3.6)	<b>75</b>	<b>(29.8)</b>
<b>Moderate</b>	33	(13.1)	59	(23.4)	65	(25.8)
<b>Sever</b>	41	(16.3)	45	(17.9)	36	(14.2)
<b>Extreme</b>	46	(18.3)	<b>93</b>	<b>(36.9)</b>	16	(6.4)
<b>Total</b>	252	(100)	252	(100)	252	(100)

(Table-3) Bivariate correlations between demographical aspects related association with stress, anxiety, and depression.

Variables	M(SD)	1	2	3	4	5	6	7	8
<b>1- Gender</b>	1.39(.490)	1							
<b>2- residence</b>	1.21 (.41)	.424**	1						
<b>3- occupation</b>	1.67 (.46 )	.067	.013	1					
<b>4-marital status</b>	1.23 (.42)	.107	.015	.603**	1				
<b>5-Relatives infected with COVID-19</b>	1.30 (.46)	.027	.010	.457**	.204**	1			
<b>6-Depression</b>	2.61(1.56)	.042	.003	.249**	.346**	.208**	1		
<b>7-Anxiety</b>	3.51(1.47)	.010	.009	.207**	.282**	.120	.813**	1	
<b>8-Stress</b>	3.13(1.39)	.058	.014	.175**	.241**	.206**	.793**	.777**	1

## Discussion

The majority of responders are male, 152(60.3%), and 100(39.7%) are female. 81(32.1%) of the students work, while 181(67.9%) do not have a job. The majority of the study sample reside in the city, and you are their percentage 198 (78.6%), while 54(21.4%) of them reside in the rural. 175 (69.4%) of the study sample were infected with coronavirus table-1.

Male students scored higher average scores than female students in stress and depression, while females scored higher in anxiety. Single students scored higher average scores than married in stress, anxiety, and depression. Students who had work scored higher than others in stress and depression. Rural students had a higher scored average than urban students in stress and depression. Students diagnosed with an Infected with COVID-19 to a family member scored higher than others on the stress and depression scale table-1.

In accordance with Son et al. (2020), this research found that the COVID-19 pandemic had a detrimental effect on higher education because of the long-lasting nature of the outbreak and the onerous measures such as stay-at-home lockdown orders.

According to the severity of stress, anxiety, and depression scale, about 93(36.9%) of the study sample had extreme anxiety, while 75 (29.8%) had mild depression.

These findings are in agreement with those of Aylie et al. (2020), who found that university students had a greater prevalence of depression, anxiety, and stress than the general population. Furthermore, according to Dhar et al. (2020), the entire scenario has a significant psychological effect on university students in Bangladesh. Because of the present pandemic, about 97 % of university students are experiencing severe anxiety. University students who reside in urban areas, do not have a solid financial situation, do not live with their parents,

and have infected relatives or friends are especially susceptible to severe anxiety during the novel coronavirus epidemic.

Table 3, Spearman's correlation analysis was used to explore the relationships among mental health state (stress, anxiety, and depression) and demographic variables (gender, marital status, occupation, residence, and family Infected with COVID-19. Stress, anxiety, and depression all had a strong positive correlation (Ps 0.01). Additionally, there was a strong correlation between stress, anxiety, and depression and each profession and marital status (Ps 0.01). Students with COVID-19-infected relatives showed a substantially positive correlation with both stress and sadness.

These results indicate that students who have worked have been affected economically and significantly by the Corona pandemic because they lost their only source of income due to the quarantine measures that the whole world followed. The city of Mosul also observed, which added to the severe psychological burdens on this vital society group. During its influential association with mental disorders (stress, anxiety, and depression).

That quarantine, in general, is an unsatisfactory experience for those who are subject to it and considers that isolation from family and loved ones, loss of freedom, suspicion of disease developments, and boredom, are all factors that can cause severe psychological states of the essential anxiety and depression.

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