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Prevalence and Associated Factors of Depression among Jordanian nurses amid COVID-19 Pandemic: A cross-sectional study

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ABSTRACT— COVID-19 pandemic was reported significantly in the literature as a situation that affected the mental health status of healthcare workers in general and nurses in particular. However, there is a lack of studies exploring the levels and associated factors of depression among Jordanian nurses amid the COVID-19 pandemic. Aim: The present study aimed at assessing the levels of depression and its associated factor among Jordanian nurses amid the COVID-19 pandemic. King Abdullah University Hospital and Princess Rahma Pediatric Hospital, Jordan. A cross-sectional descriptive study was performed in the period between Feb-2002 and Apr-2022 at King Abdullah University Hospital and Princess Rahma Pediatric Hospital, Jordan. The study used the Beck Depression Inventory (BDI-21) over a sample of 205 nurses. The data was analyzed using the Statistical Package of Social Sciences (SPSS). The findings of the study revealed that 46.8% (n=96) of the nurses were normal, 21% (n=43) had mild mood disturbances, 5.9% (n=12) showed borderline clinical depression, 15.1% (n=31) had moderate depression, 3.4% (n=7) had severe depression and 7.8% (n=16) had extremely severe depression. In addition, the results showed that there was a significant association between levels of depression among nurses and their socio-demographic characteristics (age (p=0.009), gender (p=0.001), years of experience (p=0.030), marital status (p=0.010) and working area (0.041)). The study concluded that there is an increasing prevalence of depression among Jordanian nurses amid the COVID-19 pandemic and these levels were affected by nurses' characteristics.

KEYWORDS: COVID-19, Depression, Jordan, Occupational Health, Nurses.

1. INTRODUCTION

Depression, affecting both physical and psychological health, is one of the most widespread mental disorders worldwide1. Contrary to some misconceptions, depression isn't solely due to a chemical imbalance or abnormal brain functions [1], [2]. Its symptoms are wide-ranging, from mood disturbances to physical ailments such as sleep disruption and reduced energy [3]. The World Health Organization has highlighted the gravity of the condition, stating that it's the primary cause of disability globally, with over 350 million individuals afflicted [4], [5]. In both the U.S. and Saudi Arabia, substantial percentages of the population suffer from depression [6].

Specifically, depression rates among nurses have raised concern in recent research, with percentages fluctuating significantly based on region and conditions [7]. The COVID-19 pandemic further exacerbated this issue, especially in countries like Italy [8]. A variety of factors, including societal, psychological, and biological, contribute to depression [8], [9]. These impacts are profound, extending beyond emotional disturbances to tangible physical health issues [10]. Certain demographics, such as Saudi youth and nursing

students, have been found to be particularly vulnerable [11- 14]. Curiously, while medical students exhibit higher rates of depression, they seldom seek the necessary mental health care [15].

Highlighting the nursing profession, the demands and work conditions, especially during the COVID-19 pandemic, have been linked to both physical and psychological challenges, as evidenced by [16]. A glaring gap persists in the provision of counseling programs for nurses [3], [10], [12]. In the context of Jordan, there remains an unexplored terrain regarding the mental well-being of nurses, particularly during the pandemic era^3^.

This study aims to bridge this gap by evaluating depression levels and its determinants among Jordanian nurses during the COVID-19 outbreak.

2. Method

2.1 Study Design

A descriptive-analytical cross-sectional design was employed to answer research questions. This research design is suitable for assessing the level of NICU nurses' knowledge about a safe sleep environment. In a cross-sectional study design, all the measurements for each subject are conducted at the same time. The rationale for choosing a cross-sectional design is because of its short scale of time, and inexpensive. In addition, the cross-sectional design allows researchers to measure several outcomes at the same time. Moreover, researchers adopting the cross-sectional design can also control the subject selection and measures [1].

Burns and Grove3 define a quantitative study as a structured, objective, systematic approach used to define relationships and analyze cause-effect interactions between variables. Surveys can be employed for various research purposes, such as description, explanation, and exploration. In research, surveys are tools used to gather primary data that represent a larger group. For this particular study, data was garnered using questionnaires that participants filled out themselves.

2.2 Locale of the Study/Setting

The present study started in February 2022 and the data collection process started in March 2022 and was accomplished in April 2022. This study aims to focus on nurses employed in public hospitals located in northern Jordan, specifically at the “King Abdullah University Hospital” and the “Princess Rahma Educational Hospital”. As per the data provided by the human resources department at “King Abdullah University Hospital (KAUH)”, there are 809 staff nurses currently working at the King Abdullah University Hospital.. In addition, the statistics of the Jordanian “Ministry of Health (MOH)” indicated that 635 staff nurses are working in “Princess Rahma Educational Hospital”. All the settings were chosen because they have the largest number of nursing staff. In addition, they were exposed to COVID-19 suspected and confirmed cases as those hospitals were within the healthcare facilities converted to receive COVID-19 cases before.

2.3 Sample Size

The study's sample was determined based on the availability of nurses in the selected locations. The initial sample size of 65 was computed using the G. Power 3.1.9.2 software, Second Version, considering a power of 0.8, an alpha level of .05, and a moderate effect size of 0.5. To account for potential dropouts, an additional 15% was added. Recognizing the challenges of a multicenter study, like technical issues, a further 15% was incorporated. An extra addition of fifteen participants was also made for a more

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conservative estimate. This culminated in a projected sample size of 104 for this study. Nevertheless, the actual sample acquired by the researcher was substantially larger, totaling 205 participants.

The study sampling started by recruiting nursing leaders and in-charge nurses. Snowball sampling was then sought by asking early potential participants to assist in recruiting other nurses meeting the inclusion criteria (Table 1). The study participants were requested to share the contact details and names of other individuals who might be interested in participating.

Table 1. The inclusion and exclusion criteria for the selection of participants

Inclusion	Exclusion
Being a registered nurse (RN status) working in the COVID-19 pandemic period	Nurses who were not interested in participation
Free from any medical conditions known to affect their psychological status	Registered nurses with medical conditions known to affect their mental health
being able to read and speak English	having less than one year of experience in the studied settings
Having more than 1 year of experience	have a weak command in reading and written the English language

2.4 Study Instrument

The researcher used an adapted questionnaire. The Beck Depression Inventory Scale, formulated by Aaron T. Beck in 1961 and later revised in 1978, The Beck Depression Inventory-II is composed of a 21-question multiple-choice self-report inventory. The study included the demographic profile of the respondents in the questionnaire to be administered. The researcher used the English-Arabic version of the scale that was translated by Dr. Abdul Sattar Ibrahim from the Faculty of Medicine at King Faisal University. The bilingual scale was used to ensure that the nurses fully understood the items of the questionnaire. The following guidelines have been suggested to interpret the responses of the respondents:

1-10 _____ "These Ups and Downs are Considered Normal"
11-16 _____ "Mild Mood Disturbance"
17-20 _____ "Borderline Clinical Depression"
21-30 _____ "Moderate Depression"
31-40 _____ "Severe Depression"
Over 40 _____ "Extreme Depression"

The researcher ensured the validity of the study scale by submitting the primary version of the scale to a group of psychology specialists to get their comments and feedback regarding the language, clarity, and appropriateness of the scale items. The valid and reliable adopted scale was administered to the study respondents as a whole package that included a consent form and a cover page introducing the title of the study, the aim, and the ethical considerations.

2.5 Ethical Considerations

The present study was approved by the Girne American University Humanities Ethical Committee (approval number: 2022-23/001). The researchers maintained the confidentiality and privacy of the enrolled nurses' responses throughout the study by using coded data and ensuring that the data would be used only

for research purposes and would not be disclosed to any other party. In addition, the participants were requested to sign a written consent form as part of their enrollment in the study to ensure their voluntary participation. In addition, they were assured that they have the right to withdraw from the study at any time without any further consequences.

2.6 Data Gathering Procedure

The data collection was performed in the period between Mar-2002 and Apr-2022 after obtaining the needed official approvals. The participants were conveniently selected from each setting in coordination with the administration to get access to the data regarding the characteristics of the staff and to find the available participants that fit the specified inclusion and exclusion criteria. The researchers contacted the head nurses and in-charge nurses to reach the targeted sample. The researcher distributed the questionnaire package to the participants meeting the inclusion criteria, explained briefly the objectives of the study, and guided them on how to fill out the included questionnaire. The participants were asked to give the questionnaire back to the researcher. Out of 218 nurses who participated and completed the survey, only 205 submissions were determined to be comprehensive and suitable for further analysis. The gathered data were organized and entered into Excel spreadsheets and subsequently imported into the Statistical Package for Social Sciences (SPSS) for detailed evaluation.

2.7 Statistical Treatment of Data

The gathered data was analyzed utilizing the SPSS software (version 26, IBM Corporation, Chicago, IL, USA). After coding, the data underwent comprehensive processing and analytical measures. The results were then presented in various formats such as textual descriptions, tables, or graphical representations. A prominent technique for understanding the relationship between two categorical variables is the Chi-Square test, often applied in the context of cross-tabulation. Cross-tabulation displays the distributions of two categorical variables concurrently, presenting intersections of these variables' categories in table cells. The Test of Independence is employed to determine the presence or absence of a correlation between these variables by contrasting the observed response pattern in the cells with what one would expect if the variables were unrelated. By determining the Chi-Square statistic and juxtaposing it with a threshold value from the Chi-Square distribution, researchers can deduce whether the real cell counts significantly deviate from those anticipated.

3. Results

A total of 205 male and female respondents were recruited for this study. The recruitment of this sample (n = 205) is referred to as "representative" of the study population. Table 2 represents the nurses' socio-demographic characteristics. The results showed that the majority of the nurses (70.2%) were in the age category of 18 to less than 24 years. The next represented category was those respondents who were aged between 24 and 30 years, which constituted 29.8% of the study respondents.

Female respondents constituted a high percentage of the study subjects (79%), whereas male respondents were only 21% of the total sample size. Concerning the working area, nurses working in administrative units represented 65.4% of the total, which was the highest represented category, followed by nurses working in centers (12.2%), nurses working in departments (11.7%), and the least represented category, those working in units (10.7%).

Almost half of the study respondents (51.7%) had less than 5 years of experience, whereas nurses with 5 to less than 10 years of experience constituted 18.5%, nurses with 10 to less than 15 years of experience were 15.1%, and nurses with 15 years or more of experience were the least represented category, which was

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14.6% of the total study sample.

Finally, investigating the marital status of the study respondents indicated that the great majority of the nurses (82.4%) were single, whereas married and divorced nurses constituted 15.6% and 2.0%, respectively.

Table 2: Demographic Profile of the Respondents

Variable	*F* (%)
Age (Years)	
1. Less than 30	144 (70.2)
2. 30 or more	61 (29.8)
Gender	
1. Female	162 (79)
2. Male	43 (21)
Working Area	
1. A department	24 (11.7)
2. A unit	22 (10.7)
3. Administrative	134 (65.4)
4. A center	25 (12.2)
Marital Status	
1. Married	32 (15.6)
2. Single	169 (82.4)
3. Divorced/widowed	4 (2.0)
Years of Experience	
1. Less than 5 years	106 (51.7)
2. 5 – less than 10 years	38 (18.5)
3. 10 – less than 15	31 (15.1)
4. More than 15 years	30 (14.6)

3.1 Level of Depression among the Study Respondents

The results shown in Table (3) indicate the level of depression according to the Beck Depression Inventory–II (BDI-II) among the recruited Jordanian nurses. Mild mood disturbance was prevalent among 43 nurses (21.0%), borderline clinical depression was prevalent among 12 nurses (5.9%), and moderate depression was prevalent among 31 nurses (15.1%). Severe depression was prevalent to a lower extent among 7 nurses (3.4%). Finally, extreme depression was prevalent among 16 nurses (7.8%).

Table 3: Level of Depression among the Respondents

Level	***F***	**(%)**
Normal	96	46.8
Mild Mood Disturbance	43	21.0
Borderline Clinical Depression	12	5.9
Moderate Depression	31	15.1
Severe Depression	7	3.4
Extreme Depression	16	7.8
Total	**205**	**100**

3.2 Correlation of the respondent's demographic profile to the level of depression

The results shown in Table (4) indicated that there is a significant difference in the respondents' level of depression according to their age in favor of the Respondents who ranged in age between 18 years to less than 24 years (p=0.0.009 ≤0.05). In addition, it was found that there is a significant difference in the respondents' level of depression according to their gender, in favor of the female respondents (p=0.001 ≤0.05). Moreover, the results presented in Table (4) showed that there is a significant difference in the nurses' level of depression according to their working area (p=0.0.041 ≤0.05).

Furthermore, the results shown in Table (4) indicated that there are significant differences in the respondents' level of depression according to their years of experience in favor of the nurses having more than 15 years of experience (p=0.0.030 ≤0.05). Finally, it was found that there is a significant difference in the respondents' level of depression according to their marital status in favor of the married nurses (p=0.0.010 ≤0.05).

Table 4: Correlation of the Respondents' demographic characteristics to the Level of Depression

Age	Normal (n=96)	Mild Mood Disturbance (n=43)	Borderline Clinical Depression (n=12)	Moderate Depression (n=31)	Severe Depression (n=7)	Extreme Depression (n=16)	*P*
Less than 30	62 (64.5%)	32 (74.4%)	10 (83.3%)	22 (71%)	5 (71.4%)	13 (81.3%)	0.009
30 or more	34 (35.4%)	11 (25.6%)	2 (16.7%)	9 (29%)	2 (28.6%)	3 (18.7%)	
Gender							
Male	22 (23%)	11 (25.6%)	1 (8.3%)	6 (19.4%)	1 (14.3%)	2 (12.6%)	
Female	74 (77%)	32 (74.4%)	11 (91.7%)	25 (80.6%)	6 (85.7%)	14 (87.5%)	0.001
Working Area							
A unit	14 (14.6%)	4 (9.3%)	0 (0%)	4 (12.9%)	0 (0%)	2 (12.6%)	
A ward	8 (8.3%)	4 (9.3%)	1 (8.3%)	4 (12.9%)	2 (28.6%)	3 (18.8%)	
Administrative	63 (65.6%)	28 (65.1%)	8 (66.7%)	20 (64.5%)	5 (71.4%)	10 (62.4%)	0.041
A center	11 (11.5%)	7 (16.3%)	3 (25%)	3 (9.7%)	0 (0%)	1 (6.2%)	
Years of experience							
Less than 5 years	51 (53.1%)	16 (37.2%)	4 (33.3%)	20 (64.5%)	3 (42.9%)	12 (75%)	
5 – less than 10 years	14 (14.6%)	12 (27.9%)	4 (33.3%)	5 (16.1%)	2 (28.5%)	1 (6.2%)	
10 – 15 years	18 (18.8%)	7 (16.3%)	1 (8.3%)	2 (6.5%)	1 (14.3%)	2 (12.6%)	
More than 15	13 (13.5%)	8 (18.6%)	3 (25%)	4 (12.9%)	1 (14.3%)	1 (6.2%)	0.030

years							
Marital Status							
Married	18 (18.8%)	5 (11.7%)	3 (25%)	4 (12.9%)	0 (0%)	2 (12.6%)	0.010
Single	77 (80.2%)	37 (86%)	9 (75%)	26 (83.9%)	6 (85.7%)	14 (87.4%)	
Divorced	1 (1%)	1 (2.3%)	0 (0%)	1 (3.2%)	1 (14.3%)	0 (0%)	

3.3 Predictors of Depression among Jordanian nurses amid COVID-19 Pandemic

A multiple linear regression analysis was conducted to examine the predictors of depression among Jordanian nurses amid the COVID-19 pandemic. The following variables were included as predictors: age (dichotomized as less than 30 or 30 or more), gender (dichotomized as female or male), working area (dichotomized as ward or non-ward), years of experience (dichotomized as 5- less than 10 years or not), and marital status (included as a dummy variable for being single or not).

The results indicated that the model was statistically significant, $F(5,199) = 8.12$, $p < 0.001$, $R^2 = 0.17$. The following variables were found to be significant predictors of depression: age ($\beta = -1.85$, $t(199) = -2.88$, $p = 0.004$), gender ($\beta = 1.25$, $t(199) = 2.14$, $p = 0.034$), working area ($\beta = 1.50$, $t(199) = 2.09$, $p = 0.038$), years of experience ($\beta = -1.10$, $t(199) = -1.86$, $p = 0.064$), and marital status ($\beta = 1.80$, $t(199) = 3.41$, $p < 0.001$) (Table 5).

Table 5: Correlation of the Respondents' demographic characteristics to the Level of Depression

Predictor Variable	Coefficient	Standard Error	t-value	p-value
Intercept	7.10	0.84	8.45*	<0.001
Age (30 or more)	-1.85	0.64	-2.88*	0.004
Gender (male)	1.25	0.58	2.14*	0.034
Working Area (Ward)	1.5	0.72	2.09*	0.038
Years of Experience (5 – less than 10 years)	-1.10	0.59	-1.86	0.064
Marital Status (Single)	1.80	0.53	3.41*	<0.001

4. Discussion

The present study sought to investigate the level of depression among Jordanian nurses who practice the nursing profession in public hospitals in northern Jordan. The results of the study showed that females are dominant in the study sample, which could be referred to as nursing specialization in Jordan and is mostly preferred by females, which raised the number of females in this sample. In addition, those ranging in age between less than 30 years were the highest as this age range is the normal range for the nurses working in the selected settings as they receive newly appointed nurses in Jordan. As indicated by the results, single nurses represented the highest percentage, and this might be referred to as the late marriage age in the Jordanian community as indicated by [3]. Finally, nurses with less than 5 years of experience represented the highest percentage, and this might be referred to as the delay in appointing nurses in Jordan due to the high number of students graduating not only from nursing colleges but also from different healthcare-related colleges.

It could be seen from the study results that there is mild mood disturbance is the highest type of depression

prevalent among enrolled nurses. This might be referred to that the majority of the nu have no sufficient experience. Therefore, nurses who were exposed to COVID-19-related activities are still juniors and in their first professional years; therefore, they are still in the beginning, and they are still single, which might eliminate the effect of having a family and other life responsibilities, which could increase their level of depression. However, still, there is an extreme depression prevalent among the study respondents, which is 7.8%.

Despite the difference in the study context, the results reported in this study were almost identical to the findings revealed by [17], who reported that the prevalence rate of depression was 51.30 percent. In addition, these results are similar to the depression scores reported by [18], who found that depression is prevalent at a rate of 28.3% among Saudi nurses. On the other hand, these results are not consistent with the findings of Aljaber19, who reported that there is a highly reported prevalence rate of depression among Saudi nursing specialists (83.4%).

The results of the present study indicated that there are significant differences in the level of depression according to the age variable, in favor of the nurses aged less than 30 years. These could be referred to as nurses in this range representing most of the newly appointed nurses. In addition, those nurses are new to the nursing profession, which means that they are exposed to a new stressful environment, which is the transition from the university to the work environment. The new professional life pattern in healthcare facilities requires the nurses to develop new coping strategies, which need time and specific skills.

The findings of this study are consistent with the results reported by [20], who found that depression had a significant correlation to the nurses' age. On the other hand, they are not in line with the results reported by [21], which indicated that age is not significantly associated with depression susceptibility.

Moreover, there were significant differences in the level of depression, referred to as the gender variable, in favor of female nurses. This might be referred to as females being exposed to more physiological changes than males, which puts them in stressful situations. These situations increase the level of depression among females. In addition, the accumulation of different events, such as home duties, menstrual cycles, workload, and marriage life (if married), significantly increases the level of depression among females.

The previously presented results were consistent with the results reported by [18], which indicated that gender was significantly correlated to the prevalence of depression among Saudi nursing students.

Besides, the results showed that there were significant differences in the level of depression according to the field of work, which was in favor of nurses working in centers. This might refer to those nurses working in centers such as supply centers and case management centers who were responsible for coordinating all the processes of receiving suspected and confirmed COVID-19 cases. Therefore, they were all under significant pressure and had to perform an accurate and timely process. The findings of this study could not be compared with those of other previous studies, as all the reviewed literature and previous studies did not investigate the association of the nurses' work area with their level of depression. This would be an added value for this study as it is one of the first studies that explored the association of the working area to the depression level among nurses in Jordanian hospitals.

Concerning the years of experience variable. It is obvious from the previous table that there is a significant difference in the level of depression in favor of nurses with more than 15 years of experience. This might be referred to as the fact that at this stage, the nurses are more involved in the working environment and the

heavy workload that requires them to do their best, in contrast with less experienced nurses who are still lacking the professional experience to deal with admitted and transferred COVID-19 cases. The results of this study were consistent with the results reported by [19], who found that depression level is significantly associated with the number of years of nursing experience. On the other hand, they were inconsistent with the findings reported by [22], who found that the nurses' years of experience are not significantly associated with the level of depression.

Furthermore, the results related to the association of the level of depression with the marital status of the nurses indicated that there were significant statistical differences in the level of depression in favor of the married nurses. This might be referred to as married nurses, in addition to their workload, they are required to perform more daily life activities related to their families, and there is a higher burden they should perform. The findings of this study are in line with the findings reported by [18], which revealed a significant association between nurses' marital status and the level of depression.

The results of this study revealed that several variables were significant predictors of depression among Jordanian nurses during the COVID-19 pandemic. Specifically, nurses who were older than 30, female, not working in a ward, not single, and had more years of experience had lower levels of depression compared to their counterparts. These findings are consistent with previous studies that have investigated the predictors of depression among nurses. For example, a study conducted in Turkey found that older age was associated with lower levels of depression among nurses, which may be due to the development of better-coping mechanisms and resilience over time [23]. Similarly, a study in Iran found that female nurses were more likely to experience depression compared to male nurses, possibly due to differences in social support and work-related factors [24]. In terms of work-related factors, a study conducted in China found that nurses who worked in high-risk areas during the COVID-19 pandemic had higher levels of depression compared to those who did not work in these areas [25]. This is consistent with our finding that nurses who worked in a ward had higher levels of depression compared to those who worked in other areas.

Our finding that single nurses had higher levels of depression is also consistent with previous research. A study conducted in Saudi Arabia found that marital status was a significant predictor of depression among nurses, with single nurses reporting higher levels of depression compared to married nurses [26].

5. Limitations and Recommendations

Despite the significant findings of the present study, several limitations could limit the generalization of the study's findings. One limitation is that the sample was withdrawn mostly from public hospitals, and no private hospitals were included in this study. Including nurses from private hospitals might provide more valid and reliable findings. Another limitation is the high representation of females in the study sample. Including a more representative number of males might provide variation in the findings and more reliable findings.

In this study, we focused on specific predictors of depression among Jordanian nurses during the COVID-19 pandemic, including age, gender, working area, years of experience, and marital status, which were based on our initial literature review and the context of our research. However, we acknowledge that depression is multifaceted, and other potential influential factors, such as financial status, duration of work, and personal illnesses, were not assessed. Future research might consider a more comprehensive set of variables to provide a holistic understanding of the predictors of depression in similar settings

Based on the study findings, the study recommends (1) conducting further cross-sectional studies to explore

the prevalence of depression and associated factors among Jordanian nurses working in both public and private hospitals, (2) increasing Jordanian nurses' level of knowledge and awareness about the coping strategies that could allow them to overcome any depressive symptoms and practicing these coping strategies, and (3) recommending the healthcare facilities and policymakers to improve nurses' practices related to the nursing profession and address the depression-associated factors in the healthcare settings.

6. Conclusion

The present study underscores the prevalence of depression among Jordanian nurses practicing in public hospitals, primarily in the northern region. Notably, younger nurses, especially those below 30 years of age, and single nurses, exhibited higher levels of depression, potentially due to the challenges of transitioning from academic life to the demanding professional setting of healthcare. Factors such as gender, marital status, work area, and years of experience also played pivotal roles in influencing depression levels. Female nurses, particularly due to compounded stressors like physiological changes, familial duties, and work responsibilities, manifested heightened depression levels. Moreover, those working in high-pressure centers coordinating COVID-19 case intakes exhibited increased depression rates, highlighting the mental toll of the pandemic on healthcare professionals. While this research sheds light on crucial areas of concern, its focus on public hospitals and the predominant representation of female participants warrant further comprehensive studies, inclusive of private hospitals and a more balanced gender representation. Effective interventions, increased awareness, and policy reforms are imperative to address these mental health challenges and better support the nursing community.

7. Contribution

The significant contribution of the present study might be either a theoretical or practical contribution. In terms of its theoretical contribution, this study might pave the way for further studies that address similar variables and provide the researchers with an overview of the level of depression and its associated factors among Jordanian nurses. Therefore. Researchers might investigate the effectiveness of special interventions based on the results of this study. Concerning the practical contribution, the present study helps healthcare facilities and policymakers in Jordanian health authorities to design and implement preventive interventions that could reduce or prevent the increased prevalence of depression among Jordanian nurses. In addition, the results of this study might allow policymakers to address the factors that predict depression among healthcare workers in general and nurses in particular.

Ethical Approval: The present study was approved by the Girne American University Humanities Ethical Committee (Approval number: 2022-23/001)

Informed Consent: Written informed consent was obtained from the nurses who participated in this study.

Conflict of Interest: The authors declare no conflict of Interest

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Informed Consent: Written informed consent was obtained from the nurses who participated in this study.

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