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# Psychological Challenges and Coping Strategies Adopted by ICU Nurses during COVID-19 Pandemic in Lahore, Pakistan

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## ABSTRACT

**Objectives:** To explore the psychological challenges faced by Intensive Care Unit (ICU) nurses during COVID-19 pandemic and to determine the coping strategies which were used by ICU nurses to combat psychological and emotional stress during the health crisis.
**Study Design:** Qualitative phenomenological approach was used to explore the insights of ICU nurses.
**Study Subjects:** Data were collected from 12 ICU nurses till data saturation.
**Place and Duration:** This study was completed in between August 02, 2021 to January 01, 2022 and was conducted at University of Health Sciences Lahore in collaboration with four tertiary care hospitals of Lahore.
**Results:** Results of this study revealed that the situation was very chaotic. ICU nurses were prone to stress, fear and anxiety because they were more exposed to coronavirus than any other health care professional. The responses of the COVID-19 ICU nurses were categorized into three main themes. Psychological impact of the pandemic in the early stages, social effects of the pandemic and coping strategies.
**Conclusion:** This study concluded that COVID-19 pandemic had a great impact on the psychological well-being of ICU nurses. Despite of adverse conditions, nurses had adopted certain strategies such as family support, religious support and infection prevention protocols which helped them to reduce their stress and fear during the COVID-19 outbreak.
**Key words**: Coronavirus, pandemic, COVID-19 outbreak, psychological experiences, coping strategies, ICU Nurses

## INTRODUCTION

In November 2019, a pneumonia-like disease was termed as coronavirus disease 2019 (COVID-19) which was first appeared in Wuhan, China (Labrague & de Los Santos, 2021) . Coronavirus disease had a wide range of clinical and therapeutic implications (Alharbi, Jackson, & Usher, 2020). The speed and aggressiveness of COVID-19 to infect people made it a serious and threatening global health problem (Shahrour & Dardas, 2020).

In Asia, China, India, Sri Lanka, Pakistan, Bangladesh and all low- and middle-income countries were equally affected. In Pakistan, the first case of COVID-19 was reported in Karachi on February 26, 2020, and healthcare services in Pakistan were not adequately prepared for the pandemic or disaster management (Saqlain, Munir, Ahmed, Tahir, & Kamran, 2020).

The nurses caring for COVID-19 patients, particularly Intensive Care Unit (ICU) nurses had felt extreme stress, fatigue, and discomfort due to the outbreak, intense work, large number of patients and lack of protective materials. The uncertainty of the virus and lack of knowledge had led to a large number of negative emotions such as fear, anxiety, loneliness, helplessness, sleep disorders and other mental health problems among healthcare professionals which have been reported by several studies  (Sun et al., 2020).

Health care providers were exposed to the psychological stress while coping with their own survival (Paladino et al., 2017). Therefore, the purpose of this study was to explore psychological challenges and to determine the coping strategies used by critical care nurses during the COVID-19 pandemic, because among the healthcare professionals ICU nurses are the one who spend more time with the patients and that makes them more exposed to stressors which may affect their mental well-being.

## METHODOLOGY

Qualitative, phenomenological study design was used to explore the COVID-19 ICU nurse`s psychological experiences and coping strategies during the pandemic in Lahore, Pakistan.  This study was conducted at University of Health Sciences in collaboration with four tertiary care hospitals of Lahore. Nurses of Intensive Care Unit, who were providing direct care to the coronavirus patients in Lahore were included in this study.  This study was completed in between August 02, 2021, to January 01, 2022 after the approval of the ethical review board and total 12 interviews were conducted till data saturation.  Saturation has attained widespread acceptance as a methodological principle in qualitative research. It is commonly taken to indicate that, on the basis of the data that have been collected or analysed hitherto, further data collection and/or analysis are unnecessary. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5993836/ Purposive sampling was used to select the participants who met the inclusion criteria.  Intensive Care unit nurses (ICU) who were providing direct care to the COVID-19 patients. At least 2 weeks working experience in corona designated ICU. Gender: Both male and female. Nurses who themselves had suffered from COVID 19 disease were excluded.

Self-designed pretested interview guide was used to collect the data. Open ended interview guide was formulated in advance to get responses but ICU nurses were allowed fully to disclose experiences they wanted to share. The researcher introduced the topic and discussed the purpose of the study. After that, researcher asked to fill the written consent form to ensure participant`s willingness. The researcher did not disclose his opinions on the ICU nurses regarding the outcome of this study. However, the researcher asked some probing questions to get the deep understanding of the whole phenomenon.

The collected data were reviewed with the research supervisor.Transcripts were read multiple times by the researcher to get familiarization with the data. The recorded data were interpreted after careful analysis of the whole transcript in a descriptive point of view. Spot checking was done to clean the data and to remove any possible errors.  Data were reduced by coding and chunking. At the end emerging themes were tracked. Data was analyzed by using Braun and Clarke`s thematic analysis technique.

## RESULTS

This section consists of two parts. The first section provides information regarding demographic data and the second portion describes the themes generated from the participant`s responses. In this study we enrolled 1 male and 11 female nurses with the mean age of 30.41years (23y-44y). There were nine diploma registered nurses and three post-RN nurses participated in this study. Eight nurses were married and four were single, demographic information is presented in Table 1.

Table 1: Demographic Data

| ID | N 1 | N 2 | N 3 | N 4 | N 5 | N 6 | N 7 | N 8 | N 9 | N 10 | N 11 | N 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | 25 y | 26 y | 23 y | 34 y | 39 y | 31 y | 26 y | 30 y | 28 y | 44 y | 29 y | 30 y |
| Gender | F | M | F | F | F | F | F | F | F | F | F | F |
| Marital Status | Single | Single | Single | Married | Married | Married | Married | Single | Married | Married | Married | Married |
| Family Members | 06 | 06 | 06 | 03 | 05 | 04 | 05 | 07 | 05 | 03 | 04 | 10 |
| Parents Status | Alive | Alive | Alive | Alive | Alive | Alive | Alive | Alive | Alive | Deceased | Alive | Alive |
| Qualification | Diploma RN | Diploma RN | Post RN | Diploma RN | Diploma RN | Post RN | Diploma RN | Diploma RN | Post RN | Diploma RN | Diploma RN | Diploma RN |
| Experience in Covid-19 ICU | 1.5 year | 1 year | 1 year | 2 months | 1 year | 1.5 year | 1 year | 1 year | 9 months | 11 months | 1 year | 1 year |

This study had generated three themes from the participant`s responses and are discussed below and also presented in Table 2.

**Theme 1: Psychological impact of the pandemic in the early stages:**
During the COVID-19 pandemic, ICU nurses were continuously exposed to the critically ill coronavirus patients and were more prone to get infection and mental health issues.

**1.1 Subtheme: Fear and Stress**
This study showed that, all participants reported negative emotions and emotional instability during the early phase of coronavirus outbreak. Nurses were concerned regarding catching the infection and they were psychologically exhausted. Nurses were afraid and nervous because they were fighting with a very new and unseen enemy. As reported by nurse (ID. N2):
"We were afraid to touch the patient because the disease was very new and we were stressed that maybe we will catch infection from the patient, so the condition was very dreadful during the first wave".

**1.2 Subtheme: Emotional Condition**
Front line ICU nurses do empathize patients during the outbreak. In the middle of a chaotic situation and stress, they believed that there may be one of my relative in place of a patient.
As mentioned by nurse (ID. N3):
"When my mother was sick, she was admitted in an ICU during her last days. Unfortunately, I was unable to care for her at the time of need but right now when I saw COVID-19 ICU patients, I always put patients at the place of my mother and try to give them best quality care to balance the situation, when my mother had needed me the most".

**Theme 2: Social Effects of the pandemic:**
**2.1 Stigmatization:** Stigma manifestation was also reported among the ICU nurses because everyone was afraid of being infected. Most of the people died of coronavirus were not allowed to have a proper burial ceremony due to the possible risk of cross infection. So, everyone was afraid and the situation was so chaotic that even most of the private sectors were refusing to take the patients. As stated by nurse (ID. N10):
"One day I was on duty and was very thirsty, so I sent the ward attendant to bring some water from the neighboring ward but they refused to give water by saying that we will not give water because this bottle came from corona ICU".

**Theme 3: Coping strategies.**
**3.1 Subtheme: Support System:** Coping from anxiety and stress was extremely important during the pandemic and nurses tried to do the same. All the participants were engaged to overcome the stressors. In this study religiosity was associated with the low anxiety among participants because community usually in Pakistan usually possess religious immunity. As reported by a nurse (ID 2):
"I have received so much religious support during this pandemic because I am a Christian and Church always highlight that person who is doing good in the society, we call it "sharing a testimony". One day I was in Church, and they called me on stage and said this a proud moment for us because our child is working as a frontline officer in a Covid ward and I received a huge motivation from that gesture".

**3.2 Subthemes: Growth Under Stress:** In spite of extreme stress and chaos, ICU nurses in our study revealed that, they were motivated to care for the sick and developed some coping strategies that helped them to work during this health crisis. All the participants were engaged to overcome the stressors.

During pandemic, nurses were determined to care for the sick because they believed that this is the necessity of our profession. This mind set gave them the motivation they needed to work during the health crisis. Nurses in this study had practiced good infection prevention protocols in an order to limit the cross infection. One of the participants (ID 4) stated that:
"We knew that if we will not care for them then who will? And we must treat them. Our profession also demands the same from us that we should care for the sick".

Table: 2 Thematic Analysis

| Themes | Subthemes | Quotations |
|---|---|---|
| Theme 1: Psychological impact of pandemic during the early stages of pandemic | Fear and Stress | N2: "We were afraid to touch the patient because the disease was very new and we were stressed that maybe we will catch infection from the patient, so the condition was very dreadful during the first wave". |
| | Emotional condition | N4: "We were stressed that we are risking our family members too and we are still feeling the same that we can become a carrier for them." N3: "When my mother was sick, she was admitted in an ICU during her last days. Unfortunately, I was unable to care for her at the time of need but right now when I saw COVID ICU patients, I always put patients at the place of my mother and try to give them best quality care to balance the situation, when my mother needed me the most". |
| Theme 2: Social Effects of the Pandemic | Stigmatization | N10: "One day I was on duty and was very thirsty, so I sent the ward attendant to bring some water from the neighboring ward but they refused to give water by saying that we will not give water because this bottle came from corona ICU". N3: "When I was assigned here in Covid ICU my roommate asked me that you are not allowed to enter into the room because you are working in the COVID-19 ICU". N5: "People do stigmatize us, like first of all they ask that where are you doing duty right now and when they come to know that we are doing duty in covid ICU they use to say that please stay away from us and you have no need to come close" |
| Theme 3: Coping Strategies | Support system | N1: "For coping I used to pray because I am a Muslim and I believe that when I recite Ayat ul Qursi then I am protected. My religious beliefs were very strong during the pandemic". |
| | Growth under stress | N2: "I have received so much religious support during this pandemic because I am a Christian and Church always highlight that person who is doing good in the society, we call it "sharing a testimony". One day I was in Church, and they called me on stage and said this a proud moment for us because our child is working as a frontline officer in a Covid ward and I received a huge motivation from that gesture". N8: "I am a student of Post RN so mostly I spend my time studying to stop thinking about coronavirus". N2: "I kept myself busy by doing work out because I also play cricket at a cricket club. Most of the time when I am stressed, I go to the club and start practicing with a bowler and after 2 or 4 hours I feel physically fit and mentally satisfied". |

## DISCUSSION

This chapter highlights the results and findings of the topic under study in the light of the literature. The results have been discussed under the umbrella of each theme.

**Psychological impact of the pandemic in the early stages:** All the nurses in this study had negative feelings which affected them psychologically and physically. Their main concerns were fear of infecting themselves, the likelihood of inviting virus home, difficult

working conditions, increased workload, no appreciation, stigmatization, lack of resources and poor management. It is also revealed by Sun and his team that fatigue, discomfort and helplessness were reported by the nurses who were caring for COVID-19 patients (Sun et al., 2020).

As reported in this study, the incidence of anxiety and fear was very high among ICU nurses because working in the ICU is already a stress indeed. Nurses believed that they could become a carrier for their families because they were providing direct care to the critically ill COVID-19 patients. Day scholar nurses were more stressed because they were not living in the hostels so, the fear of cross infection was high among day scholar nurses. Same results were reported in a study, that caring for the patients, fear of infecting oneself and family members are some reasons behind nurses' sense of fear, anxiety, and worry, which make them depressed. (Kackin, Ciydem, Aci, & Kutlu, 2021)

**Social effects of the pandemic:** Nurses in this study had experienced stigmatization. The findings of this study showed that nurses felt hesitation while introducing themselves to others that they are working in COVID-19 ICU because their colleagues were not accepting around them. Nurses were not allowed to visit any kind of managerial offices and other departments of the hospital. Even nurses were asked to take some specific paths in the hospital. Their colleagues were afraid to share the same transportation due to the fear of cross infection. It was also reflected by Newby and his colleagues that, nurses felt social isolation due to fear of being stigmatized by society and the risk of transmitting the disease (Newby, Mabry, Carlisle, Olson, & Lane, 2020)

**Coping strategies:** Despite all the chaos and health crisis, nurses were determined to care for the sick because they knew that this was the demand of the profession and they had to do their job. Religion has provided a great emotional support during this pandemic.

Nurses in this study reported that they had no fear while caring for the sick during this pandemic because they believed that a person could only get infected with the will of God. So, if He wanted anyone to be infected then no protection will work against the will of God. Irandoost and his team reported that nurses working in COVID-19 wards used strategies such as spiritualizing their work, trusting in God, and engaging in religious activities (Irandoost et al., 2020).

Results from the current study also revealed that nurses were practicing their hobbies to keep themselves busy. Most of the nurses were engaged in continuous nursing education so they were busy studying during this whole season of crisis. Some reported that they were spending most of their time watching informative videos and movies online. Some chose cooking as their time killing activity. Sports was also chosen by one of the participants. Zhang and his team found that, nurses on the frontline fighting COVID-19 disease were positively taking measures to cope with stress, which is encouraging and indicates that most nurses managed to adapt to the situation by themselves (Zhang et al., 2020)

**Strength of the study:** In this study, face to face interviews were conducted rather than telephonic because most of the studies collected the data via telephone. This study purely focused on the ICU nurses who served during COVID-19. This study explored the psychological challenges of ICU nurses and the types of coping strategies adopted by them. Prior to this study only one phenomenological study was conducted in Lahore on all health care professionals of Mayo Hospital and Services Hospital. This study has led to a thorough insight of ICU nurses psychological challenges, resulting in complete and accurate information about their experiences during the pandemic.

**Limitations:** This study only targeted to explore the psychological challenges adopted by ICU nurses during COVID-19 pandemic. Only COVID-19 ICU was the area under study and other critical areas were excluded which might have patients contacted with coronavirus. This study is only conducted in Lahore, Punjab so that the results cannot be generalized to the other districts.

## CONCLUSION

This study concludes that COVID-19 pandemic had a great impact on the psychological well-being of ICU nurses and that nurses had developed negative feelings. The incidence of anxiety and fear was very high among ICU nurses because they were in close contact with critically ill patients. Nurses were stressed due to the fear of inviting virus at home, fear of cross infection, and stigmatization. In spite of all the crisis and chaos, nurses took the challenge head on and risked their lives to care for the sick.  It is pertinent to mention that despite adverse circumstances and meagre resources nurses tried to fulfil their commitments, kept them upbeat and stayed motivated by adopting certain strategies and measures such as religious support, family support, good sleeping patterns and infection prevention protocols which helped them mitigate their anxiety and fear and de-escalation of their stress level.

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