

## Effect of Psycho Educational Nursing Program on Psychological Stress and Coping Patterns for Nurses Caring for Patients with COVID-19

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### Abstract

**Background:** Nurses are in the frontline of the battle against COVID-19, nurses need to be capable of stress management to maintain their physical and psychological well-being in the face of a variety of stressors. A successful use of effective coping patterns during the COVID-19 pandemic helps nurses to manage stressful conditions. **Aim of the study** was to evaluate the effect of psycho educational program on psychological stress and coping patterns for Nurses Caring for Patients with COVID-19. **Study Design:** A quasi experimental design. **Settings:** Benha fever hospital which is located in Benha City, Qalubia Governorate. **Study subjects:** Convenient sample of all available number of nurses caring for patients with COVID-19 (n=60). **Data collection tools:** **Tool I.** Socio-demographic data questionnaires. **Tool II.** Emergency Psychological Stress Scale. **Tool III.** Coping Scale for Stressful Situations. **Results:** More than two third of studied nurses had high stress pre-program intervention which decreased by the implementation of psycho educational program, also about half of them had poor coping skills pre-program intervention that decreased by the implementation of psycho educational program. Less than one third of them had good total level of coping pre-program that increased post program application. **Conclusion:** The psycho educational program had a positive effect on reducing psychological stress and improving coping patterns for Nurses Caring for Patients with COVID-19. **Recommendations:** Educational programs toward stress and coping patterns during COVID-19 should be implemented, not only for Nurses, but also for hospital staff as doctors, housekeeping, and admins in order to reduce stress and improve coping patterns during COVID-19.

**Keywords:** Psycho educational program, stress, Coping patterns, Nurses, COVID-19.

### Introduction

COVID-19 is a life-threatening disease all over the world and has become an international concern and a global emergency. Following the spread of the infection to more than 150 countries and its reaching pandemic proportions, the healthcare personnel, especially nurses, have been in the frontline of providing care to the infected persons. The nature of healthcare professions, nursing in

particular, involves working in highly stressful conditions (Khoshnood Z., et al 2021).

Stress is defined as the introvert reaction of individuals to situations that they perceive as a threat or difficulty throughout their lives. Stress can affect people depending on various reasons (stressors). Some of these reasons may be related to the individual, to the environment in which the individual resides, and to the general environment in which the individual lives (Özel Y., et al 2020).

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The members of healthcare teams, especially nurses, are exposed to many occupational hazards and experience high levels of stress as a result. According to a study, done by (Al-Rabiaah A., et al 2020) the nurses who cared for severe acute respiratory syndrome (SARS) patients suffered from high levels of psychological distress.

The stress can cause unwillingness to work, reluctance to go to work, making mistakes, leaving work, poor quality of work, deterioration of relationships and cooperation with colleagues, making inaccurate decisions, and negative behaviours. The effects of work stress on the health sector may cause irrecoverable results. Literature data indicate that nurses' stress affects their motivation and performance negatively (Aksoy A., et al 2020).

Nurses also confronted with many stressors as Long working hours and work overload, exposure to infection and close contact with COVID-19 patients, the stigma of being a potential carrier of the infection, social media pressures, and increase in the number of death cases lead to fatigue, despair, and helplessness in the nurses and undermine the quality and quantity of nursing care .Other consequences of job fatigue in nurses are absence, delay, job burnout, and concentration disorders, with adverse effects on patient safety (Sikaras C., et al 2022).

Coping Patterns in the current study can be described as psychological patterns that individuals use to manage thoughts, feelings, and actions encountered during various stages of ill-like conditions called stress (Huang L., et al 2020).

### **Significance of the study:**

COVID-19 pandemic was a stressful time for many, especially healthcare workers caring for COVID-19 patients. Their working

conditions included contact with infected people and thus risk of contagion and death as well as a growing workload as the number of people treated in Intensive Care Units (Huang L., et al 2020). The COVID-19 pandemic has resulted in unprecedented psychological stress on health care workers, such as anxiety, fear, panic attacks, post-traumatic stress symptoms, psychological distress, stigma, avoidance of contact, depressive tendencies, sleep disturbances, helplessness, interpersonal and isolation from family and social support, as well as concerns about their friends and family being exposed to infection (Zheng W., 2019). Healthcare workers engaged in this type of care during the first wave of the pandemic could be argued to have experienced a traumatic event. For instance, post-traumatic symptoms (PTS) have been common among healthcare workers during the pandemic .on top of the general increases in anxiety and depression as responses to the pandemic (Wang J., 2020).

### **Aim of the study**

This study aimed to determine the effect of psycho educational program on psychological stress and coping patterns for Nurses Caring for Patients with COVID-19.

### **Hypothesis:**

The psycho educational program would have positive effect on reducing psychological stress and improving coping patterns for Nurses Caring for Patients with COVID-19.

### **Subjects and Methods**

#### **Research Design:**

A quasi-experimental design had been utilized to achieve the aim of the study.

#### **Research Setting:**

The study had be carried out in Benha fever hospital which is located in Edart Al Morour, Qism Benha, Benha, Al Qalyubia

Governorate, Egypt. The Hospital capacity is 100 beds and consists of 4 Floors.

**Research Subjects:**

Convenient sample of all available number of nurses caring for patients with COVID-19 (n=60).

**Tools of data collection:**

**Tool (1):** Socio-demographic and occupational data questionnaires of the nurse include age, sex, marital state, education, monthly salary, transportation and residence.

**Tool (2):** Emergency Psychological Stress Scale: This scale developed by **Vagni et al., (2020)** consists of 28 items based on six scales:

**Organizational–Relational Stress:** Consists of 6 items measures the stress levels related to the organizational context, relationships with colleagues, and social support, **Physical**

**Stress:** consists of 5 items describing symptoms of physical fatigue, **Inefficacy**

**Decisional Stress:** consists of 4 items that analyze decision-making aspects and the possibility to act, which are related to the level of self-efficacy, **Emotional Stress:** consists of

6 items that indicate the participant's emotional reactions, **Cognitive Stress:** consists of 4 items on the cognitive aspects of stress, **COVID-19 Stress:** consists of 4 items regarding worries related to the COVID-19 emergency .

Scoring system used three points ranging from 1 to 3 respectively as: (3) often, (2) sometimes and (1) never.

**Scoring system:**

- Mild from 28 to < 35
- Moderate from 35 to <60
- Sever from 60 to < 84

**Tool (3):** Coping Scale for Stressful Situations: The Coping scale for Stressful Situations by Endler and Parker was used to

measure coping strategies. Consist of 19 items with three subscales:

**Avoidant subscale:** consist of 5 items, **problem focused:** consist of 7 items, **emotion focused coping:** consist of 7 items .

**Scoring system** used three points ranging from 1 to 3 respectively as: (3) often, (2) sometimes and (1) never.

- poor from 19 to < 23
- average from 23 to <41
- good from 41 to < 57

**Content Validity:** To achieve the criteria of trust-worthiness of the tool of data collection in the study, the tools were tested and evaluated for their face and content validity, by a jury group consists of five experts in Psychiatric Nursing from Benha and Ain Shams University. To ascertain relevance, clarity, and completeness of the tool, experts' elicited responses that were either agree or disagree for the face and content validity. Accordantly no modification was done.

**Reliability of the tool:**

The reliability coefficient for the study tool was calculated using the correlation coefficient Cronbach's alpha test as:

Tool	No of questions	Cronbach's Alpha
Psychological Stress Scale	29	0.97
Coping scale	19	0.92

**Ethical Consideration:**

Before conducting the study, the participants were assured about confidentiality and anonymity of their obtained information throughout the study. They were informed about their right to refuse to participate in the study and the right to withdraw from the study at any time. Acceptance of participants who agreed to participate in the study was taken

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from the participants through an oral consent filled by students or students' parents.

### **Pilot Study:**

Before starting to collect data, a pilot study was conducted to assess the clarity and applicability of the study tools, and identify the time needed to fill each tool. It was carried out on 10% of the subjects, who were included from the main study sample. According to the result of the pilot study necessary modification was done as follow: Arabic form for psychological stress and coping scale to give the right meaning of the phrase.

### **Field work:**

#### **Designing phase:**

This phase aimed at designing for the psychoeducational program through setting objectives, preparing the psychoeducational program and designing the methodology and media.

#### **Development of psychoeducational nurses' program:**

The psychoeducational program was developed by the researcher after a thorough review of the related literatures and after making of the pilot study.

The psychoeducational program aimed to reduce Psychological Stress and improves Coping Patterns for Nurses Caring for Patients with COVID-19.

This program has a set of general objectives, and specific objectives for each session. The number of program's sessions was 12 sessions divided into as follows 5 sessions theoretical and 7 sessions practical, Total time of program 15 and half hours, 5 hours is theoretical and 10 and half hours are practical. And Based on the results obtained from the assessment tools and review of literature, the program content was developed by the

researcher in the form of a booklet, which was revised and approved by the supervisors, after that the final booklet was distributed for Nurses Caring for Patients with COVID-19.

### **General Objectives**

- 1- Acquiring the necessary information about COVID - 19 .
- 2- Teaching Nurses the skills required to reduce level of psychological stress .
- 3- Teaching Nurses the skills required to improve their coping patterns.

### **Implementation Phase:**

This phase was beginning by data collection then implementation of Psychoeducational program for Nurses Caring for Patients with COVID-19.1- **Data collection (Pre-test):**

Data collection of this study was carried out at Benha fever hospital.

The data collection was done on studied Nurses group (pretest) in first session (acquaintance session) after explaining the purpose of the program, describing schedule of the program (number of sessions, time and duration of each session) and enumerating the content and steps of the program.

#### **Implementation of the Program:**

- Data collection of this study was carried out in the period from the beginning of December 2021 to the end of February 2022, in the meeting room in the first floor of Benha Fever hospital.
- The educational program consisted of 12 sessions to be converted into 5 sessions theoretical and 7 sessions practical.
- The theoretical session lasts 60 minutes and the practical session lasts 90 minutes
- Total time of program 15 and half hours, 5 hours is theoretical and 10 and half hours are practical.

- The researcher collected data, two days / week from 9 AM – 2 PM on Sunday and from 4 pm – 9 pm Tuesday.
- Researcher work with 60 nurses divided into (4groups, each group has 15 nurses 2days/week).
- Each group received one session/day / week the session lasted for about 60-90 minutes and 10 minutes for break.
- Researcher worked with 2 groups received one session/day (Sunday) and
- another 2 groups (Tuesday) for three months.
- The first group sessions was done in Sunday Every week from (9 am to 11 am).
- The second group sessions was done in Sunday Every week from (12pm to 2 pm).
- The third group sessions was done in Sunday and Tuesday Every week from (4 pm to 6 pm).
- The fourth group sessions was done in Sunday and Tuesday Every week from (7 pm to 9 pm).
- The program sessions were conducted in the first floor in an unoccupied room inside the hospital that contains an appropriate number of seats.
- To ensure that the nurses understand the program contents, each session was started with a summary about what was given through the previous session, and the objectives of the new session were mentioned taking into consideration using simple language to suit all nurses.
- During the session, the researcher used demonstration, and modeling by the researcher and one nurse to practice skills in psychoeducational program.
- After that, the researcher used re-demonstration of the skill by each nurse to master the skill. After finishing, the researcher thanked the nurses for participation and encouraged nurses for asking about any unclear points.
- Moreover, the researcher made a summary at the end of the session and told the nurses about the time of the next session.

#### **Evaluation Phase (post-test).**

This phase aimed to determine the effect of psychoeducational program on psychological stress and coping patterns for Nurses Caring for Patients with COVID-19.

After the conduction of the psychoeducational program sessions for the study group a post-test was done for study group using the pervious assessment tool for data collection (tool two for data collection) to compare the effect of the program pre-post intervention.

#### **Statistical analysis:**

The collected data were organized, analyzed using appropriate statistically significant tests. The data were collected and coded using the Computer Statistical Package for Social Science (SPSS), version 20, and was also used to do the statistical analysis of data, also Microsoft office Excel was used for data handling and graphical presentation. Quantitative data were expressed as mean± standard deviation (SD). Qualitative data were expressed as frequency and percentage. Chi-square, Pearson and (t) tests were used to compare frequencies and r-Pearson tests for Correlation.

The confidence interval was set to 95% and the margin of error accepted was set to 5%. So, the p-value was considered significant as the following:

- Probability (P-value)

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- P-value <0.05 was considered significant.
- P-value <0.001 was considered as highly significant.
- P-value >0.05 was considered insignificant.

### **Results:**

**Table (1):** Shows that 48.3% of studied nurses aged 25 -> 30 years with mean age±SD 29.47 ± 7.897, 40% of them had technical institute of nursing and 66.7% had insufficient salary. Concerning years of experience 45.0% of them had >1 6 years of experience and 70.0% of them were living near to the work place.

**Table (2):** Shows that there was highly statistically significant difference between all items of Organization–Relational Stress ( $p \leq 0.001^{**}$ ) except for item related to Feel team spirit, there was significant difference ( $p < 0.05^*$ ). For example, 53.3% of nurses often get angry at someone else's actions or reactions before program that improved to 25.0 % post intervention.

**Figure (1):** Shows that 76.7% of studied nurses were married whenever, 23.3% of them were unmarried.

**Figure (2):** Shows that 56.7% of nurses were females and 43.3% of them were males.

**Figure (3):** Shows that 85.0% of nurses were working 6 to 12 hours per day and 15.0% of them were working 12 hours and more.

**Figure (4):** Shows that 66.7% of nurses had high stress pre-program intervention that decreased to 36.7% post intervention moreover, 16.7% of them had low total level of stress pre-program that increased to 30.0% post program application.

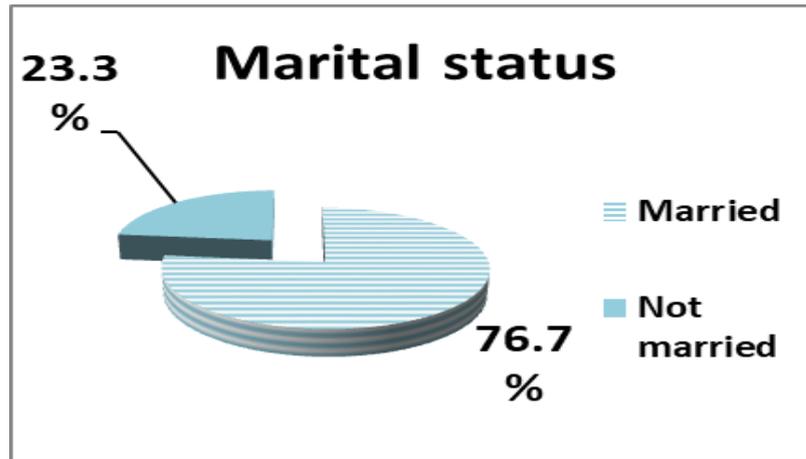
**Figure (5):** Shows that 50.0% of nurses had poor coping skills pre-program intervention that decreased to 30.0% post intervention moreover, 13.3% of them had good total level of coping pre-program that increased to 48.3% post program application.

**Table (3):** Shows that that there was highly statistically significant correlation between the studied nurses' total emergency psychological stress level and their total Coping Patterns for stressful situations level at preprogram implementation ( $p < 0.001^{**}$ ), whenever, there was statistically significant correlation between the studied nurses' total emergency psychological stress level and their total Coping Patterns for stressful situations level at post program implementation ( $p < 0.05^*$ ),

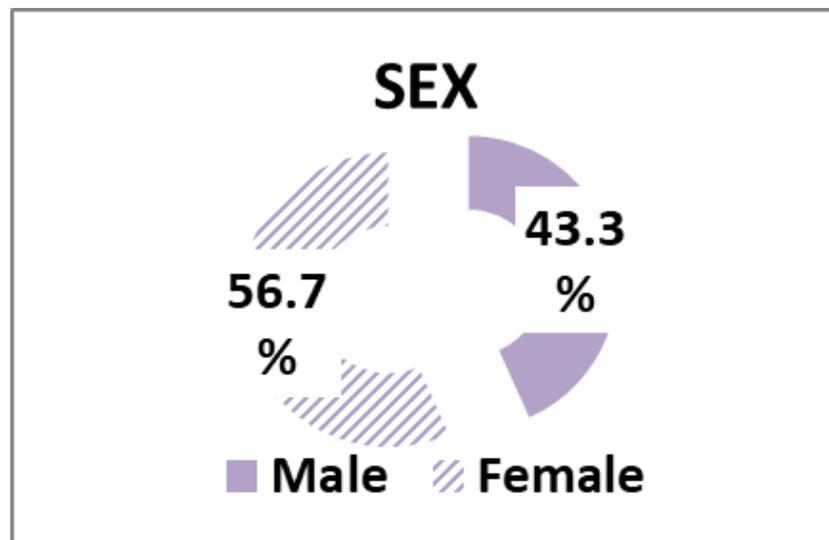
**Table (1): Distribution of the studied Nurses according to their demographic**

<b>Socio -demographic characteristics</b>	<b>No.</b>	<b>%</b>
<b>1- Age</b>		
20 -< 25 years	7	11.7
30 years<25 -	29	48.3
40 years<30 -	16	26.7
50 years<40 -	6	10.0
50 years>	2	3.3
<b>Mean ±SD</b>	<b>29.47 ± 7.897</b>	
<b>2- Educational level</b>		
Nursing diplome	16	26.7
Technical institute of nursing	24	40.0
Bachelor of Nursing	20	33.3
<b>3- Monthly salary</b>		
Sufficient	20	33.3
Insufficient	40	66.7
<b>4- Experience/ years</b>		
I year<	2	3.3
6<	27	45.0
11 6<	12	20.0
15 11<	11	18.3
20 15<	6	10.0
≥ 20	2	3.3
<b>Mean ±SD</b>	<b>5.17 ± 5.831</b>	
<b>5- Transportation</b>		
Available	40	66.7
Not available	20	33.3
<b>6- Residence</b>		
Near to the work place	42	70.0
Fare away work place	18	30.0

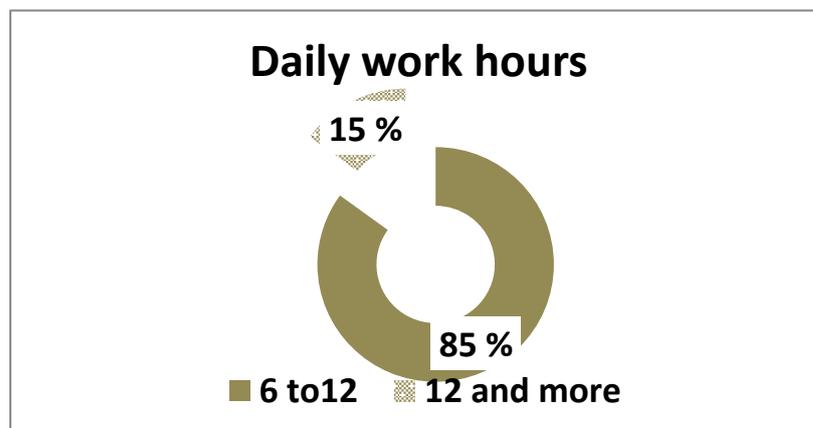
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**Figure (1):** Distribution of the studied nurses according to their marital status (n=60).



**Figure (2):** Distribution of the studied nurses according to their Sex (n=60).



**Figure (3):** Distribution of the studied nurses according to their daily work hours (n=60).

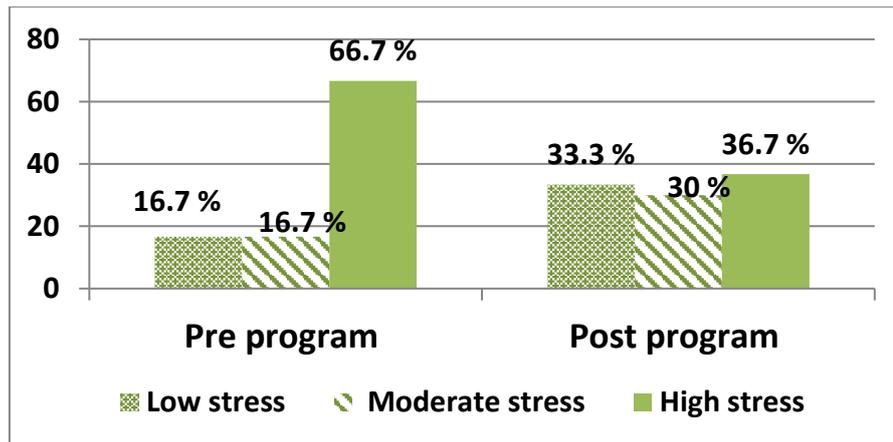


Figure (4): Distribution of studied nurses according to their total emergency psychological stress level at pre & Post program implementation (n=60).

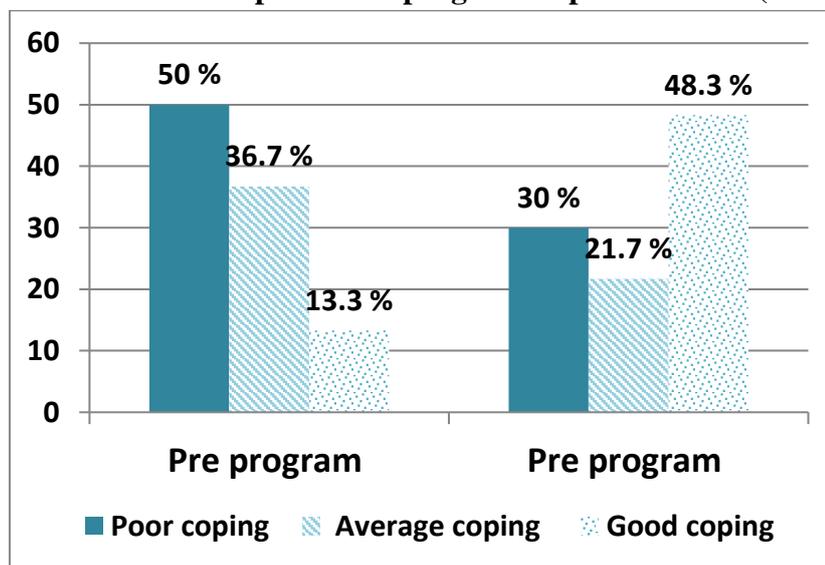


Figure (5): Distribution of the studied nurses according to their total coping Patterns for stressful situations level at pre & Post program implementation (n=60).

Table (3): Correlation between the studied nurses' total emergency psychological stress level and their total coping patterns for stressful situations level at pre & Post program implementation (n=60).

Scale	Total Coping Patterns for stressful situations		
		pre-program	post-program
Total emergency psychological stress	r	0.463	0.360
	p- value	0.000**	0.005*

A highly statistical significance differences ( $p \leq 0.001^{**}$ )

Statistical significance differences ( $p \leq 0.05^*$ )

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### **Discussion:**

Regarding nurses' ages, the current study showed that nearly half of nurses had ages ranged from 25-30 years. This result was in agreement with **Ali et al., (2020)** who conducted a study entitled "Investigating Frontline Nurse Stress: Perceptions of Job Demands, Organizational Support, and Social Support During the Current COVID-19 Pandemic" and found that half of nurses had ages less than 30 years. On the other hand, this result was in disagreement with **Sikaras et al., (2022)** who conducted a study entitled "Stress Coping Patterns used by nurses during the COVID-19 pandemic" and found that The mean age of the participants was 43.3 years.

Regarding nurses' marital status, the current study showed that about 3 quarters of nurses were married. This result was in agreement with **Shasha Cui, et al., (2021)** who conducted a study entitled "Impact of COVID-19 on Anxiety, Stress, and Coping Styles in Nurses in Emergency Departments and Fever Clinics: A Cross-Sectional Survey" and found that about 3 quarters of nurses were married. Regarding Educational level, the current study showed that nearly half of them were graduated from technical institute of nursing.

The current study showed that showed that about half of nurses 50.0% had poor coping skills pre-program intervention that decreased to 30% post intervention moreover, 13.3% of them had good total level of coping pre-program that increased to 48.3% post program application. From the researcher point of view this result may be due to lack of educational programs that provided to nurses to improve their coping and also the nature of the disease was still unknown and after more information about COVID and how to cope

with stress has been provided there was a good improvement in their coping

This result was supported with **Alicia et al., (2022)** who conducted a study entitled "Description of a student success program to increase support, coping, and self-efficacy among under-represented minority nursing students in the wake of the dual pandemics of COVID-19 and racial violence" and found that Post-evaluations revealed self-reported improvements in peer support (69 %), confidence in reaching educational goals (94 %), handling microaggressions (77 %), coping with adversity (80 %), stress levels (63 %), and thoughts about leaving the program (86 %). Also, this result was in agreement with **Dorothy et al., (2021)** who conducted a study entitled with "Helping Nurses Cope with COVID-19 Pandemic: Evaluating Support Programs": and after the program who found that participation in the support program helped respondents cope better with the challenges imposed by COVID-19. Overall, A support programs had positive effects of helping members mitigate the fear, anxiety and uncertainty experienced during the surge of the COVID-19. Hopefully, these findings from this program evaluation identified areas to inform policies and programs that will support frontline workers and reform the availability of PPEs in future disease outbreaks. This project also supports the importance of utilizing support programs during times of stressful life events as an effective way of reducing affected individuals' fear, anxiety and help people develop better coping mechanisms.

The results of the current study illustrated that there was highly statistically significant correlation between the studied nurses' total emergency psychological stress level and their total coping patterns of or

stressful situations level at pre& Post program implementation.

This result was in agreement with **Shasha Cui, et al., (2021)** who conducted a study entitled “Impact of COVID-19 on Anxiety, Stress, and Coping Styles in Nurses in Emergency Departments and Fever Clinics” and found that there was highly statistically significant correlation between the studied nurses' total psychological stress level and their total Coping Patterns for stressful situations level.

This result supported by **Saida et al., (2021)** who conducted a study entitled “Effectiveness of Psycho-Educational Program to Alleviate Depression, Anxiety, Stress, Pessimism and Provide Optimism for COVID-19 Isolation Nurses” and found that and found that there was highly statistically significant correlation between the studied nurses' total psychological stress level and their total Coping Patterns for stressful situations level.

### **Conclusion:**

More than half of the nurses had high stress pre-program intervention that decreased post intervention also about half of nurses had poor coping skills pre-program intervention that decreased post intervention. The psycho educational program had a positive effect on reducing psychological stress and improving coping patterns for Nurses Caring for Patients with COVID-19

### **Recommendations:**

#### **Recommendations for nurses:**

- Encourage nurses to take responsibility for their part in maintaining safe Hospital environments, including Nurses participation in safety planning.

#### **Recommendations for community:**

- Educational programs toward reducing stress and improving coping patterns for

Nurses Caring for Patients with COVID-19 should be implemented by the nurses, not just for Nurses, but for the entire Hospital community as Doctors, Housekeeping and others in order to decrease their stress and improve their coping during work with COVID-19 patients.

### **References**

- Afkinich, J. L., & Klumpner, S. (2018).** Violence prevention strategies and school safety. *Journal of the society for social work and research*, 9(4), 637-650.
- Aksoy A, Kutluca F. (2020).** A research on analysis of sources, signs and outcomes of stress in work-life. *Journal of Social Policy Conferences*(49): 457–486 (Original work published in Turkish.
- Ali, H., Astin Cole, A.A. & Sa'd Hamasha, G.P. (2020).** ‘Major stressors and coping strategies of frontline nursing staff during the outbreak of coronavirus disease 2020 (COVID-19) in Alabama’, *Journal of Multidisciplinary Healthcare* 13, 2057.
- Alicia K. Matthews, Ariel Smith, Charese Smith,b and Alysha Harta.(2022).** ‘Description of a student success program to increase support, coping, and self-efficacy among under-represented minority nursing students in the wake of the dual pandemics of COVID-19 and racial violence. *J Prof Nurs PMC9484985.*
- Al-Rabiaah A, Temsah MH, Al-Eyadhy AA, Hasan GM, Al-Zamil F, Al-Subaie S, Alsohime F, Jamal A, Alhaboob A, Al-Saadi B, Somily AM. (2020).** Middle East Respiratory Syndrome-Corona Virus (MERS-CoV) associated stress among medical students at a university teaching hospital in Saudi Arabia. *J Infect Public Health.*
- Dorothy C. Nwanonyiri, Grace Ogiehor-Enoma, Emilia Iwu, Teresa Nwaneri.(2021).** *Helping Nurses Cope with COVID-19*

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for Nurses Caring for Patients with COVID-19**

Pandemic: Evaluating Support Programs.  
Open Journal of Nursing Vol.11 No.2.

**Huang L., Lei, W., Xu, F., Liu, H. & Yu, L.(2020).** ‘Emotional responses and Coping Patterns in nurses and nursing students during Covid-19 outbreak: A comparative study’, PLoS One 15(8), e0237303.

**Khoshnood Z, Mehdipour-Rabori R, Nazari Robati F, Helal Birjandi M, Bagherian S. Patients (2021).** experiences of living with coronavirus disease : a qualitative study. Evid Based Care J. 2021;11(1):44–50.

**Özel Y, Karabulut AB. (2020).** Daily living and stress management. Journal of Medical Sciences and Research in Turkey 1(1): 48–56 (Original work published in Turkish.)

Saida I. El-Azzab, Mona T. El-Nady.(2021). “Effectiveness of Psycho-Educational Program to Alleviate Depression, Anxiety, Stress, Pessimism and Provide Optimism for COVID-19 Isolation Nurses” Egyptian Journal of Health Care, 2021 EJH vol. 12 no. 2

**Shasha Cui, Yujun Jiang, Qianyu Shi.** ORIGINAL RESEARCH Impact of COVID-19 on Anxiety, Stress, and Coping Styles in Nurses in Emergency Departments and Fever Clinics: A Cross-Sectional, 2021.

**Sikaras C, Ilias I, Tselebis A, Pachi A, Zyga S, Tsironi M, Gil AP, Panagiotou A. (2022).** Nursing staff fatigue and burnout during the COVID-19 pandemic in Greece. AIMS public health.

**Vagni M., Maiorano T., Giostra V., Pajardi D. (2020).** Hardiness, stress and secondary trauma in Italian healthcare and emergency workers during the COVID-19 pandemic. Sustainability.

**Wang J, Zhou M, Liu F. (2020).** Reasons for healthcare workers becoming infected with novel coronavirus disease 2019 (COVID-19) in China. The Journal of Hospital Infection.

**Zheng W. Mental health and a novel coronavirus (2019-nCoV) in China.** J Affect

Disord (2020).269:201–2.doi:10.1 016/j. jad. 2020.03.041pmid: [http:// www .ncbi. nlm. Nih.gov/pubmed/323391](http://www.ncbi.nlm.nih.gov/pubmed/323391)

## تأثير برنامج نفسي تعليمي تمريضي لتقليل الضغوط النفسية وتحسين انماط التكيف لدى الممرضين القائمين برعاية مرضى كوفيد 19

حسين محمد حسين - أميمة أبو بكر عثمان - مواهب محمود ذكي

يعتبر التمريض هم خط الدفاع الاول ضد مرض الكوفيد 19 مما يؤثر على نفسياتهم وذلك لانهم الاكثر عرضى للعدوى وهم الاقرب في التعامل مع المرضى عن اي مهنة اخرى في المجال الصحي . لذا هدفت الدراسة إلى تحديد تأثير برنامج نفسي تعليمي تمريضي لتقليل الضغوط النفسية وتحسين انماط التكيف لدى الممرضين/ الممرضات القائمين برعاية مرضى كوفيد 19. تم تصميم بحث شبه تجريبي (قبل الاختبار / بعد الاختبار) لإجراء هذه الدراسة. سيتم عمل البحث بمستشفى حميات بنها التابعة لادارة المرور، قسم بنها , محافظة القليوبية بمصر علي كل الأعداد المتاحة من التمريض العاملين مع مرضى الكوفيد 19 . وخلصت الدراسة إلى وجود انخفاض ذو دلالة احصائية عالية بالنسبة لجميع اجزاء الضغوط النفسية الطارئة بين التمريض بعد تطبيق البرنامج وايضا كان هناك تحسن ذو دلالة احصائية بالنسبة لانماط التكيف لدى التمريض بعد تطبيق البرنامج. واوصت الدراسة الي ضرورة اعطاء التمريض الذين يقومون برعاية مرضى كوفيد- 19 دورات تدريبية وورش عمل لكيفية تقليل الضغوط النفسية وتحسين انماط التكيف لديهم.