Psychological Distress among People during COVID - 19 Pandemic: A Cross - Sectional Study

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ABSTRACT

The COVID - 19 pandemic and lockdown have had profound effects on everyday life worldwide. The aim of this study is to examine the anxiety level of the people during initial period of COVID - 19. The cross sectional online survey was done using the zung Self - rating Anxiety Scale (SAS) and zung self - rating depression scale. Out of 250 responders, 19.2 %, 6.4 %, and 0.8 % experienced mild, moderate, marked to severe levels of anxiety. According to analysis, female (OR = 1.3, 95 % CI = 0.55 − 3.3, P = 0.524), above the age of 59 years (OR = 1.6, CI = (0.33 − 7.72), P = 0.555), were experiencing moderate level of anxiety when compared with others. Related to depression, 36.4 %, 16.4 % and 5.2 % experienced mild, moderate, marked to severe levels of depression. The findings show that female (OR = 0.79, 95 %, CI = 0.36 − 1.7, P = 0.845), above the age of 59 years (OR = 4.4, CI = 0.75 − 25.8, P = 0.101) were experiencing marked level of depression than others. The main causes for anxiety and depression among the people is due to financial constraints, dual role of women, work from home, and fear of infection, unemployment and online education.

KEYWORDS

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INTRODUCTION

In the city of Wuhan, China, unusual cases of patients with pneumonia were reported. They reported that it was caused by the new coronavirus (COVID - 19) reported and that it quickly spread across the globe posing a threat to global health.[1,2] Multiple preventive measures were implemented to halt the rapid spread of this global health crisis. In the context of the virus outbreak, a wide range of emotional outcomes have been observed, at the individual, community, national, and international levels. As individuals, people were affected both at the psychological and emotional level. Their major issues were helplessness, fear of getting sick, and being stereotyped.[3] There has been a harmful impact on the public's mental health, including psychological crises associated with the pandemic.[4] Health crises, such as the COVID - 19 pandemic, cause psychological changes among medical workers and the masses, and these changes are triggered by dread, anxiety, depression, or insecurity.[5] This study aims to assess the psychological distress among people during COVID - 19 pandemic.

MATERIALS AND METHODS

The study is being conducted to assess the level of anxiety and depression among people in Saudi Arabia during COVID - 19 and lockdown. A cross-sectional descriptive online survey was used to conduct this study. The research occurred between 15 June and 15 July, 2020. The poll was created using Google Forms and distributed to participants *via* Whatsapp. The survey participants were recruited on a voluntary basis using the show ball technique, and consent was sought prior to the start of the survey. The research instruments utilized in this study contained basic demographic information such as gender, age, education level, and occupation.

Study Instruments
The Zung anxiety self - rating scale and Zung self - rating Depression scale (SDS) were used. In this study, the Zung anxiety self-rating scale (SAS) was used to assess the anxiety level. The scale score is assessed follows

(i) < 50 - ordinary range
(ii) 50 - 59 - mild
(iii) 60 - 69 – moderate
(iv) 70 are classified as severe anxiety.

The Zung Depression self-rating scale (SDS) consists of 20 items and is used to measure the degree of depression. This is a four-point system.

(i) 50 - 59 - mild depression,
(ii) 60 - 69 - moderate depression,
(iii) 60 - 69 - moderate depression,
(iv) 70 points - severe depression.

Data Analysis
IBM SPSS version 20 software was used in the data analysis and a multiple regression procedure was used to assess the psychological distress among people f during COVID - 19 pandemic.[6]

Ethical Approval
The study has obtained ethical clearance from the Institution review board (IRB) of the university (REC41/5/141).[7]

RESULTS

Demographic Variables	Frequency	Percentage
Age in years		
19 – 29	148	59.2
30 – 30	-	-
40 – 49	89	35.6
50 – 59	3	1.2
Above 60	10	4
Sex		
Male	37	14.8
Female	213	85.2
Education		
No formal education	91	36.4
School education	9	3.6
Undergraduate	103	41.2
Post Graduate	44	17.6
Doctorate	3	1.2
Type of occupation		
Unemployed	78	31.2
Housewife / Accompanying person / Retired	17	6.8
Private sector	74	29.6
Teacher / Lecturer / Asst. Professor / Training Specialist	35	14
Nurse / Intern Nurse / Doctor's Assistant	10	4
Doctor / Dentist / Intern Doctor / Specialist	12	4.8
Administration / School Director / Security Observer / Engineer / Technician / Accountant / Delivery / Soldier	22	8.8
Business / Self Employed	2	0.8

Table 1. Frequency and Percentage Distribution of Demographic Variables of the Public (n = 250).

The demographic characteristics of the respondents are shown in Table 1. Among the 250 respondents, 85.2 % were women, of which 59.2 % were in 19 - 29, and 4% were above 60 years of age. In regard to the education level of the respondents, almost 36.4 % had no formal education, 41.2 % were undergraduates, 6.8 % were housewives, 31.2 % were unemployed, and 29.6 % were studying.

Distribution	Anxiety		Depression	
	No.	%	No.	%
Normal Range (< 50)	184	74	105	42
Mild (50 – 59)	48	19	91	36
Moderate (60 – 69)	16	6	41	16

Severe (≥ 70)	2	13	5.2

Table 2. Frequency and Percentage Distribution of Anxiety and Depression Level Among General Public During Corona Virus Outbreak.

As per Table 2, among 250 respondents, 19.2 % had mild anxiety, 6.4 % showed moderate anxiety, and 0.8 % experienced severe anxiety levels. Analyzing the depression levels, 36.4 % had mild depression, 16.4 % showed moderate depression, and 5.2 % of respondents have experienced severe depression.

Demographic Variables	Non-Anxiety Group	Anxiety Group	χ^2	p value	Multiple Logistic Regression Analysis	
	(n = 184)	(n = 66)			OR	p-Value
					(95 % CI)	
Age in years				0.76		
19 − 29	108 (43.2%)	40 (16 %)			1	0
30 − 30	-	-			-	-
40 − 49	66 (26.4 %)	23 (9.2 %)			1.01	0.97
					(0.54 − 1.9)	
50 − 59	3 (1.2%)	0 (0 %)			0	1
Above 60	7 (2.8%)	3 (1.2 %)			1.6	0.56
					(0.33 − 7.72)	
Sex			0.5	0.48		
Male	29 (11.6 %)	8 (3.2 %)			1	-

Female	155 (62.0 %)	58 (23.2 %)	1.3	0.52
				(0.55 – 3.3)
Education			0.6	
No formal education	64 (25.6 %)	27 (10.8 %)	1	-
School education	8 (3.2%)	1 (0.4 %)	0.38	0.54
				(0.2 – 8.1)
Undergraduate	77 (30.8 %)	26 (10.4 %)	2	0.52
				(0.25 – 15.8)
Post Graduate	32 (12.8 %)	12 (4.8 %)	2.1	0.63
				(0.11 – 37.4)
Doctorate	3 (1.2 %)	0 (0 %)	0	1
Type of occupation			0.27	
Unemployed	51 (20.4 %)	27 (10.8%)	1	-
Housewife / Accompanying person / Retired	16 (6.4 %)	1 (0.4 %)	0.12	0.06
				(0.01 – 1.04)
Student / Intern student / Private education	57 (22.8 %)	17 (6.8 %)	0.32	0.28
				(0.04 – 2.6)

Teacher / Lecturer / Asst. Prof. / Training Specialist	25 (10.0%)	10 (4. 0 %)		0.43	0.57
					(0.02 – 7.9)
Nurse / Intern Nurse / Doctor's Assistant	8 (3.2%)	2 (0.8 %)		0.25	0.29
					(0.02 – 3.3)
Doctor / Dentist / Intern Doctor / Specialist	10 (4.0%)	2 (0.8 %)		0.19	0.31
					4.6)
Private / Administration / School Director / Security Observer / Engineer / Technician / Accountant / Delivery / Soldier	15 (6.0 %)	7 (2.8 %)		0.77	0.82
					(0.08 – 7.8)
Business / Self Employed	2 (0.8%)	0 (0 %)		0	1

Table 3. Multiple logistic regressions of anxiety – related factors of the public during the Corona virus outbreak. (n = 250)

Table 3 shows the results of multiple logistic regressions. Women (OR = 1.3, 95 % CI = 0.55 – 3.3, P = 0.524), over 59 years old (OR = 1.6, CI = (0.33 – 7.72), P = 0.555), were experienced anxiety compared with other categories.

Demographic Variables	Non-Depression Group(n = 105)	Depression Group (= 145)	χ^2	p value	Multiple Logistic Regression Analysis OR (95% CI)	p Value
Age in years			5	0.2		
19 – 29	67 (26.8 %)	81(32.4 %)			1	-
30 – 30	-	-			-	-
40 – 49	36 (14.4 %)	53 (21.2 %)			1.2	0.45
					(0.71 – 2.2)	
50 – 59	0 (0 %)	3 (1.2 %)			0	1
Above 60	2 (0.8 %)	8 (3.2%)			4.4	0.1
					(0.75 – 25.8)	
Sex			0	0.8		
Male	15 (6 %)	22 (8.8 %)			1	-
Female	90 (36.0 %)	123 (49.2 %)			0.8	0.56

Variable					OR	P-value
					(0.36 – 1.7)	
Education			6	0.2		
No formal education	30 (12.0 %)	61 (24.4 %)			1	-
School education	3 (1.2 %)	6 (2.4 %)			13	0.08
					(0.77 –227.36)	
Undergraduate	49 (19.6 %)	54 (21.6 %)			3.3	0.29
					(0.37 – 29.5)	
Post Graduate	22(8.8 %)	22 (8.8 %)			2.6	0.53
					(0.13 – 50.0)	
Doctorate	1 (0.4 %)	2 (0.8 %)			5.6	0.35
					(0.15 – 203.6)	
Type of occupation			13	0.1		
Unemployed	24 (9.6 %)	54 (21.6 %)			1	-
Housewife / Accompanying person / Retired	5 (2.0 %)	12 (4.8 %)			0.8	0.68
					(0.23 – 2.6)	
Student / Intern student / Private education	36(14.4 %)	38 (15.2 %)			0.1	0.08
					(0.015 – 1.3)	
Teacher / Lecturer / Asst. Professor / Training Specialist	16 (6.4 %)	19 (7.6)			0.2	0.25
					(0.01 – 3.4)	
Nurse / Intern Nurse / Doctor's Assistant	4 (1.6 %)	6 (2.4 %)			0.2	0.24
					(0.02 – 2.8)	
Doctor / Dentist / Intern Doctor / Specialist	6 (2.4 %)	6 (2.4 %)			0.2	0.23
					(0.01 - 3.3)	
Private / Administration / School Director / Security Observer / Engineer / Technician / Accountant / Delivery / Soldier	14 (5.6 %)	8 (3.2 %)			0	0.01
					(0.003 – 0.45)	
Business / Self Employed	0 (0 %)	2 (0.8 %)			0	1

Table 4. Multiple Logistic Regression of Depression – Related Factors of the Public During the Corona Virus Outbreak. (n = 250)

Table 4, Related to depression, 36.4 % had mild depression, 16.4 % showed moderate depression, and 5.2 % of respondents have experienced severe depression. According to analysis Females (OR = 0.79,95 % CI = 0.36 – 1.7, P = 0.845), age above 59 years (OR = 4.4, CI = (0.75 – 25.8), P = 0.101) experienced more depression than other groups.

DISCUSSION

The study examines anxiety and depression levels among people in Jazan region, Kingdom of Saudi Arabia. The COVID 19 pandemic and lockdown period between 16 March to 21 June, 2020. In these inexorable circumstances, which are beyond the ordinary, people feel stress, anxiety, and a sense of helplessness. It was evidenced by this study finding. Based on the analysis and findings, the anxiety level was higher in women than in men, the results are similar to those of.[8] It is believed that women express emotions to a greater extent than men. Many studies show that women have a lower tolerance threshold than men. Women are unable to cope with strategies in times of uncertainty and stressful conditions.[9] Among the Australian populations, women were also found to be more exposed to stress, depression, and anxiety than men in this pandemic situation.[10] In this study, it was found that the anxiety and depression levels of people of younger age group were high. Well known fact is that the youngsters' are constantly engaged in using media and the information shared on social media regarding COVID 19 could

have played a pivotal role in increasing the anxiety and depression level of the younger ones / students.[11] The other contributor to anxiety and depression levels was a sudden shift from face to face class to online classes, which indirectly resulted in academic stress. Similarly, a study conducted among Spanish population revealed that students, women, and people with a lower income and those who do not have the required space per person in their homes, suffer from a higher psychological impact in terms of emotional distress and deteriorating mental health.[12] Another recent study found that university students frequently experience academic stress and have poor coping skills overall.[13] During the lockdown period, many researches have been carried out and the finding shows that t during the lockdown period, the sudden shift of online education, fear of academic achievement, loneliness, dual role of women, unemployment, economic constraints, unpredicted life, fear of infection, dependency, increased burden over women in the home, induced psychological problems among the people.[14-16] The present study also implies same. Many of the individuals in their late adulthood (above 60 years) experienced anxiety and depression during the COVID - 19 pandemic.[17] Older

adults could also experience difficulties in maintaining relationships through new channels of communication in a virtual form during the pandemic due to less experience with new technologies or age-related health problems (e.g. poor eyesight, problems with motor coordination). Thus, keeping relationships with others, especially friends at a similar age, could have been particularly difficult for the oldest group.[18] Finally, unemployed person continuity was related to anxiety and depressive symptoms; likewise, another study revealed that women, young people, and those who lost their jobs during the health crisis showed more negative psychological symptoms like higher levels of stress.

CONCLUSION

According to the findings of this study, age, gender, academic performance, and occupation were all strongly linked to anxiety and depression among those who experienced anxiety and depression. Throughout COVID - 19 and the lockdown phase. Remote online learning was the most common source of stress, which was unrelated to their academic achievement, economic constraints, loneliness, job loss, and a change in their typical routine life style contributes psychological problems among people. The analysis and findings imply that there is an urgent need for online support by health care professionals, and the hospitals should have call centers for 24 hours to provide mental health assistance and that will direct applicants to available community services when needed. It is a necessary and urgent need to plan new strategies to manage the psychological problems of the public and update the public with current information about COVID 19 and psychological support services. These support services might reduce the anxiety and depression levels and will help in the wellbeing of the individual.[19]

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