

# **A case study on the Healthcare Workers in Karachi: The Effect of Post-Covid Stress on Anxiety and Coping Mechanisms**

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## **Abstract**

*The aim of this research was to examine the impact of post-COVID stress on the anxiety and coping mechanisms of healthcare workers. A phenomenological approach was utilized to gain a deeper understanding of the personal experiences of the participants. The results of the study revealed the challenges faced by healthcare workers in the aftermath of the pandemic and the coping strategies they employed to manage stress. These findings provide valuable insights for healthcare organizations and policymakers in their efforts to support the mental wellbeing of healthcare workers.*

**Keywords:** *Post-Covid-19, Anxiety, Depression, Infection, Mental Health, Pandemics, Frontline Workers, Qualitative Study, Covid Aftermaths*

**JEL Classification:** *I10, J28 J81.*

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## **1. INTRODUCTION**

### **1.1 Overview**

Healthcare professionals are faced with new challenges as they adjust to life after the COVID-19 pandemic as starts to end. Even after the pandemic has ended, healthcare professionals are still subject to the psychological damage that the pandemic has inflicted. The stress and trauma that the pandemic has caused may continue, which could result in ongoing mental health problems. To support frontline healthcare workers who have experienced this crisis, healthcare organizations, governments, and communities must work together. Following exposure to the COVID-19 pandemic anxiety or PTSD, up to 70% of healthcare workers in the United Kingdom reported experiencing depression, anxiety, and post-traumatic stress disorder symptoms (Ghauri, et al., 2022). Healthcare professionals now have new opportunities to address their mental health in the wake of the pandemic, but doing so also calls for knowledge of the particular difficulties they encounter and the coping mechanisms they employ.

As we reflect on the difficulties, we encountered during the COVID-19 pandemic, it is abundantly clear that our healthcare workforce and resources were crucial. They were on the front lines, giving patients their undivided attention and working nonstop to save lives. It's crucial to note, however, that these healthcare professionals were not exempt from the pandemic's psychological effects. Healthcare professionals had to work hard to manage the unexpected conditions and enormous worldwide consequences of the COVID-19 outbreak. The ongoing epidemic with its new varieties has created several difficulties and exposed the inadequate state of the global healthcare system. However, the information regarding the difficulties is sacred. However, there is still a hole that needs to be addressed in the analysis of qualitative data. On March 11, 2020, the World Health Organization officially declared the outbreak of coronavirus a global pandemic. Originating in Wuhan, China, the virus has since spread to 209 countries, including Pakistan, which has

reported a cumulative total of 1,575,805 cases and 30,636 deaths as of January 4, 2023. As of March 30, 2020, there have been 33,983 fatalities among the 722,664 confirmed cases of the virus globally.

### **1.2 Problem Statement**

The purpose of this study was to examine the impact of post-COVID stress on the anxiety levels and coping mechanisms of healthcare workers. Due to the constraints posed by the pandemic, the study was conducted through phone and online platforms, limiting the opportunities for face-to-face interviews and focused group discussions. This was especially challenging as the study was conducted during the peak of the pandemic, when healthcare workers were occupied with their duties and emergency calls. Despite these limitations, the study aimed to uncover the personal experiences of the participants and provide a descriptive account of their lived experiences. Through this research, the study attempted to explore the impact of post-COVID stress on healthcare workers' emotional states and provide a deeper understanding of how they cope with this newfound reality.

The results of the study have implications for healthcare organizations and policymakers, as they aim to better support the mental health of healthcare workers, particularly in the aftermath of the COVID-19 pandemic. The study also highlights the challenges faced by healthcare workers in countries such as Pakistan, where the lack of safety measures and personal protective equipment, combined with financial difficulties and attacks from patients' families, led to stress and anxiety. The study sheds light on the varying coping mechanisms employed by healthcare workers, with some taking early retirement or switching jobs, while others remained motivated to serve patients despite the difficulties.

### **1.3 Research Objectives**

This study will illustrate the effect on public healthcare workers serving as frontline soldiers. Concerns have been raised about the preliminary qualitative research on the mental health and wellbeing of public healthcare workers' experiences and the hurdles. Firstly, we will understand the workload faced by the medical team as frontline healthcare workers and whether the equipment provided to them was a burden or a help. Secondly, we will elaborate on the broader view of the raised risks of stress, burnout, and mental anguish. Lastly, we will explore their PTSD strategies and preparedness for the upcoming challenges.

To provide a comprehensive review of the long hectic hours' duties with flocking patients and the compensation that the healthcare staff is getting, is it sufficient or is there a need for provision?

To what extent, the safety measures are helping them to protect from the virus transmission

To investigate the impact of stressors on the mental health and wellbeing of healthcare professionals, specifically focusing on burnout and coping mechanisms.

To evaluate the level of preparedness of healthcare staff to respond to unexpected situations and to identify strategies used to address challenges encountered in the course of providing care

### **1.4 Research Questions**

How has the experience been for doctors since the end of the COVID-19 pandemic?

Can doctors reflect on their financial situation since the end of COVID-19?

What support and benefits have doctors received from the government as healthcare providers during and after the COVID-19 pandemic?

In the opinion of doctors, what are the most effective ways to raise awareness and educate the public about future pandemics?

Can doctors discuss their experiences with mental stress and wellbeing since the end of the COVID-19 pandemic?

## **2. LITERATURE REVIEW**

### ***2.1 Revisiting Community Perceptions, Attitudes, and Practices during the COVID-19 Pandemic in Pakistan***

In the beginning, the Pakistan healthcare management was confident and determined to deal with the Covid situation. They were all set to tackle the emergencies as they knew about China's epidemic. However, with the rise of cases, the demand for additional beds and equipment, the shortage of necessary equipment, and the quality of the equipment raised the question mark on the health management sector. Concerns were also raised about the health and management system (Alwi, 2021). On the other hand, we have seen that disbelief and rumors were circulating about the Covid that created hurdles to implementing the SOPs for Covid transmission, not only for the layman but also found the state was confused as well. The reason for changing statements caused the spread of Covid in Pakistan (Miao et al., 2021).

Due to the country's social, political, economic, and cultural context, the Pakistani government has struggled to contain the COVID-19 outbreak. The increased resistance of communities and local and religious leaders has made it even more difficult to halt the spread of COVID-19. In Pakistan, communities initially reacted with apathy and indifference to the rising threat of COVID-19 and indifference. 7. The same response was obtained from the interviewee in regard to this matter as the COVID-19 pandemic has come to an end, it's worth revisiting community perceptions, attitudes, and practices regarding the pandemic in Karachi, Pakistan. Initially, many people thought the situation was exaggerated, but as religious institutions closed to promote social distancing, it became clear that the situation was serious (Miao et al., 2021). One individual recounted it like this, "At first, I thought everything was made up and exaggerated. People have made much noise about it, I told my son. But when religious institutions were closed to maintain social distance... I realized that this was a hazardous situation." (the respondent was government officials' personnel due to this did not allow us to record).

### ***2.2 Continuing Role of Doctors in Maintaining Health Post COVID-19***

When pandemic circumstances were ongoing and urgent, doctors were the only people whose presence was required. Everyone was confined to their houses, except for the medical staff, who had access to their reports and understood how they dealt with challenging situations while risking their lives. After the COVID-19 pandemic ends, doctors will still have a very important role in keeping people healthy. Although the virus won't be as big of a threat, its effects on health and the healthcare system will be felt for a long time. Doctors aim to help people who have long-term problems from COVID-19 and those who are struggling with mental health issues because of the pandemic. They will also work on making the healthcare system better prepared for future pandemics. In addition, doctors will continue to take care of other health problems, like chronic diseases and mental health issues, and help stop the spread of diseases through education and research. The COVID-19 pandemic showed us how important it is to have a strong and well-equipped healthcare system, and doctors play a big part in making sure people stay healthy.

### ***2.3 Importance of Supporting Healthcare Workers' Mental Health Post COVID-19***

Healthcare workers' mental and emotional health is essential, especially after the COVID-19 pandemic. During the pandemic, these workers had to deal with high-level stress, burnout, and exhaustion because of their work. After the pandemic, these workers must receive support to help them recover from what they went through (Mubarik et al., 2021). They need access to resources like counseling, stress management, and support groups. They also need time and space to think about their experiences and process what they went through (Imran et al., 2018).

Healthcare organizations and governments must prioritize the wellbeing of these workers and provide the resources they need to recover from the stress and trauma of the pandemic (Mubarik et al.,

2021). By doing so, we can support these individuals as they continue to care for patients and play a critical role in maintaining the health and wellbeing of our communities.

#### ***2.4 Healthcare Workers' Concerns about Public Health after the COVID-19 Pandemic***

Healthcare workers have concerns about the public's health after the COVID-19 pandemic. They worry that people may not take the virus seriously and may not follow guidelines to prevent its spread (Mubarik et al., 2021). They are also concerned about the long-term effects of the virus on people's health and the ongoing need for effective treatments. Additionally, healthcare workers worry about the increased stress and workload that may result from ongoing COVID-19 cases and a possible resurgence of the virus (Mubarik et al., 2021). It is important for everyone to follow health guidelines and continue taking precautions to protect public health and prevent the spread of COVID-19.

#### ***2.5 Healthcare Workers Faced Stress, Burnout, and Mental Health Challenges After Covid-19***

In addition to stress and burnout, many healthcare workers also experience symptoms of anxiety, depression, and post-traumatic stress disorder (PTSD) (Khan et al., 2022). The constant exposure to illness and death during the pandemic was emotionally and mentally tiring for healthcare workers. They reported feeling scared, frustrated, isolated, and struggling to balance their work demands with their personal lives (Khan et al., 2022). These mental health challenges significantly impacted their overall wellbeing and ability to provide adequate care to patients. Doctors experience worry during pandemics, according to a study published in the *Journal of Infectious Diseases* (Imran, et al., 2018). Increased anxiety levels are linked to increased effort and diminished feelings of protection. This heightened level of anxiety experienced by doctors during pandemics is a natural response, as they must make critical decisions while being exposed to the threat of infection (Mubarik et al., 2021).

Initially, the emotional response to any pandemic is one of extreme fear and uncertainty, which usually drives toward negative societal behaviors (Khan et al., 2022). It can involve public mental health concerns like anxiety, insomnia, depression, aggression, frustration, and hysteria (Shigemura et al. 2020). Compared to previous studies relating to the outbreak of SARS, patients with definite or alleged COVID-19 who are in quarantine will most likely suffer from loneliness, anger, and frustration (Alwi, 2021). Similarly, another concern is for survivors and mental health care professionals to suffer from PTSD. In a study conducted in a hospital in Beijing, quarantine health workers who worked in high-risk clinical sites such as SARS units or had a family member or peer infected by SARS reported significantly higher levels of post-traumatic stress (Kaiser 2020; Yi et al. 2020; Wu 2009). Similarly, healthcare workers who treated nSARS patients or were present when the disease first emerged described feeling scared, anxious, depressed, and frustrated (Wu et al., 2020, Liu et al., 20020).

In a country like Pakistan, where many people are concerned not just about COVID-19 but also about their next meal and their ability to work because of the lockdown, emotional disturbances like aggressiveness and impatience would be frequent (Khan et al., 2022). Mental health professionals should use therapies like the stress-adaptation model to reduce their level of high stress in themselves (Khan et al., 2022). Comparably, those medical professionals working in quarantined COVID-19 units without adequate protective measures and the deaths of coworkers can cause significant symptoms of post-traumatic stress disorder (Folkman & Greer ,2000). The COVID-19 pandemic has had a significant impact on healthcare workers' mental health, including doctors and nurses. Among the major sources of stress for healthcare workers during the pandemic. This sentiment is reflected in the words of one study participant: Even though COVID-19 is more under control at this point, it's still difficult to get rid of the emotions and memories from working in the ICU. Every day served as a constant reminder of mortality and loss. But I'm trying to look ahead and concentrate on the here and now. Although the sadness and grief I experienced while working in the ICU cannot be undone, I am attempting to concentrate on the opportunities I currently have. Although it's a slow process and I occasionally still feel overwhelmed, I'm thankful for my loved ones' and coworkers' support. I'm on a journey to recovery.

I can't help but feel emotional as I recall my past experiences.' (The respondent was government official personnel due to this did not allow us to record)

## ***2.6 Compensation of Healthcare Practitioners***

The COVID-19 pandemic has put Pakistan's frontline healthcare workers at the forefront of the battle against the virus. These medical professionals, including nurses and other frontline staff, played a crucial role in treating and managing COVID-19 patients; keeping them motivated is essential. According to most in-depth interviews with these healthcare workers, they should be compensated for the additional risks they took while caring for COVID-19 patients in the form of a risk allowance. The relevant experts in Pakistan believe hospital staff members deserve fair compensation for their tireless efforts during the pandemic rather than just being given more time off (Imran et al., 2018). This recognition and compensation will not only does it show gratitude for their hard work but also demonstrate our belief in their continued dedication to the cause.

## ***2.7 Theoretical Foundation***

The stress and coping theory is a significant theory that guides this investigation. According to this theory, stress is a natural aspect of life, and people cope with stress in different ways. Long work hours, contact with COVID-19 patients, and worries about getting the virus themselves can all contribute to higher levels of stress among healthcare workers during the COVID-19 pandemic. Healthcare workers may find it easier to manage their stress if they adopt coping skills like exercise, talking to friends and family, and mindfulness exercises. The social-ecological model is yet another important theoretical framework that informs this research. According to this model, individuals are influenced by multiple factors, including individual, interpersonal, organizational, community, and policy. In the context of healthcare workers during the COVID-19 pandemic, the social-ecological model may be used to understand how individual factors such as personality and coping strategies interact with organizational factors such as work conditions to influence healthcare workers' mental health and wellbeing.

Additionally, the self-care theory emphasizes the importance of individuals taking responsibility for their wellbeing and utilizing coping mechanisms to manage stress. In the context of healthcare workers, self-care practices such as exercise, talking to friends and family, and mindfulness practices may be considered important for maintaining mental health and wellbeing during the COVID-19 pandemic. In summary, this research is rooted in the fields of stress and coping mental health, and wellbeing. Using various theoretical frameworks such as stress and coping theory, the social-ecological model, and self-care theory can help understand the effect of post-COVID stress on health professionals' anxiety and coping abilities.

# **3. RESEARCH METHODS**

## ***3.1 Research Method***

The research method employed in this study was a qualitative approach. This methodology was chosen as it allows for exploring multiple realities and understanding individuals' attitudes, interactions, behaviors, and perceptions. A deeper understanding of the topic was achieved through non-numerical data, such as interviews and observations. The chosen method allowed for the collection of rich and detailed information, providing a comprehensive understanding of the research problem.

## ***3.2 Phenomenological Research***

According to Morris et al. (2020), phenomenological research tries to comprehend people's subjective experiences and capture the substance of such experiences. Purposive sampling was used to choose a sample of healthcare professionals who had direct contact with COVID-19 patients. In-depth semi-structured interviews were undertaken to learn more about the participants' individual experiences and perceptions of the effects of post-COVID stress on their anxiety and coping mechanisms. The phenomenological approach of data analysis (Morris et al., 2020) entailed identifying and describing the

fundamental structures of the participants' experiences and was used to examine the data gathered from the interviews. This approach sought to present a thorough grasp of the real-life experiences of healthcare professionals.

#### **4. DATA COLLECTION AND RESULT**

##### ***4.1 Data Analysis***

###### ***Step 1: Data Collection and Transcription***

Conducted interviews with healthcare workers to gather information about their experiences during and after the COVID-19 pandemic. Transcribed the interviews to create a written record of the information gathered.

###### **Step 2: Data Sorting**

Sifted through the transcripts to identify 250 key statements related to the topic of the study and organized these statements into a table for easy reference.

###### **Step 3: Data Interpretation**

Examined each statement to understand its meaning and context. Considered the perspectives of each participant and attempted to formulate a comprehensive understanding of their experiences.

###### **Step 4: Theme Identification**

Grouped related statements together to form themes, then refined these themes through repeated analysis and discussion

###### **Step 5: Theme Description**

Table 1  
*Significant Statements*

<b>Sr. No</b>	<b>Significant statement</b>	<b>Address</b>
1	I am working currently as a medical officer at Indus Hospital Karachi in Medical ICU.	Transcript 1
2	She covid-19 has made such an impact in our lives especially when our batch was graduated	Transcript 2
3	We saw the covid-19 in the house job. During that time, the conditions of the hospitals was very crucial.	Transcript 2
4	After covid-19 we will have the habits of following precautions like sanitizing hands, wearing mask every time in hospitals and keep distancing in the place of crowd	Transcript 2
5	It was so difficult time, but now we are brave and better trained to face any kind of situations	Transcript 1
6	I am very happy and grateful that Allah Pak spend such a difficult time without harming any disease.	Transcript 1
7	After covid-19 many things become easier like now we can act normally which was difficult those days	Transcript 1
8	Even at that time it was difficult to live without a mask	Transcript 2
9	Now that these changes taken place in health care unit or medical staff, we can now cop up with any difficult situation very well	Transcript 2
10	Take the ventilator is the biggest example. Earlier it was difficult to run the ventilation,	Transcript 1
11	The panic is done, we can handle the ventilator easily.	Transcript 1

12	The government should give proper training program to health care workers and doctors so that they can handle any emergency situations	Transcript 2
13	Easily and should support financially because they suffered more than any other person.	Transcript 1
14	The hospitals also should be facilitated and trained doctors about technology.	Transcript 3
15	You have to remain conscious always regarding Covid. Because nowadays Covid strain has various mutations	Transcript 3
16	patients are positive without showing any symptoms	Transcript 3
17	Government gives no benefits to medical staff. No allowance. No proper preparation	Transcript 1
18	Risk is always there, but the hype is reduced	Transcript 3
19	They should remain prepared for any alarming and pandemic situations.	Transcript 2
20	Keep an eye on news	Transcript 3
21	Avoid gathering.	Transcript 3
22	Proper awareness. Campaigns. Seminars to educate people about contagious diseases. By promoting mental education. Develop economic stability	Transcript 3
23	Improving health system	Transcript 3
24	After long duties when you come back home during covid-19 your isolated your lonely but now when we come back, I spend time with my father with my mother with my wife so I feel great	Transcript 1
25	I can go outside with them also we can watch TV together so I guess is it is the best form of therapy you can have a being provided after a long time so after all its feel-good Alhamdulillah.	Transcript 1
26	After Covid I feel free to move and comfortable doing my routine work	Transcript 3
27	They were highly affected due to restriction during Covid.	Transcript 3
28	After Covid my financial status was not that good because government put on, they lockdown on whole country	Transcript 3
29	I couldn't perform my professional duty properly	Transcript 3
30	Government didn't give any benefits to para medical staff	Transcript 2
31	After Covid my mental health was a bit affected as I could do nothing except for sitting at home.	Transcript 3
32	I feel mentally relax and fresh in spending risk free time with my family and friends without any restrictions	Transcript 2
33	Always remain conscious about your gathering	Transcript 2
34	keep yourself up to date about daily news.	Transcript 3
35	There are no such precautionary steps taken by government to avoid such type of virus	Transcript 1
36	One should keep himself away from crowded gatherings in order to avoid such virus.	Transcript 3
37	It feels really good to spend time with your family with your friends and do all the activities with them.	Transcript 2
38	I hope never anything like this happen again as far as they awareness concern I guess during over time they awareness and they campaign was good enough it was people who did not accept the reality who did not follow they sop's who did not shear they government	Transcript 1

39	I guess it's better to educate people that if anything like this comes in the future they obey and follow what they are being told rather than doing what they like to do so I guess they only thing we need to do as a nation is to educate our people.	Transcript 2
40	So, I guess nothing government has not been taken any action yet and I hope anything like this happen again never Inshallah	Transcript 3
41	We suffered from mental depression as a result of workload and stress.	Transcript 3
42	I also experienced anxiety and frustration due to lack of sleep.	Transcript 3
43	After Covid -19 I experience anxiety attacks due to environmental changes	Transcript 3
44	Fear of infections, professional stress, and feeling helpless.	Transcript 2
45	The government gave Covid allowance to doctors and paramedical staff	Transcript 2
46	Additional training to them after Covid -19	Transcript 1
47	She financial impact is due to low patients visits and low income which causes trouble	Transcript 2
48	Government should provide proper training to healthcare's	Transcript 3
49	Spread awareness through social media	Transcript 3
50	Set effective strategies to limit the spread of the virus.	Transcript 3
51	It's felt great I can walk comfortably and feel comfortable around share and there and there I can play sports I can do normal activities of my life as far as stress condition is concerned it Feels much better now during those time during covid-19	Transcript 2
52	It was a lot of stress on us like isolated and doing long duties and hospitals and coming home being our room for hours, so it feels great back to normal life and normal routine.	Transcript 1
53	Who doesn't want to spend time with his family and friends? I mean it is the best way of therapy when you come back home tired from the long hour's duties	Transcript 3
	It feels really good to spend time with your family with your friends and do all they activities with them.	Transcript 3

Table 2  
*Meaning Formulation*

<b>Sr. No</b>	<b>Significant Statement</b>	<b>Formulated Meaning</b>
1	I am currently working as a medical officer at Indus Hospital Karachi in Medical ICU.	The interviewee is the doctor at Indus Hospital.
2	The covid-19 had made such an impact on our lives, especially when our batch was graduated	According to Doctor she graduated during COVID-19
3	We saw they covid-19 in the house job. During that time, they condition of the hospitals was very crucial.	According to her she started her house job in COVID-19 and the condition of hospital was very difficult.



4	After covid-19 we will have they habits of following precautions like sanitizing hands, wearing mask every time in hospitals and keep distancing in the place of crowd	The Doctor said after COVID he has some habits of hand sanitizing after seeing every patient. She still makes distance in crowded places.
5	It was so difficult time, but now we are brave and better trained to face any kind of situations	The Doctor is become brave to dealt with this type of critical situations in future.
6	I am very happy and grateful that Allah Pak spend such a difficult time without harming any disease.	According to doctor she was fine and grateful at that time.
7	After covid-19 many things become easier like now we can act normally which was difficult those days	As per interviewee after Covid-19 life become easier.
8	Even at that time, it wasn't easy to live without a mask	The mask was necessary during the pandemic.
9	Now that these changes have taken place in the health care unit or medical staff, we can now cop up with any problematic situation very well	Interviewee said Dr's are trained now and they can deal with difficult situations.
10	Take they ventilator is the biggest example. Earlier it was difficult to run they ventilation,	According to her it's difficult to handle ventilator.
11	The panic is done; we can handle they ventilator easily.	After the Covid we can handle the ventilator easily.
12	The government should give proper training program to health care workers and doctors so that they can handle any emergency situations	Doctor said government should start proper training program for doctors and nursing staff to deal that type of situation.
13	Should support financially because they suffered more than any other person.	She said Government should give some financial support to effected people.
14	The hospitals also should be facilitated and trained doctors about technology.	As per her suggestion hospital should arrange technical training program for doctor.
15	You have to remain conscious always regarding Covid. Because nowadays Covid strain has various mutations	Interviewee said people have to concentrate on their health and keep they eyes on every infection because Covid have other variant too.
16	Patients are positive without showing any symptoms	She said mostly people have COVID positive without any symptoms.

17	Government gives no benefits to medical staff. No allowance. No proper preparation	From the Government side there is no benefits for medical staff.
18	Risk is always there, but the hype is reduced	As per doctor, Covid risk is still present.
19	They should remain prepared for any alarming and pandemic situations.	People need to be prepared for any difficult situation.
20	Keep an eye on news	Always do track on upcoming news.
21	Avoid gathering.	Dr said avoid the too much gathering
22	Proper awareness. Campaigns. Seminars to educate people about contagious diseases. By promoting mental education. Develop economic stability	According to her our Gov. needs to work on health care awareness campaigns and seminars and should work on economic stability.
23	Improving health system	Dr said we need to improve our health care sectors.
24	After long duties when you come back home during covid-19 your isolated your lonely but now when we come back, I spend time with my father with my mother and family so I feel great	Dr feels good after Covid because she can spend time with her family.
25	I can go outside with them also we can watch TV together so I guess it is the best form of therapy you can have and being provided after a long time so after all its feel-good Alhamdulillah.	She can go outside spend quality time with family & friends
26	After Covid I feel free to move and comfortable doing my routine work	Interviewee said she feels good and enjoying his routine now.
27	After Covid my financial status was not that good because government put on the lockdown on whole country	She said, his financial condition bit effected due to lockdown
28	I couldn't perform my professional duty properly	As per her, she feels hassle during work at that time.
29	Government didn't give any benefits to para medical staff	She said Government Didn't provide any benefits to medical staff.

- 30 After Covid my mental health was a bit affected as I could do nothing except for sitting at home. As per interviewee she was isolated and its effect his mental health.
- 31 I feel mentally relax and fresh in spending risk free time with my family and friends without any restrictions Interviewee said she feels fresh after spending time with family and friends without restriction.
- 32 Always remain conscious about gathering She said, she still feels fear of gathering.
- 33 keep yourself up to date about daily news. According to her watch news daily to update yourself.
- 34 There are no such precautionary steps taken by government to avoid such type of virus She said, government still not taking any precautions to deal with this type of viruses.
- 35 Should keep himself away from crowded gatherings in order to avoid such virus. She advises to not get a part of crowded place for safety precautions.
- 37 It feels really good to spend time with your family with your friends and do all the activities with them. After Covid she enjoys to spend great time with family and friends in outdoor activities.
- 38 I hope never anything like this happen again as far as the awareness concern I guess during over time the awareness and the campaign was good enough it was people who did not accept the reality who did not follow the sop's who did not share the government She wishes that never happened that type of viruses in future people need to follow the proper SOP.
- 39 I guess it's better to educate people that if anything like this comes in the future they obey and follow what they are being told rather than doing what they like to do so I guess the only thing we need to do as a nation is to educate our people. She thinks that educate the nation to cop the anything which hurts nation.
- 40 We suffered from mental depression as a result of workload and stress. Dr. says she was facing mental health issue due to workload in Covid.
- 41 I also experienced anxiety and frustration due to lack of sleep. She said due to long duty hours, she felt anxiety because of lack of sleep
- 42 After Covid -19 I experience anxiety attacks due to environmental changes She also felt anxiety due to changes in environment.
- 43 Fear of infections, professional stress and feeling helpless. She said she had a fear of infection and she felt helpless in that situation.

44	Government has to give Covid allowance to doctors and paramedical staff	Dr. said that Gov. should have given Covid allowance to Doctors & Para staff.
45	Additional training to them after Covid -19	Additional trainings are required for dealing with these types of situations.
46	The financial impact is due to low patients visits and low income which causes trouble	Covid impact her financially due to less people visit to the clinic.
47	Government should provide proper training to healthcare's	Govt should take a part in awareness campaigns.
48	Spread awareness through social media	Govt should use social media platforms for awareness.
49	Set effective strategy to limit the spread of virus.	Govt should make effective strategies for limit the virus.
50	It's felt great I can walk comfortably and feel comfortable around here and there and they I can play sports I can do normal activities of my life as far as stress condition is concern it Feels much better now during those time during covid-19	Dr says now she can do daily routine work without the fear. she enjoys to play outside and live normal live.
51	It was a lot of stress on us like isolated and doing long duties and hospitals and coming home being our room for hours and hours so it feels great back to normal life and normal routine.	She feels grateful after the COVID she was isolated to safe family as she is Dr. and daily deal with Covid patients.
52	It feels really good to spend time with your family with your friends and do all the activities with them.	She feels good to spend time with family and do routine works normally.

Table 3  
*Developing Initial Theme*

<b>Formulated Meaning</b>	<b>Initial Theme</b>
The interviewee is the doctor at Indus Hospital.	She is a doctor at Indus Hospital.
According to Doctor she graduated during COVID-19	The Doctor graduated and started her house job in Covid-19 when the conditions of hospitals was out of control.
According to her she started her house job in COVID-19 and the condition of hospital was very difficult.	

The Doctor said after COVID she has some habits of hand sanitizing after seeing every patient. She still makes distance in crowded places.

The Doctor is become brave to deal with this type of critical situations in future.

Interviewee said Dr are trained now and they can deal with difficult situations.

According to her it's difficult to handle ventilator.

After the Covid we can handle the ventilator easily.

According to doctor she was fine and grateful at that time.

As per interviewee after Covid-19 life become easier.

The mask was necessary during the pandemic.

As per her, she feels hassle during work at that time.

As per interviewee she was isolated and its effect his mental health.

Doctor said government should start proper training program for doctors and nursing staff to deal that type of situation.

As per her suggestion hospital should arrange technical training program for doctors.

According to her our Gov. needs to work on health care awareness campaigns and seminars and should work on economic stability.

Dr said we need to improve our health care sectors.

She said, gov. still not taking any precautions to deal with this type of viruses.

She thinks that educate the nation to cop the anything which hurts nation.

Dr. said that Gov. should have given Covid allowance to Doctors & Para staff.

Additional trainings are required for dealing with these types of situations.

Govt should take a part in awareness campaigns.

After facing the situation of covid-19, the doctor picked habits of sanitizing the hands after visiting the patients. The doctor can deal with critical situations and can handle the ventilator easily.

The doctor survived at that critical time.

The doctor feels hazel and it affected her mental health

Government should start awareness programs by using different social media platforms

Govt should use social media platforms for awareness.

Govt should make effective strategies for limit the virus.

Interviewee said people have to concentrate on their health and keep the eyes on every infection because Covid have other variant too.

As per doctor, Covid risk is still present.

People need to be prepared for any difficult situation.

Always do track on upcoming news.

Dr said avoid the too much gatherings

She said mostly people have COVID positive without any symptoms.

According to her watch news daily to update yourself.

Dr feels good after Covid because she can spend time with her family.

She can go outside spend quality time with family & friends

Interviewee said she feels good and enjoying his routine now.

Interviewee said she feels fresh after spending time with family and friends without restriction.

After Covid she enjoys to spend great time with family and friends in outdoor activities.

She said, his financial condition bit effected due to lockdown

she said Government Didn't provide any benefits to medical staff.

She said, she still feels fear of gathering.

She advises to not get a part of crowded place for safety precautions.

She wishes that never happened that type of viruses in future people need to follow the proper SOP.

Dr. says she was facing mental health issue due to workload in Covid.

She said due to long duty hours, she felt anxiety because of lack of sleep

She also felt anxiety due to changes in environment.

She said she had a fear of infection and she felt helpless in that situation.

People should keep an eye on upcoming situations.

People should take care about the health.

Spend quality time with family and friends.

Effected financial conditions after lockdown.

Avoid gathering and crowded Places.

Felt anxiety and effected financially after pandemic.

Covid impact her financially due to less people visit to the clinic.  
 Dr says now she can do daily routine work without the fear. she enjoys to play outside and live normal live.  
 She feels good to spend time with family and do routine works normally.  
 She feels grateful after the COVID she was isolated to safe family as she is Dr. and daily deal with covid patients.

Can do daily routine work normally.

Table 4

*Initial Theme & Cluster*

Sr. No	Initial Theme	Cluster
1	After facing the situation of covid-19, the doctor picked habits of sanitizing the hands after visiting the patients. The doctor can deal with critical situations and can handle the ventilator easily. The doctor survived at that critical time.	Find Treatment
2	People should keep an eye on upcoming situations. People should take care about the health.	Precaution about health
3	Avoid gathering and crowded Places. Government should start awareness programs by using different social media platforms.	Recommendation of using media platform
4	The doctor feels hazel and it affected her mental health Effected financial conditions after lockdown. Felt anxiety and effected financially after pandemic.	Distressed
5	Spend quality time with family and friends	Relaxation

Table 5

*Emerging Theme*

S.No	Cluster	Emerging Theme
1	Find Treatment	
2	Precaution about health	
3	Recommendation of using media platform	More focused on health care activities
4	Distressed	
5	Relaxation	

## **5. Discussions, conclusion, managerial implications & future research**

### **5.1 Discussion**

The medical officers and staff working at Indus Hospital Karachi have shared their experiences and perspectives on the impact of COVID-19 and after. One of the medical officers stated that they saw the impact of COVID-19 first-hand during their house job and the conditions in the hospitals were very crucial. However, after COVID-19, they have become better trained to handle such situations and have learned to follow proper precautions like sanitizing their hands and wearing masks in the hospital. They feel grateful to have made it through such a difficult time without getting affected by the disease.

Another medical officer stated that even after COVID-19, they still have to remain conscious of the virus as it has various mutations and patients can test positive without showing any symptoms. They feel much more relaxed now to spend time with their family and friends as compared to the time during COVID-19, as the hype has reduced. However, they mentioned that the government did not provide any benefits or proper support to medical staff, which is a big difference between them and other developing countries. To avoid future pandemics, the government should educate people about contagious diseases, promote mental education, develop economic stability, and improve the health system.

One medical officer stated that they feel good after COVID-19 as social activities have returned to normal and people are roaming carefree without any fear of catching a disease. However, they mentioned that their financial condition has not changed much after COVID-19 as the health risk allowance that was being given during COVID-19 has been taken away. They also stated that the government has not given any benefits or compensation to doctors or paramedical staff after COVID-19. The medical officer also shared that their mental and physical health has improved after COVID-19 as they can now move freely and feel comfortable around people. However, they emphasized that the government should provide proper training programs and financial support to healthcare workers and hospitals to handle any future emergencies.

### **5.2 Limitations And Future Recommendations**

It's important to note that this study has some limitations. For example, the study has a small sample size and a limited geographic area, which may affect the results' ability to be applied to other populations and regions. The data was also self-reported through surveys, which may not be accurate. The study only looked at the effects of post-Covid stress on anxiety and coping mechanisms, not other psychological or physical effects. Additionally, the study used a method that focuses on subjective experiences, which may not reflect the experiences of all healthcare workers. These limitations should be kept in mind when interpreting the results of this study

### **5.3 Conclusion**

The COVID-19 global epidemic has significantly impacted the mental health of physicians and other medical professionals. The stress and uncertainty of the circumstances and the significant chance of contracting the virus have increased these people's symptoms of anxiety and sadness. Burnout and exhaustion have also resulted from the long hours and demanding workloads required to care for COVID-19 patients. Healthcare businesses must offer their staff support and resources, such as counseling services and time off for self-care, to lessen the detrimental effects on their mental health. It seems to indicate that while doctors and medical students as a whole have been able to maintain a relatively high level of awareness and low levels of anxiety and depression related to COVID-19, certain subgroups within this population may be more vulnerable to mental health issues. Specifically, it is noted that female doctors and medical students, as well as those in the younger age group, have been found to have higher levels of depression associated with the pandemic. This highlights the importance of considering and addressing these subgroups' unique mental health needs and providing support and resources for all healthcare workers during this challenging time. This study demonstrated that frontline



HCWs continued to provide patient care in the face of numerous obstacles, including the improper distribution of PPE, insufficient training, and unclear direction. Frontline HCWs require sufficient PPE supplies, training in its use, and thorough and consistent supervision to provide patients with adequate care during the COVID-19 pandemic. To safeguard the health and wellbeing of our HCWs—the most important healthcare resource in the COVID-19 pandemic—these demands must be met.

#### **5.4 Managerial Implications**

The findings of this study have important consequences for understanding how post-Covid stress affects the anxiety and coping skills of healthcare workers. The study suggests that more support and resources are needed to help healthcare workers deal with stress and maintain their mental health. This research also shows the need to pay attention to the mental health of healthcare workers, which can help guide future research and make practical suggestions for healthcare organizations and decision makers.

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