Impact of COVID-19 Pandemic on the Psychological Status of Palestinian Adults in the West Bank, Palestine; A Cross Sectional Study

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Research Article

Abstract

Coronavirus Disease 2019 (COVID-19) caused by a strain of SARS– CoV2. A lot of ministries chose mass lockdown protocol as a way to control the virus spread. One of the lockdown negative consequences is the impact of psychological status which includes a sense of boredom, confusion., psychological stress, anxiety, depression and physical effects. The purpose of this study was to assess and evaluate the effect of COVID-19 pandemic on the psychological status for Palestinian adults, and to establish recommendations in order to promote and maintain psychological well-being during this pandemic. A cross-sectional study was conducted among Palestinian adults, 739 participant with mean age 31.76 filled the on-line questionnaire. Around one-third of respondents revealed having many signs of anxiety and around 42% of respondents expressed having many depression signs. Females were significantly more likely to have many depression signs, while health care workers, those who deal directly with confirmed cases of Covid-19 and who assist in providing health care for a diagnosed Covid-19 patient were significantly less likely to have many depression signs compared to others. Regarding the participants' income, those with increased income were significantly more likely to have almost no signs of depression compared to others. However, COVID-19 pandemic has a negative effect on the mental status, the majority of participants have signs of anxiety and depression

Introduction

One of the greatest medical challenges nowadays is Coronavirus Disease 2019 (COVID-19) outbreak, which is caused by a strain of SARS–CoV 2 (Banerjee, 2020). This pandemic became as a global threat started at late December, 2019 in Wuhan city, China (Wang et al., 2020) . A lot of ministries chose mass lockdown protocol as a way to control that virus spread (Lee, 2020). That lockdown has negative consequences on the global economic and a decline reported in different economic sectors, all reflected on the individuals' lives (Xiong et al., 2020). Moreover, the protective measures needed to be considered including keeping social distance and quarantine may be also associated with the adverse impact on the psychological status of the public (Brown et al., 2020) due to the increase in the public sense of boredom and their confusion about time. (Cellini et al., 2020). However, fear from COVID-19 pandemic, forced lockdown and economic deterioration all brought great psychological stress, anxiety and depression among the population added to its morbidity and mortality effects. (Cao et al., 2020; Shigemura et al., 2020; Xiong et al., 2020) .

In literatures, there is a great attention given to identify the virus, transmission mode, clinical outcomes and vaccine development, while the psychological effect was neglected (Torales et al., 2020; Xiong et al., 2020). A highly infectious diseases that rapidly spread are known to have a psychological effects and signs of mental illness would appear (Medical Association, 2020). Add that the pandemic psychological effects are more obvious, pronounced and long lasting than physical signs and symptoms (Taylor, 2019). After COVID-19 deceleration in China, both negative emotions and sensitivity of social risk increased,

while positive emotions decreased (Li et al., 2020). Many studies conducted to detect the psychological effect of the Covid- 19 pandemic and found that a number of mental health problems, including stress, anxiety, fear and anger manifested among different communities (Torales et al., 2020) and were greater among certain subgroups such as healthcare providers (Kang et al., 2020) and females (Rajkumar, 2020). As example, higher scores of worries for different causes were reported among the Italian population and the anxiety and stress levels were found to be above the normal ones (Germani et al., 2020). Moreover, (Roy et al., 2020) study among Indian population found that the anxiety level was too high, sleep disturbance, distress, and paranoia about acquiring COVID-19 infection were also reported. Another cross-sectional study was attempted in the West Bengal and revealed that respondents were feeling more worried and depressed. They were having sleep disturbance and taking hydroxychloroquine as prophylaxis from COVID-19 (Chakraborty and Chatterjee, 2020). For COVID-19 infected patients, the psychological effect mainly appears as a fear from death and feeling of loneliness (Zandifar and Badrfam, 2020).

Regarding Arab's world, there are some studies conducted in order to assess the psychological effect for that pandemic either for general population (Alkhamees et al., 2020; Alsalman et al., 2020; Arafa et al., 2020; Burhamah et al., 2020) and for determined subgroups such as healthcare workers (Badahdah et al., 2020; Corbett et al., 2020) . The researchers used different tools and found that there is a psychological impact of that outbreak, and those studies' findings revealed the presence of stress, anxiety and depression symptoms even at variable degrees. Locally, there is not any study conducted to assess the psychological impact of Covid-19 outbreak and its protective measures imposed.

However, this study aimed to assess and evaluate the impact of COVID-19 pandemic on psychological status among Palestinian adults, to determine the associated factors with changes in the psychological status and to establish recommendations based on the results, in order to maintain psychological well-being among the Palestinian adult community.

Material And Methods

2.1. Study Design and sample:

An observational descriptive cross-sectional study was conducted among Palestinian adults in the West Bank, at the occupied Palestinian territories, between July and September 2020. The data were collected through an online distributed questionnaire, as it is considered the only convenient way for distributing the questionnaire during the forced lockdown. The questionnaire was designed and provided by the Google Forms (Google Inc., USA) under the supervision of an Informational Technology Department personnel. The total population presented was around two millions adults. ("Palestine Population 2020 (Demographics, Maps, Graphs)," n.d.) The sample size was 385 as calculated online with 95% confidence level and 5% error margin ("Sample Size Calculator -Confidence Level, Confidence Interval, Sample Size, Population Size, Relevant Population - Creative Research Systems," n.d.). A 739 respondents filled the questionnaire. The participants should be adults, living in the West bank and having internet services in

order to participate in the study. Participants who revealed that they were currently suffering from COVID-19 or already recovered from COVID-19 and those who did not believe about the presence of the virus were excluded. This study was approved by the IRB committee at Faculty of Pharmacy, Nursing and Health Professions, Birzeit University with reference number BZU-PNH-2009.

2.2 Study tool:

The questionnaire was adapted with some changes after reviewing previous international studies with some modifications (Chakraborty and Chatterjee, 2020) and (Alkhamees et al., 2020) . The questionnaire was written in the English language then translated into Arabic language by experts. It was revised by an epidemiologist from the Faculty of Pharmacy, Nursing and Health Professions. The questionnaire components were reviewed by five experts and professionals for content validity, relevance and appropriateness. Then, a pilot study was conducted among 42 participants to check the questionnaire clarity. Accordingly, the final version of the questionnaire was structured into two domains; the first consists of sociodemographic data in nine variables. The second consisting of 33 variables covers the participants' inclusion criteria, evaluate the psychological impact of COVID-19, information sources and the way they spent time at the period of exposure. The answers were on the basis of yes/ no and an additional option of "I don't know" was added in some questions as needed.

2.3. Statistical analysis:

All questions were coded, imported to IBM SPSS Statistics 22 for analysis and recoding for questions with more than two choices was performed to have answers on a Yes/ No basis. Principle component analysis (PCA) with varimax rotation was performed to extract factors using loading criteria of (0.40). 26 items were examined, then divided into 3 subscales; 9 items as anxiety signs, 7 items as depression signs, 9 items reflect participants' practices and an item related to anxiety due to income loss was deleted. Then, reliability coefficient (Cronbach α) for each subscale was calculated and showed good internal consistency for depression (α=0.803), anxiety (α=0.762) and acceptable for practice (α=0.555). It is important to note that presence of those anxiety or depression signs do not reflect a clinical diagnosis of anxiety or depression.

Descriptive statistics were performed to present data. For anxiety and depression subscales, count for yes answers, which reflect the presence of that sign, was performed and scored 1 for each. Recoding for the total anxiety scale score was subdivided into almost having no anxiety signs (0-2), having some anxiety signs (3-6) and having many anxiety signs (7-9). For depression scale, the total score was subdivided into almost having no depression signs (0-2), having some depression signs (3-5) and having many depression signs (6-7). Chi-square testing with 95% confidence interval was run to identify any association between the sociodemographic data and other three questions related to direct deal with Covid-19 patients with the anxiety and depression subscales.

Results

3.1. Socio-demographic characteristics of study participants (N = 694)

A total of 739 participants completed the online questionnaire. Of those 39 (5.3%) participants did not believe in the existence of virus COVID-19 and 6 (0.8%) were infected with Covid-19, those participants were excluded. Of those 694 remaining participants aged from 18 to 80 with mean age (31.76), (57.2%) were females and (52.6%) were single. Almost (44.7%) of the participants resided in the middle of the west bank with (52.3%) being city residents. More than half of the participants (59.2%) were holders of Bachelor, (58.1%) revealed that their monthly income had decreased due to the pandemic and only (15.4%) were healthcare workers (Table 1). Additionally, (90.9%) of respondents reported that they did not deal with an infected patient with COVID-19, (94.7%) of respondents reported that they did not assist in providing health care to a person who was diagnosed with COVID-19 and (47.7%) revealed that there are no confirmed cases of COVID-19 in their neighborhood. These three variables are identified as independent variables.

Table 1: Socio-demographic characteristics of study participants (N = 694)

Socio-demographic characteristics		N (%)
Gender	Male	297 (42.8)
	Female	397 (57.2)
Age (years)	Less than 21	175 (25.2)
	21-30	230 (33.1)
	31-40	122 (17.6)
	More than 40	167 (24.1)
Marital status	Single	365 (52.6)
	Married	312 (45.0)
	Others	17 (2.4)
Governorate	Jerusalem and the occupied Palestinian territory	116 (16.7)
	North of the WB	191 (27.5)
	Middle of the WB	310 (44.7)
	South of the WB	77 (11.1)
Place of residency	City	363 (52.3)
	Village	313 (45.1)
	Refugee camp	18 (2.6)
Educational attainment	Uneducated or Less than Secondary post-compulsory education	31 (4.5)
	Secondary post-compulsory education	79 (11.4)
	Diploma	47 (6.8)
	Bachelor's degree	411 (59.2)

	Higher education	126 (18.2)
Occupation	Health sector	107 (15.4)
	Non- Health sector	252 (36.3)
	Student	254 (36.6)
	Unemployed	81 (11.7)
Occupation type	Employee	258 (37.2)
	personal business	112 (16.1)
	Not applicable	324 (46.7)
Financial income	Increased	9 (1.3)
	Steady	144 (20.7)
	Decreased	403 (58.1)
	Not applicable	138 (19.9)

Regarding participants' information resources (Fig. 1), majority (64.4%) were obtained that they rely on the official media outlets in Palestine (Ministry of Health website and government spokesperson) and (62%) from social media as their main resources, then 50.6% stated that they rely on scientific resources such as the World Health Organization, International Centers for Disease Control and Prevention or scientific papers.

And when we asked them about their time, how they have spent during the comprehensive closure of the West Bank (Fig.2), more than half revealed that they were busy in doing household chores, engaged in social media or only lying and sleeping, while only 36.3% revealed that they were working from home.

3.2 Anxiety

Around one-third of respondents (35.2%) revealed that they have many signs reflected their feeling of anxiety (Fig. 3). Regarding these signs, (64.3%) of participants have felt anxious more than usual since the beginning of the pandemic and (75.9%) were anxious regarding the limited capabilities and tools of the local authorities to combat the COVID-19 pandemic. Additionally, the majority of participants (83.1%) reported that they felt anxious due to the lack of an effective treatment or vaccination for COVID-19. On

the other hand, a high percentage of participants revealed that their sleep cycle didn't changed. Moreover, they didn't become obsessed about getting infected with COVID-19, and they didn't become more irritable and angry than usual with percentages of (65.7%), (59.4%) and (55.9 %) respectively. However, (84.4%) of the respondents have been concerned about their future and that of their family members since the beginning of the pandemic in Palestine, and (83.6%) felt anxious about the financial loss during the quarantine. (Table 2)

Table 2: Anxiety related to the Impact of COVID-19 Pandemic

Statement	Yes n (%)	No n (%)
Have you felt anxious more than usual since the beginning of the pandemic in Palestine?	446 (64.3)	248 (35.7)
Do you always think about getting infected with Covid-19 since the beginning of the epidemic in Palestine?	282 (40.6)	412 (59.4)
Has there been a change in your sleep cycle since the beginning of the pandemic in Palestine?	238 (34.3)	456 (65.7)
Have you felt anxious about the limited capabilities and tools of the local authorities to combat the Covid 19-pandemic?	527 (75.9)	167 (24.1)
Have you felt anxious due to the lack of an effective treatment or vaccination for Covid-19?	577 (83.1)	117 (16.9)
Have you been concerned about your future and that of your family members since the beginning of the pandemic in Palestine?	586 (84.4)	108 (15.6)
Have you become more irritable and angry than usual since the beginning of the pandemic in Palestine?	306 (44.1)	388 (55.9)
Did you become more anxious when you got information about Covid-19? (From WhatsApp, Facebook, Television, Radio ..... etc.)	498 (71.8)	196 (28.2)
Have you ever felt anxious about the society's perception if you are infected with the Coronavirus?	253 (36.5)	441 (63.5)
Have you felt anxious about the financial loss you suffered during the lockdown/quarantine in the West Bank?	580 (83.6)	114 (16.4)

Table (3) shows Chi square results which revealed the presence of a significant difference between the amount of anxiety signs at different ages (P-value= 0.024). Younger respondents aged less than 21 years were less likely to have many anxiety signs (26.9%) compared with older aged 21 to 30 (37.0%), 31 to 40 (34.4%) and over 40 (41.9%). Add that respondents who stated that there were not any confirmed cases of Covid-19 in the neighborhood were significantly less likely to have many anxiety signs (26.6%, P-value<0.001) compared to those who had cases or do not know about their neighbors (44.6% and 40.2%) respectively. On the other hand the results shown that there were no significant associations found between having anxiety signs and the respondent's sex, educational attainment, place of residency,

occupation, providing care for Covid-19 infected patients and their income during the period of spread of the virus.

Table 3: Distribution of different respondents' characteristics with the anxiety signs they had

Socio-demographic characteristics		Anxiety signs			P-value
		Having almost no signs	Having some signs	Having many signs	
Gender	Male	47 (15.8)	145 (48.8)	105 (35.4)	0.226
	Female	46 (11.6)	212 (53.4)	139 (35.0)	
Age (years)	Less than 21	32 (18.3)	96 (54.9)	47 (26.9)	0.024
	21-30	26 (11.3)	119 (51.7)	85 (37.0)	
	31-40	11 (9.0)	69 (56.6)	42 (34.4)	
	More than 40	24 (14.4)	73 (43.7)	70 (41.9)	
Marital status	Single	55 (15.1)	194 (53.2)	116 (31.8)	0.301
	Married	37 (11.9)	154 (49.4)	121 (38.8)	
	Others	1 (5.9)	9 (52.9)	7 (41.2)	
Governorate	Jerusalem and the oPt	14 (12.1)	67 (57.8)	35 (30.2)	0.393
	North of the WB	27 (14.1)	99 (51.8)	65 (34.0)	
	Middle of the WB	41 (13.2)	160 (51.6)	109 (35.2)	
	South of the WB	11 (14.3)	31 (40.3)	35 (30.2)	
Place of residency	City	57 (15.7)	187 (51.5)	119 (32.8)	0.374
	Village	34 (10.9)	161 (51.4)	118 (37.7)	
	Refugee camp	2 (11.1)	9 (50.0)	7 (38.9)	
Educational attainment	Uneducated or Less than Secondary post-compulsory education	4 (12.9)	12 (38.7)	15 (48.4)	0.216

	Secondary post-compulsory education	17 (21.5)	32 (40.5)	30 (38.0)	
	Diploma	7 (14.9)	22 (46.8)	18 (38.3)	
	Bachelor's degree	51 (12.4)	222 (54.0)	138 (33.6)	
	Higher education	14 (11.1)	69 (54.8)	43 (34.1)	
Occupation	Health sector	15 (14.0)	52 (48.6)	40 (37.4)	0.107
	Non- Health sector	28 (11.1)	120 (47.6)	104 (41.3)	
	Student	41 (16.1)	140 (55.1)	73 (28.7)	
	Unemployed	9 (11.1)	45 (55.6)	27 (33.3)	
Occupation type	Employee	29 (11.2)	137 (53.1)	92 (35.7)	0.556
	personal business	16 (14.3)	52 (46.4)	44 (39.3)	
	Not applicable	48 (14.8)	168 (51.9)	108 (33.3)	
Financial income	Increased	2 (22.2)	4 (44.4)	3 (33.3)	0.079
	Steady	24 (16.7)	82 (56.9)	38 (26.4)	
	Decreased	46 (11.4)	198 (49.1)	159 (39.5)	
	Not applicable	21 (15.2)	73 (52.9)	44 (31.9)	
Deal directly with an infected Covid-19 patient	Yes	9 (14.3)	36 (57.1)	18 (28.6)	0.513
	No	84 (13.3)	321 (50.9)	226 (35.8)	
Assist to provide health care to a diagnosed Covid-19 patient	Yes	7 (18.9)	19 (51.4)	11 (29.7)	0.544
	No	86 (13.1)	338 (51.4)	233 (35.5)	
Presence of confirmed	Yes	18 (7.8)	110	103	<0.001

		(47.6)	(44.6)
No	53 (16.0)	190 (57.4)	88 (26.6)
Do not Know	22 (16.7)	57 (43.2)	53 (40.2)

3.3 Depression

Regarding depression signs, (41.6%) of respondents expressed having many depression signs (Fig. 3), a high percentage of the participants reported that COVID-19 has affected their mental status negatively and that they felt depressed since the beginning of the pandemic in Palestine with percentages of (71.2%) and (60.8%) respectively. Furthermore, half of the participants (50.1%) revealed that they felt depressed as a result of the changes in some social behaviors and habits, and (63.3%) became more depressed when they got information about COVID-19. In Addition, the new daily life during the comprehensive closure cause depression for (70.5%) of the participants, (66.7%) felt depressed due to their commitment at home during the lockdown, and (59.2%) of the respondents believed that COVID-19 pandemic will pose a threat to their existence.

As shown in table (4), significant association was found between the amount of signs of depression the respondents had and their sex (P-value= 0.001), that females (46.3%) were more likely to have many depression signs compared to males (35.4%). Not as expected, workers at health sectors (29.9%, P-value= 0.039), those who deal directly with confirmed cases of Covid-19 (19.0%, P-value= 0.001) and those who assist in providing health care for a diagnosed Covid-19 (16.2%, P-value= 0.003) patient were significantly less likely to have many depression signs compared to others. Regarding the participants' income, those with increased income were significantly more likely to have almost no signs of depression (55.6%, P-value=0.007) compared to whose income doesn't changed, decreased or doesn't have any previously (30.6%, 20.8%, 23.9%) respectively.

Table 4: Distribution of different respondents' characteristics with the depression signs they had

Socio-demographic characteristics		Depression signs			P-value
		Having almost no signs	Having some signs	Having many signs	
Gender	Male	91 (30.6)	101 (34.0)	105 (35.4)	0.001
	Female	75 (18.9)	138 (34.8)	184 (46.3)	
Age (years)	Less than 21	40 (22.9)	65 (37.1)	70 (40.0)	0.126
	21-30	44 (19.1)	86 (37.4)	100 (43.5)	
	31-40	29 (23.8)	38 (31.1)	55 (45.1)	
	More than 40	53 (31.7)	50 (29.9)	64 (38.3)	
Marital status	Single	76 (20.8)	130 (35.6)	159 (43.6)	0.180
	Married	84 (26.9)	106 (34.0)	122 (39.1)	
	Others	6 (35.3)	3 (17.6)	8 (47.1)	
Governorate	Jerusalem and the oPt	29 (25.0)	40 (34.5)	47 (40.5)	0.272
	North of the WB	50 (26.2)	58 (30.4)	83 (43.5)	
	Middle of the WB	71 (22.9)	120 (38.7)	119 (38.4)	
	South of the WB	16 (20.8)	21 (27.3)	40 (51.9)	
Place of residency	City	97 (26.7)	125 (34.4)	141 (38.8)	0.319
	Village	66 (21.1)	106 (33.9)	141 (45.0)	
	Refugee camp	3 (16.7)	8 (44.4)	7 (38.9)	
Educational attainment	Uneducated or Less than Secondary post-compulsory education	6 (19.4)	11 (35.5)	14 (45.2)	0.295

	Secondary post-compulsory education	25 (31.6)	23 (29.1)	31 (39.2)	
	Diploma	10 (21.3)	18 (38.3)	19 (40.4)	
	Bachelor's degree	86 (20.9)	144 (35.0)	181 (44.0)	
	Higher education	39 (31.0)	43 (34.1)	44 (34.9)	
Occupation	Health sector	35 (32.7)	40 (37.4)	32 (29.9)	0.039
	Non- Health sector	62 (24.6)	75 (29.8)	115 (45.6)	
	Student	54 (21.3)	90 (35.4)	110 (43.3)	
	Unemployed	15 (18.5)	34 (42.0)	32 (39.5)	
Occupation type	Employee	72 (27.9)	90 (34.9)	96 (37.2)	0.138
	personal business	30 (26.8)	36 (32.1)	46 (41.1)	
	Not applicable	64 (19.8)	113 (34.9)	147 (45.4)	
Financial income	Increased	5 (55.6)	1 (11.1)	3 (33.3)	0.007
	Steady	44 (30.6)	57 (39.6)	43 (29.9)	
	Decreased	84 (20.8)	138 (34.2)	181 (44.9)	
	Not applicable	33 (23.9)	43 (31.2)	62 (44.9)	
Deal directly with an infected Covid-19 patient	Yes	22 (34.9)	29 (46.0)	12 (19.0)	0.001
	No	144 (22.8)	210 (33.3)	277 (43.9)	
Assist to provide health care to a diagnosed Covid-19 patient	Yes	15 (40.5)	16 (43.2)	6 (16.2)	0.003
	No	151 (23.0)	223 (33.9)	283 (43.1)	
Presence of confirmed	Yes	45 (19.5)	82	104	0.104

cases in the neighborhood			(35.5)	(45.0)
	No	91 (27.5)	117 (35.3)	123 (37.2)
	Do not Know	30 (22.7)	40 (30.3)	62 (47.0)

3.4 Practice

With regard to the practices, (92.1%) of the respondents haven't visited a doctor or do any medical test to detect their potential infection with COVID-19 and (87.3%) haven't carried out any laboratory tests to ensure that they are healthy. At the same time around two-third of the participants (63.3%) checked their fever since the beginning of the pandemic in Palestine. The majority of the participants haven't taken either a prophylactic dose (Hydroxychloroquine or Dexamethasone) or antibiotics to be aware of COVID-19 with a percentage of (99.1%) and (96.5%) respectively. On the other hand, the vast majority of participants (97%) haven't requested the help of psychiatry helpline to reduce their anxiety or depression since the beginning of the pandemic in Palestine. Furthermore, the majority of the participants (90.6%) revealed that they haven't taken any sleep medication and (96.3%) revealed also that they aren't on any antidepressant(s)/ anti-anxiety medication since the beginning of the pandemic in Palestine.

Discussion

People in the community face several challenges during the pandemics phenomenon. Impacts of these pandemics are often severe, which may negatively affect the mental health of a given population. The depression and anxiety related to pandemics also influence the behavior of people in the community. Hence, this study attempted to evaluate the psychological impact of COVID-19 pandemic on Palestinian adults in the West bank. The results of the current study related to anxiety revealed that half of the respondents showed some signs of anxiety, whereas the third of participants have many signs. By reviewing the literature, there was a debate on how to assess anxiety, whether by using a specific anxiety scale or any other possible way. However many studies showed a quiet interesting mean, percentages, and significance values for respondents who became anxious due to COVID-19 pandemic, and almost one-third to half of the respondents in these studies became anxious, with respect to the variation of the sample size for each study (Madani et al., 2020; Qiu et al., 2020) . Besides, younger respondents aged less than 21 years were less likely to have many anxiety signs when compared with older respondents, which is consistent with the findings of some recent studies (Gómez-Salgado et al., 2020). This might be because that youngers do not have economic responsibilities toward their families and they can occupy their time with many activities make their minds distract from thinking of the disease. Moreover, the younger respondents might have fewer signs of anxiety because they think their immune system is strong enough to fight COVID-19, unlike the older respondents who might experience fear of falling sick or die. Further, respondents who stated that there were no confirmed cases of COVID-19 in the neighborhood were less likely to have many anxiety signs compared to those who have cases or do not know about their neighbors and these results are in line with a study conducted by Sue et al. (Su et al., 2020).

Increasing anxiety levels due to the presence of confirmed cases in the neighborhood might be related to their fear of getting infected with the virus due to their socially connecting with neighbors.

Regarding depression results; our study results showed that respondents who dealt or assisted in caring for confirmed COVID-19 cases were less likely to have many depression signs. That might be because health care workers are wearing personal protective equipment all the time, dealing with all patients as suspected to have COVID-19, they deal with more serious infectious diseases and critical cases than COVID-19 patient, and they are more knowledgeable about the disease compared to the others which make them comfortable and have fewer signs of depression and anxiety. These results are contrary to literature findings that showed health care workers revealed poor mental health because of COVID 19 which had a negative impact on staff well-being and quality of care given to patients(Liu et al., 2020). despite many studies revealed that the majority of frontline healthcare workers reported high levels of stress and depression more than other workers (Pappa et al., 2020).

Regarding gender, the findings came in line with other studies support the statement that females are affected and exposed to negative psychological consequences such as depression more than males (Losada-Baltar et al., 2020). That might be due to several reasons related to the nature of the prevailing culture in the local community such as the dependence distance education system, which places a great responsibility on her shoulders to supervise their children who study at school, in addition, her overthinking about the financial situation and how the needs of the family will be met, especially if the husband becomes unemployed. On the other hand, for a worker female more responsibilities added, such as working remotely and meeting their home needs.

Moreover, respondents with increased income were having almost no signs of depression when compared to those who have decreased, or unchanged income. Likewise what previous studies showed that respondents with increased income were less depressed than those who have a certain issue with their income, whether by a decreased or unchanged income during the pandemic (Dubey et al., 2020), and that might be due to the feelings of financial instability which put great responsibilities on the breadwinner of the family to meet their needs such as food, rent, and bills.

However, regarding practice results, the study showed that the majority of the respondents haven't taken either a prophylactic dose of (Hydroxychloroquine or Dexamethasone) or antibiotics to be aware of COVID-19 which is inconsistent with the results of other study conducted by Mehra (Mehra et al., 2020). This could be due to the increased level of education since more half of the participants are holding a bachelor's degree which makes them aware of such practices. Moreover, there is no conclusive research confirmed that Dexamethasone or Hydroxychloroquine helps in treating or preventing COVID-19, added to the fact that authorities are standing against self-medicate with these types of medications during the pandemic(Siemieniuk et al., 2020).

The study also showed that the vast majority of respondents haven't taken either anti-depressant, anti-anxiety, or sleep medication during the pandemic, in order to control or treat anxiety, depression, or

sleeping disorders. These results are in line with previous research where the vast majority of respondents haven't taken these medications during COVID-19 outbreak (Chakraborty and Chatterjee, 2020).

Conclusion

COVID-19 pandemic has a negative effect on the mental status, the majority of participants have signs of anxiety and depression. Middle age, elderly, and participants who had the presence of confirmed cases or do not know about their neighbors revealed having many signs of anxiety compared to other groups. In addition, respondents who dealt or assisted in caring for confirmed COVID-19 cases and females exposed to negative psychological consequences such as depression more than others. Moreover, respondents with increased income were having almost no signs of depression. However, the study showed that the majority of the respondents haven't taken either a prophylactic dose or antibiotics to be aware of COVID-19 also they haven't taken either anti-depressant, anti-anxiety, or sleep medication during the pandemic. Upon these results, there is a need for more attention to vulnerable groups such as the elderly and women. In addition to that, we recommended taking a break from watching, reading or listening to the news, including on social media, and get facts from global and local health authority platforms.

Limitations Of The Study

This study is limited to people who own computers, laptops, or smartphones and have a Facebook or WhatsApp account to be able to participate in the research. In addition it represents mainly the educated population, so it should not be generalized to the whole population.

Declarations

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Declaration of Competing Interest

The authors state that they do not present any conflict of interests in the present research.

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Data availability

The data used to support the findings of this study are available from the corresponding author upon request

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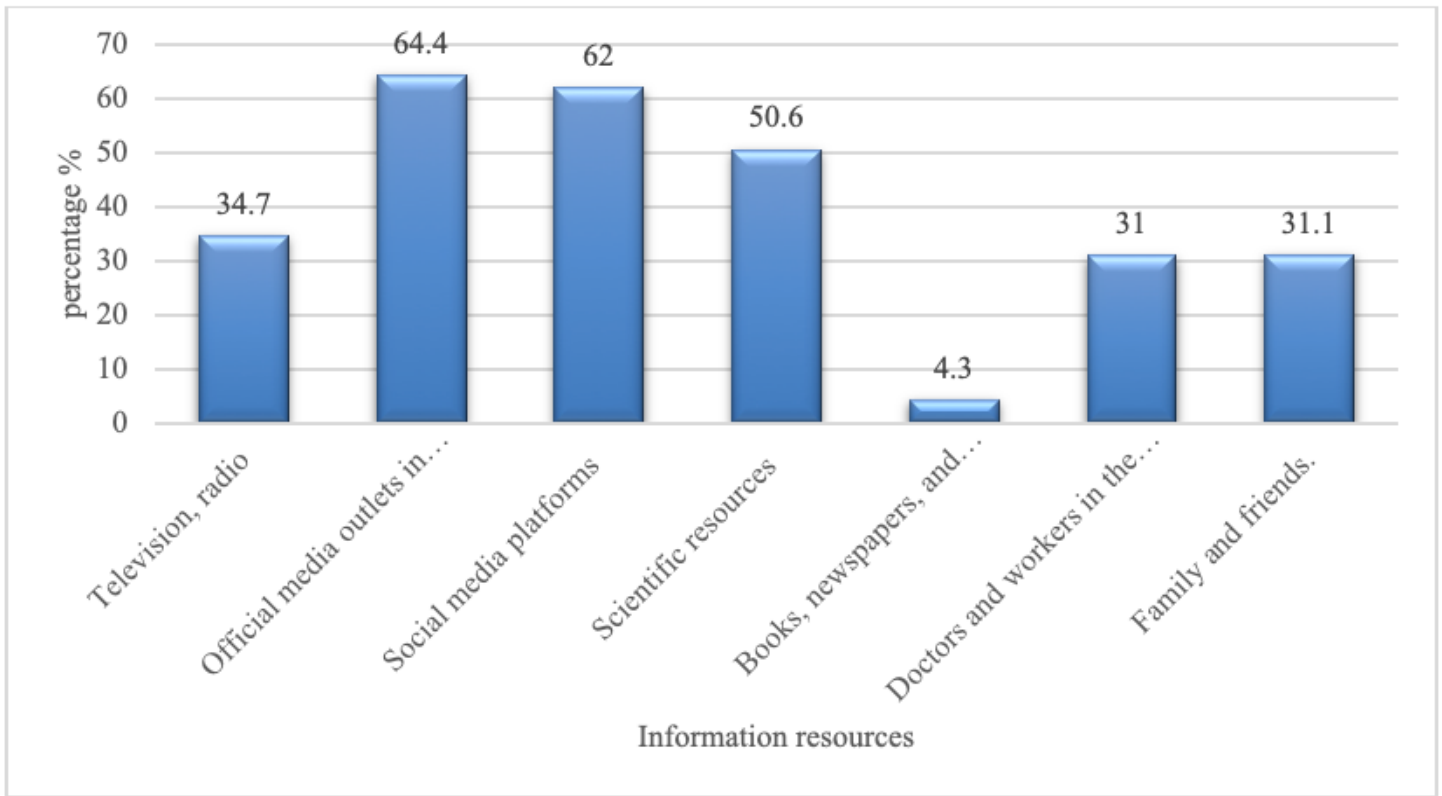
Figures

Figure 1

The participants' resources of information about COVID-19. (N=694)
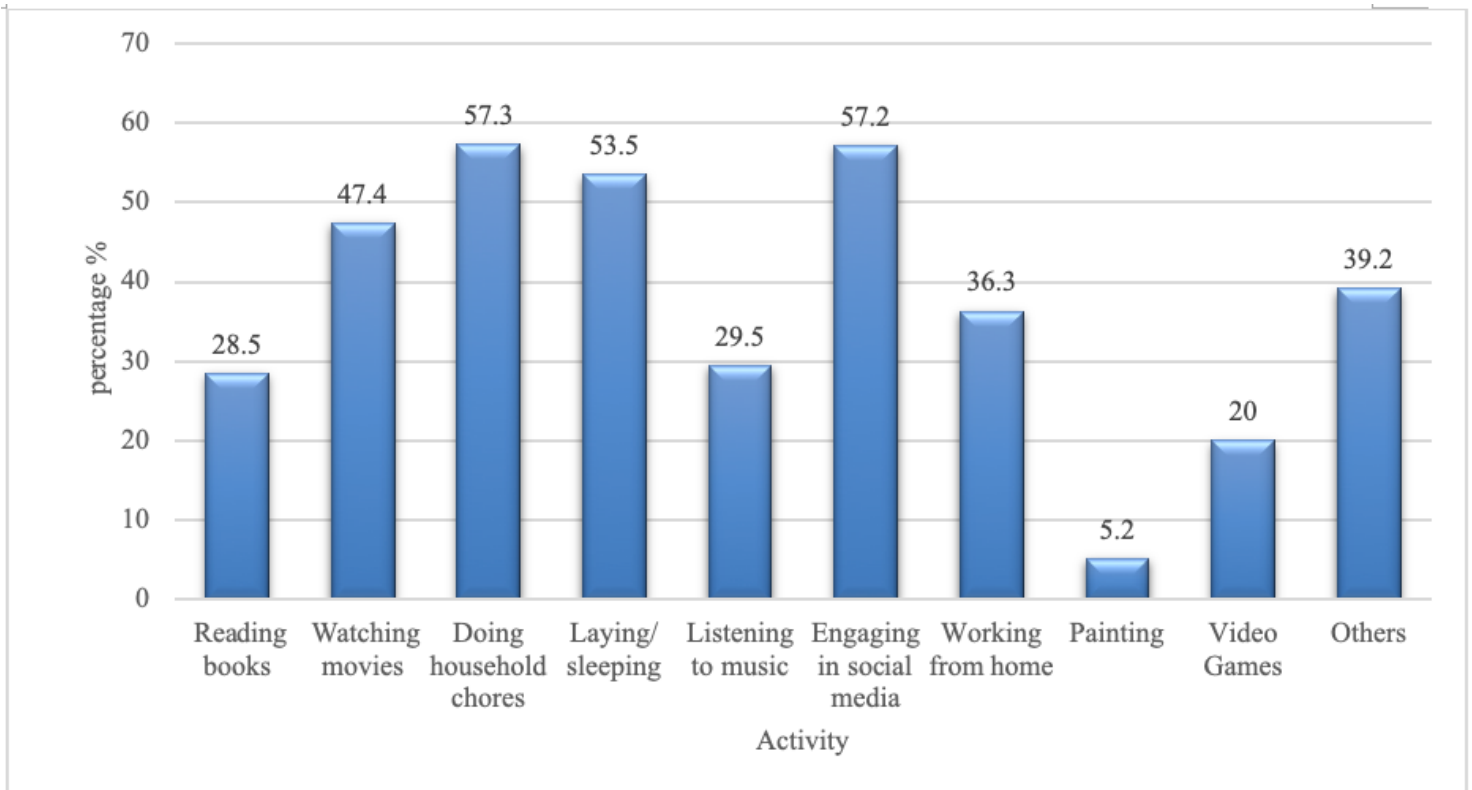

Figure 2

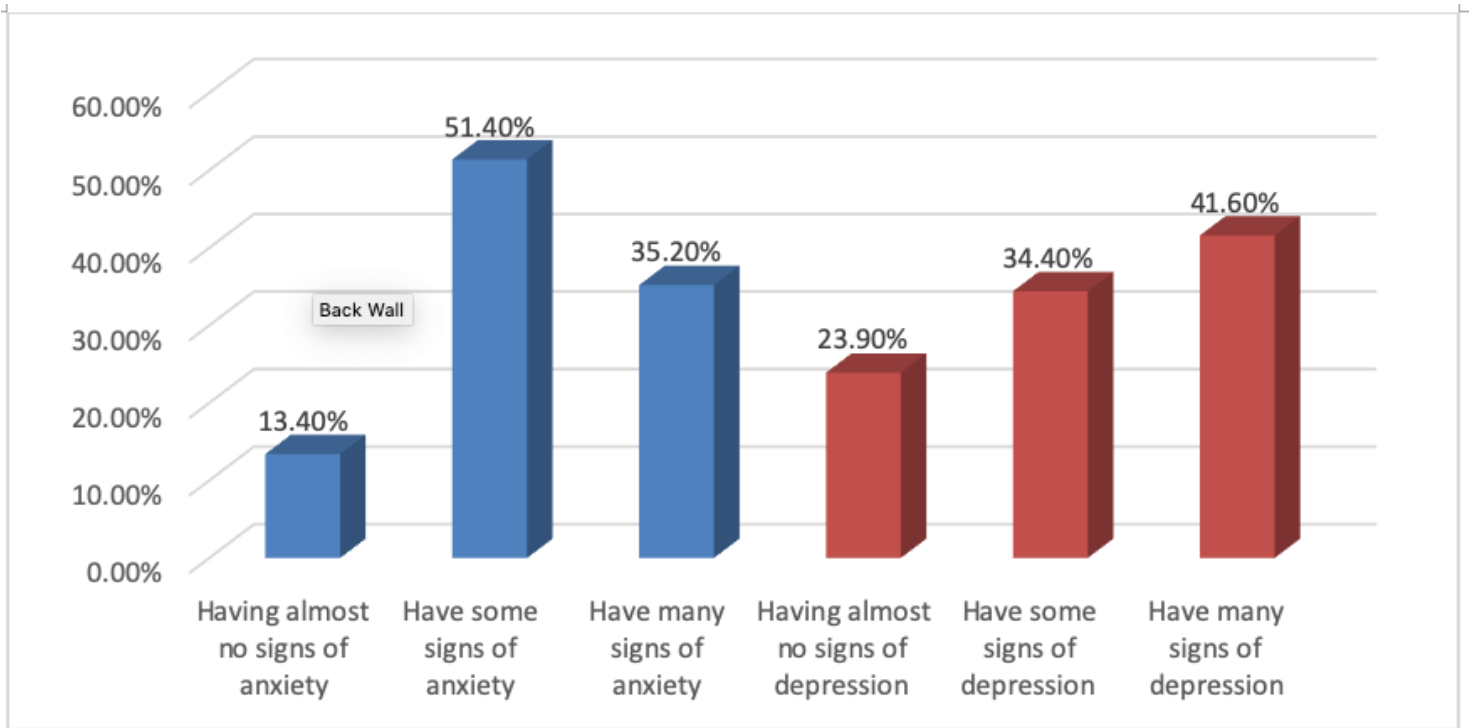The activities participants spent their time in. (N=694)

Figure 3

Percentage of participants with signs of anxiety and depression