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COVID-19 STRESS, BURNOUT AND COPING STRATEGIES: STUDY OF HEALTHCARE PROFESSIONALS IN TERTIARY CARE HOSPITALS

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Abstract

The corona virus disease which started in Wuhan City Hubei Province China become a pandemic, affecting the physical, social and psychological well-being of general population especially healthcare professionals who are highly vulnerable to be stressed and burnt-out. This study aimed to explore the stress and burnout feelings among HCPs and also the effectiveness of coping strategies practiced during this outbreak to protect their mental health. In 323 healthcare professionals of different tertiary care hospitals, a quantitative cross-sectional research design was used to investigate the proposed variables and the data was collected through a questionnaire by convenience sampling. Among the respondents 140 were doctors (physicians and surgeons), 30 medical technologist and 153 paramedics (technicians and nurses). The data was analyzed using SPSS version 26.0. The results of this study show that adjusting the attitude to face covid-19 pandemic positively is most effective amongst personal coping strategies while appropriate schedule of shift and leader‟s support are most potent administrative interventions to protect the HCPs during this outbreak. This study shows that the administrative coping strategies are more effective than personal coping strategies to decrease the stress and burnout among HCPs during pandemic crisis. The outcome of this study will be beneficial to healthcare organizations to develop programmes for mitigation of stress and burnout among HCPs during pandemics.

Keywords: burnout, COVID-19 stress, coping strategies, healthcare professionals, tertiary carehospital.

Introduction

Background

In November 2019, a significant number of pneumonia cases of unspecified origin were reported in Wuhan City, Hubei Province, China (Huang, et al., 2020) which were later determined to be caused by serious acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the disease renamed as coronavirus disease 2019 (COVID-19) (del Rio & Malani, 2020). The disease had spread to 219 countries around the world as of April 4th, 2021, affecting more than 1 billion of patients, and these numbers are increasing exponentially. Because of its progression, the World Health Organization (WHO) declared the outbreak as a public health emergency of international scope on 30 January 2020, later designating COVID-19 as a pandemic on March 11, 2020.

This was not for the first time; the world has seen many outbreaks of infectious diseases in the last two decades, including severe acute respiratory syndrome (SARS) in 2003, Influenza A viruses (H1N1) in 2009, Ebola, Zika, and Middle East Respiratory Syndrome (MERS) in 2014–2016 (Morens DM, 2020). COVID-19 disease has become a factor causing stress having impact in various ways people's lives (physically, socially and psychologically) and there is currently no treatment for it. In an effort to control the global pandemic, worldwide social segregation, quarantine, and in some states, strict curfew measures could contribute to a high level of psychological distress (Hawryluck, 2004); (Liao Q, 2014); (Wu P, 2009). Also, the most well-resourced health systems can be stretched and overwhelmed by public health crises.

Faced with such a dire situation, the general public's mental wellbeing is deteriorating, a problem that is compounded among healthcare professionals, who are on the front lines of the battle against this virus (Assari & Habibzadeh, 2020). A serious pandemic will result in high healthcare demands, high mortality, high absenteeism among healthcare staff, basic healthcare supply rationing, and extreme stress (World Health Organization, 2005); (Public Health Agency of Canada, 2004). Healthcare workers have risked their lives by working in clinics or hospitals around the world, while millions of people have stayed at home to reduce the risk of disease transmission (Lancet, 2020).

Stress

Stress classically refers to “the bodily processes that result from circumstances that place physical or psychologic demands on an individual” (Selye, 1973); While a certain amount of stress will help with job success, it becomes an issue when the demands outnumber the resources available to deal with them (Folkman S. &., 1988). Researches on the effects (physical and psychological) of previous outbreaks of serious infectious diseases, such as SARS, found that survivors reported elevated levels of stress, anxiety, speech, and post-traumatic stress disorder (Wu, 2005). Healthcare workers have close contact with COVID19-diagnosed patients due to their profession. They have often dealt with loneliness and unrealistic expectations, which have resulted in anger, anxiety, and stress as a result of the disease's ambiguity (Prevention, 2003). They have all dealt with physical and emotional exhaustion, tough triage decisions, and the loss of patients or colleagues (Lancet, 2020). All of these variables are concerning for healthcare workers who are working hard during a pandemic.

Healthcare work forces are not only dealing with a rise in their work load, but they are also dealing with new obstacles such as unknown working environments, evolving procedures, and unparalleled trauma disclosure with little time for adaptation. They may also be confused between their desire to shield themselves and their family from a life-threatening disease and their job to provide care for patients. Moral and ethical disagreements among healthcare professionals are common, challenging their confidence and personal standards of care. The mental trauma that results can have a remarkable and long-term effect on their psychological health, identity, and personal relationships. During an emergency, healthcare staff are likely to work for long hours, frequent shifts (Ferrán & Trigo, 2020), and work beyond their normal scope of practice. Front-line health care staff bear the strain of the emergency response, so maintaining their welfare, emotional, and physical well-being is critical.

Burnout

Burnout syndrome (Goldberg R, 1996) was first described in human service personnel, most specifically healthcare workers, in the early 1970s (Maslach C, 2001). BOS is defined as "an inability to deal with emotional stress at work (Pines A, 1978) or as an excessive use of energy and resources that leads to feelings of failure and exhaustion" (H., 1975). Owing to increased workloads and elevated levels of work-related stress, employees of all kinds, including healthcare professionals, frequently experience burnout as a result of putting in too much time at work while getting too little rest.

Coping strategies

Healthcare workers, in particular, are in desperate need of research-based support programmes to help minimize the impact of the corona outbreak on their present and subsequent health. For the healthcare workforce to perform to their full potential over a prolonged period of time, healthcare employers must provide early psychosocial help for all workers that addresses these requests and is based on: maintaining a mentally stable atmosphere, good leadership, transparent organizational strategies for staff wellness, consistent communication, and substantial team support. Organizations also play a pivotal role in ensuring the health and welfare of healthcare personnel and other vital staff. Leaders and administrators must be sentimentally flexible, as well as possess the necessary expertise, skills, and resources to assist their employees through these challenging situations.

Personal coping approaches such as acceptance, behavioral adaptation, and mindfulness are considered to be especially successful during emergencies or disasters because they promote resilience and retravel by growing patience, increasing sense of liaisons and support, and promoting goal-directed and value-driven acts (Polizzi C, 2020). However, it should be noted that seeking help among healthcare staff is often condemn, which may be a deterrent to look for help (Kinman G). Many available support initiatives seek to improve individual workers' stress tolerance and coping skills, which is certainly beneficial.

This study has the following objectives: To evaluate the prevalence of stress and burnout among healthcare professionals working in tertiary care hospitals during covid-19 pandemic; To determine whether coping strategies are practiced in the tertiary care hospitals and their effectiveness to mitigate stress and burnout noted among healthcare staff during the period of covid-19 outbreak.

Research hypotheses:

1. During covid-19, healthcare professionals of tertiary care hospitals faced increased level of stress and burnout.
2. Coping strategies mitigate covid-19 stress and burnout among healthcare professionals of tertiary care hospitals.

Material and method

Design and procedure

A quantitative cross sectional research design was used in which questionnaires were filled in by the clinical workers of tertiary care hospital. A total of 323 filled questionnaires were collected from hospital workers including physicians, surgeon, medical technologist, technicians and nurses working in radiology, pathology, medicine and surgery department of different tertiary care hospitals in Lahore, Pakistan. Data was collected through Convenience sampling as it was Convenient for the researcher to get data from HCPs available at that point in time.

Measures

Ready to use questions were obtained through literature review on three variables under study and designed a questionnaire to evaluate the stress and burnout among HCPs and also the coping strategies adopted to mitigate them. It was composed of four sections. First section includes **demographic characteristics** including age, gender, job title and department.

Section 2 was comprised of eight questions which were used to assess the prevalence of **stress level** among HCPs during pandemic. These questions were obtained from the most commonly used psychological instrument "perceived stress scale" developed by Sheldon Cohen (1983) to measure the perception of stress.

Section 3 was consisted of seven questions to measure **the burnout** faced by HCPs during this pandemic crisis. Burnout is measured by using The Copenhagen Burnout Inventory developed by Kristensen at al. in 2005. First two questions were from the personal burnout section and from question 3 to 7 were from work-related burnout section.

Section 4 consisted of twenty-one questions about **the coping strategies**. These questions were further categorized into two factors; personal coping strategies and administrative coping strategies. The questions of coping strategies were obtained from literature.

The HCPs responded to questions related to these factors using 5-point Likert scale; 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

Results

Demographic characteristics

The first part of the questionnaire consisted of four demographic questions in order to get a better view of our respondents for this study.

A total of 323 participants responded to the questionnaire. Majority of the participants belong to the age group 26-35 years and 74.6% of the healthcare professionals were under 36 years. Most HCPs working in tertiary care hospitals were female (66.9%) including 47.4% paramedics, 43.3% doctors and 9.3% technologists. Among the 323 participants, 51.1% HCPs worked in medicine department with 28.8% in surgery and 18.6% in radiology department **(Table 5.1)**.

In the stress subscale of the questionnaire, 200 (61.3%) HCPs often found themselves thinking about the things that they have to accomplish while 169 (58.5%) healthcare professionals agreed that they felt stressed and nervous during covid-19. 153 (47.4%, mean 3.1) were angered because of things that were outside of their control, 132 (40.9%, mean 3.0) could not cope with all the things they had to do in their lives during covid-19 pandemic **(Table 5.2)**.

The results retrieved from CBI questionnaire of our HCPs are presented in **Table 5.3**. In this subscale, 180 (55.7%, mean 3.56) respondents agreed that they were doing more work than they practically have the ability to do, 166 (51.4%, mean 3.3) felt used up/ worn out the end of the day, 164 (50.8%, mean 3.3) HCPs agreed that they were emotionally exhausted and they did not have time to do many of the things that are important to doing a good quality job.

In the subscale coping strategies, the top 5 common personal coping strategies indicated by the respondents to cope covid-19 stress and burnout were: adjusting the attitude to face the COVID-19 pandemic positively, having encouragement and psychological support from colleagues in my day-to-day activities, keeping themselves busy to refrain from thinking about the pandemic and engaging in health-promoting activities **(Table 5.4).**

13 items in the subscale coping strategies are administrative coping strategies followed by hospital management and administration to support their employees during covid-19. Among them, the top 5 ranked most effective administrative coping strategies as indicated by respondents of the study were: maintaining appropriate schedule of shift by the tea leader, making sure sufficient material supply, following strict infection control programs and conducting educational and training programs within the institution. The least practiced strategy to support mental health of HCPs during pandemic is providing allowances to them by the government **(Table 5.4).**

Demographics	n (%)
Age	
18-25 years	116 (35.9)
26-35 years	125 (38.7)
36-45 years	36 (11.1)
46-55 years	29 (8)
56-65 years	9 (2.8)
>65 years	11 (3.4)
Gender	
Male	107 (33.1)
Female	216 (66.9)
Job title	
Doctor	140 (43.3)
Technologist	30 (9.3)
Paramedics	153 (47.4)
Department	
Radiology	60 (18.6)
Pathology	5 (1.5)
Medicine	165 (51.1)
Surgery	93 (28.8)

Table 5.1 Demographics of the participants (n = 323)

Items (stress)	n (%)	Mean (SD)
I feel nervous and stressed.	169(58.5)	3.45(1.32)
I am confident about my ability to handle my personal problems.	64(19.8)	2.30(1.17)
I cannot cope with all the things that I had to do.	132(40.9)	3.04(1.24)
I am able to control irritations in my life.	85(26.3)	2.55(1.09)
I am angered because of things that are outside of my control.	153(47.4)	3.13(1.34)
I feel difficulties are piling up so high that I could not overcome them.	109(33.7)	2.76(1.29)
I am able to control the way I spend my time.	91(28.2)	2.68(1.20)
I often found myself thinking about things that I have to accomplish.	200(61.3)	3.62(1.07)

Table 5.2 Responses of HCPs on stress questions (n= 323)

Items (burnout)	n (%)	Mean (SD)
I feel emotionally drained/exhausted.	164(50.8)	3.38(1.25)
I feel physically drained/exhausted.	168(52.1)	3.26(1.33)
I feel frustrated by my job.	129(39.9)	2.96(1.44)
I feel that every working hour is tiring for me.	125(38.7)	3.0(1.33)
I feel that I am doing more work than I practically have the ability to do.	180(55.7)	3.56(1.24)
I feel used up/worn out at the end of day.	166(51.4)	3.38(1.22)
I feel that I do not have time to do many of the things that are important to doing a good quality job.	164(50.8)	3.3(1.22)

Table 5.3 Responses of HCPs on burnout questions

Coping strategies	**n (%)**	**Mean (S.D)**
I adjust the attitude to face the COVID-19 pandemic positively.	222(68.7)	3.77(1.10)
I spend considerable time in chatting with families and friends.	138(42.7)	3.08(1.27)
I seek psychological support from my colleagues during COVID 19.	162(50.2)	3.23(1.27)
I seek information regarding mental health.	134(41.5)	3.0(1.24)
I engage in health-promoting activities (proper rest, exercise, balanced diet).	167(51.7)	3.3(1.22)
I am practicing relaxation methods (meditation, yoga, Taiji, etc.)	112(34.7)	2.7(1.25)
I Keep myself busy to refrain from thinking about the pandemic.	178(55.1)	3.3(1.2)
My colleagues encourage me in my day-to-day activities.	184(56.9)	3.3(1.23)
My team leader is supportive in nature.	219(67.8)	3.8(1.0)
My hospital makes sure the sufficient material supply.	182(56.3)	3.4(1.3)
Government has provided allowances to HCPs in pandemic crisis.	90(27.9)	2.4(1.35)
Hospital administration follows strict infection control procedures within the institution.	177(54.8)	3.4(1.32)
My hospital administration conducts educational and training programs in the hospital.	164(50.7)	3.25(1.25)
My team leader maintains appropriate schedule of shift.	204(63.2)	3.7(1.0)
My organization provides psychological (formal or informal) support to me.	139(43)	3.0(1.28)
My hospital administrator is easily accessible throughout the pandemic.	148(45.8)	3.2(1.27)
My hospital administration supports staff by providing food and rest facilities.	116(35.9)	2.7(1.3)

My team leader provides clear messaging and guidance for changing standards of practice.	167(53.2)	3.2(1.27)
My hospital administration encourages a two-way dialogue and open to suggestions and ideas from staff.	135(41.8)	3.0(1.25)
My hospital administrator makes sure that staff safety is the number one priority during pandemic.	147(46.4)	3.12(1.3)
My hospital ensures the staff in quarantine are regularly supported and communicated during and after their isolation.	162(50.2)	3.18(1.3)

Table 5.4 Coping strategies

Coping strategies	Doctors n (%)	Technologist n (%)	Paramedics n (%)
I adjust the attitude to face the COVID-19 pandemic positively.	84(60)	22(73)	116(87)
I spend considerable time in chatting with families and friends.	58(41.4)	16(53.3)	64(41.8)
I seek psychological support from my colleagues during COVID 19.	54(38.5)	13(43.3)	95(62.1)
I seek information regarding mental health.	45(32.1)	15(50)	74(48.3)
I engage in health-promoting activities (proper rest, exercise, balanced diet).	68(48.5)	14(46.7)	85(55.5)
I am practicing relaxation methods (meditation, yoga, Taiji, etc.)	42(30)	9(30)	61(39.8)
I Keep myself busy to refrain from thinking about the pandemic.	73(52.1)	20(60)	85(55.5)
My colleagues encourage me in my day-to-day activities.	75(53.5)	22(73)	96(62.7)
My team leader is supportive in nature.	80(57.1)	23(76.6)	116(75.8)
My hospital makes sure the sufficient material supply.	66(47.1)	15(50)	101(66)
Government has provided allowances to HCPs in pandemic	31(22.1)	11(36.6)	48(31.3)

crisis.			
Hospital administration follows strict infection control procedures within the institution.	53(37.8)	21(70)	100(65.3)
My hospital administration conducts educational and training programs in the hospital.	61(43.5)	19(63)	84(54.9)
My team leader maintains appropriate schedule of shift.	81(57.8)	16(53.3)	107(69.9)
My organization provides psychological (formal or informal) support to me.	50(35.7)	10(33.3)	79(51.6)
My hospital administrator is easily accessible throughout the pandemic.	57(40.7)	16(53.3)	75(49)
My hospital administration supports staff by providing food and rest facilities.	36(25.7)	12(40)	68(44.4)
My team leader provides clear messaging and guidance for changing standards of practice.	67(47.8)	14(46.6)	86(56.2)
My hospital administration encourages a two-way dialogue and open suggestions and ideas from staff.	46(32.8)	20(66.7)	69(45.1)
My hospital administrator makes sure that staff safety is the number one priority during pandemic.	54(38.5)	19(49)	77(50.3)
My hospital ensures the staff in quarantine are regularly supported and communicated during and after their isolation.	64(45.7)	18(60)	80(52.2)

Table 5.5 Cross table depending on job title

Table 5.5 shows the responses of doctors, technologists and paramedics on each coping strategy. Adjusting the attitude to face the COVID-19 pandemic positively, seeking psychological support from colleagues during COVID 19, engaging in health-promoting activities (proper rest, exercise, balanced diet) and practicing relaxation methods (meditation, yoga, Taiji, etc.) were among the top four personal coping strategies by practiced by paramedics while spending considerable time in chatting with families and friends, seeking information regarding mental health, keeping oneself busy to refrain from thinking about the pandemic were among the most practiced coping strategies by technologist. Adjusting the attitude to face the COVID-19 pandemic positively, engaging in health-promoting activities and seeking support from colleagues were most practiced personal coping strategies by doctors to combat stress and burnout during this pandemic.

Among the paramedics who participated in this study indicated that supportive team leader, appropriate schedule of shift, prioritizing staff health, clear messaging and guidance by team leader and providing psychological support were among the coping strategies most practiced by their hospital administration, while doctors of this study reported that appropriate schedule of shift is the most followed coping strategy by hospital administration to decrease COVID-19 stress and burnout.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Items	Equal variances assumed	100.640	.000	-16.342	644	.000	-12.44582	.76161	-13.94135	-10.95029
	Equal variances not assumed			-16.342	524.655	.000	-12.44582	.76161	-13.94199	-10.94965

Effectiveness of coping strategies

To determine which coping strategies are more effective in reducing the stress and burnout during COVID-19, T test is implemented, the mean of strategies were compared and the results are as follows:

Group Statistics

	G	N	Mean	Std. Deviation	Std. Error Mean
Items	PCS	323	21.0372	6.99990	.38948
	ACS	323	33.4830	11.76249	.65448

Table 5.6 shows that the administrative coping strategies are more effective as compare to the personal coping strategies to mitigate stress and burnout during covid-19. The supportive team leader, appropriate schedule of shift, monetary incentives, conducting education or training programme, maintaining material supply and valuing the subordinate‟s ideas and safety are all those factors that are more important in protection of mental well-being during a crisis or outbreak as compare to self-practiced coping against stress and burnout.

Discussion

Covid-19 pandemic has an impact on physical, social and especially mental health of healthcare professionals throughout the world causing them to be stressed, anxious and depressed as evident in the literature (Pfefferbaum, 2020); (Di Tella, 2020). This study aimed to explore the proportion of the people having stress, burnout and practicing strategies to cope up with them during covid-19 pandemic. The results of this research may impart evidence for hospitals administration to offer proper support (physical, psychological) to healthcare professionals during the pandemic crisis.

Participants of this study were relatively young and less experienced however motivated to work in hospital. The majority of the respondents were females and working under the title of paramedics (nurses) because there are countable number of institutions offering male nursing. In support with the literature, healthcare professionals working on frontline experienced psychological problems and among them the prevalence of stress was highest (Spoorthy, 2020). To evaluate the prevalence of stress symptoms among HCPs, they were asked eight questions. First question is „During covid-19, I feel nervous and stressed‟, 135 (41.8%) respondents agreed with the statement. As this is unforeseen emerging condition, HCPs being on frontline, unable to adapt and feel nervous and stressed throughout their stay at hospital. Because of a shortage of personal protective accoutrements, standard operating procedures, and facilities, hospital workers reported being vulnerable to infection. We advocate using telephone triage to keep patients out of the hospital that can be cared for at home (Centers for Disease Control and Prevention., 2020). Scrubs should be worn and removed in different rooms for health practitioners dealing with COVID-19. Gowns, face masks, glasses, and face shields should all be provided for them (Waris A, 2020). They can thoroughly decontaminate themselves until they are no longer on duty in order to protect themselves and their families from infection. The continuous changing protocols to compete this disease made them highly strung. They were not able to handle their personal problems and to make a distinction between their personal and professional life. In this study 142 (44%) participants disagreed the statement “during covid-19, I am confident about my abilities to handle my personal problems.” During outbreak majority (35%) of the HCPs were not able to cope with all the things that they have to do. The standard operating procedures were not definite and changing throughout the period.

This study shows that during covid-19, HCPs (52.6%) were not able to manage the important happening in their lives. They felt loneliness as some hospitals not allowed their employees to go homes, they have to stay at the designated hospitals during their placement. In the initial period, general population were not following the SOPs including wearing face mask, maintaining social distancing, avoid highly populated areas. They may be afraid of transferring infection to their family members and friends, as well as experiencing social inequality and loneliness. An

infectious disease epidemic always pushed resources beyond their limits, and, as we saw in COVID-19, tough decisions must be taken on who was eligible for life-support and who was not.

"A psychological state resulting from prolonged exposure to stress at work is termed as burnout". In a public health emergency, HCWs must not only lodge extra effort for longer shifts, but they must also contend with a lack of human intelligence about an unanticipated emerging disease. Furthermore, the persistent use of personal protective equipment contributes to the healthcare workers' physical and mental exhaustion (Al-Rabiaah, 2020). Every day the protocols to be followed in this situation were changing, putting the HCPs in a continuous state of exhaustion at work. The HCP to patient ratio increased, a single HCPs was supposed to take care of many of the patients and do a lot of energy draining work and ultimately resulted in job frustration.

As noted by (Waris A, 2020), many healthcare employees faced increased burden due to COVID-19 in screening areas, research laboratories, isolation wards, and quarantine centers. This outcome is consistent with results of the current study. HCPs had to care for multiple patients at the same time, they had little time to evaluate or take history of the patient, they were not attending the patient in the regular manner because of protective equipment, they cannot communicate with the patient as before. All these factors resulted in decreased quality of job. For both doctors and nurses, many facets of clinical practice have changed, including a loss of autonomy, dwindling resources, and a high degree of proficiency and technical support. Workload, stressful work conditions such as intensive care units, disease severity, and disputes with coworkers or patients can all be risk factors for job burnout. HCPs had a direct contact with the infected patients and those working in the critical or intensive care units had to provide care to critically ill patients. They used their all energy to doing so and hence felt worn out or used up at the end of day. Their job was draining them physically as well as emotionally.

The findings of this study illustrate the need for fast (psychological or organizational) approaches to alleviate mental distress in healthcare workers as consistent with the findings of previous study by (Figueroa CA, 2020). The healthcare workers were feeling highly distressed by the fear of transmitting the virus to their families or friends and to be infected by themselves (Zhang, 2020). To mitigate this, they were asked to follow preventive measures; wash hands frequently, wear face mask throughout their stay at hospitals, maintain social distancing with their colleagues and with the patients too. In this study the respondents were asked about some strategies that were derived from literature to cope up with the stress they felt during covid-19 pandemic.

They adjusted their attitude to face covid-19 pandemic positively. The majority 107 (33.1%) of the respondents spent considerable time in chatting with their family and friends however 100 (31%) participants were unable to control the way they spent their time; they had no time for their family and friends due to increased work load.

In literature, studies conducted by (Zhang, 2020); (Chen Q, 2020) with results that only a small number of HCPs need psychological support, they managed to adapt the situation by themselves. But the current study shows that majority (41.5%) of the HCPs seek psychological support from their colleagues, all the clinical staff of tertiary care hospital was facing almost same feeling of stress and burnout and most of the participants were young having a little knowledge of

outbreaks; they discussed their experiences and worries in meetings with their colleagues and there was some sort of psychological (informal) support from their coworkers.

Organizations also play crucial role in ensuring the health and well-being of hospital clinical personnel and other vital staff. Leaders and administrators must be spiritually flexible, as well as possess the necessary expertise, skills, and resources to assist their employees through these challenging situations. Taking care of healthcare workers is vital so that they may continue to take care of others. The majority of the support measures investigated in our sample were deemed successful by participants. The most critical steps were team leaders' support and an adequate supply of materials. In literature (Zhang, 2020), incentives such as a stipend, career advancement, and dietary supplies should be given to frontline HCPs but in the current study results are not found to be consistent with the literature. 53.5% of the participants disagreed that government has not provided them monetary incentives nor provided rest and food facilities to them (47.7%) because there the resources were not sufficient as Pakistan is a developing country. Senior staff's experience and support from coworkers were also beneficial as proved in the literature too (Zhang Yuxia, 2020). Several morale boosters HCPs employed in high-stress environments may benefit from positive approaches. Previous research has identified a variety of environments, including positive behaviors in the workplace, as well as recognition of their efforts (Alsubaie S, 2019); (Munnangi S, 2018), social and family support (Munnangi S, 2018), and a strong understanding of the situation Directives must be communicated (Lee AM, 2015), and managers must provide support as well as hospitals (Chan AO, 2004); (Imai H, 2010) and these are consistent with the results of current study. During covid-19, the hospital administration was open to talk to and encouraged two-way dialogue as reported by 41.8% of the HCPs. Leaders made time to listen and provided a number of ways for their team to ask queries, provide input, and communicate their thoughts or concerns. Recognizing the humanity of the situation was critical to help a team through this pandemic. It is important to be optimistic and assume and demonstrate accountability while remaining humble. Participants of this study agreed that the hospital administration prioritized staff safety during pandemic crisis as evident from the literature (Orangefiery, 2020). The line between personal and professional life become increasingly blurred as a result of constant news coverage. Not all employees were affected in the same way or to the same extent. Staff should be aware of the uncertainty of reactions and how they can change in the crisis. Positive reactions to stressful happening at work, such as post-traumatic development, also occur. This study shows that leaders and administrators must be empathic, caring, and understanding, as well as mindful of their employees' personal circumstances, which can change quickly. When work is stressful and emotionally draining, it's especially important to have the support of your coworkers.

The results of this study show that a supportive team leader, appropriate schedule of shift, monetary incentives, conducting education or training programme, maintaining material supply and valuing the subordinate‟s ideas and safety are all those factors that are more important in protection of mental well-being during a crisis or outbreak as compare to self-practiced coping strategies including adjusting the positive attitude towards pandemic, avoid thinking about covid-19, practicing self-relaxation methods.

Conclusion

Healthcare professionals working on frontline against the battle of covid-19 experienced many psychological problems including stress, depression, anxiety and depression. These psychological issues should be addressed as they result in decreased job performance, adherence and satisfaction. Stress is found to be a major challenge experienced by hospital clinical staff during COVID-19 pandemic. Stress itself is a disease that affect physical as well as mental health. As the end of COVID-19 pandemic is unpredictable, HCPs are facing stress for an extended period of time that results in both physical and emotional exhaustion or burnout at workplace. The findings of the current study show that there is a need of coping strategies to improve the mental well-being of HCPs during pandemic including the moral support, administration support, material support and monetary incentives and education and training programmes. The results also show that the administrative coping strategies are more effective than personal coping strategies need to be implemented and disposed to improve the mental and social welfare of healthcare professionals during covid-19 pandemic.

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