

# Nursing Experiences Caring For COVID-19 Patients In A Dubai Government Hospital: A Qualitative Study”.

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## Abstract

**Introduction:** In January 2020, WHO declared COVID-19 to be a Public Health Emergency of International concern. The covid-19 pandemic is likely to place healthcare professionals across the world in an unprecedented situation, forcing the human to take impossible decisions and work under extreme pressures. In addition to fear around COVID-19 exposure, anxieties related to shortages of personal protective equipment (PPE) or other essential equipment and the challenges of family support and childcare while they work irregular hours and higher workloads, coupled with anxiety, as they enter new or unfamiliar clinical roles.

**Objective:** To explore the experiences of nurses caring for COVID-19.

**Methods:** Using phenomenological analysis approach, a qualitative study was conducted using semi-structured interview of 15 nurses working in COVID units of LWCH. Ethical approval obtained from DREC. The interviews were recorded and grouped into themes.

**Results:** Four themes emerged from data analysis. The first one is psychological feeling where many of them were anxious for first time witnessing pandemic, stressful, uncertainty, constant fear, sadness etc. In the early stage, negative emotions were dominant and positive emotions appeared gradually. ICU nurses were experiencing intense psychological and physical effects. Second category was challenges where they were challenged by lack of experience, knowledge, use of PPE, heavy workload, fear of becoming infected and infecting others etc. The third theme was coping strategies where they identified many sources of social support and self-management strategies to cope with situation. The last theme was lifestyle changes where most of the nurses isolated themselves from other family members, no socialization. They also expressed the change in attitude of the society towards nurses.

**Discussion/Conclusion:** The intensive work drained health-care providers physically and emotionally; therefore, comprehensive support should be provided to safeguard the wellbeing of health-care providers and pre-induction training on working with infectious diseases to be included in pandemic management programs.

**Keywords:** COVID-19, Hospital Nursing Staff, Experiences, Caring, Health Knowledge, Health Practice

## INTRODUCTION

In January 2020, the World Health Organization (WHO) declared the outbreak of a new coronavirus disease (COVID-19) to be a Public Health Emergency of International Concern. In March 2020, the WHO declared that COVID-19 as pandemic.<sup>1</sup> The covid-19 pandemic is likely to place healthcare professionals across the world in an unprecedented situation, forcing the human to take impossible decisions and work under extreme pressures. These may include how to allocate scanty resources to equally needy patients, how to balance their own physical and mental healthcare needs with those of patients, how to align their desire and duty to patients with those to family and friends, and how to provide care for all unwell patients with constrained or inadequate resources. This may cause some to experience moral injury or mental health problems<sup>2</sup>. Coronavirus disease 2019 (COVID-19) is rapidly spreading worldwide. As of April 22, 2020, there have been 2471 136 confirmed cases worldwide, with 169006 deaths. Health-care providers are vital resources for every country. Their health and safety are crucial not only for continuous and safe patient care, but also for control of any outbreak<sup>3</sup>. However, health-care providers caring for patients during the severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) outbreaks were under extraordinary stress related to high risk of infection, stigmatization, understaffing, and uncertainty, and comprehensive support was a high priority during the outbreaks and afterwards<sup>4,5</sup>. Quantitative studies have shown that frontline healthcare providers treating patients with COVID-19 have greater risks of mental health problems, such as anxiety, depression, insomnia, and stress.<sup>6</sup> Frontline physicians and nurses who had no infectious disease expertise had additional challenges when they adjusted to an entirely new working environment in this stressful situation.

## NEED FOR THE STUDY:

Health-care providers showed a tremendous sense of responsibility and concerted efforts in alleviating patients' suffering, including working in a totally new context, physical exhaustion due to heavy workloads and protective gear, the fear of becoming infected and infecting others, and feeling powerless to handle patients' conditions. To cope with stressful situations, they identified many sources of social support and used self-management strategies. They also described how they were able to transcend the difficulties inherent in their unique experience. Whether due to long work hours or infection control precautions, healthcare workers may be separated from their families, which can add to family distress due to physical separations or infrequent communication.

There is a clear need for immediate action to safeguard the welfare of the health and care workforce.<sup>7</sup> In addition to fear around COVID-19 exposure, anxieties related to shortages of personal protective equipment (PPE) or other essential equipment and the challenges of family support and childcare while they work, healthcare workers may experience irregular hours and higher workloads, coupled with anxiety, as they enter new or unfamiliar clinical roles.<sup>8,9</sup>

They are at risk of emotional strain and physical exhaustion from the provision of care to growing numbers of patients who may then rapidly deteriorate; they may be exposed to critical illness or death of their co-workers and they may face moral dilemmas in decision making around provision of care with limited resources.<sup>8</sup> During the SARS outbreak, emotions experienced by healthcare workers were associated with resignations and poor work performance. Maintenance of social contact is increasingly challenging in the context of social distancing requirements and, anecdotally, there are reports of healthcare workers experiencing social stigma and abuse due to public fears of contracting the virus from those with greatest exposure. The additional uncertainty around COVID-19 progression and treatments as well as the challenges of limited resources means that healthcare workers will certainly face difficult decisions and moral dilemmas during the pandemic.

Compared with the general population, healthcare workers are facing tremendous pressure from COVID-19, especially those who might be in contact with suspected or confirmed cases, due to the high risk of infection, inadequate protection, loss of control, lack of experience in managing the disease, overwork, and negative feedback from patients, perceived stigma, significant lifestyle changes, quarantine and less family support.<sup>10,11,12</sup> The extreme pressures experienced by healthcare workers during a pandemic may increase their risk of burnout, which has adverse outcomes not only for individual wellbeing, but also for patient care and the healthcare system.<sup>13</sup> During the SARS outbreak, emotions experienced by healthcare workers were associated with resignations and poor work performance. Healthcare workers are at higher risk of exposure to the virus experience a greater psychological impact than those with less exposure.<sup>14</sup>

Workforce safety is a high priority. To assist the health-care providers with uncertainty and fear, in addition to improving knowledge of infection prevention and control and personal protection skills, hospitals need to provide a safe working environment and sufficient protective supplies and have personnel responsible for continuous training, monitoring, and supervision of infection prevention and control. Sound infection prevention practices are also needed in the living quarters of medical teams from other provinces.

Because COVID-19 is a new disease, the medical system and culture of different countries varies, further research is required on the experience of frontline nurses fighting against COVID-19. To support them effectively, it is necessary to gain insights into their living experience.<sup>15</sup> Therefore, our study aims to understand the subjective experience of nurses participating in nursing COVID-19 patients through semi-structured interviews and to analyze the data using phenomenological methods providing fundamental data for the experiences of nurses.

## STATEMENT OF THE PROBLEM:

A qualitative study on experiences of nurses caring COVID 19 patients in selected government hospital, Dubai.

## OBJECTIVES OF THE RESEARCH

1. To explore the experiences of nurses caring for COVID-19

## MATERIALS AND METHODS

### Variables under study:

Variable is a concept that has measurable changing attributes. Two types of variables were identified in this study. They are independent variable and dependent variable.

1. **Independent variable:** An independent variable is the variable that stands alone and not dependent on any other. In this study, nursing staff is the independent variable.
2. **Dependent variable:** It is the effect of the action of the independent variable and cannot exist by itself. In this study, experiences of nursing staff caring COVID 19 patients is the dependent variable.

## RESEARCH DESIGN:

The study will use the phenomenological method to qualitatively analyze the experiences of nurses caring for patients with COVID-19. The phenomenological method focuses on the experience and feelings of participants and finds shared patterns rather than individual characteristics in the research subjects. This scientific approach guarantees the authenticity of the collected experience of participants to adhere to scientific standards.

**Sampling technique:** Nonprobability Purposive sampling technique will be used for this study.

**Sample:** By using a purposeful sampling method, 15 nurses were selected who rendered Nursing care for patients with COVID-19 in the Latifa women and children hospital from September 2020 to October 2020.

**The inclusion criteria** included nurses who entered the negative pressure ward and provided nursing care for confirmed COVID-19 patients.

**The exclusion criteria** were those nurses did not work in negative pressure ward and not willing to participate in interviews during the study period.

## DATA COLLECTION METHOD:

**Interview outline:** The interview outline is determined by consulting relevant literature and seeking experts' opinions.

The interview consists of two parts.

Part 1: demographic data

Part 2: Open ended questions

The main interview questions which will be posed to the participants are the following:

- (1) What are the main psychological feelings of nursing care providers for COVID-19 patients?
- (2) What are your coping strategies?
- (3) What are your insights in the face of the epidemic?
- (4) How did you feel when accepting the pandemic task?
- (5) How do you feel when you are working with COVID-19 patients?
- (6) What has changed in your life?
- (7) How do you cope with changes in your work and family life?
- (8) What are your thoughts and feelings about this pandemic task?

## DATA COLLECTION

The purpose and significance of the study was communicated with the participant in advance and interview was scheduled at their convenience. The interviewer had possessed a Master of Science in Nursing with experience in qualitative interview and has experience in research. The one-to-one interviews was conducted in a separate room in a quiet manner without interruptions. The interviews were recorded and was kept strictly confidential. The interviews took approximately 20-30 minutes per person. If the participant exhibited emotional problems during the interview, adequate psychological intervention was provided to prevent any psychological harm. The study subjects were allowed to withdraw consent at any time. The researchers remained neutral in collecting the data and established good relationships with the participants. We used techniques such as unconditional acceptance, active listening, and clarification to promote the authenticity of the data and to avoid bias.

## DATA ANALYSIS

Within 24 hours of each interview, the recording was transcribed and analyzed by phenomenological analysis method. The analysis included reading the transcript several times to gain an understanding of meanings conveyed, identifying significant phrases and restating them in general terms, formulating meanings and validating meanings through research team discussions to reach consensus, identifying and organising themes into clusters and categories, and developing a full description of themes. Several strategies were used to ensure trustworthiness and credibility. Credibility was achieved by in-depth interviews followed by peer debriefing. Two coauthors analysed the transcripts independently by bracketing data on preconceived ideas. Findings were then compared and discussed by the team until consensus on themes, theme clusters, and categories was achieved. Transferability was established by considering variations of participant characteristics and sufficient quotations collected through in-depth interviews. The audit trail was maintained to ensure all analysis steps could be traced back to original interviews.

## RESULTS:

### Descriptive Analysis Report:

Percentage analysis is one of the statistical measures used to describe the characteristics of the sample or population in totality. Percentage analysis involves computing measures of variables selected of the study and its finding will give easy interpretation for the reader.

**Table 1: Demographic data**

Distribution of Age	Frequency (Percentage)
26-30yrs	1 (6.67)
31-35yrs	5 (33.33)
>35yrs	9 (60)
<b>Distribution of Years of Experience in Latifa</b>	
<5 years	1 (6.67)
6-10 years	4 (26.6)
11-15 years	3 (20)
>15 years	7 (46.6)
<b>Distribution of participant's area of working (Working Unit)</b>	
Maternity	5 (33.3)
ICU	3 (20)
Pediatric	3 (20)
ED	3 (20)
OPD	1 (6.67)
DS	0 (0)
<b>Distribution of participants Marital Status</b>	
Single	2 (13.3)
Married	12 (80)
Divorced	1 (6.67)
<b>Distribution of Participants Living status</b>	
Family	12 (80)
Hospital/ accommodation	3 (20)
<b>Distribution of Number of children</b>	
One	3 (20)
Two	7 (46.7)
Three	1 (6.67)
Above 3	1 (6.67)
NA	2 (13.3)
None	1 (6.67)
<b>Distribution of Participants Medical History</b>	
Hypertension	2 (13.3)
Hyperlipidemia	3 (20)
Diabetes	1 (6.67)
Eczema	1 (6.67)
Migraine	6 (40)
Ischemic heart diseases	1 (6.67)
Other comorbidities	3 (20)
Nil	1 (6.67)
<b>Distribution of Participants Family Medical History</b>	
Hypertension	4 (26.7)
Hyperlipidemia	4 (26.7)
Diabetes	3 (20)
Asthma	1 (6.67)
Cigarette smoking	1 (6.67)
Ischemic heart diseases	2 (13.3)
Other comorbidities	2 (13.3)

Above table represents age distribution of the participants, Majority 60% of participants falls >35 yrs; 33.33% are 31-35 yrs; whereas 6.67% are 26-30yrs. From the above table, 40% of participants are having >15yrs experience, 13.33% are having 11-15yrs of experience and 20% of participants are having 6-10yrs of experience, 6.67% are having <5 yrs experience. 46.67% of participants are having experience in Maternity, 20% are having experience in ICU, Pediatrics & Emergency Department and 6.67% of participants having experience in Out Patient Department. The data also shows that 80% of participants are married, 13.3% are single and 6.67% are divorced. From the above table, 80% of participants are living with family, 20% are living in hospital accommodation. 20% of participants are having one child, 46.67% are having two children, 6.67% of participants are having three & more children, 13.33% are not married, 6.67% don't have children.

From the above table, 13.33% of participants are having Hypertension, 20% are having Hyperlipidemia and 6.67% of participants are having Diabetes, 6.67% are having Eczema, 40% are having migraine, 6.67% are having Ischemic heart disease, 20% are having other comorbidities \* 6.67% are not having any diseases. 26.67% of participants are having Hypertension, 26.67% of participants are having Hyperlipidemia, 20% are having Diabetes and 6.67% of participants are having Asthma, 6.67% are Cigarette smokers, 13.33% are having ischemic heart disease, 13.33% are having other comorbidities & 6.67% are not having any diseases.

#### Analysis on nursing staff experiences on caring COVID patients:

The audio-recorded interviews were formulated into four main themes and each theme had 3-4 subthemes and are presented below:

1. First theme: Psychological feelings
2. Second theme: challenges
3. Third theme: coping strategies/ self-care styles
4. Fourth theme: Lessons learned/ changes brought

**Table 2: First theme: Psychological feelings**

Theme	Subtheme			Recommendations
Psychological feelings	Fear and anxiety	Mixed feelings	Worry about self and spread of infection to others	24x7 Counselor and toll-free consultation services
	<ul style="list-style-type: none"> <li>-First time witnessing</li> <li>-Frightening-no previous experience</li> <li>-Job was Stressful and hard</li> <li>-Resigning job</li> <li>Affected physically and mentally</li> <li>-Concerned as flow of patients increased</li> <li>-Became upset and worried when one of colleague husband expired</li> <li>-Anxious as I had special need child and elderly</li> </ul>	<ul style="list-style-type: none"> <li>-Sympathy, feeling sorry for patients</li> <li>Future uncertain</li> <li>-Difficult to adapt at beginning</li> <li>-No negative thoughts- happy to serve</li> <li>-Feeling of hopeless and useless</li> <li>-Thankful, grateful, felt special</li> <li>-Never worried about family- as God will take care</li> <li>-Feelings cannot be explained</li> <li>-Even though I'm scared I had to show --</li> <li>-I'm strong</li> <li>-No fear as I had experience</li> </ul>	<ul style="list-style-type: none"> <li>-Fear of getting infected self and family</li> <li>-Family should not affect because of me</li> <li>-I am the reason for spreading infection to my family</li> <li>-Feeling guilty- my family members had chronic illness</li> <li>-Could not hug and kiss kids</li> <li>-Sleeping and staying away from family- separate room</li> <li>-Staying away from family as not easy to stay away from</li> </ul>	

**Table 3: Second theme: Challenges:**

Theme	Subthemes			Recommendations
Challenges	Lack of knowledge and experience	PPE utilization	Physical set up and adaptation	<ul style="list-style-type: none"> <li>-Workshop and educational activities regarding COVID</li> <li>-Workshop and educational activities regarding PPE</li> <li>-Clinical Rotation</li> <li>-Availability of supportive staff</li> <li>virtual simulation courses, life skill crisis management workshops</li> <li>-virtual family visit provision</li> <li>-Staffing pool/ nursing bank, staff rotation,</li> <li>-Leadership rounds, ---PEER support group, -Recreational activities for the staff, -rest hours during night duty for staff working with COVID patients,</li> <li>-Infectious disease allowances,</li> <li>-virtual meetings weekly with leaders</li> </ul>
	<ul style="list-style-type: none"> <li>-Mode of infection- airborne / droplet not clear initially</li> <li>-No previous knowledge of working in infectious units</li> <li>-New pandemic, unclear outcome and prognosis</li> <li>-Lack of knowledge on wearing PPE</li> <li>-No adequate staffing- staff from different units with different experience- training was difficult</li> </ul>	<ul style="list-style-type: none"> <li>-Working with PPE for 8hrs tiring</li> <li>-Donning and doffing PPE</li> <li>-Wearing PPE for 9hrs without going to washroom</li> <li>-Wearing PPE for long hrs</li> <li>-With PPE difficult to take food and drinks</li> <li>-With PPE- not taking food till shift completed as don't wanted to remove PPE and wear again</li> </ul>	<ul style="list-style-type: none"> <li>-Setting temporary ICU and COVID units</li> <li>-Treating out of scope patients- adult male</li> <li>-High flow of patients, had only experience taking care of NICU, paediatric and obstetric patients</li> <li>-Hesitant to visit staff working in COVID units</li> </ul>	
	<ul style="list-style-type: none"> <li>-Lack of resources and staff</li> <li>Setting temporary ICU and COVID units</li> <li>Treating out of scope patients- adult male</li> <li>High flow of patients, had only experience taking care of NICU, paediatric and obstetric patients</li> <li>Hesitant to visit staff working in COVID units</li> </ul>	<ul style="list-style-type: none"> <li>-Patient care demands</li> <li>Setting temporary ICU and COVID units</li> <li>Treating out of scope patients- adult male</li> <li>High flow of patients, had only experience taking care of NICU, paediatric and obstetric patients</li> </ul>	<ul style="list-style-type: none"> <li>-Personal and family challenges</li> <li>Staying separated from family</li> <li>Travel ban, unable to see fly members who were affected</li> <li>Isolated myself even though staying in same house</li> <li>Fly members were supportive and used to pray together</li> <li>No feelings shown on my face but were worried</li> <li>Supportive family and positive encouragement from immediate family members</li> <li>Negative feedback from family</li> </ul>	

**Table 4: Third theme: Coping strategies/ Self-care styles**

Theme	Subtheme		Recommendations
Coping strategies/ Self-care styles	SELF SUPPORT	RECREATIONAL/ DIVERSIONAL	<ul style="list-style-type: none"> <li>-Religious practices, Happiness corner, GIFTs, surprise family virtual visits, allowances</li> <li>-Create family WhatsApp group and celebrate gatherings</li> <li>-create a platform to share life experiences</li> <li>-newsletter to start, each day send happy thoughts</li> <li>-have a Memorial Day celebration with patients to share their experiences to increase positive thinking of nurses</li> </ul>
	<ul style="list-style-type: none"> <li>-Yoga and meditation</li> <li>-I used to meet staffs working in covid units</li> <li>-I messaged staffs asking about them, celebrating their birthdays etc.</li> <li>-Happiness and smile on the patients face after being treated.</li> <li>-Insights for the pandemic</li> <li>-Reading DHA websites, WHO</li> <li>-Trying to be positive and optimistic</li> <li>-Stopped going out and mingling with people</li> <li>-I was treating myself as suspected covid positive patient and isolating myself from family</li> <li>-Made me more flexible</li> </ul>	<ul style="list-style-type: none"> <li>-Cooking and making craft</li> <li>-Started depending more on my family to take care of my children</li> <li>-Online purchasing</li> <li>-Working 24/7 following up with staff and patient wellbeing</li> <li>-Sitting with my friends during break and laughing</li> <li>-Watch movies; eat a lot, going to malls</li> </ul>	
	SPIRITUAL	SOCIAL SUPPORT	
<ul style="list-style-type: none"> <li>Praying, reading holy books and full time involving in family tasks</li> <li>Started praying and build up on faith</li> <li>Praying to God and kept a positive mind that I was doing something noble</li> <li>We used to go to patient's room and pray</li> </ul>	<ul style="list-style-type: none"> <li>Building my confidence with psychological support from family members</li> <li>Support from leaders at work when I myself was affected with Covid</li> <li>Surrounded by people who can boost me gave me strength and support and made my life easy</li> <li>Family and friends helped me to cope</li> <li>Very good supportive friends</li> <li>Talking frequently with the family</li> <li>Made video calls to family members to keep in touch constantly.</li> <li>Social work like calling patients after duty hours to ask about their condition, patients were very grateful</li> </ul>		

**Table 5:** Fourth theme: Lessons learned/ changes brought

Theme	Subtheme			Recommendations
Lessons learned/ Changes brought	Personal	Professional	Social	
	<ul style="list-style-type: none"> <li>-Made me braver and stronger</li> <li>-Courage to face any obstacle in life</li> <li>-Developed a more positive attitude towards life. Started creating positive thoughts in mind</li> <li>-Learned to be more flexible and open minded to new changes and challenges on the way</li> <li>-I learned to always think about today and tomorrow</li> <li>-Looking at the positive and brighter side of life always.</li> <li>-Big change I had was I started appreciating and value all-important people that mattered to me.</li> <li>-Need to focus more take care of the gift of life</li> <li>-Mind was at peace that we have to play a great role in pandemic.</li> <li>-Taught family members the precautionary measures.</li> <li>-God will reward me one day.</li> <li>-I accepted that pandemic will continue</li> <li>-Higher path of compassion, courage and love</li> <li>-Inner strength of character can be measured only by performance in times of need.</li> <li>-Thought that affected people need people like me to treat them.</li> <li>-I am feeling lucky that I am serving the pandemic and that I am healthy and I have the opportunity to take care</li> <li>-Happy that I am useful in the pandemic</li> <li>-Acceptance is the key factor to adjust and adapt to the pandemic.</li> <li>-To be resilient and to be strong</li> <li>-Health is real wealth</li> <li>-Material and luxurious life doesn't matter</li> <li>-God, family and loved ones are important in this world</li> </ul>	<ul style="list-style-type: none"> <li>-As a nurse, I learned to be more compassionate</li> <li>-Open to new things</li> <li>-As a nurse, I learned to adjust to take care of medically ill patients (male and female) as I had only experience in maternity ward.</li> <li>-Changes in work was to always wear a mask</li> <li>-I myself learned a lot about time management, commitment</li> <li>-Health is not ok means no use of wealth</li> <li>-I am somebody who adjust to changes and very flexible that made me to accommodate the changes.</li> <li>-The reason for taking up the profession helped to take up the responsibility of taking covid patients.</li> <li>-“As a nurse, it is self-satisfying”.</li> </ul>	<ul style="list-style-type: none"> <li>-Before pandemic people were giving importance and pride to politicians, famous actors etc, but this pandemic made them realize nurses are the pride</li> <li>-People started looking at us and named us HERO</li> <li>-Nurses were not rewarded properly because physicians were given more priority even though they were not spending enough time with patients like nurses do.</li> <li>-Local newspapers also only thanking doctors as Heroes and not mentioning anything about nurses which was disheartening for me</li> <li>-People are looking at nurses with better respect, gratitude than before and health care sector is rewarded better than before.</li> <li>-People coming forward to help and support social system.</li> <li>-Besides people started to stay at home and spend time with family instead of going out, giving lot of time to oneself.</li> </ul>	<ul style="list-style-type: none"> <li>-Appreciation certificates</li> <li>-have a Memorial Day celebration with patients to share their experiences to increase positive thinking of nurses</li> <li>-Reward the nurses by Government same like doctors</li> </ul>

**DISCUSSION**

This study explored the psychological experience of caregivers of patients with COVID-19 using phenomenological methods and we summarised our findings into 8 themes: Psychological feelings, Challenges, Worries, Changes in Life, Coping strategies used, Coping mechanisms for work and family, Lessons learned, and readiness to work.

The nurses caring for COVID-19 patients felt extreme physical fatigue and discomfort caused by the outbreak, intense work, large number of patients, and lack of protective materials, <sup>16,17</sup>. In this study, nurses' concerns about family members were consistent with the study of Lee et al. <sup>18</sup> especially those with elderly and children in the family. The physical exhaustion, psychological helplessness, health threat, lack of knowledge, and interpersonal unfamiliarity under the threat of epidemic disease led to a large number of negative emotions such as fear, anxiety, and helplessness, which have been reported by several studies. <sup>19,20,21</sup>. It showed that nurses' negative emotions are more pronounced in the first week when entering pre-job training and negative pressure ward for the first time. Therefore, early psychological intervention is particularly important to nurses in an epidemic. It is best to conduct stress assessment and screening of nurses immediately after receiving the epidemic prevention tasks and to provide professional, flexible, and continuous psychological intervention, <sup>22,18</sup>, to promote emotional release and improve nurses' mental health. <sup>23</sup>. At the same time, it is important to establish early support systems, <sup>24</sup> such as adequate supplies of protective materials, reasonable allocation of human resources, elderly and infant care services for nurses' families, pre-job training, and interpersonal interaction among nurses to facilitate nurses' adaptation to the anti epidemic tasks.

Nurses repeatedly expressed that working with personal protective equipment (PPE) for long hours was a major physical and professional challenge. To save time and protective supplies, health-care providers did not eat or drink to avoid going to the restroom during working hours.

Due to the highly contagious nature of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and lack of understanding of its transmission, health-care providers were constantly in fear of becoming infected. When participants heard that health-care providers from general wards were infected due to insufficient protection and awareness about the virus at the beginning of the outbreak, they had to consider whether they also had contact with any patients or colleagues in their original department who were diagnosed with COVID-19.

Although well protected in the isolation wards, healthcare providers were afraid of unintentional occupational exposure and of transmitting the virus to their colleagues; they consistently monitored their own health to avoid infecting others.

Providers who lived with families also had great concern about taking the virus to their family members, especially their children and parents.

It is known that coping style, cognitive evaluation, and social support are all mediators of stress. Studies have shown that psychological adaptation and social support play an intermediary role in psychological rehabilitation under outbreak stress.<sup>25</sup> Pressure of the epidemic may prompt nurses to use their medical and psychological knowledge to actively or passively make psychological adjustments. In our study, nurses adopted avoidance, isolation, speculation, humor, self-consciousness, and other psychological defenses to psychologically adjust to the situation. It has been demonstrated that all coping measures under the epidemic disaster can alleviate stress and promote mental health.<sup>26</sup> Participants adopted breathing relaxation, music, meditation, mindfulness, and other ways to reduce stress, which was consistent with the study of nurses in the SARS wards that adopted multiple ways to deal with stress.<sup>27</sup> In addition, our results showed active altruism and greater team solidarity, reflecting the study.<sup>28</sup> Generally, nurses can adjust their cognitive rationality to adapt to the epidemic, which may also be related to health care professionals' rich medical knowledge and more rational and positive attitude.<sup>29</sup> According to American psychologist Richard Lazarus' stress and coping model, whether the stressors are effective or not depends mainly on the process of cognitive evaluation and coping. When stressed, nurses constantly adjust cognitive evaluation through professional knowledge to promote self-psychological balance, take the initiative to be altruistic, seek team support, take the initiative to reduce stress, adjust sleep, diet, exercise to adapt to internal, and external environment changes, and prevent injuries caused by stress, which has positive significance for mental health.<sup>23</sup> Many studies have shown that epidemic outbreaks can cause psychological trauma for caregivers.<sup>30,31</sup> In contrast, the results of our study demonstrate that most nurses grew psychologically under pressure. Nurses partook in self-reflection of their own values and found positive forces such as expressing more appreciation for health and family and gratitude for social support,<sup>28</sup> The sense of responsibility brought by professional ethics in an epidemic. Encouraged nurses to actively participate in anti-epidemic tasks and boosted their professional identity and pride, in line with previous reports. Therefore, actively guiding and inspiring nurses to realize their own psychological growth during an epidemic may play a positive role in psychological adjustment.

It is important to safeguard the morale and mental health of HCWs as this can influence the success of healthcare delivery and a review article by Rajkumar RP, published in the Asian Journal of Psychiatry, stated that, it is high time that measures are taken to help the health care workers working with Covid-19 patients boost their psychological well-being and help them reduce the fear by providing them utmost protective measures and periodic counselling.

Our finding of the existence of positive emotions in our nurses such as confidence, calmness, relaxation, and happiness, which simultaneously or gradually appeared with negative emotions, was in contrast to the results several studies that describe only the presence of a large amount of negative emotions during outbreak stress.<sup>31,32</sup> However, other studies report similar findings. In the case of an outbreak, confidence in safety, early training, and confidence in professional skills are all factors that promote medical staff's willingness to actively participate in antiepidemic work.<sup>33</sup> Physical and mental rewards to nurses from work units are also important supporting factors.<sup>34</sup> Our participants generally believed that positive emotions were related to the multi-dimensional support of patients, family members, team members, government, social groups etc. Therefore, social support is critical for nurses in the fight against epidemics. The calmness and ease of most nurses in this study after starting the antiepidemic tasks is rarely mentioned in other studies and may be related to nurses' gradual adaptation, acceptance, positive response, and personal growth.<sup>30,35</sup> Studies have shown that positive emotions play an important role in the recovery and adjustment of psychological trauma.<sup>36</sup> Optimism has a protective effect on psychological trauma under disasters and can promote the psychological rehabilitation of post-traumatic stress disorder.<sup>37</sup> Therefore, in the process of psychological intervention of nurses in an epidemic, strengthening multi-dimensional social support, adjusting cognitive evaluation, guiding positive coping styles, and stimulating positive emotions are crucial to promote the psychological health of nurses.

## LIMITATIONS

Due to the characteristics of qualitative research, the sample size of this study was limited.

Firstly, most of the participants were nurses, The experiences of other health care workers and administrators besides nurses need to be further explored.

Secondly, due to the nature of outbreak prevention and control, we were unable to conduct focus group interviews and did not collect data from multiple centers in order to avoid potential cross-infection.

In addition, this study was a short-term study. Long-term experience of the research subjects would be a valuable avenue to explore in the future.

## RECOMMENDATIONS:

Our research yielded three overarching insights, each coupled with practical steps Nursing administration and managers can take to support employees through the phase of the crisis:

- Managers has to make sweeping changes to address your employees' most pressing needs, and nursing staff who are caring for the covid-19 patients. Build on the trust and affiliation, managers are to be present, action oriented, empathetic, and fully transparent.

- In addition to basic needs (safety and security), three other experience themes (trusting relationships, social cohesion, and individual purpose) are having a disproportionate impact on Nurses well-being and work effectiveness. Enable improvements in those areas by prioritizing actions that will address a broad set of needs for the majority of the staff.
- Pre induction training on working with infectious diseases to be included in ongoing pandemic management program.
- Ensuring that all the staff receives good quality communication and accurate updates
- Rotate workers from high stress to low stress functions
- Partner inexperienced workers with more experienced colleagues which helps to provide support, monitor stress levels and reinforce safety procedures
- Initiate, encourage and monitor work breaks. Implement flexible work schedules who are directly affected or have a family member affected
- Ensure staff know where they can access mental health and psychologically support services
- Connect with an energy source which provides positivity and meaning to life, like family, friends, prayers etc.
- Adequate training on infection control for staff, with clear protocols to follow, and the hospital directives for COVID19 should be precise and disseminated to all staff.
- Preventive measures also need to be in place to ensure that HCWs themselves do not fall ill due to the virus during work exposure.
- **Helping Families Feel Safe:** Work together (include family members and employers) to decide best living arrangements (e.g., separate bedrooms or temporarily living away) to support family safety

## CONCLUSION:

This study provided a comprehensive and in-depth understanding of the psychological experience of caregivers of patients with COVID-19 through a phenomenological approach. We found that during the epidemic, positive and negative emotions of frontline nurses against the epidemic interweave and coexist. In the early days, negative emotions were dominant and positive emotions appeared simultaneously or gradually. Self-coping style and psychological growth are important for nurses to maintain mental health. This study provided fundamental data for further psychological intervention.

Our study highlighted the importance of taking into consideration the experiences and concerns of front-line staff during a pandemic.

During an epidemic outbreak, positive and negative emotions of the front-line nurses interweaved and coexisted. In the early stage, negative emotions were dominant and positive emotions appeared gradually. Self-coping styles and psychological growth played an important role in maintaining mental health of nurses.

ICU nurses are experiencing intense psychological and physical effects as a result of caring for patients diagnosed with COVID-19 in a challenging care environment. Outside of work, nurses faced pandemic-induced societal changes and divergent public perceptions of them.

## SUMMARY:

In treating patients with COVID-19 in LWCH, nursing staff showed a great deal of professional dedication and acceptance of the need to place themselves at risk and to overwork. Nurses took on difficult tasks and had an important role in promoting patients' recovery. The intensive work drained health-care providers physically and emotionally; therefore, comprehensive support should be provided to safeguard the wellbeing of health-care providers and preparedness and efficacy promoted to manage crises.

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