



ASSESSMENT OF THE LEVELS OF ANXIETY, DEPRESSION AND QUALITY OF LIFE AMONG NURSES AT FAYOUM ISOLATION HOSPITAL DURING COVID- 19 PANDEMIC

Hossam Hassan Fathi¹, Ghada Mohamed Mourad², Wafaa Osman Abd El-Fatah³

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Abstract

Background: Coronavirus disease (COVID-19), is a zoonotic beta-coronavirus that was first reported and became diffuse within Wuhan in China, Then the disease rapidly spread throughout China and worldwide, becoming a global health emergency.

Objective: This study aimed to assess levels of anxiety, depression and quality of life among nurses at Fayoum isolation hospital during pandemic Covid – 19.

Methods: A descriptive research design was used to conduct this study. The study was conducted at Fayoum Hospital for Health Insurance. Purposive sample was used with sample size (150) nurses in Fayoum health insurance. Tools: Four tools were used for data collection; 1st tool: Socio – demographic sheet, 2nd tool: Zung Self-Rating Anxiety Scale, 3rd tool: Zung Self-Rating Depression Scale, 4th tool: Professional Quality of Life Scale (PROQOL).

Results: The mean age of studied nurses was 35.13±6.49 years, the majority (97.3%) of sample were females, more than one third (34%) have severe depression, nearly one third (29.3%) have extreme anxiety and more than two fifths (42.7%) of studied sample were have low quality of life.

Conclusion: There were highly statistically significant differences between total depression, anxiety and QOL with age level of education and years of experience. While there were statistically significant differences between total depression, anxiety and QOL with gender. Also, there were highly statistically significant and Positive correlation between total depression and total anxiety. Also, there is a highly statistically significant and negative correlation between total QOL with depression and anxiety.

Keywords: Anxiety, Covid –19, Depression, Nurses, Quality of Life

¹ Clinical Instructor at Psychiatric Nursing Department, Fayoum University, Egypt

² Professor of Psychiatric Mental Health Nursing, Ain- Shams University, Egypt

³ Assistant Professor of Psychiatric Mental Health Nursing, Helwan University, Egypt

1. BACKGROUND

Late December 2019, an outbreak of ambiguous pneumonia characterized by fever, dry cough, and fatigue, and occasional gastrointestinal symptoms happened in a seafood wholesale wet market, the Huanan Seafood Wholesale Market, in Wuhan, Hubei, China [1]. The initial outbreak was reported in December 2019 and involved about 66% of the staff there. The market was closed on January 1, 2020, after the announcement of an epidemiologic alert by the local health authority on December 31,2019 [2]. The pandemic has not only affected the physical health of individuals, but it also had a tremendous impact on the psychosocial health of different populations and groups [3].

Fear is a conscious feeling evoked by threat or impending danger, whereas anxiety involves anticipation of real or imagined future threat or

danger. Both fear and anxiety facilitate survival and are often adaptive. As such, many fears and anxieties represent normative occurrences in childhood (eg, stranger or performance anxiety) or in adulthood eg, anxiety during life stress or transitions individual that they might be in danger. The main classification schemes, the fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5) define anxiety disorders on the basis of similar key symptoms [4].

Mental depression is a common psychiatric disorder, where ~264 million individuals of different ages suffered from depression in January 2020 with ~800,000 annual suicides (World Health Organization, WHO) [5]. Major depressive disorder (MDD) has been ranked as the third cause of the burden of disease worldwide in 2008 by WHO,

which has expected that this disease will rank first by 2030 [6].

The concept of quality of life remains relevant to all clinical settings. It is of paramount importance in some fields of medicine, such as hospice and palliative care, where the aggressive pursuit of a cure is set aside to instead satisfy patient goals and maximize the patient's quality of life. It is important to clarify that studies show variability across individuals regarding how disease processes, symptoms, prognosis, and palliative treatments impact the quality of life [7].

In the past decade, the quality of life (QoL) has been explored primarily in studies focusing on noncommunicable and chronic diseases. It has been defined as —a patient's general subjective perception of the effect of illness or medical condition on various domains including physical, psychological, social, and occupational functioning [8]. Outbreaks of infectious diseases, such as COVID-19, negatively affect the physical, social, and psychological functioning of individuals and societies, and have significant economic consequences [9].

Nursing role including, discuss with client expectations for behaviour and consequences of nonadherence. Carry out the consequences matter-of-factly if expectations for appropriate behaviour are violated. Negative consequences may work to decrease manipulative behaviours Do not debate, argue, rationalize, or bargain with the client regarding limit setting on manipulative behaviours. Ignoring these attempts may work to decrease manipulative behaviours. Consistency among all staff members is essential if this intervention is to be successful. Encourage discussion of angry feelings. Help client identify the release of the hostile feelings (e.g., exercise, individualized occupational therapy activities). Verbalization of feelings with a trusted individual may help client work through unresolved issues. Physical exercise provides a safe and effective means of releasing pent-up tension [10].

2. METHODS

Aim

The aim of this study is to assess levels of anxiety, depression and quality of life among nurses at Fayoum isolation hospital during pandemic covid – 19 through the following:

1-Identify levels of anxiety among nurses at Fayoum Isolation Hospital during Pandemic Corona Virus.

2-Measure levels of depression among nurses at Fayoum Isolation Hospital during Pandemic Corona Virus.

3-Determine levels of quality of life among nurses at Fayoum Isolation Hospital during Pandemic Corona Virus.

Study design

A descriptive research design was used to conduct this study.

Setting

The study was conducted at Fayoum isolation hospital (Fayoum Hospital for Health Insurance) located at Fayoum city, provide services for Fayoum populations either urban and rural areas , include 15 department with two large buildings all of them six floors and involve more than 250 beds and nearly 300 nurses from them 150 nurses working with patients with corona virus provide services and care as any general hospital as well as for corona virus patients care and isolation.

Participants

Purposive sample was used with sample size 150 nurses in Fayoum health insurance who providing care to covid –19 patients admitted to the previous mentioned setting within period 6 months .

Instrument

Four tools were used to achieve the aim of current study include:

1- Socio – demographic sheet

This sheet was designed by the researcher in a simple arabic language after reviewing related literature related to assess levels of anxiety, depression and quality of life among nurses at Fayoum isolation hospital during pandemic covid – 19 which include parts as nurses age, gender, marital status, address, level of education, hospital ward, years of experience and numbers of corona virus waves who work in it .

2- Zung Self-Rating Anxiety Scale

It was developed by Zung in 1971 and adapted by the researcher to assess the level of anxiety, it contain 20 statements, the responses include: little of my time = 1 ,some of the time = 2 good part of the time =3 and most of the time = 4 . Example of statement: I feel more nervous and anxious than usual [11].

Table (1) shows total Scoring system ranges.

Table (1): Total Scoring system ranges

Normal range	20 : 44
Mild to moderate anxiety levels	45 : 59
Marked to severe anxiety levels	60 : 74
Extreme anxiety levels	75 and above

3- Zung Self-Rating Depression Scale

It was developed by Zung in 1965 and adapted by the researcher to assess the level of depression it contain 20 statements .The responses include : little of my time = 1 , some of the time = 2 , good part of the time = 3 and most of the time = 4 Example of statement : morning is when I feel the best [12].

Table (2) shows total Scoring system ranges.

Table (2): Total Scoring system ranges

Normal range	25:49
Mildly depressed	50:59
Moderately depressed	60:69
Severly depressed	70 and above

4- Professional Quality of Life Scale (PROQOL)

It was developed by Figley & Charles in 2002 and adapted by researcher to assess compassion satisfaction and compassion fatigue, Its contain 30 statements. The responses include : Never = 1 , Rarely = 2 , Sometimes = 3 , Often = 4 and Very Often = 5 . Example of statement : Im happy [13].

Table (3) demonstrates total Scoring system.

Table (3): total Scoring system

High	0 : 50
Average	51 :100
Low	101 :150

Data collection

Subjects were recruited according to the criteria . The researcher introduce himself to subjects before collect data, also The aim of the study was explained to each nurse and the written consent was obtained from the participants. Questionnaire sheet was filled by participants. Collection time was take 6 months, from January 2022 to june 2022 after Obtaining the approval from previously mentioned setting. The average time needed for completion of each questionnaire sheet was approximately 30 : 45 minutes ,with twice visits/Week on Saturdays and Sundays from 9 to 11 am . Confidentiality of obtained information was assured, and the subjects were informed about their right to participate or not in the study. The participants were also assured of anonymity and right to withdraw at any time , also data will only be used for the study .

STATISTICAL ANALYSIS:

Upon completion of data collection, data was organized, categorized, tabulated, entered and

analyzed using Statistical Package for the Social Science (SPSS), IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp. Statistical presentation and analysis of the present study was conducted, using the mean, standard deviation (SD), chi-square test (X²) was used to compare between groups in qualitative and linear correlation coefficient was used for detection of correlation between two quantitative variables in one group. Statistical significance was considered at (P-value <0.05), P value >0.05 mean Non significant, while P value <0.001mean High significant.

ETHICAL CONSIDERATIONS

An official permission to conduct the proposed study was obtained from the Scientific Research Ethics Committee. Participation in the study was voluntary and subjects was given complete full information about the study and their role before signing the informed consent. The ethical considerations was include explaining the purpose and nature of the study, stating the possibility to withdraw at any time, confidentiality of the information where it was not be accessed by any other party without taking permission of the participants Ethics, values, culture and beliefs was respected.

3. RESULTS

Table (4) reveals that (52.7%) of the sample their ages between 30 : 40 years old . Also (97.3%) of the studied sample are females , while (89.3%) of the sample are married and (84.7%) are have nursing diploma.

Table (4): Socio-demographics data of the studied sample (N=150)

Socio – demographic characteristics	N	%
Age (years)		
<30	32	21.3
30- <40	79	52.7
40 or more	39	26.0
Mean±SD	35.13±6.49	
Gender		
Female	146	97.3
Male	4	2.7
Marital Status		
Single	16	10.7
Married	134	89.3
Level of Education		
Diploma	127	84.7
Bachelor	23	15.3
Hospital department		
ICU	119	79.3
Orthopedic	11	7.3
Surgery	13	8.7
Internal Medicine	7	4.7
Years of Experience		
<10	51	34.0
10- <20	56	37.3

20 or more	43	28.7
Mean±SD	13.55±7.32	

Fig. (1) Illustrate that (29.3%) of the studied sample have extreme anxiety, meanwhile (18.7%) don't have anxiety.

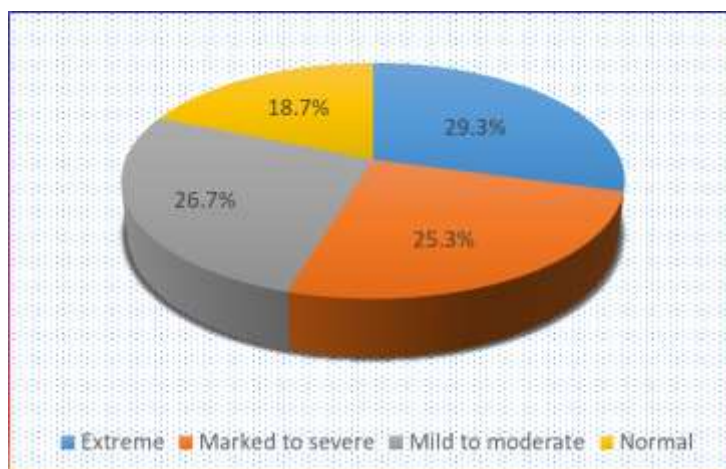


Figure (1): Percentage distribution of the levels of anxiety among studied sample(N=150)

Fig. (2) illustrate that (34%) of the studied sample have severe depression, while (20%) of the studied sample don't have depression.

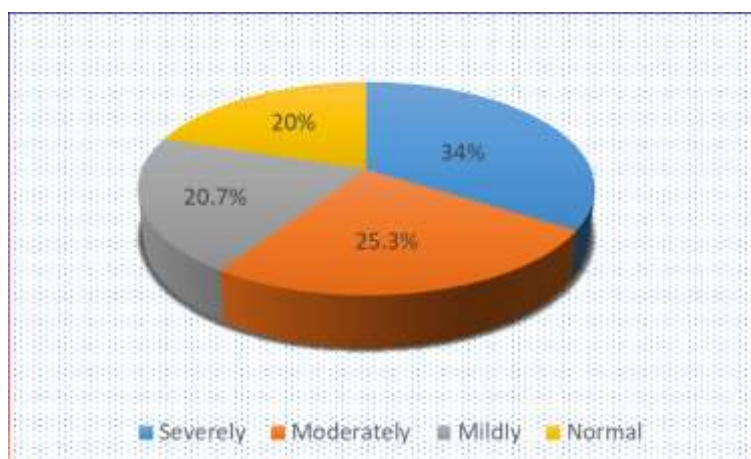


Figure (2): Percentage distribution of the levels of depression among studied sample (N=150)

Fig. (3) explain that (22%) of the studied sample have high QOL. Also, 35.3%) have average QOL while, (42.7%) have low QOL with Mean±SD 101.82±10.9.

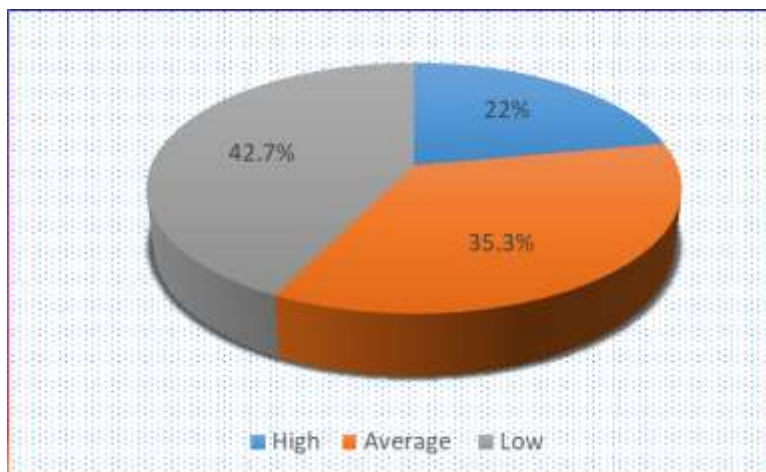


Figure (3): Percentage distribution of the total levels of QOL among studied sample (N=150)

Correlation between total depression, total anxiety and total QOL scores

Table 5 explain that highly statistically significant and Positive correlation between total depression and total anxiety with r (0.375) when p-value was

$<0.001^*$. Also, highly statistically significant and negative correlation between total QOL with depression and anxiety with r (-0.403 / -0.724) and p-value was $<0.001^*$.

Table (5): Correlation between total depression, total anxiety and total QOL scores (N=150)

	Total Depression score		Total Anxiety score	
	R	P-value	R	P-value
Total Anxiety score	0.375	$<0.001^*$ S	-	-
Total QOL score	-0.403	$<0.001^*$ S	-0.724	$<0.001^*$ S

Fig. (4) show Positive correlation between depression and anxiety ($r=0.375$).

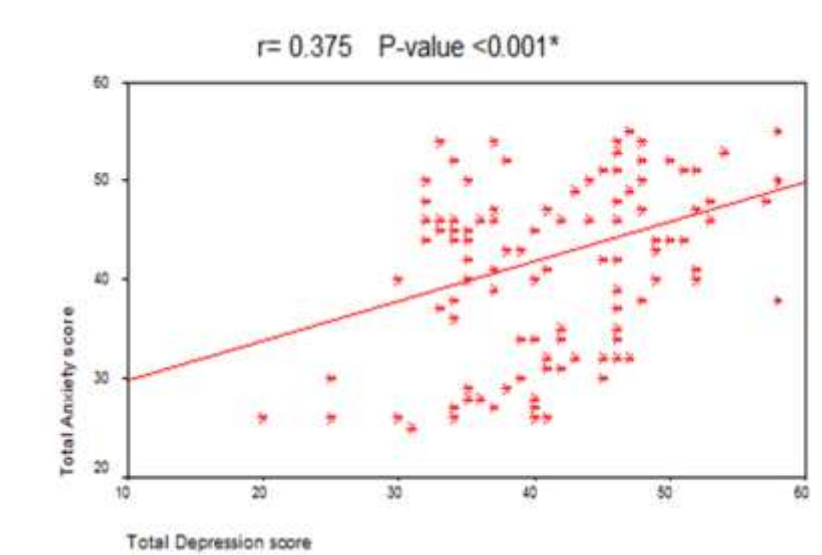


Figure (4): correlation between depression and anxiety (N=150)

Fig. (5) Show negative correlation between Depression and QOL ($r= -0.403$).

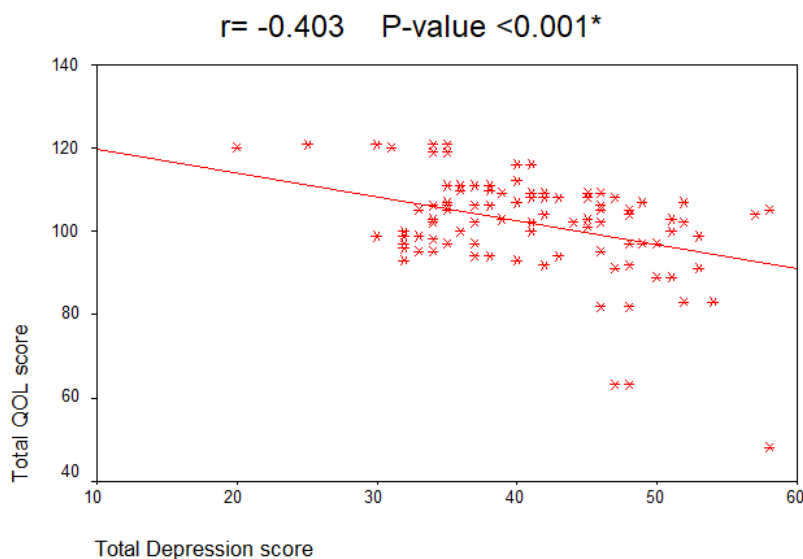


Figure (5): correlation between Depression and QOL (N=150)

Fig. (6) Shows negative correlation between anxiety and QOL ($r = -0.724$).

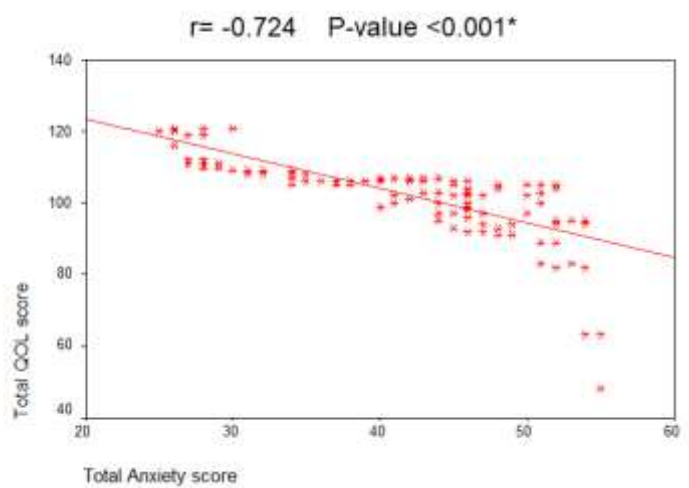


Fig. (6): correlation between anxiety and QOL

4. DISCUSSION

Concerning the ages of studied sample, the present study showed that slightly more than half of the nurses their ages between 30 : 40 years with Mean \pm SD 35.13 \pm 6.49 . This finding may be due to hospitals in this time depend on young nurses in critical department because they have a lot of energy that nature of work during this pandemic need it. This finding in the same line with Sharma et al. (2021) who carried out a study entitled " Anxiety, depression and quality of life (QOL) related to COVID-19 among frontline health care professionals " and reported that majority of ages between 25:35 years [14].

Regarding nurses ' gender , the results of current study reported that the majority of sample were females .This finding may be due to that fayoum

isolation hospital policy depend on female nurses .This finding is consistent with Inocian et al. (2021) who studied " Professional quality of life and caring behaviours among clinical nurses during the COVID-19 pandemic " , and reported that the majority of sample were females [15]. On other side this finding was disagreed with Serrano et al. (2021) who studied "Depression and anxiety prevalence in nursing staff during the COVID-19 pandemic " and found that nearly three quarters of study were males [16].

The current study discussed that levels of anxiety were nearly one third have extreme anxiety , slightly more than one quarter have marked to severe anxiety , more than one quarter of studied sample have mild to moderate anxiety and nearly one fifth normal .This may be due to tough , burden and strenuous workload with covid -19 patients lead to psychological effects such anxiety , and this result answer on asked

question of this study " What are the levels of anxiety facing nurses at Fayoum isolation hospital during pandemic corona virus? ". Also showed that no statistically significance between levels of anxiety when p- value 0.176 with mean $Mean \pm SD$ 38.26 \pm 8.22 .

This findings in the same line with This finding supported with Garcia et al. (2022) who studied " Depression, Anxiety and Stress in Health Professionals in the COVID-19 Context " and showed that extreme severe anxiety were slightly more than one quarter , severe nearly tenth , while more than one fifth were moderate , nearly tenth were mild and nearly two fifths were normal [17].

The previous findings were contradicted with zhan et al. (2022) who discussed "Relationship between social support, anxiety, and depression among frontline healthcare workers in China during COVID-19 pandemic" , and showed that severe anxiety were three perent of sample , nearly tenth were moderate and majority of sample were mild and normal [18].

The current study mentioned that levels of depression within studied sample were as follow more than one third of sample have severe depression , slightly more than one quarter of sample have moderate depression , slightly more than one fifth have mild depression, and one fifth of sample were normal , also this table show highly statistically significance between levels of depression when p-value 0.019. This may be due to tough and strenuous working with covid -19 pandemic patients lead to burnout, long term stress and depression, and this result answer on asked question of this study " What are the levels of depression facing nurses at Fayoum isolation hospital during pandemic corona virus?"

This finding supported with Garcia et al. (2022) who studied " Depression, Anxiety and Stress in Health Professionals in the COVID-19 Context " and mentioned that nearly one fifth have extreme severe depression, more than tenth have severe depression , nearly one fifth have moderate depression more than one tenth have mild depression , and nearly one third were normal without depression symptoms [17].

The previous mentioned findings in current study was contradicted with zhan et al. (2022) who discussed " Relationship between social support, anxiety, and depression among frontline healthcare workers in China during COVID-19 pandemic" , and illustrated that less than one tenth have severe depression, one fifth have moderate depression ,and slightly more than three quarters mild depression [18].

The current study showed that more than one fifth of studied sample have high QOL, more than one third were have average QOL and more than two fifths of studied sample were have low QOL. This may due to effects and workloads that lead to impacts on physical and mental health of nurses at this time thus lead to this result and this answer on asked question of present study" What are the levels of quality of life

for nurses at fayoum isolation hospital during pandemic corona virus? " Also revealed that high statistically significant between levels of quality of life when p – value <0.001 with $Mean \pm SD$ 101.82 \pm 10.9.

This findings in the same line with Niu et al. (2022) who discussed " Professional quality of life in nurses on the frontline against COVID-19" and noted that nearly one quarter of sample were have high QOL , more than one quarter of sample have average QOL and nearly half of sample have low QOL [19]. On the other hand , the previous findings contradicted with Choi et al. (2022) and showed that nearly two thirds of sample were have high QOL, nearly one fifth of sample were have average QOL and slightly more than one fifth have low QOL [20].

The result of current study illustrated that there were highly statistically significant and Positive correlation between total depression and total anxiety with r (0.375) when p-value was <0.001 . This may due to fact that say anxiety and depression Often Co-occurring "It's a cycle, "When you get anxious, you tend to have this pervasive thinking about some worry or some problem. You feel bad about it. Then you feel like you've failed. You move to depression." These two disorders – anxiety and depression – have a complicated relationship.

This finding in the same line with Nashwan et al. (2021) who studied " Quality of Life, Sleep Quality, Depression, Anxiety, Stress, Eating Habits, and Social Bounds in Nurses during the Coronavirus Disease 2019 Pandemic in Qatar " and found that there were highly statistically significant and Positive correlation between total depression and total anxiety [21].

The previous finding was contradicted with Tran et al. (2020) who discussed " Impacts and interactions of COVID-19 response involvement, health-related behaviours, health literacy on anxiety, depression and health-related quality of life among healthcare workers" and mentioned that there were moderate statistical significance correlation between anxiety and depression [22].

The result of current study reported that there were highly statistically significant and negative correlation between total QOL with depression and anxiety with r (-0.403 / -0.724) and p-value was <0.001 . This may due to quality of life roughly affected by mental health thus because existing of depression and anxiety result low quality of life .

This findings were agreed with Barello et al. (2020) who discussed " Burnout and somatic symptoms among frontline healthcare professionals at the peak of the Italian COVID-19 pandemic" found that there were highly statistically significant and negative correlation between total QOL with depression and anxiety [23]. This findings also supported with Choi et al. (2022) who clarified that there were highly

statistically significant and negative correlation between total QOL with depression and anxiety [20].

5. CONCLUSION

From the results of the current study, it becomes obvious that more than one third of studied sample were have severe depression , nearly one third of sample have extreme anxiety and more than two fifths of studied sample were have low QOL. Additionally , there were highly statistically significant relation between total depression, anxiety and QOL with age level of education and years of experience . While , there were statistically significant relation between total depression , anxiety and QOL with gender. Also there were highly statistically significant and Positive correlation between total depression and total anxiety . Also , highly statistically significant and negative correlation between total QOL with depression and anxiety.

List of abbreviations

MDD: Major Depressive Disorder
QOL: Quality of Life
WHO: World Health Organozation

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