Acute Stress Disorder, Coping Self- Efficacy and Subsequent Psychological Distress among Nurses Amid COVID-19

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Abstract

Background: Health care professionals, particularly nurses, are considered a vulnerable group to experience Acute Stress Disorder, psychological distress amid the COVID-19 pandemic. **Aim of the study:** Was to determine acute stress disorder, coping self-efficacy and subsequent psychological distress among nurses working in AL-Namuzaji Hospital in Benha city amid COVID-19. **Research Design:** Descriptive correlation design was utilized in this study to fulfill the aim of this study. **Setting:** This study was conducted in Al-Namuzaji Hospital for Health Insurance in Benha city, Qaluobia governorate. **Subject:** All nurses in Convenient sample of (87) nurses from Isolation department utilized in this study. **Tools:** Three tools were used for data collection. **Tool (I):** A Structured Interview Questionnaire Sheet includes socio-demographic data of the studied nurses. **Tool (II):** General Self-Efficacy Scale (GSE). **Tool (III):** Depression, Anxiety, stress Scale-Long Form (DASS-42). **Results:** More than half of the studied nurses have moderate level of total coping self-efficacy. Half of the studied nurses have mild level of depression. Moreover, the minority of them have extremely severe level of depression. Moreover, the vast minority of them have extremely severe level of anxiety. More than half of the studied nurses have severe level of stress. Moreover, the vast minority of them have extremely severe level of stress, While, the minority of them are normal. **Conclusion:** This result confirming that psychological status and self-efficacy of nurses were affected by COVID-19. **Recommendation:** Continuous assessment of nurses for understanding of the stressors and difficult situations that impact on psychological status and their self-efficacy.

Key words: COVID-19, Psychological distress, Self-efficacy, Stress disorder.

Introduction:

An acute stress reaction occurs when symptoms develop due to a particularly stressful event. The word 'acute' means the symptoms develop quickly but do not usually last long. The events are usually very severe and an acute stress reaction typically occurs after an unexpected life crisis, for example, a serious accident, sexual assaults, sudden bereavement, or other traumatic events. Road traffic accidents cause many casualties each year and you may be directly or indirectly affected by this kind of exceptionally stressful event .Acute stress reactions have been seen in people who experience terrorist incidents or major disasters. They may also occur in people who experience war in their countries. Military personnel are at more risk as a result of extreme experiences during conflicts (**Avi Varma et al., 2022).**

Health quality service requires staff self-efficacy in dealing with problems/various situations within the organization. The organizational analysis is not only related to tradition but also shared values and beliefs about the organization's ability to innovate and be productive, the efficacy of being productive is an important part of organizational culture

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challenging and stressful events **(Imus et al., 2019).**

Self-efficacy is a mediator between knowledge and action and also influences the treatment selection taken by nurses. Nurses' self-efficacy includes speaking or express when patient safety is in danger, by not engaging the silence culture when there are adverse effects related to patient safety. The importance of nurses' self-efficacy in carrying out their duties and there has never been extensive research regarding the self-efficacy of nurses in various regions in Indonesia are the reasons for this research. This study aims to describe the self-efficacy of nurses in hospitals in various regions in Indonesia and to find out the relationship between the characteristics of nurses and self-efficacy **(Robbins et al., 2019).**

A psychological distress is a response to prolonged stressful working conditions and typically includes three dimensions: emotional exhaustion, depersonalization, and decreased personal accomplishment. Emotional exhaustion is the first step of burnout and also a mandatory criterion for burnout syndrome, representing feelings of tiredness and exhaustion emotionally due to excessive physical and emotional efforts. Depersonalization occurs after emotional exhaustion and refers to the negative and callous attitudes toward patients, marked by cynicism, disinterest, and dehumanization. A high level of depersonalization may lead nurses to view their patients as deserving of their sufferings. The third aspect of burnout is decreased personal accomplishment marked by unhappiness about oneself and dissatisfaction with one's job accomplishment **(Sandesh et al., 2020).**

The Coronavirus disease 2019 and its global pandemic have become a serious global mental health concern all over the world, bringing about a sharp increase in the number of mental health problems such as loneliness, depression, and anxiety. The negative impact of the COVID-19 on mental health is especially predominant among healthcare providers who work in the front line to directly combat the virus. Healthcare providers are faced with many challenges during the COVID-19 pandemic, including increased workloads and extended work hours, limited resources and support, lack of knowledge and preparedness to respond to the COVID-19, and fear of getting infected and infecting their families **(Ornell et al., 2020).**

Nurses are the largest group of healthcare workers on the front line of efforts to control the COVID-19 pandemic. An understanding of their nursing experiences, the challenges they encountered and the strategies they used to address them may inform efforts to better prepare and support nurses and public health measures when facing a resurgence of COVID-19 or new pandemics. COVID-19 is a novel infectious disease caused by a single stranded RNA coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) **(Dong et al., 2020).**

In Egypt, from 3 January 2020 to 22 October 2021, there have been 321,084 confirmed cases of COVID-19 with 18,105 deaths, reported to WHO. As of 17 October 2021, a total of 23,177,181 vaccine doses have been administered **(WHO, 2021).** On 30 January 2020, the WHO declared the novel severe acute respiratory syndrome coronavirus-2 to be a Public Health Emergency of International Concern. Egypt is among the five countries reporting the highest number of cases in Africa. However, the incidence proportion has increased to 14 cases /100 000 population. Additionally, research has revealed that asymptomatic and pre-symptomatic infections are important contributors to the transmission of SARSCoV-2 in populations. In Egypt, the

true prevalence of infections is veiled due to the low number of screening tests **(Chau et al., 2021).**

Significance of the study

Viral diseases have been a serious issue to global health emerging in public awareness. By the end of 2019, the world had witnessed the unpleasant and anxiety-provoking news regarding the spread of coronavirus disease (COVID-19) on a global scale. The rapidness and aggressiveness of COVID-19 in infecting people made it a serious and threatening global health issue. As of 21 June 2020, more than 8 million people were infected, resulting in thousands of deaths worldwide **(European Center for Disease Prevention and Control, 2020).**

COVID-19 has been recognized as a pandemic by the World Health Organization, and physicians are at the frontline to confront the disease. Burnout syndrome (BOS) is a syndrome resulting from chronic workplace stress that has not been successfully managed. The objective of this study is to evaluate the frequency and associated risk factors of BOS among a sample of Egyptian physicians during the COVID-19 pandemic **(Shen, 2020).**

Aim of the study

This study aimed to determine acute stress disorder, coping self-efficacy and subsequent psychological distress among nurses amid COVID-19.

Research questions:

- What is the level of acute stress disorder, coping self-efficacy and psychological distress among nurses amid COVID-19?
- What is the relationship between acute stress disorders, coping self-efficacy psychological distress among nurses amid COVID-19?

Subject and methods

Research design:

Descriptive correlational design was utilized in this study to fulfill the aim of this study.

Research setting:

This study was conducted in Al-Namuzaji Hospital for Health Insurance in Benha city, Qaluobia governorate, which consists of seven floors, 1st floor consist of Emergency, Radiology department and Blood Bank, 2nd floor consist of Operation Room, Laboratory, Cardiac Catheterization Unit and Sterilization Department, 3rd floor consist of Cardiac Care, Gynecological Operations and Endoscopy, 4th floor consist of ICU, NICU. Surgical Care (closed), 5th floor Tumors, Heart, Bones, Brain & Nerves departments, 6th floor consist of Isolation department , consists of 4 rooms with capacity 13 beds and intensive care room with 4 beds located in 4th floor. Total capacity of hospital about bed 360 beds.

Research subject:

Sample size & sample technique:

Convenient sample of (87) nurses from Isolation department in Al-Namuzji Hospital for Insurance in Benha city, Qalubia Governorate.

Tools of Data Collection:

In order to achieve the aim of study, the following tools were used.

Tool (I): A Structured Interview Questionnaire Sheet.

Including this part: Socio-demographic data: to elicit data about nurses characteristic such as (age, sex ,marital status, residence, educational level, occupation, years of experience, hospital ward they are working and past or current diagnosis of mental disorder).

Tool (II): General Self-Efficacy Scale (GSE).

The coping self-efficacy (CSE) scale, a 26-item measure of one's confidence in performing coping behaviors when faced with life challenges. This measure is an adaption of the Hurricane Coping Self-Efficacy Scale which assesses an individual's confidence in her& his/ ability to cope effectively with a trauma. The words 'caused by the hurricane' at the end of each item of the original measure were changed

to 'caused by COVID-19'. The measure consists of 7 items scored on a 7-point Likert scale ranging from 'not at all capable 'to 7 'totally capable'.

The items measure the individual's capability to deal with the emotions and personal losses they have experienced from the trauma. As following: Never(1), Rarely(2), Occasionally(3), Sometime(4), Frequently(5), Usually(6), Every time(7). Coping Self-Efficacy Scale or when you're having problems, how confident or certain are you that you can do the following: Cannot do at all (0:3), moderately certain can do (4, 5), certain can do (6:10). After that we modified items in jury as following: Never (1), Sometime (2), Always (3) **(Benight & Ironson, 2019).**

Scoring system of GSE: Each item was scored on a scale from 1 to 3, where 1----Never, 2----sometime, 3----Always with total score range of 10 to 30.

The total score is calculated by finding the sum of the all items. For the GSE, the total score ranges between 10 and 30, with a higher score indicating more self-efficacy.

Tool (III) Depression, Anxiety, stress Scale-Long Form (DASS-42).

The Depression, Anxiety and Stress Scale (DASS) is a self-report measure of anxiety, depression and stress developed by **(Lovibond and Lovibond 1995)** which is used in diverse settings **(Onie et al., 2020).**

The DASS is a 42-item self-administered questionnaire designed to measure the magnitude of three negative emotional states: depression, anxiety, and stress. The DASS Depression focuses on reports of low mood, motivation, and self-esteem, DASS-anxiety on physiological arousal, perceived panic, and fear, and DASS-stress on tension and irritability. Instructions to client and scoring: A respondent indicates on a 4-point scale the extent to which each of 42 statements applied over the past week. A printed overlay is used to obtain total scores for each subscale. Higher scores on each subscale indicate increasing severity of depression, anxiety, or stress.

Completion takes 10 to 20 minutes. A shorter, 21-item version of the DASS (DASS-21), which takes 5 to 10 minutes to complete, is also available. Subscale scores from the shorter questionnaire are converted to the DASS normative data by multiplying the total scores by 2. Individual patient scores on the DASS subscales can be interpreted by converting them to z-scores and comparing to the normative values contained within the DASS manual.

Validity of tools:

Arabic translation of tools was done and tested for their translation by the researcher for the study sample to be more easier and understandable .To achieve the criteria of trust worthiness of tool in this study, the tool were tested and evaluated for content validity by five experts in psychiatric mental health nursing field. To ascertain relevance, clarity and completeness applicability of the tools, the modification (were modify some words to give the right meaning of the phrases). According to their opinions modifications were done and the final form was developed.

Reliability of tools:

The reliability of the tools was conducted to determine the internal consistency and homogeneity of the used tools by Alpha Cronbach test and results were (0.703) for general self-efficacy scale, (0.809) for DASS scale.

Ethical consideration:

The researcher clarified the purpose and the aim of the study to every participant in the study, oral consent obtained from each nurse before conducting the interview; the nurse who agreed to participate in the study were assured about the confidentiality and anonymity of the

study .They were informed that they could withdrawal from the study at any time .

Pilot study:

A pilot study was undertaken after adaptation of the tools and before starting the data of collection. It was conducted on (10%) 8 nurses (included in study) after taking their oral approval and explanation the purpose of the study to test the applicability, feasibility and clarity of the tools. In addition, it served to estimate the approximately time required for interviewing the nurse as well as to find out any problem that might interfere with data collection.

Field work:

Data collection took about four month (from beginning of October to mid of January 2022). The researcher distributed the data collection forms with instructions about to fill them. The study was started and finished through these steps:

• The researcher introduced herself to the nurses then explained the purpose and the aim of the study to every one of them.

• Consent was taken from every one of them before data collection.

• The time required to fill the questionnaire sheet was range from 20 to30 minutes, from 11.00 AM to 1.00 PM, two days per week (Sunday and Monday) 6 nurse/week.

• The researcher collected data from nurses during their work, the researcher obtained data from nurses in nursing room during break and it was completed by the researcher within (20: 30) minutes for each nurse.

Statistical analysis:

Data were verified prior to computerized entry. The Statistical Package for Social Science (SPSS version 20.0) was used for that purpose, followed by data analysis and tabulated. Data were presented using descriptive statistic as number, frequency, mean and standard deviation. Person correlation coefficient(r) and highly significant $p < 0.001$. A significance level value was considered when p-value < 0.05, while p-value > 0.05 indicates non significance results.

Results:

Table (1): Shows that, more than half (52.9%) of the studied nurses their age is 20-<30 years with mean SD 30.08 ± 7.53 years. As regard to marital status, slightly less than two-thirds (64.4%) of them are married. In addition, more than half (59.8%) of them residing at rural areas. Moreover, half (50.6%) of them have nursing technical institute. As regard to occupation, the majority (89.7%) of the studied sample working staff nurse. Furthermore, more than half (51.7%) of them have 5-<10 years of experience with mean SD 8.63 ± 3.01 years. Also, all (100.0%) of them work in a hospital isolation department. Moreover, all (100.0%) of them don't have past or current diagnosis of mental disorder.

Figure (1): Shows that, half (50.6%) of the studied nurses has mild level of depression. Also, the minority (13.8%) of them have moderate and (8.0%) of them severe level, respectively. Moreover, the minority (2.3%) of them have extremely severe level of depression. While, one-quarter (25.3%) of them are normal.

Figure (2): Shows that, more than half (55.2%) of the studied nurses has moderate level of anxiety. Also, the minority (16.1%) of them have mild and (11.5%) of them severe level, respectively. Moreover, the vast minority (5.7%) of them have extremely severe level of anxiety. While, the minority (11.5%) of them are normal.

Figure (3): Shows that, more than half (51.7%) of the studied nurses has severe level of stress. Also, the minority (11.5%) of them has mild and (18.4%) of them has moderate level of stress, respectively. Moreover, the vast minority (9.2%) of them have extremely severe

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level of stress. While, the minority (9.2%) of them are normal.

Figure (4): Shows that, more than half (52.9%) of the studied nurses has moderate level of total coping self-efficacy. Also, more than one-quarter (26.4%) of them have low level of total self-efficacy. While, one-fifth (20.7%) of them have high level of total coping self-efficacy.

Table (2): Reveals that, there is a highly statistically significant relation between total level of coping self-efficacy of the studied nurses and their socio-demographic data as

education level and years of experience. Also, there is statistically significant relation between total coping self-efficacy and their age, sex and occupation. While, there is no statistically significant relation between total coping self-efficacy and their marital status and residence.

Table (3): Shows that, there is a highly statistically significant positive correlation between total levels of depression, total levels of anxiety and total levels of stress among the studied nurses (r=-0.809, p <0.01, r=-0.731, p <0.01 and r=-0.789, p <0.01) respectively

Table (1): Distribution of the studied nurses according to their socio-demographic data (n=87).

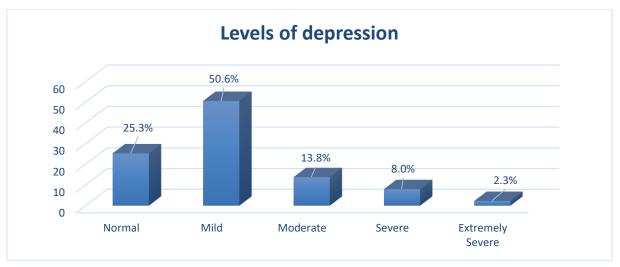| Socio-demographic data of the studied nurses	N	%
Age		
< 20 years	4	4.6
20-<30 years	46	52.9
30-<40 years	27	31.0
≥ 40 years	10	11.5
Mean SD	**30.08 ± 7.53**	
Marital status		
Single	24	27.6
Married	56	64.4
Widowed	4	4.6
Divorced	3	3.4
Residence		
Rural	52	59.8
Urban	35	40.2
Educational level		
Diploma	12	13.8
Nursing technical institute	44	50.6
Bachelor of nursing	24	27.6
Postgraduate studies	7	8.0
Occupation		
Nurse	78	89.7
Supervisor	9	10.3
Years of experience		
< 5 years	18	20.7
5-<10 years	45	51.7
≥ 10 years	24	27.6
Mean SD	**8.63 ± 3.01**	
Working in a hospital isolation department		
Yes	87	100.0
No	0	0.0
Have past or current diagnosis of mental disorder		
Yes	0	0.0
No	87	100.0

Figure (1): Distribution of the studied nurses according to their total levels of depression (n=87).
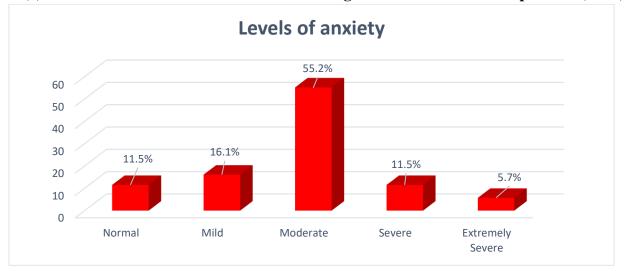

Figure (2): Distribution of the studied nurses according to their levels of anxiety (n=87).
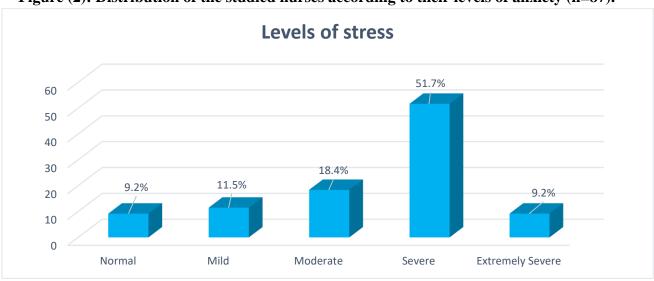

Figure (3): Distribution of the studied nurses according to levels of total stress (n=87).

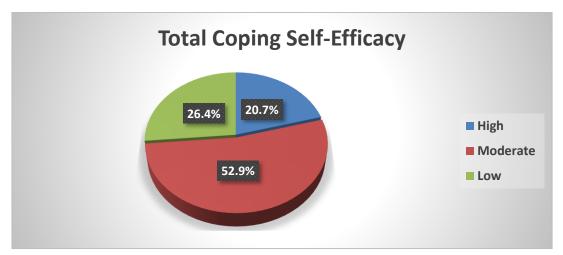**Acute Stress Disorder, Coping Self- Efficacy and Subsequent Psychological Distress among Nurses Amid COVID-19**

Figure (4): Distribution of the studied nurses according to total coping self-efficacy (n=87).

Table (3): Relationship between socio-demographic data and levels of total coping self-efficacy among the studied nurses (n=87).

Socio-demographic data		Levels of total coping self-efficacy						X^2	P-Value
		High (n=18)		Moderate (n=46)		Low (n=23)			
		N	%	N	%	N	%		
Age (years)	< 20	0	0.0	0	0.0	4	17.4	10.57	< 0.05*
	20-<30	2	11.1	28	60.9	16	69.6		
	30-<40	6	33.3	18	39.1	3	13.0		
	≥ 40	10	55.6	0	0.0	0	0.0		
Sex	Male	10	55.6	22	47.8	0	0.0	9.224	< 0.05*
	Female	8	44.4	24	52.2	23	100.0		
Marital status	Single	4	22.2	10	21.7	10	43.5	2.587	> 0.05
	Married	10	55.6	34	73.9	12	52.2		
	Widowed	2	11.1	1	2.2	1	4.3		
	Divorced	2	11.1	1	2.2	0	0.0		
Residence	Rural	13	72.2	26	56.5	13	56.5	1.220	> 0.05
	Urban	5	27.8	20	43.5	10	43.5		
Educational level	Diploma	0	0.0	0	0.0	12	52.2	14.11	<0.001**
	Nursing technical institute	0	0.0	33	71.7	11	47.8		
	Bachelor of nursing	11	61.1	13	28.3	0	0.0		
	Postgraduate studies	7	38.9	0	0.0	0	0.0		
Occupation	Nurse	10	55.6	45	97.8	23	100.0	11.63	< 0.05*
	Supervisor	8	44.4	1	2.2	0	0.0		
Years of experience	< 5	0	0.0	0	0.0	18	78.3	16.88	<0.001**
	5-<10	0	0.0	40	87.0	5	21.7		
	≥ 10	18	100.0	6	13.0	0	0.0		

Table (5): Correlation between total levels of depression, total levels of anxiety and total levels of stress among the studied nurses (n=87).

Variables		Total levels of depression	Total levels of anxiety
Total levels of depression	r		
	p-value		
Total levels of anxiety	r	0.809	
	p-value	<0.01	
Total levels of stress	r	0.731	0.789
	p-value	<0.01	<0.01

Discussion:

Regarding the studied nurses' socio-demographic data, the current study revealed that more than half of the studied nurses ranged in age from 20 to less than 30 years old with mean SD 30.08 ± 7.53 years. This result was in the same line with **Chew, (2020)** conducted a study entitled "A multinational, multi centre study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID-19 outbreak" and mentioned that the median age was 29 (interquartile range: 25–35) years. On the other hand, this finding was un-similar with **Xiong & Lin, (2020)** carried out a study to assess " The psychological status and self-efficacy of nurses during COVID-19 outbreak: a cross-sectional survey" and found that the majority of the participants were between 26 and 45years old.

As regard to marital status, the present study showed that slightly less than two-thirds of the studied nurses were married, and more than half of them were from rural areas. This result was in accordance with **Vagni et al., (2020)** conducted a study about "Coping with COVID-19: emergency stress, secondary trauma and self-efficacy in healthcare and emergency workers in Italy" and stated that 52.9% of the studied sample were married. But this result disagreed with **Simonetti et al., (2021)** carried out a study to assess "Anxiety, sleep disorders and self -efficacy among nurses during COVID-19 pandemic: A large cross- sectional study" and found that more than half of the studied nurses were unmarried.

These findings were in harmony with **Lai et al., (2020)** conducted a study entitled "Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019" and declared that a considerable proportion of participants reported symptoms of depression. On the other hand, these results contradicted with **Zheng et al., (2021)** carried out a study about "Prevalence and associated factors of depression, anxiety, and stress among Hubei pediatric nurses during COVID-19 pandemic" and stated that depression was founded in less than one-fifth of the studied nurses.

As regard the studied nurses' total levels of anxiety, the present study illustrated that more than half of the studied nurses had moderate level of anxiety. But, the minority of them had normal, mild, severe, and extremely severe level of anxiety. These findings supported by **Silva Moreira et al., (2021)** carried out a study entitled "Protective elements of mental health status during the COVID-19 outbreak in the Portuguese population" and mentioned that nurses presented higher anxiety levels than the general population. Also, this was in contrast with **Hacimusalar et al., (2020)** carried out a study about "Anxiety and hopelessness levels in COVID-19 pandemic: A comparative study

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of healthcare professionals and other community sample in Turkey" and stated that the anxiety levels of healthcare workers were higher in the COVID-19 pandemic compared to the society.

Regarding the studied nurses' levels of total stress, the present study explained that more than half of the studied nurses had severe level of stress. Also, the minority of them have normal, mild, moderate and extremely severe level of stress. These findings were congruent with **Benfante et al., (2020)** conducted a study about "Traumatic stress in healthcare workers during COVID-19 pandemic" and stated that more than half of the studied nurses had severe level of trauma-related stress.

According to the studied nurses' total coping self-efficacy, the current study revealed that more than half of the studied nurses have moderate level of total coping self-efficacy. Also, more than one-quarter of them have low level of total coping self-efficacy, while about one-fifth of them have high level of total coping self-efficacy. These findings matched with **Zhang et al., (2021)** conducted a study entitled "The Traumatic Experience of Clinical Nurses During the COVID-19 Pandemic: Which Factors are Related to Post-Traumatic Growth?" and reported that the nurses' self-efficacy was at a medium level, with average score of 26.69 ± 5.50 and most of the nurses adopt a positive coping style when facing difficulties.

According to relationship between socio-demographic data and levels of total coping self-efficacy among the studied nurses, the current study clarified that there was a highly statistically significant relation between total coping self-efficacy of the studied nurses and their education level and years of experience. Also, there was statistically significant relation with their age, sex and occupation. While, there was no statistically significant relation with

their marital status and residence. From the research investigator point of view, this could be explained as lower age, educational level and shorter working years mean lack of experience and knowledge on treating patients with pandemic like COVID-19, which may be related to higher degree of worry about the pandemic and further lead to lower coping self-efficacy.

As regard relationship between socio-demographic data and total levels of depression among the studied nurses, the present study clarified that there was a highly statistically significant relation between total level of depression of the studied nurses and their education level, occupation and years of experience. Also, there was statistically significant relation with their age and sex. While, there was no statistically significant relation with their marital status and residence. This could be explained as the higher level of education and the more years of experience of nurses, the more knowledge and awareness to face work challenges and the less level of depression. In addition, older people have lower level of depression than younger people.

Concerning relationship between socio-demographic data and total levels of stress among the studied nurses, the current study revealed that there was a highly statistically significant relation between total level of stress of the studied nurses and their age, education level and years of experience. Also, there was statistically significant relation with their sex and occupation. While, there was no statistically significant relation with their marital status and residence. This could be explained as when age, education and years of experience increase, the stress felt by COVID-19 decreases. This could also be due to increased awareness and experience per increasing age, years of experience and education. Thus, nurses with awareness and

experience about the disease demonstrated lower stress.

Regarding correlation between total coping self-efficacy, total psychological distress (Depression, Anxiety and Stress) among the studied nurses, the present study illustrated that, there was a highly statistically significant negative correlation between total depression, total anxiety, total stress and total coping self-efficacy. It could be explained as coping self-efficacy is a protective factor against psychological distress. Greater coping self-efficacy is associated with lower Depression, Anxiety and Stress. This result was supported by **Shahrour & Dardas, (2020)** stated that lower coping self-efficacy reported higher psychological distress. Coping self-efficacy is found to ameliorate the effect of psychological distress on nurses.

In addition, this was in the same line with **Zhou et al., (2021)** conducted a study about "Self-efficacy and mental health problems during COVID-19 pandemic" and mentioned that Self-efficacy was positively related to active coping (p<0.01), and was negatively related to passive coping as well as all dimensions of mental health problems .Besides, active coping was negatively related to depression and compulsion/anxiety.

Moreover, the current study declared that there was a highly statistically significant positive correlation between total levels of depression, total levels of anxiety and total level of stress among the studied nurses. This result was in agreement **with Sampaio et al., (2020)** founded a significant and positive correlation between fear (to be infected and to infect family) and depression, anxiety, and stress (P<0. 01).

Conclusion:

Our findings in this study, shows that when healthcare workers face health crisis they have stress , anxiety when dealing with this crisis ,so this study find that there is a highly

statistically significant positive correlation between total levels of depression, total levels of anxiety and total levels of stress when dealing with stressful situation and also ,shows that, there is a highly statistically significant negative correlation between total depression, total anxiety, total stress and total coping self-efficacy .

Recommendation:

❖ **Recommendation for nurses:**

- Designing a psycho-educational program for nurses and continuous intervention programs in psychiatric hospitals that provide proper coping strategies with stress.

- Stress management program should be taught to all nurses at regular sessions by professional people in the field of mental health to enable the nurse to cope with stressors.

- Nursing supervisors should be well prepared to provide psychological support to all nurses to be able to identify nurses needs, help them to express feelings, stressor's factors in dealing with this pandemic.

❖ **Recommendation for hospital:**

- Communication of administration with healthcare workers is crucial to identify their needs and detect the pitfalls in the system and fix it, especially that public hospitals are huge with several departments which make it harder to early identify any emerging problem. There should be continuous planning, execution, and auditing, then receiving feedback to assure ongoing improvement.

- Organized training on infection prevention policies at the start of their residency program which allows them to be educated about the infection prevention procedures.

- Hospital policy should allow for satisfactory reward system for all nursing staff working in isolated department, policy should be included strict a law to protect nurses from the infringement of the patient's relatives.

- Ensure the right systems, frameworks and processes are in place for nurses' learning, education and development throughout their careers. These must also promote fair and equitable outcomes.
- The suitable financial support, compensation for health care workers and health insurance have been long standing major problems in the health care sector and especially during COVID-19 pandemic, with the continuous hazards and risks they are facing.

❖ **Recommendation for community:**

- Society must constantly honor nurses because they are the first line fighter to COVID-19 pandemic to save life of people.
- Society must appreciate nurses for their important role and endangering themselves and their families in the facing of the fierce and devastating COVID-19.

❖ **Recommendation for further researcher:**

Further studies by using larger probability sample for generalization of the results by making comparison between two isolation hospital or more to know the sources of stress between nurses.

References:

Avi Varma, M, MPH, AAHIVS, FAAFP, (2022). Written by Aaron Kandola and Alina Sharon"The relationship between acute stress disorder and posttraumatic stress disorder in severely injured trauma survivors". Behaviour Research and Therapy. 42 (3): 315–28.

Benfante, A., Di Tella, M., Romeo, A., & Castelli, L., (2020). Traumatic stress in healthcare workers during COVID-19 pandemic: a review of the immediate impact. Frontiers in psychology, 11, 2816.

Benight and Ironson,(2019). Validation of a new general self-efficacy scale. Organizational Research Methods, 4, 62-83.

Chau, L,Hoffmann M, Kleine-Weber H, Schroeder S, (2021). SARS-CoV-2 Cell Entry Depends on ACE2 and TMPRSS2 and Is Blocked by a Clinically Proven Protease Inhibitor. Cell 2020; 181:271.

Chew, W., Lee, K., Tan, Y., Jing, M., Goh, Y., Ngiam, J.,& Sharma, V., (2020). A multinational, multicentre study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID-19 outbreak. Brain, behavior, and immunity, 88, 559-565.

Dong, E., Du, H., Gardner, L.,(2020). An interactive web-based dashboard to track COVID-19 in real-time. Lancet Infect Dis, 20:P533–534. 10.1016/S1473-3099 (20) 30120-1.

European Center for Disease Prevention and Control (ECDC), (2020). Situation update worldwide European Journal of Endocrinology. 185 (4): R103–R111. doi:10.1530/EJE-21-0281. PMC 8428074. PMID 34370712..

Hacimusalar, Y., Kahve, C., Yasar, B., & Aydin, S., (2020). Anxiety and hopelessness levels in COVID-19 pandemic: A comparative study of healthcare professionals and other community sample in Turkey. Journal of psychiatric research, 129, 181-188.

Imus, F., Burns, M.,Weglarz,(2019). Self-efficacy and graduate education in a nurse anesthesia program: a pilot study. Am Assoc Nurse Anesth J, 85 (2017), pp. 205-216.

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA network open, 3(3), e203976-e203976.

Lovibond, S., and Lovibond, P. (1995). Manual for the Depression Anxiety &Stress Scales (2nd Ed)Sydney: Psychology Foundation ;Australian Physiotherapy Association. Published by Elsevier Inc.Volume56,Issue 3,P.204.

Onie, S., Kirana, C., A., Mustika, P., Adesla, V., & Ibrahim, R., (2020, May 12). Assessing

the Predictive Validity and Reliability of the DASS-21, PHQ-9 and GAD-7 in an Indonesian Sample.

Ornell, F., Schuch , B., Sordi, O.,& Kessler FHP,(2020). "Pandemic fear" and COVID-19: mental health burden and strategies. Br J Psych, 42:232–5. doi: 10.1590/1516-4446-2020-0008

Robbins, P., Judg, A.,(2019). Organizational behavior. 17th ed., Pearson Education Limited, pp. 747.

Sampaio, F., Sequeira, C., & Teixeira, L., (2020). Nurses' mental health during the Covid-19 outbreak: a cross-sectional study. Journal of occupational and environmental medicine, 62(10), 783-787.

Sandesh R, Shahid W, Dev K, Mandhan N, Shankar P, Shaikh A, et al., (2020). Impact of COVID-19 on the mental health of healthcare professionals in Pakistan. Cureus, 12:e8974.

Shahrour, G., & Dardas, A. (2020). Acute stress disorder, coping self-efficacy and subsequent psychological distress among nurses amid COVID-19. Journal of nursing management, 28(7), 1686-1695.

Shen, X., Zou, X., Zhong, X., Yan, J., Li, L.,(2020). Psychological stress of ICU nurses in the time of COVID-19. Crit Care.;24:200.

Silva Moreira, P., Ferreira, S., Couto, B., Machado-Sousa, M., Fernández, M., Raposo-Lima, C., & Morgado, P. (2021). Protective elements of mental health status during the COVID-19 outbreak in the Portuguese population. International Journal of Environmental Research and Public Health, 18(4), 1910.

Simonetti, V., Durante, A., Ambrosca, R., Arcadi, P., Graziano, G., Pucciarelli, G., ... & Cicolini, G. (2021). Anxiety, sleep disorders and self-efficacy among nurses during COVID-19 pandemic: A large cross-sectional study. Journal of clinical nursing, 30(9-10), 1360-1371

Vagni, M., Maiorano, T., Giostra, V., & Pajardi, D. (2020). Coping with COVID-19: emergency stress, secondary trauma and self-efficacy in healthcare and emergency workers in Italy. Frontiers in psychology, 11, 566912.

World Health Organization, (2021). Director-General's remarks at the media briefing on 2019-nCoV , (11 February 2021).http://www.who.int/dg/speeches/detail/who-director-general-s-remarks-at-the-media.

Xiong, H., Yi, S., & Lin, Y. (2020). The psychological status and self-efficacy of nurses during COVID-19 outbreak: a cross-sectional survey. INQUIRY: The Journal of Health Care Organization, Provision, and Financing, 57, 0046958020957114.

Zhang, H., Li, W., Li, H., Zhang, C., Luo, J., Zhu, Y., & Li, C. (2021). Prevalence and dynamic features of psychological issues among Chinese healthcare workers during the COVID-19 pandemic: a systematic review and cumulative meta-analysis. General Psychiatry, 34(3).

Zheng, R., Zhou, Y., Qiu, M., Yan, Y., Yue, J., Yu, L., & Hu, Y. (2021). Prevalence and associated factors of depression, anxiety, and stress among Hubei pediatric nurses during COVID-19 pandemic. Comprehensive psychiatry, 104, 152217.

Zhou, C., Yue, D., Zhang, X., Shangguan, F., & Zhang, Y. (2021). Self-efficacy and mental health problems during COVID-19 pandemic: A multiple mediation model based on the Health Belief Model. Personality and Individual Differences, 179, 110893.

الأجهاد الحاد والتكيف مع الذات والأضطراب النفسي لدي التمريض اثناء التعامل مع كوفيد -19

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يعتبر أخصائي الرعاية الصحية وخاصة الممرضات مجموعة معرضة للإصابة باضطراب الإجهاد الحاد والضيق النفسي وسط جائحة COVID-19. لذا هدفت هذه الدراسة إلى تحديد اضطراب الإجهاد الحاد والتكيف مع الكفاءة الذاتية والنفسية اللاحقة. الضائقة بين الممرضات العاملات في مستشفى النموذجي في مدينة بنها وسط COVID- 19. وتم استخدام تصميم الارتباط الوصفي في هذه الدراسة لتحقيق الهدف من هذه الدراسة. وأجريت هذه الدراسة في مستشفى النموذجي للتأمين الصحي بمدينة بنها بمحافظة القليوبية. و تم استخدام جميع الممرضات في عينة ملائمة قوامها (87) ممرضاً من قسم العزل في هذه الدراسة. واظهرت النتائج بأن أكثر من نصف الممرضات الخاضعات للدراسة يتمتعن بمستوى معتدل من الكفاءة الذاتية الكلية في التأقلم. يعاني نصف الممرضات الخاضعات للدراسة من مستوى خفيف من الاكتئاب. علاوة على ذلك ، يعاني أقلية منهم من مستوى حاد للغاية من الاكتئاب. علاوة على ذلك ، فإن أقلية كبيرة منهم يعانون من مستوى حاد للغاية من القلق. يعاني أكثر من نصف الممرضات الخاضعات للدراسة من مستوى شديد من التوتر. علاوة على ذلك ، يعاني أقلية كبيرة منهم من مستوى شديد من التوتر. بينما ، قلة منهم طبيعية. و هذه النتيجة تؤكد أن الحالة النفسية والكفاءة الذاتية للممرضات تأثرت بـ covid-19. واوصت الدراسة بضرورة التقييم المستمر للممرضات لفهم الضغوطات والمواقف الصعبة التي تؤثر على الحالة النفسية وكفاءتهم الذاتية.