

Prevalence and Correlates of Psychological Reactions Among Jordanian Nurses During the Coronavirus Disease 2019 Pandemic

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Abstract

We aimed to assess the prevalence of psychological reactions (depression, anxiety, and stress) and their correlates among Jordanian nurses. This study was conducted using an online survey from March 22, 2020, to March 27, 2020. The Arabic version of Depression, Anxiety, and Stress Scale (DASS) was used. Depression, anxiety, and stress were highly prevalent among nurses (57.8%, 42.4%, and 50.1%, respectively). Those who had close contact with a coronavirus disease 2019 (COVID-19) patient showed stronger psychological reactions than their counterparts (partial = 0.264, part = 0.254). Moreover, female gender and number of children were the main significant predictors of depression [($B = 0.176$), ($B = 0.232$), ($B = 0.255$)], anxiety [($B = 0.155$), ($B = 0.232$), ($B = 0.268$)], and stress [($B = 0.148$), ($B = 0.218$), ($B = 0.258$)]. Hence, the mental health status of nurses should be given priority, especially those who are in contact with COVID-19 patients, female nurses, and those who have children.

Introduction

In December 2019, Wuhan, Hubei Province, China, reported multiple individuals with severe respiratory disease without an identifiable cause that exhibited human-to-human transmission. These individuals were soon confirmed to have been infected with a new coronavirus (Wuhan City Health Committee (WCHC), 2019 #51). In the middle of January 2020, the World Health Organization (WHO) named this new virus “2019 novel coronavirus (2019-nCoV)” and the resulting disease as coronavirus disease 2019 (COVID-19). In the late January 2020, the WHO declared that COVID-19 is an emergency that demands an urgent international public health response (World Health Organization 2019).

The COVID-19 is an airborne disease that is expected to infect a significant number of individuals (World Health Organization 2019). COVID-19 patients are not only highly infectious during the incubation period but also asymptomatic during that time (World Health Organization 2019). Moreover, the WHO announced that COVID-19 is a pandemic, where 200 countries and areas have active cases (World Health Organization 2019). According to the Worldometer, the last statistics reported 551,028 confirmed cases and 24,914 registered deaths until March 27, 2020 (Worldometer 2020).

Importantly, COVID-19 is highly contagious. The symptoms span a continuum from none to severe, and the severity has greater negative outcomes for people with comorbidities. Both the nature of the disease and the measures to stop transmission, such as social distancing, have implications on the population as a whole and on their physical and psychological health. Hence, it is expected that this COVID-19 outbreak would result in a wide range of psychological reactions such as acute stress, post-traumatic stress syndrome, anxiety, and depression (Brooks 2020).

In the aspect of psychological difficulties, psychological distress itself is more harmful than certain physical diseases as people vary in their responses to emergency situations or epidemics (Brooks 2020).

Healthcare workers, especially nurses, are at the frontline of any serious health threat such as the current outbreak. They risk their health and lives to provide care for patients who are infected with such virus.

Overall, nurses deal with the infected patients, those suspected with COVID-19, their relatives, and those who are subclinical carriers or asymptomatic (Choi 2020), increasing their vulnerability to infection and increasing the risk of transmitting this virus to their families and relatives.

Providing care to patients during the COVID-19 outbreak carries a lot of occupational hazards, which results in huge physical stress and emotional overload among nurses (Choi 2020). Appropriate knowledge of infection control and effective use of personal protective equipment (PPE) are critical to reduce this vulnerability (American Nurses Association 2020). Adequate supplies of PPE (mask, eye protection, gown, and gloves) need to be available to frontline nurses. Thus, the responsibility falls on their institutions to provide all of these equipment to reduce nurses' stress during a disease outbreak (Koh 2012).

Moreover, the Middle East Respiratory Syndrome coronavirus (MERS-CoV) in South Korea induced a strong pressure on nurses who were in contact with infected patients and perceived themselves as healthcare providers who were working in a dangerous zone (Kim 2018). A previous study reported that stressors among healthcare teams can stem from isolation, unexpected changes in home life, and discrimination. Nonetheless, doctors and nurses reported that stressors were primarily due to patient care (Smith 2017). Nurses, in particular, spend longer times with their patients compared with other healthcare providers and are in close contact with patients with suspected or confirmed infection. Hence, we believe that psychological reactions among nurses during the present outbreak (COVID-19) deserve much attention.

Studying the psychological reactions of nurses during this sensitive time is paramount. According to the emotion theory, psychological reactions or emotions and cognition are interactive and integrated into the brain (Pessoa 2019), which is in line with the fact that emotions considerably influence perception, thoughts, and behaviors. Emotions and cognition are always interacting and thus normally preclude pure cognitive and emotional states.

Previous literature have found a strong relationship between psychological reactions including anxiety and fear and demographic factors. Female nurses often reported higher levels of these emotional reactions compared with male nurses (Huang 2020). During the severe acute respiratory syndrome (SARS) outbreak in Taiwan, in 2003, nurses reported that they were thinking of abandoning their patients who had an active SARS infection and started seriously considering leaving their careers (Shiao 2007). Nurses in Taiwan exhibited rapid changes in mental health status, including depression and anxiety (Su 2007). Furthermore, studies during the outbreak of MERS reported that nurses showed serious depressive symptoms (Almutairi 2018). A study from China related to COVID-19 conducted among nurses who were providing care to infected patients stated that psychological comorbidities were evident among them, including post-traumatic stress syndrome and severe anxiety (Huang 2020).

Demographic characteristics such as gender and number of family members were linked to the psychological comorbidities among nurses during an infectious disease outbreak (Maunder 2004). International studies that examined previous outbreaks including SARS (Lee 2005), H1N1 (swine flu)

(Goulia 2010), and MERS coronavirus (MERS-CoV) (Khalid 2016) reported that nurses exhibited serious psychological reactions about infecting their families.

To our knowledge, this is the first study to gather the psychological reaction data from working nurses and to assess the prevalence of psychological reactions and their correlates during the COVID-19 outbreak in Jordan.

The findings of this study could help policymakers, nursing employees, and nursing administration develop appropriate counselling measures, interventions, and support to reduce psychological reactions among nurses and thus enhance their mental health status, improving their physical health.

Therefore, this study explored the prevalence and relationship of psychological reactions including depression, anxiety, and stress with selected socio-demographic and clinical variables among Jordanian nurses during the COVID-19 outbreak and also proposed to answer the following questions:

- (1) What is the prevalence of psychological reactions (depression, anxiety, and stress) among Jordanian nurses during the COVID-19 outbreak?
- (2) What is the magnitude of the relationship between psychological reactions and socio-demographic and clinical variables among Jordanian nurses during the COVID-19 outbreak?
- (3) What are the predictors of psychological reactions among Jordanian nurses during the COVID-19 outbreak?

Materials And Methods

Design, setting, and participants

We conducted a cross-sectional, descriptive correlational study, which included all nurses who were working in different health sectors in Jordan. Due to the implementation of quarantine and isolation measures, the questionnaire was outlined for online completion to facilitate data collection while the COVID-19 spread was highly active, and the COVID-19 cases in Jordan reached 200.

To estimate the proper sample size, G* power analysis program version 3.0.10 was used by assuming an effect size of 0.05, a p value of ≤ 0.05 , and a power of 0.90, with 13 predictors. According to the regression analysis, a sample size of 420 participants was required. Additionally, to account for the dropout rate, the sample was increased to 600.

Measurements

The questionnaires used the following two measures: A) socio-demographic and clinical data and B) Depression, Anxiety, and Stress Scale (DASS).

- A. The socio-demographic data and clinical characteristics were established by the authors based on the existing literature. The socio-demographic data included age, gender, marital status, educational level, and presence of children. A question on whether the nurse is living with an older adult aged ≥ 60 years was added. Meanwhile, three questions were related to the nurse's clinical experience: dealing with COVID-19-infected person, a person suspected with COVID-19, and relatives of COVID-19-infected person.
- B. DASS is a self-reported tool composed of 42 items and 3 subscales (depression, anxiety, and stress). Each subscale consists of 14 items and rated using a 4-point Likert scale, ranging from 0 to 3: 0 = "did not apply to me at all" and 3 "applied to me very much or most of the time." The total score is calculated by summing up the scores on each item on the subscale. Depression was rated as follows: 0–9 = no depression, 10–13 = mild, 14–20 = moderate, 21–27 = severe, and ≥ 28 = extreme/severe. Anxiety was rated as follows: 0–7 = no anxiety, 8–9 = mild, 10–14 = moderate, 15–19 = severe, and ≥ 20 = extreme/severe. Stress was rated as follows: 0–14 = no stress, 15–18 = mild, 19–25 = moderate, 26–33 = severe, and ≥ 34 = extremely. This scale showed good discriminant validity and high levels of internal consistency and reliability. The Arabic version of the scale was adopted (Taouk et al. 2001) and used. A previous study reported a Cronbach's alpha of 0.94 for depression, 0.87 for anxiety, and 0.91 for stress (Ramli 2012). The current study yielded results comparable with those of another study with a Cronbach's alpha of 0.98.

Study population and data collection procedure

The study participants consisted of Jordanian nurses who work in the acute care settings or primary healthcare settings. We used Google Forms to collect data. The study participants were all nurses and were recruited through social media platforms (i.e., Facebook groups for nurses), keeping in mind that these groups were created by members of the Jordanian Nursing Association (JNA) and only nurses who are working in Jordan and have valid JNA registration numbers can join this platform. We contacted three Facebook groups, including the following groups: one for the graduates of nursing schools and the other was the Jordanian nurses' forum. Within the four nursing groups, a random sample of 600 nurses were randomly selected, via their Facebook accounts, to take part in this study. Then, we contacted the selected participants to confirm that they are nurses and still working in a clinical setting in Jordan; the direct link was sent to all selected participants to access the survey. Anonymity and confidentiality were maintained; every person had only one attempt to finish the survey, and multiple entries from the same device were denied. Only the authors of the study had access to the survey results; after downloading the data, we closed the link to the survey. This study was approved by the ethics committee of the nursing school and midwifery at Isra University. The survey included an introduction, questionnaires, and informed consent. A total of 405 Jordanian nurses completed the online self-administered questionnaire from March 22, 2020, to March 27, 2020, with a response rate of 68%.

Statistical analysis

In the current study, the Statistical Program for Social Sciences version 24 was used. The frequency table was used to describe the continuous data, and descriptive statistics were used to describe the categorical data. The mean score for depression, anxiety, and stress was calculated for the DASS. Point-biserial and Pearson correlations were used to determine the association between socio-demographic data, clinical characteristics, and psychological reactions. A linear regression model was also used to determine the predictors of the study related to psychological reactions among nurses during the COVID-19 outbreak. A p-value of ≤ 0.05 was considered significant.

Results

As shown in Table 1, almost two-thirds of the participants were women (71.4%), and their mean age was 30.27 years (SD = 8.38). Majority of them (69.6%, $n = 282$) completed a bachelor's degree. Most of the participants were married (52.6%, $n = 213$), and 47.4% ($n = 192$) of the study sample have children. Around 44.0% ($n = 177$) of the nurses were living with an elder person. Approximately 4.9% ($n = 20$) of the nurses have dealt with COVID-19-infected person, 26.4% ($n = 107$) have dealt with a person suspected to have COVID-19, and 6.2% ($n = 25$) have dealt with relatives with COVID-19.

Figure (1) shows the prevalence of psychosocial reactions (depression, anxiety, and stress) among nurses. Results showed that 57.8% of the nurses exhibit depressive symptoms, with 42.4% of the study sample ($n = 173$) having mild and moderate levels of depression. The overall prevalence of anxiety was 51.4%, with 26.7% ($n = 108$) having moderate anxiety. The prevalence of stress was 50.1%, with 28.6% of the nurses ($n = 116$) experiencing mild stress. More details are illustrated in Figure (1).

Table (2) shows the results of the correlation between psychological reactions (e.g., depression, anxiety, and stress) and associated factors among nurses. A significant positive relationship was found between depression, anxiety, stress, and gender ($r_{(405)} = 0.200; p < 0.01$, $r_{(405)} = 0.161; p < 0.01$, $r_{(405)} = 0.154; p < 0.01$); number of children ($r_{(405)} = 0.206; p < 0.01$, $r_{(405)} = 0.205; p < 0.01$, $r_{(405)} = 0.194; p < 0.01$); and dealing with persons with COVID-19 ($r_{(405)} = 0.180; p < 0.01$, $r_{(405)} = 0.153; p < 0.01$, $r_{(405)} = 0.167; p < 0.01$).

Multiple linear regression analysis was used to examine the significant predictors of psychological reactions (depression, anxiety, and stress). As shown in Table (3), the variables included in the model as predictors of these psychological reactions were gender, number of children, and dealing with person with COVID-19. The full model that contained all predictors of depression was statistically significant ($F_{(3, 216)} = 11.801; p < 0.001$). Findings showed that gender, number of children, and dealing with person with COVID-19 were the main significant predictors of depression [$(B = 0.176; p < 0.01)$, $(B = 0.232; p < 0.01)$, $(B = 0.255; p < 0.01)$]. Meanwhile, dealing with a person with COVID-19 was the strongest predictor, which appeared to be a serious factor for depression (partial = 0.264, part = 0.254).

In relation to anxiety, the full model that contained all predictors of anxiety was statistically significant ($F_{(3, 216)} = 11.659; p < 0.001$). The model showed that gender, number of children, and dealing with person with COVID-19 were the main significant predictors of anxiety [$(B = 0.155; p < 0.05)$, $(B = 0.232; p < 0.01)$, $(B = 0.268; p < 0.01)$]. Meanwhile, dealing with a person with COVID-19 was the strongest predictor, which appeared to be a serious factor for anxiety (partial = 0.276, part = 0.266).

The full model that contained all predictors of stress was statistically significant ($F_{(3, 216)} = 10.501; p < 0.001$). Gender, number of children, and dealing with person with COVID-19 were the main significant predictors of stress [$(B = 0.148; p < 0.05)$, $(B = 0.218; p < 0.01)$, $(B = 0.258; p < 0.01)$]. While dealing with person with COVID-19 was the strongest predictor, which appeared to be a serious factor for anxiety (partial = 0.265, part = 0.256).

Discussion

This study aimed to assess the prevalence of depression, anxiety, and stress among Jordanian nurses during the active COVID-19 outbreak and to examine its psychological correlates among Jordanian nurses working in clinical settings. This study also aimed to fill the gap in terms of the need to prepare the psychological status of nurses during an infectious disease outbreak. Results revealed that depression, anxiety, and stress are highly prevalent among Jordanian nurses during this pandemic. A possible explanation for these results among nurses is that they are at the forefront of this international outbreak and have seen COVID-19 as a serious threat.

The Jordanian context is precarious. The Ministry of Health in Jordan declared that the health system has only 400 ventilators, and more than two-thirds of them are already in use. This reflects how grave the situation in Jordan can become if the virus is uncontained. Our results are consistent with those of a study conducted in China during the active phase of COVID-19, which reported that Chinese nurses exhibited strong emotional responses to this deadly health threat (Huang 2020). In 2003 and during the SARS outbreak, airborne infectious disease was viewed by nurses and nursing students as a fatal form of SARS, and nursing students reported having concerns in relation to their future career (Shiao 2007). Moreover, nurses believed that they should have stopped caring for patients who were infected with SARS and started looking for other jobs (Shiao 2007). In the Middle East, during the MERS outbreak, the outbreak imposed moments of serious fear and despair among healthcare providers (Almutairi 2018).

Our study found that dealing with COVID-19-infected person is a strong predictor of all emotional reactions explored in this study. This could be related to the fact that COVID-19 is highly contagious and can result in death, with greater risk for transmission via close contact, specifically in the healthcare settings. Guidelines on dealing with COVID-19-infected patients are changing due to the new emergent evidence. Our findings support the literature: at the stage when COVID-19 was active in China, nurses who dealt with infected people had a wide range of psychological comorbidities, ranging from post-traumatic stress syndrome, to anxiety, to depression (Huang 2020). In Taiwan and during the SARS outbreak in 2003, nurses who were working at the SARS unit experienced rapid changes in their psychological status

and reported higher symptoms of depression and anxiety compared with those who were working at non-SARS units (Su 2007). In Hong Kong, nurses who perceived themselves as at moderate risk of SARS infection reported high levels of stress symptoms (Chan 2005). During the H1N1 outbreak in 2009, a previous study found that health workers reported having high levels of anxiety and exhaustion because they believed that they were at high risk of getting infected by this virus for they are at the frontline of the outbreak (Matsuishi 2012). In Saudi Arabia, a significant difference was noted in the psychological reactions such as worry and fear among healthcare providers who were dealing with MERS-CoV-infected individuals compared with their counterparts (Bukhari 2016).

Consistent with previous literature, our study findings showed that female nurses and those who have children were more vulnerable to psychological comorbidities compared to their male counterparts and those who did not have children (Maunder 2004). This finding could be related to the uncertainty of the nurses in the capacity of the Jordanian health system especially when the Minister of Health declared that there are limited number of ventilators and COVID-19 is seen as a life-threatening outbreak. For example, nurses are the first to know if the government is in short in terms of protective measures (mask, goggles, etc.) (Maunder 2004). Since COVID-19 is an airborne disease, they have serious concerns in terms of transmitting this disease to their children. Studies from Taiwan (Lee 2005) during the SARS outbreak, Greece (Goulia 2010) during the H1N1 (Swine flu) outbreak, and Saudi Arabia during the MERS-CoV outbreak (Khalid 2016) reported that nurses exhibited serious psychological reactions about infecting their families (Lee 2005). Moreover, female Saudi Arabian nurses had significantly higher levels of worry and fear compared with their male counterparts (Bukhari 2016).

Unfortunately, there is lack of studies that reported sufficient data in terms of gender differences and their correlates among nurses during a pandemic state. However, a study in China investigated the mental health status of medical personnel in a tertiary hospital who are managing COVID-19 patients and reported that female medical staff reported higher levels of anxiety compared with their male counterparts; furthermore, nurses showed higher incidence of anxiety compared with doctors (Huang 2020). Nursing is a job that is heavily predominated by women who come to take care of patients and subsequently have direct contact with patients, making them vulnerable to physical and psychological difficulties (World Health Organization 2007). The occupational exposure of nurses can be considered a gender-related exposure (World Health Organization 2007). Therefore, we could conclude that female nurses would exhibit high levels of psychological reactions.

Conclusion And Relevance For Clinical Practice

The findings of this study indicated that depression, anxiety, and stress are comorbidities that are highly prevalent among Jordanian nurses, and those who contacted patients having active COVID-19 infection are at higher risk for the aforementioned comorbidities compared with those who had no direct contact with infected patients. Female nurses and those who had children showed stronger psychological reactions toward this pandemic.

Thus, drawing on the findings of this study, nurses have to be prepared to be able to manage such sudden outbreak. Moreover, policymakers should provide them with all the knowledge and measures that help nurses protect themselves and their families, because this would affect their performance in delivering care. The COVID-19 outbreak seems to have provided ample evidence that the outbreak of infectious disease affects the mental well-being of nurses, at least in the short run.

Furthermore, healthcare policymakers are invited to consider the results of our study and adopt effective interventions and programs to minimize the psychological reactions among nurses and provide free counseling services with professionally qualified counselors for nurses during crises. Furthermore, policymakers could use the findings of this study as a basis and provide mental health advisors who can refer nurses to the services they need during such time. Importantly, the results of this study could serve as a basis for establishing a website to provide nurses with online mental health first-aid workshops and training on how to use mental health supporting hotlines.

Moreover, nursing managers should provide nurses time and space for reflection and support, which may enhance their resilience and reduce the levels of psychological reactions they exhibit during a serious threat.

Limitations of the study

Although this study provided very important data that fill the gap in relation to the psychological reactions of nurses during such emergent COVID-19 outbreak, like other studies that used a cross-sectional design, some limitations were observed. This study used self-reporting questionnaires, which is well recognized in the research realm. However, it increases social desirability biases. Furthermore, cross-sectional studies cannot determine the cause and effect between the study variables but, rather, will only report associations between study variables. However, this study provided empirical data and paved the road for other longitudinal and randomized control trial research.

Declarations

Acknowledgments

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Conflict of Interest

The authors report no conflict of interest.

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Tables

Table (1): Demographic and clinical characteristics of the participants (N= 405)

Variable

Age, mean (SD) year, [Range: 20-53]	30.27 (6.38)
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Gender	
Male, n (%)	116 (28.6)
Female, n (%)	289 (71.4)

Work department	
Emergency, n (%)	75 (18.5)
Maternity, n (%)	38 (9.4)
Palliative care, n (%)	8 (2.0)
ICU/CCU, n (%)	42 (10.4)
Surgical, n (%)	54 (13.3)
Recovery, n (%)	14 (3.5)
Medical floor, n (%)	52 (12.8)
Pediatric, n (%)	24 (5.9)
Operation room, n (%)	25 (6.2)
Gastro enterology, n (%)	10 (2.5)
Neonate, n (%)	16 (4.0)
Health centers, n (%)	27 (6.7)
Cancer center, n (%)	20 (4.9)

Education levels	
Diploma, n (%)	52 (12.6)
Bachelor, n (%)	282 (69.6)
Postgraduate, n (%)	71 (17.5)

Marital Status	
Single, n (%)	173 (42.7)
Married, n (%)	213(52.6)
Divorce, n (%)	19 (4.7)

Do you have children	
Yes, n (%)	192 (47.4)
No, n (%)	213 (52.6)

Number of children	
No children	38 (17.5)
1-3-year, n (%)	144 (66.4)
4-6 years, n (%)	35 (16.1)

Living with an old person\geq 60 years	
Yes, n (%)	177 (43.7)
No, n (%)	228 (56.3)

Dealt with an infected person with COVID-19	
Yes, n (%)	20 (4.9)
No, n (%)	258 (63.7)
I don't know, n (%)	127 (31.4)

Dealt with a person suspected to have COVID-19

Yes, n (%)	107 (26.4)
No, n (%)	202 (49.9)
Maybe, n (%)	96 (23.7)

Dealt with relatives of an infected person with COVID-19

Yes, n (%)	25 (6.2)
No, n (%)	284 (70.1)
Maybe, n (%)	96 (23.7)

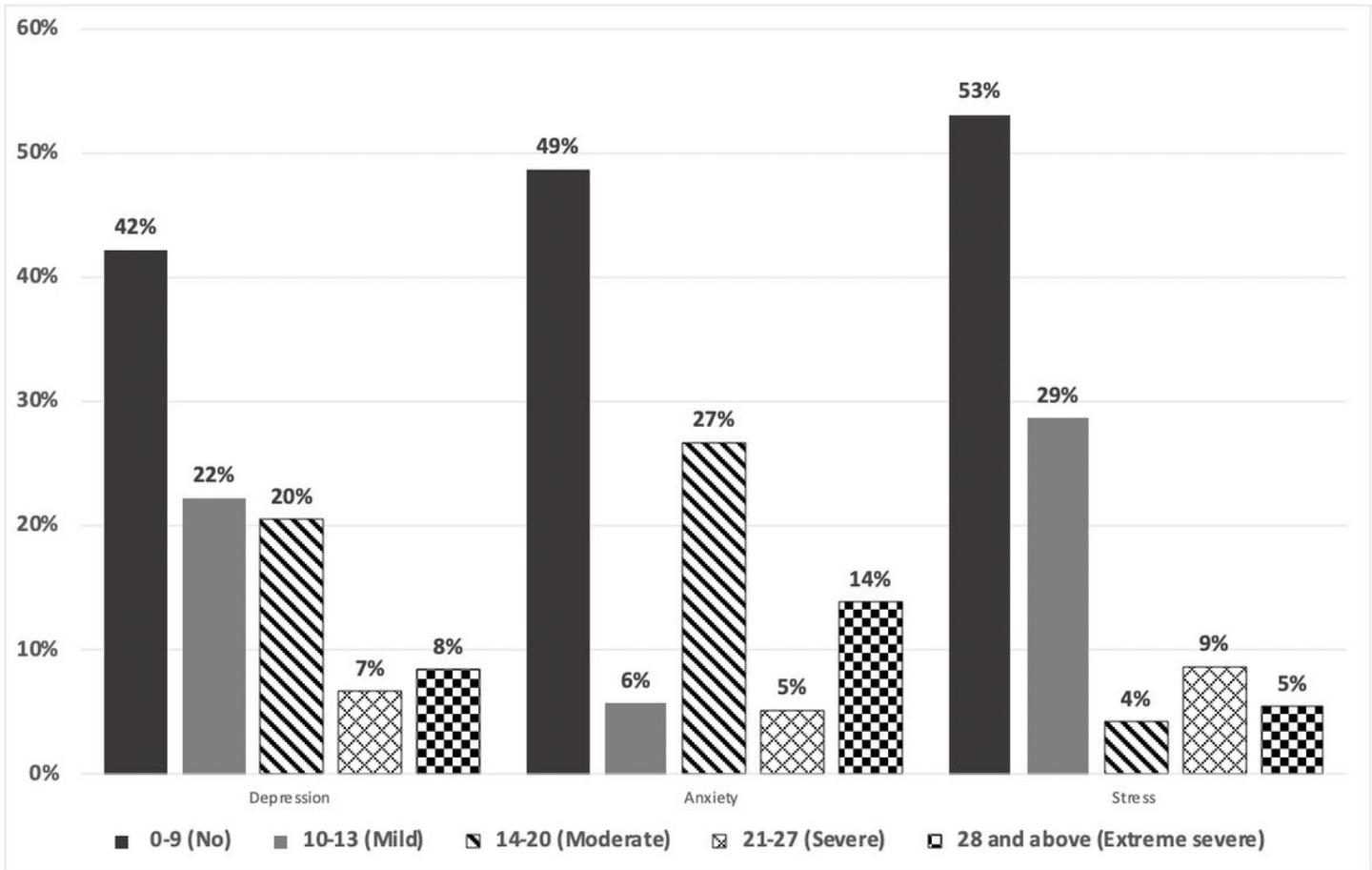
Table (2): Correlation between sociodemographic, clinical data and the study related psychosocial variables

Variable	Psychological reactions					
	Depression		Anxiety		Stress	
	r	p	r	p	r	p
Gender	0.200	0.000**	0.161	0.001**	0.154	0.002**
Age	0.001	0.985	-0.008	0.865	0.004	0.941
Educational levels	0.019	0.707	-0.003	0.949	0.011	0.827
Marital status	0.040	0.425	0.028	0.575	0.027	0.589
Living children	0.025	0.616	0.045	0.364	0.027	0.584
Number of children	0.206	0.002**	0.205	0.002**	0.194	0.004**
Living with older person	-0.094	0.058	-0.060	0.230	-0.080	0.106
Dealt with a person infected with COVID-19	0.180	0.000**	0.153	0.002**	0.167	0.001**
Dealt with person suspected to have COVID-19	0.010	0.843	0.002	0.974	0.012	0.803
Dealt with relatives of a person infected with COVID-19	0.043	0.392	0.049	0.323	0.056	0.262
Correlation is significant at the 0.01 level						
Correlation is significant at the 0.05 level						
Correlation coefficient; p:p-value						

Table (3): Predictors of the psychological reactions: Multiple Linear Regression (N=405)

Predictor	b	B	t	p	95.0% CI		Correlations	
					Lower	Upper	Partial	Part
Factors of depression								
Age	3.270	0.176	2.772	0.006	0.944	5.595	0.187	0.176
Number of children	0.655	0.232	3.637	0.000	0.300	1.011	0.242	0.231
Interaction with a person infected with COVID-19	4.061	0.255	3.998	0.000	2.059	6.062	0.264	0.254
F(3, 100) = 3.378; R ² = 0.141; Adjusted R ² = 0.130								
Factors of anxiety								
Age	3.317	0.155	2.434	0.016	0.631	6.003	0.165	0.155
Number of children	0.755	0.232	3.639	0.000	0.347	1.168	0.242	0.231
Interaction with a person infected with COVID-19	4.922	0.268	4.196	0.000	2.610	7.235	0.276	0.266
F(3, 100) = 3.376; R ² = 0.143; Adjusted R ² = 0.129								
Factors of stress								
Age	3.381	0.148	2.313	0.022	0.500	6.261	0.157	0.148
Number of children	0.759	0.218	3.400	0.001	0.319	1.199	0.227	0.217
Interaction with a person infected with COVID-19	5.045	0.258	4.009	0.000	2.565	7.525	0.265	0.256
F(3, 100) = 3.359; R ² = 0.1293; Adjusted R ² = 0.117								
b, unadjusted regression slope coefficient; β, adjusted regression slope coefficient								
p < 0.05; ** p < 0.01								

Figures



Depression	Percentage	Anxiety	Percentage	Stress	Percentage
0-9 (No depression)	42%	0-7 (No anxiety)	49%	0-14 (No stress)	53%
10-13 (Mild depression)	22%	8-9 (Mild anxiety)	6%	15-18 (Mild stress)	29%
14-20 (Moderate depression)	20%	10-14 (Moderate anxiety)	27%	19-25 (Moderate stress)	4%
21-27 (Severe depression)	7%	15-19 (Severe anxiety)	5%	26-33 (Severe stress)	9%
28 and above (Extreme severe)	8%	20 and above (Extreme severe)	14%	34 and above (Extreme severe)	5%

Figure 1

Prevalence of Depression, Anxiety and Stress (N=405)