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Investigate Stressors Levels and Identify Coping Strategies of Frontline Nurses during the COVID-19 in Sharjah Primary Health Center—A Quantitative Research Study

Shimaa Said Alsalim, F. Salhi

Emirates Health Service, Sharjah, United Arab Emirates
Email: shaima.alsalim@ehs.gov.ae

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Abstract

During the COVID-19 Epidemic, nurses are usually informed of emotional exhaustion, increased workloads, and uncertainty, leading to burnout. Consequently, psychological health initiatives are essential to support nurses during a pandemic. This project aims to investigate the stress levels and identify the Coping Strategies of Nurses during the COVID-19 Epidemic in Sharjah Primary Health Center, as they are always at the front line of this epidemic. The nature of their work, they are mainly infected and spread the virus amongst colleagues and family. The target population is nurses working in Sharjah primary health centers, and the number sample is 230. The researcher sent the survey through the link. And in this research, we used two instruments which include the Expanded Nursing Stress Scale and The Coping Strategies Scale (CSS). This study shows that the most stressful factor is related to workload, especially related to unpredictable staffing and scheduling. On the other hand, the most coping strategies were those that were associated with Meaning-focused Coping Strategies, especially believing that valuable lessons can learn from undesirable experiences.

Keywords

Stressors Levels and Coping Strategies

1. Introduction

At the beginning of 2020, coronavirus disease was a new challenge; and this virus progressively spread worldwide and became a global health danger [1].

COVID-19 has been considered the major outbreak of unusual pneumonia

since the severe acute respiratory syndrome (SARS) epidemic in 2003 [2]. The total number of cases and deaths increased following the early outbreak weeks.

On 28th January 2020, The Ministry of Health and Prevention (MOHAP) publicized the first case of new coronavirus in the UAE for a family coming from the Chinese city of Wuhan. Since that date, MOHAP has established all the essential precautions following the World Health Organization guidelines.

In the initial stages of epidemics, nurses and medical staff suffer from concern and depression due to increased workload, deficiency of knowledge of the pathogen, and direct contact with patients [3].

So far, this project aims to find out the stressors levels and identify the Coping Strategies of Frontline Nurses during the COVID-19 Epidemic in Sharjah Primary Health Center.

1.1. Research Question

The following questions can define the problem of the research:

- What factors increase the stress level of Frontline Nurses during the COVID-19 Epidemic in Sharjah Primary Health Center?
- What are Coping Strategies used by Frontline Nurses during the COVID-19 Epidemic in Sharjah Primary Health Center?

1.2. Objectives

- To identify the factors that increase the stress level of Frontline Nurses during the COVID-19 epidemic;
- To find the coping strategies used by Frontline Nurses during the COVID-19 epidemic.

2. Literature Review

The project's first aim is to determine the factors that increase Stressors levels during the Pandemic Covid crisis at Sharjah Primary Health Care. A literature review said that Work stress is documented as the main problem facing health care employees [4]. During COVID Pandemic, Nursing is recognized as working with high-stress levels [4]. That stress includes an individual's perception of the stresses and the accessible ability to handle this stressor. While Kim and Lee 2014 defined occupational stress as any force that changes a psychological or physical factor beyond the range of health care employees' ability.

According to Lai (2019), health care employees exposed to COVID-19 have a high risk of developed depression and need emotional support and interventions [5]. Besides, nursing is one of the most stressful occupations [6] [7]. Furthermore, stress amongst nurses has been related to adverse outcomes such as mental distress, burnout, hopelessness, anxiety, low-back pain, or musculoskeletal issue [8], and the value of patient care may be affected [9]. Finally, a Health Care setting may also decrease its effectiveness and output indicators for several reasons, such as staff tiredness or intent to leave [10].

The second aim is to identify the Coping Strategies of Frontline Nurses during the COVID-19. A literature review said that stress and mental problem amongst Health Care staff had triggered severe health conditions, including insomnia, depression, and anxiety [5]. Consequently, defining risks associated with psychological health problems secondary to COVID-19 is critical to supporting at-risk persons and enhancing flexibility.

Likewise, it is significant to recognize stress coping strategies that help health care employees to deal with the highly stressful situations associated with COVID-19.

3. Methodology

This research is a quantitative survey study of 230 nurses working in Sharjah primary health centers that participated in a survey exploring stressor levels and identified Coping Strategies of Frontline Nurses during the COVID-19 in Sharjah Primary Health Center (**Appendix 1**). The survey was also distributed along with the electronic consent (**Appendix 2**).

This research has undergone Institutional Review Board for the Ethical approval process from the MOHAP research ethics committee had approved the study protocol to be conducted Reference no.: MOHAP/DXB-REC/AAA/No. 29/2021 (**Appendix 3**).

The survey was distributed online and in 30 health care centers under the ministry of health and prevention in the United Arab Emirates. We explained the aim of the research, inclusion, and inclusion criteria. The researcher's phone number allows participants to ask for any concerns and communicate directly with the researcher.

Inclusion Criteria include nurses with more than three years of experience and participants interested in participating in this research and who have worked with the Covid-19 patients during the COVID-19 epidemic.

Exclusion Criteria include those who are not willing to involve in this research and who have no direct contact with the patient during the COVID-19 epidemic.

3.1. Study Instrument

In this research and we used two instruments which include the Expanded Nursing Stress Scale and The Coping Strategies Scale (CSS).

The Expanded Nursing Stress Scale was used to measure the stress level, and we took Copyright permission from the author to use it in this research. The ENSS is a developed and updated modification of the classic Nursing Stress Scale (NSS), which was created by Gray-Toft & Anderson on 1981 [11].

The ENSS contained 56 items in nine subscales, including death and Dying, Conflict with Physicians, Deficient, Emotional Preparation, Problems Relating to Peers, issues relating to Supervisors, Work Load, and Uncertainty Regarding Treatment of Patients and their Families, and Discrimination [11].

The 56 have been organized on a 5-point answer scale. The answer was never

stressful, occasionally stressful, frequently stressful, extremely stressful, and doesn't apply. Adding all the scores from the 59 items, we get the total stress score, and the higher the score, the more agreeable the replier is to the stressful situation [12]

The **Coping Strategies Scale** (CSS) questionnaire was developed by three specialists with hypothetical knowledge for this study. They worked together to establish a 20-item self-report inventory. According to the specialists with theoretical knowledge literature review, these items distribute under four strategies (Problem-focused Coping Strategies, Emotion focused Coping Strategies, Meaning focused Coping Strategies, and Social focused Coping Strategies).

The ENSS contained 20 items in 4 subscales, including Problem-focused coping, Problem-focused coping, Emotion-focused coping, and Social-focused Coping Strategies. These 20 items assess to what extent Nurses coping strategies During the COVID-19 Epidemic.

According to the specialists with hypothetical knowledge literature review, they define four subscales:

Problem-focused coping strategies typically contain recognizing the issue, considering possible explanations, measuring the budgets and benefits of these solutions, and choosing another [13].

Problem-focused coping is distinguished from emotion focused coping, which manages the feelings related to the condition rather than solving the problem itself.

Emotion-focused coping, one of the core coping styles, purposes to tolerate, decrease, or remove the physical, emotional, mental, and social reactions that go with the experience of stressful encounters [13].

Meaning focused coping includes searching for purpose in adversity and illustrating morals, views, and goals to adapt the sense given to and personal response to a stressful condition [14].

Social focused Coping Strategies in which an individual reduces stress by seeking support from their community. So, a person using this type of coping style seeks support from family members, friends, or formal service providers to help them through a challenging event or situation [15].

The 20 items have been organized on a 5-point answer scale. The Scale was never, Rarely, Sometimes, often, and very often. Higher scores indicated higher levels of coping.

Determine the validity of the survey done by three specialists with theoretical knowledge for this study. Using the panel of experts to answer the question: Is the question a "necessary" to assess the use of reflection in the clinical setting? Then investigate if the questionnaire was relevant to the issue of the intended research?

Then they used the formula of content validity ratio CVR = $[(Ne - N^2)/(N^2)]$, Where Ne is the number of committee members referring to "essential" and N is the total number of team members. The Lawshe table determines the numerical value of the content validity ratio and interpretation of the outcomes

CVR can measure between −1.0 and 1.0. The closer to 1.0 CVR that the main question is essential. In contrast, the closer to −1.0 the CVR is, the more unnecessary it is.

The result of CVR showed 0.6, which exhibited high content validity of individual items (CVR range: 0.50 to 1.00), which indicates the questioners in the statement are essential for assessing the copy Strategies.

We used a pre-testing method to assess the reliability of the questionnaire. Thus, the questionnaire was completed by 5 of the eligible staff nurses and repeated after four weeks.

We had a nursing leader in Sharjah PHC complete the questionnaire one by one (they shouldn't be able to see each other complete it), and as they completed the survey, we asked them to think aloud. Every time a nursing leader read and answered a question, the nurse leader should tell me exactly what came to mind, and I took notes on everything they said.

Then we observed the participants completing the questionnaires and looking for places where they hesitated or didn't understand the meaning of the items, which indicates that the survey questions and layout are not clear enough and need to be improved.

Once the nurse leader completes the questionnaires' review, notes will take to update the questionnaires. At this point, it is usually clear what the main problems are in the questionnaires so that we can improve the survey to address these problems.

The result showed that the five staff nurses reported that the questionnaires were easily understood, and they could repeat the questionnaire many times with understanding the meaning of the questionnaires.

3.2. Data Analyses

The database was transferred and analyzed using SPSS v.25. Demographic data were examined using descriptive percentages. Stress level and copy Strategies information were investigated using descriptive statistics. Mean values (SD) were used to define quantitative variables, which were depicted as total and comparative frequencies

4. Results Respondent Demographics

In total, 230 nurses from 28 primary health care centers participated in the study. The age variety of the sample was between 20 and 60 and older years old; 91.7% were female, and 58.7% had more than ten years of experience. Almost the selection identified as a First caregiver person in the house (92.2%), and (87%) had a childcare responsibility at home; 20% had a health conditions/risk factor (Table 1).

4.1. Descriptive Data for Extended Nursing Stress Scale

The total Stressors of Frontline Nurses during the COVID-19 in Sharjah Primary

Table 1. Demographic characteristics of the nurses.

Gender	
Male	8.3%
Female	91.7%
Age	
20 - 30 years old	7.8%
30 - 40 years old	50.4%
40 - 50 years old	30.4%
50 - 60 years old	10%
Experience	
1 - 3 years	6.1%
3 - 10 years	34.3%
More than ten years	58.7%
Identify as a first caregiver	
Yes	92.2%
NO	7.8%
Childcare responsibilities at home	
Yes	87%
NO	13%
Health conditions/risk factors	
Yes	20%
NO	80%

Health Center have been calculated using the Mean and Stander deviation measurement (M = 2.12, SD = 1.31).

To achieve the purpose of the study, the mean and Stander deviation were calculated for the item and subscale of the Extended Nursing Stress Scale (Table 2).

Responses to each of the items were analyzed and separated into each of the nine subscales, which indicated the following: 1) Death and Dying (M = 2.0, SD = 1.3), 2) Conflicts With Doctors (M = 1.6, SD = 1.4), 3) Inadequate Emotional Preparation (M = 2.4, SD = 1.2), 4) Problems With Peer Support (M = 2.3, SD = 1.26), 5) Problems With Supervisors (M = 1.8, SD = 1.35), 6) Workload (M = 2.6, SD = 1.23), 7) Uncertainty Concerning Treatment (M = 2.5, SD = 1.2), 8) Patients and Families (M = 2.2, SD = 1.33), and 9) Discrimination (M = 1.7, SD = 1.4). The item with the lowest mean was for "Conflicts With Doctors" (M = 1.62, SD = 1.4)", whereas the highest score was "Workload" (M = 2.6, SD = 1.2)". The top items with mean workplace stress are shown in the Figure 1.

Table 3 presents the mean values of the highest stress level of the ENSS Subscale. The result shows that the more stress level of workload related to Unpredictable staffing and scheduling (M = 2.44; SD = 1.11).

Table 2. Means and standard deviation for in extended nursing stress scale (N = 230).

SN	ENSS	Mean	SD
1	Workload	2.6	1.3
2	Uncertainty Concerning Treatment	2.5	1.2
3	Inadequate Emotional Preparation	2.4	1.3
4	Problems Relating to Peers	2.3	1.3
5	Patients and their Families	2.2	1.3
6	Death and Dying	2.0	1.3
7	Problems Relating to Supervisors	1.8	1.35
8	Discrimination	1.74	1.39
9	Conflict with Physicians	1.62	1.4

Table 3. Mean values of highest stress level of ENSS subscale.

SN	ENSS	highest stress level Subscale	Mean
1	Workload	Unpredictable staffing and scheduling	2.4
2	Uncertainty Concerning Treatment	Being exposed to health and safety hazards	2.7
3	Inadequate Emotional Preparation	Feeling inadequately prepared to help with the emotional needs of a patient	2.47
4	Problems Relating to Peers	Lack of an opportunity to express to other personnel on the unit my negative feelings toward patients	2.57
5	Patients and their Families	Patients' families were making unreasonable demands	2.6
6	Death and Dying	Watching a patient suffer	2.8
7	Problems Relating to Supervisors	Being held accountable for things over which I have no control	2.6
8	Discrimination	Experiencing discrimination based on sex	1.5
9	Conflict with Physicians	Deciding for a patient when the physician is unavailable	1.6

The results showed that the most stressful subscale of Uncertainty Concerning Treatment relates to being exposed to health and safety hazards (M = 2.7; SD = 1.2).

In the Inadequate Emotional Preparation subscale, the result shows that the staff has more stress because of Feeling inadequately prepared to help with their emotional needs (M = 2.4; SD = 1.3).

The Problems Relating to Peers factor subscale shows that the staff has more stress because of the deficiency of an opportunity to express their negative feelings towards patients to other personnel on the unit (M = 2.5; SD = 1.3).

The more stress for the Patients and their Families factor because patients' families were making unreasonable demands (M = 2.6 SD = 1.4).

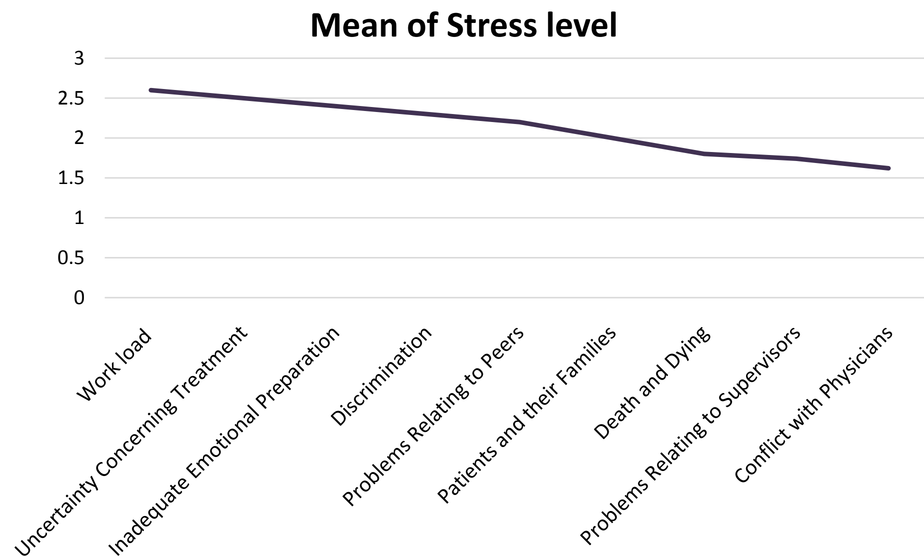

Figure 1. The mean values of the study are provided in figure which is arranged from highest stress level (Workload) to lowest stress level (Conflict with Physicians).

4.2. Descriptive Data of the Coping Strategies

The mean and SD values of the study scales are provided in **Table 4**, which is arranged from highest Coping Strategies to lowest Coping Strategies.

More Coping Strategies were related to Meaning-focused Coping Strategies (M = 3.6; SD = 1.1). The results showed that the most Meaning-focused Coping Strategies subscale is related to Believing that valuable lessons can learn from unpleasant experiences (M = 3.8; SD = 1.1).

The Second Coping Strategies were related to socially focused Coping Strategies (M = 3.1; SD = 1.2). The results showed that the most stressful subscale of socially focused Coping Strategies is related to staff Relying on available connections to solve the problem (M = 3.6; SD = 1.1).

The least Coping Strategies were related to Problem-focused Coping Strategies (M = 2.6; SD = 1.4) (**Figure 2**).

5. Discussion

This study was designed to recognize the factors that increase Stress levels during Pandemic Covid crises at Sharjah Primary Health Care and identify Coping Strategies.

Our results showed that the Most stressful issues were related to Work Load (m = 2.6; SD = 1.2), and the More stressful subscale of workload was related to Unpredictable staffing and scheduling.

Study shows that the pandemic negatively influenced staffing and scheduling because of the large numbers of patients and loads and pressure on healthcare facilities to provide care with fewer resources than average [16].

Another Study Show that typically mentioned difficult situations related to COVID-19 is related to workloads (from underutilization to overload) and work

Table 4. Mean values of study parameters (highest Coping Strategies to lowest).

SN	Coping Strategies	Mean	SD
1	Meaning-focused Coping Strategies	3.6	1.1
2	Social focused Coping Strategies	3.1	1.2
3	Emotion-focused Coping Strategies	2.8	1.4
4	Problem-focused Coping Strategies	2.6	1.4

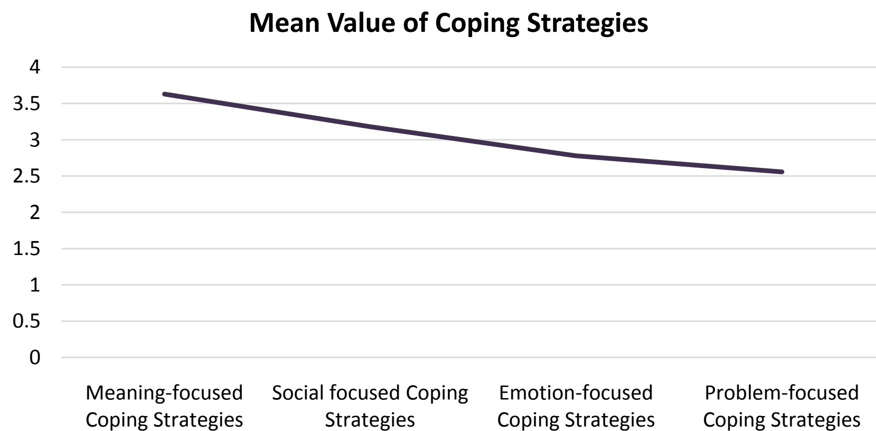

Figure 2. The mean values of study scales are provided in figure which is arranged from highest coping strategies (Meaning Focused Copy Strategies) to lowest coping strategies (Problem Focused Copy Strategies).

duty schedules because Irregular changing work schedules were also considered a problem [17].

The Second stressful factor because of Doubt Concerning Treatment and the most stressful Uncertainty Concerning Treatment is related to exposure to health and safety hazards (M = Mean; 2.6870; SD = 1.245).

Liang *et al.* (2018) found the uncertainty of decision making for care practice, and Yuwanich *et al.* (2016) found situations concerning patients and their families also develop stress [18].

The COVID-19 pandemic gives unique doubt concerning how healthcare systems should respond [19]. Specifically, uncertainty relates to Covid Virus treatment or mode of transition. The Health Care team is trying to generalize from developing and inadequate data to guide levels of care essential to patients, confused by extra uncertainty as to whether following peaks in COVID-19 may be predictable.

One study shows that the Healthcare employees believe they are unknown about a patient's illness and how the patient responds to the treatment. Some might make clinical decisions because they feel uncomfortable about the treatment. As a consequence, they may become at risk of "moral harm" resulting in stress and depression [19].

On the other hand, More Coping Strategies were related to meaning-focused Coping Strategies. The most meaning-focused Coping Strategies subscale is re-

lated to Believing that valuable lessons can be learned from unpleasant experiences (M = 3.7870; SD = 1.175).

The Second Coping Strategies were related to socially focused Coping Strategies. The most stressful subscale of socially focused Coping Strategies is related to staff Relying on available connections to solve the problem (M = 3.5609; SD = 1.12961).

6. Conclusions

Health care employees and frontline nurses, especially in the initial stages of COVID 19, have anxiety and depression due to high workload, lack of knowledge of the pathogen, and direct contact with patients. Determining risks and resilience factors associated with COVID-19 is crucial to supporting individuals and enhancing resilience.

This study shows that the most stressful factor is related to workload, especially related to unpredictable staffing and scheduling. On the other hand, the most coping Strategies were those that were associated with Meaning-focused Coping Strategies, especially believing that valuable lessons can learn from undesirable experiences

We can conclude the research that in other words, if Nurses can use Meaning-focused Coping Strategies and magnet on their values and beliefs to look for the positive or meaning behind the challenging experience, they can persist with some degree of positivity even when things don't look good.

Limitations

The limitation of this study is that the conclusions can only be widespread toward nurses working in Primary Health Care only. In addition, the categories of the coping strategies that have been used in this work are not the only categories that can be used for copying, which in turn may change the way that the action of copying itself is seen.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix 1

Thank you for agreeing to take part in the survey. Please move through the study by clicking the "next" button at the bottom of each page. The study is divided into three main parts:

1) About your identification.
2) Expanded Nursing Stress Scale
3) Copy strategies used During the COVID-19 Epidemic

Please remember that all questions are voluntary, so do not feel like you need to respond if you do not want to or think that the question is irrelevant to you.

First Part: Personal Identification

What is your gender?

- Male
- Female

What is your age?

- 20 - 30 years old
- 30 - 40 years old
- 40 - 50 years old
- 50 - 60 years old

Experience

- 1 - 3 years
- 3 - 10 years
- More than ten years

Do you identify as the First caregiver person in the house?

- Yes
- No

Do you have childcare responsibilities at home?

- Yes
- No

Do you have other caregiver responsibilities (excluding caregivers for children, for example, Special needs family members)?

- Yes
- No

Before the pandemic, did you have any health conditions/risk factors (e.g., being immunocompromised, older age, or having underlying health issues) that you felt put you at high risk for COVID-19?

- Yes
- No

Second Part: Expanded Nursing Stress Scale

Kindly enter the number in the column that best applies to you. If you have not encountered the situation, write "0".

Stress level	Score
Never Stressful	1

Continued

Occasionally Stressful	2
Frequently Stressful	3
Always Stressful	4
Does Not Apply	5

1) Performing procedures that patients experience as painful………………..

2) Criticism by a physician………………..

3) Feeling inadequately prepared to help with the emotional needs of a patient's family………………..

4) Lack of opportunity to talk openly with other personnel about problems in the work setting………………..

5) Conflict with a supervisor………………..

6) Inadequate information from a physician regarding the medical condition of a patient………………..

7) Patients were making unreasonable demands.

8) I felt helpless in the case of a patient who fails to improve………………..

9) Conflict with a physician………………..

10) Being asked a question by a patient for which I do not have a satisfactory answer………………..

11) Lack of opportunity to share experiences and feelings with other personnel in the work setting………………..

12) Unpredictable staffing and scheduling………………..

13) A physician was ordering what appears to be the inappropriate treatment for a patient………………..

14) Patients' families were making unreasonable demands………………..

15) Experiencing discrimination because of race or ethnicity………………..

16) Listening or talking to a patient about their approaching death…………...

17) Fear of making a mistake in treating a patient………………..

18) Feeling inadequately prepared to help with the emotional needs of a patient………………..

19) Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients………………..

20) Difficulty in working with a particular nurse (or nurses) in my immediate work setting………………..

21) Difficulty working with a specific nurse (or nurses) outside my close work setting………………..

22) Not enough time to provide emotional support to the patient……………

23) A physician not being present in a medical emergency………………..

24) 25. Being blamed for anything that goes wrong………………..

25) Experiencing discrimination based on sex………………..

26) The death of a patient………………..

27) Disagreement concerning the treatment of a patient………………..

28) Feeling inadequate trained for what I have to do………………..

29) Lack of support from my immediate supervisor………………..

30) Criticism of a supervisor………………..

31) Not enough time to complete all of my nursing tasks………………..

32) Not knowing what the patient's family should tell about their condition and treatment………………..

33) Being the one that has to deal with the patients' families………………..

34) Having to deal with violent patients………………..

35) Being exposed to health and safety hazards………………..

36) The death of a patient with whom you developed a close relationship…….

37) Deciding for a patient when the physician is unavailable………………..

38) Being in charge with a lousy experience………………..

39) Lack of support by nursing administration………………..

40) Too many non-nursing tasks are required, such as clerical work…………

41) Not enough staff to adequately cover the unit………………..

42) Uncertainty regarding the operation and functioning of specialized equipment………………..

43) Having to deal with abusive patients………………..

44) Not enough time to respond to the needs of patients' families……………

45) Being held accountable for things over which I have no control…………

46) Physician(s) not being present when a patient dies………………..

47) Having to organize doctors' work………………..

48) Lack of support from other health care administrators………………..

49) Difficulty in working with nurses of the opposite sex………………..

50) Demands of patient classification system………………..

51) Having to deal with abuse from patients' families………………..

52) Watching a patient suffer………………..

53) Criticism from nursing administration………………..

54) Having to work through breaks………………..

55) They did not know whether patients' families would report you for inadequate care………………..

56) Having to make decisions under pressure………………..

Third Part: The Coping Strategies Scale for Nurses (CSSFN)

SN	Items	Scale Percentage				
		Never (50 - 59)	Rarely (60 - 69)	Sometimes (70 - 79)	Often (80 - 89)	Very often (90 - 100)
	Problem-focused Coping Strategies					
1	During stressful situations in the COVID-19 pandemic, I discuss the issue with the experts and follow their advice.					
2	During stressful situations in the COVID-19 pandemic, I think carefully about what to do and try not to be rash.					
3	During stressful situations in the COVID-19 pandemic, I focus on what to do next.					

Continued

4	During stressful situations in the COVID-19 pandemic, I have repeatedly thought about it and tried to understand it
5	During stressful situations in the COVID-19 pandemic, I've been thinking about what I usually do with other viral infections
	Emotion-focused Coping Strategies
1	During stressful situations in the COVID-19 pandemic, I Seek emotional support from others
2	During stressful situations in the COVID-19 pandemic, I tell myself things that make it easier for me and imagine things that improve my mood
3	During stressful situations in the COVID-19 pandemic, I express my feelings and thoughts to families and friends
4	During stressful situations in the COVID-19 pandemic, I try to make myself feel better by eating, drinking, smoking, or taking medication
5	During stressful situations in the COVID-19 pandemic, I Depend on friends for emotional/moral support
	Meaning-focused Coping Strategies
1	During stressful situations in the COVID-19 pandemic, I tried to seize opportunities that could get me out of the dire situation
2	During stressful situations in the COVID-19 pandemic, I Believe that there are meaning and purpose to the things that happen to me
3	During stressful situations in the COVID-19 pandemic, I Believe that valuable lessons can learn from undesirable experiences
4	During stressful situations in the COVID-19 pandemic, I Derive meaning from my past
5	During stressful situations in the COVID-19 pandemic, I learned to accept the event, and it has become a part of my life
	Social focused Coping Strategies
1	During stressful situations in the COVID-19 pandemic, I Rely on others to do what I cannot do myself
2	During stressful situations in the COVID-19 pandemic, I Rely on people who have successfully coped with the problem
3	During stressful situations in the COVID-19 pandemic, I Rely on available connections to solve the problem
4	During stressful situations in the COVID-19 pandemic, I Receive practical help from friends
5	During stressful situations in the COVID-19 pandemic, I Depend on the experts and follow their advice

Appendix 2

Consent Form

- **Study Title:**

investigate Stressors levels and identify Coping Strategies of Frontline Nurses During the COVID-19 Epidemic in Sharjah Primary Health Center

Principal Investigator: Shimaa Said Al Salim

Email: Shaima.alsalim@ehs.gov.ae

Please take your time reading this consent and discussing it with others. Your participation is voluntary. You can ask questions to clarify unclear information or know more about the study at any time. Please take your time to consider whether or not you wish to participate in the study.

Background and aim of this research

Globally, COVID-19 has a significant impact on the health systems and their workforce. We would like to understand how the pandemic felt across the nursing workforce and copy strategies.

You invite to participate in a survey looking at COVID-19 stress levels and Coping Strategies. This survey aims to find out stress levels impacted by COVID-19 and Coping Strategies.

What does my participation involve?

Participation in this study involves completing an online survey. You will question how you deal with stressful situations during the COVID-19 epidemic. The questionnaire will take approximately 10 - 15 minutes to complete.

Who is conducting this study?

Conduct by a group of MOHAP Staff Nurses working in Sharjah Primary Health Care.

What are the study survey contains

The study is divided into three main parts:

1) about your identification.

2) Expanded Nursing Stress Scale

3) Copy strategies used During the COVID-19 Epidemic

What is the expected number of participants?

The expected total number of Sharjah PHC Nurses participants in the study is 200 nurse

Do I have to take part?

Participation in this study is entirely voluntary. Your decision to participate will be anonymous and will not affect your relationship with Nursing Now!. By commencing and submitting the survey, you consent to participate. You may withdraw from the study at any time. However, once you submit your answer, we may not remove your responses because identifying your data may not be possible.

What will happen to the information I provide?

All survey data will be non-identifiable. All records containing personal information will remain confidential, and no information which could lead to the

identification of any individual will be released unless required by law.

The data will be stored in a password-protected database on a secure server and stored in a password-protected server in a consistent Nursing department in MOHAP.

What are the benefits of taking part?

There is no direct benefit from your participation; however, the findings will inform your understanding of the nursing workforce's occupational wellbeing globally and identify areas where nurses may require further support.

What are the risks of taking part?

There are no anticipated risks associated with participating in this study beyond those encountered in everyday life. You are free at any stage to withdraw or take time out.

I have read the above information and wish to participate in the survey?

- Yes
- No

Appendix 3

UNITED ARAB EMIRATES
MINISTRY OF HEALTH & PREVENTION

الإمارات العربية المتحدة
وزارة الصحة ووقاية المجتمع

Ministry of Health and Prevention
Research Ethics Committee

Study Title: Investigate Stressors level and identify Coping Strategies of Frontline Nurses During the COVID-19 Epidemic in Sharjah Primary Health Center.

Subject: Approval Reference No: **MOHAP/DXB-REC/ AAA/No. 29/2021.**

Dear Ms. Shimaa Said,

In regards to the above-mentioned Study protocol, this is to confirm that on the meeting dated **(20 / 04 /2021)**, the Ministry of Health and Prevention Research Ethics Committee has reviewed the study protocol as well as all the documents submitted in the submission file from the ethical point of view and has approved the conduct of above-mentioned study.

Opinion: Approval.

Committee members:

Name	Designation	Role in committee
Dr. Suad Hannawi	Consultant Rheumatologist	Chairman
Dr. Haifa Hannawi	Consultant Dentist	Deputy chairman
Dr.Muna AL Mutawa	Specialist Ophthalmologist	Member
Yusra Swaidat	Senior charge technician	Coordinator
Samya Al Mulla	Pharmacist	Member

1

MOHAP/DXB-REC/ AAA/No. 29/2021

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MINISTRY OF HEALTH & PREVENTION

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Please find below a list of approved documents:

Document	Version/date
Application Form	Ministry of Health and Prevention Application Form-
Protocol	Study protocol/research summary
Information sheet and Informed Consent Form	Informed consent- V2 – English
Data Collection	Data collection sheet- ENSS questionnaire.
Investigator/s CV	CV of Principal Investigator
GCP Certificate/s	GCP Certificate of investigator

The MOHAP Research Ethics Committee is organized and operated according to guidelines of the International Conference on Harmonization and constituted according to ICH-GCP requirements.

This Ethical approval applies for the following study sites only: Sharjah Primary health Centers and Preventive medicine.

This approval is subject to the following conditions:

1. The MOHAP research ethics committee approval does not imply that the researcher is granted access to data, medical records or biological samples from the MOHAP health care facilities neither the Private MOHAP licenced health care facilities. Researchers must seek permission and follow the policy and procedure from the concerned directories after the approval from the Research Ethics Committee.

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2. Please note that it is the Principal Investigator's responsibilities, to immediately inform the Committee of any changes in the research protocol and/or the research Methodologies, should the need for those changes arise prior to or during the conduct of this research study.

3. The approval is valid for up to **1year** from the date of approval. If the study extends beyond this date, a progress report must be sent to the research ethics committee to renew the approval 30 days prior the expiry date.

4. The research ethics committee must be informed when the research has been completed and a copy of the final research report must be submitted for our records.

Yours sincerely,

Dr Haifa Hannawi
Deputy Chairman
MOHAP - REC

Date:20 / 04 /2021

3

MOHAP/DXB-REC/ AAA/No. 29/2021