

COVID-19 Stress and Burnout: An Investigation of Healthcare Providers

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The outbreak of the contagion corona virus disease has engrossed worldwide attention. The nature of the disease and its spread has put excessive burden on service providers leading to burn out. In the face of health threats and work pressure during pandemic, the current study aimed to investigate the impact of COVID-19 stress on Burnout among health care providers. Following a convenient sampling technique, a sample of 153 healthcare providers with an age ranged from 24 to 60 years were assessed with COVID Stress Scale (Taylor, et al., 2020) and Maslach Burnout Inventory (MBI; Maslach et al., 1997). SPSS 21 was used for statistical analysis of data. Findings revealed that Sub-Scales of COVID stress collectively explained 48% of variance in predicting emotional exhaustion and 39% variance in producing depersonalization among healthcare providers. However, COVID stress negatively predicted personal accomplishment among healthcare providers. Moreover, *t*-test revealed that female healthcare providers showed higher level of COVID stress i.e. danger, socio-economic consequence, xenophobia and compulsive checking as compared to males while non-significant gender differences were observed for contamination and traumatic stress. The study also found a higher level of personal accomplishment among male healthcare providers whereas female healthcare providers demonstrated higher level of emotional exhaustion and depersonalization in comparison to male health care providers.

Keywords. COVID-19 stress, Burnout, Service health provide

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Until June 2003, Severe Acute Respiratory Syndrome or SARS was relatively a rare viral infection. By the end of 2019, the mutated SARS-COV strain was identified in Wuhan, China which demonstrated unclear etiology (Huang & Zhao, 2020).

Later on, after a rigorous research this mutated pathogen i.e., SARS-COV-2 was named coronavirus or COVID-19 by the start of 2020 by WHO (Catton, 2020). In 2020 and afterwards, the endemic quickly spread worldwide and created serious health emergency situations in several countries. After the endemic gripped multiple countries, causing thousands of casualties, WHO declared the novel coronavirus or COVID-19 as one of the major risks to public health worldwide (Pan et al., 2020).

The first COVID-19 case was reported in Pakistan on February 26, 2020, in Karachi. The origin of the first COVID-19 infection in Pakistan was believed to come from China. According to National Health Services Regulation and Coordination Department, the virus spread across Pakistan within a few days after the emergence of first case. The country wide situation and gloomy media projections about the virus and its toxicities prompted stress and fear in public as well as in Pakistani healthcare providers especially doctors and nurses as they were supposed to respond to it (Munawar & Choudhry, 2021).

Though the front-line workers including doctors and nurses did an immensely commendable job during the pandemic by providing top-notch healthcare facilities to quarantined patients, despite inadequate protective gear and hefty scale of the infected patients during the initial stages of COVID-19. The health care providers, especially the doctors were at the forefronts throughout the pandemic. They acted heroically since the pandemic until present and have shown sublime professionalism and commitment in tackling the coronavirus. Irrespective of national and professional boundaries, these doctors and nurses stood against the adverse situation with spontaneous vigor and bravery and have successfully stemmed the worst situation, which could have decimated many if not handled tactically (Catton, 2020) but few compulsions of keeping social distancing, wearing mask, periodic use of sanitizers, bearing prolonged and consistent duty in emergency wards and flooding of unofficial and unauthentic news updates regarding the pandemic created COVID-19 stress and wide scale uncertainty among them (Munawar & Choudhry, 2021).

Amid COVID-19 pandemic, the healthcare providers have gone through various psychological disparities that include COVID-19 stress, fright of contamination, emotional exhaustion and

depersonalization as the leading impacts (Kang et al. 2020). The most stressful experience cited by these healthcare providers was the fear of becoming an infection transmitter most specifically to their loved ones as well as to the general population.

Doctors and nurses were the most affected segments of society during the coronavirus pandemic. The stressful work hours and higher chances of infection have had devastating psychological and psychosocial impacts on the mental health of doctors and nurses worldwide. Long duty hours contributed to exacerbating the situation among them. These factors resulted in physical and emotional exhaustion and ultimately led to excessive depersonalization of among doctors and nurses.

In Pakistan, the existing healthcare facilities were clearly inadequate to fend off a national emergency crisis that emerged during the COVID-19. The hospitals and their in-house facilities such as ICUs, quarantine wards, oxygen machines, and support staff could not sustain the exponential increment in number of patients during the pandemic. This resulted in healthcare providers obliging to stay more hours at work with marginal safety precautions and equipment (Kisely et. al., 2020; Shigemura & Kurosawa, 2020). Moreover, the healthcare providers i.e., doctors, nurses, and supporting staff requiring wearing personal protective equipment throughout the day caused unimaginable physical and psychological burden. The major inconveniences included breathing problems, body aches and pain, and decreased mental capacity in attending the patients. Healthcare providers also felt anxious and depressed in accepting their duties which created a negative impact on their social behavior towards patients and fellow staff during working hours. Also, COVID-19 vaccines started to roll out after more than a year since it first emerged. During these months, doctors and nurses bear a lot of COVID-19 stress as they were required to tackle the infected patients with extreme care alongside accepting the health risks and complexities during the pandemic.

The psychological consequences of the pandemic on Healthcare providers are broad. These challenges vary according to the gender and personal characteristics of the person experiencing such a situation. The most common psychological outcome of COVID-19 stress among healthcare providers was burnout (Xu et. al., 2020). Burnout is caused by consistent COVID-19 stress and lead to emotional exhaustion and depersonalization among healthcare providers. The burnouts consequently result in various other mental health issues.

Burnouts are the extended responses established after the consistent and long-lasting COVID-19 stress (Maslach, 2003) and such burnouts at workplace situations such as in hospitals during the pandemic result in increased emotional exhaustions, depersonalization and the person's inability to cheer for themselves. Before the pandemic, multiple researchers were done on the burnout situations at work including healthcare. Of all, healthcare workers were the most vulnerable segments that faced burnouts. During the pandemic, patients as well as doctors require additional care and facilities to tackle health emergency situations. Healthcare providers are supposed to spend additional working hours in such a situation which create prolonged stress cycles, and ultimately result in burnouts and emotional breakdown if the situation is not handled appropriately (Bakker et. al., 2014).

Burnouts bring with them various negativities including low performance at work which ultimately results in low-end facilities delivered to patients (Rupert et al., 2015). When combined, all these factors create an overall negative projection in patients and public towards healthcare providers (Paris & Hoge, 2010). Also, feelings of burnout produce several negative effects on the personal wellbeing of healthcare providers, which directly influence patients' wellbeing and overall quality of health facilities (Rupert et al., 2015).

Along with emotional exhaustion, depersonalization is another expression of burnout. Accompanied with emotional disengagement towards family and patients, depersonalization among medical staff members poses serious consequences i.e. depleted psychological resources, high rate of professional mistakes and a state of distrust among patients as they cannot communicate well with a depersonalized doctor (Maslach & Jackson, 1981). The constant exposure to such stressful situations can result in long-term negative outcomes among healthcare providers, including low work quality, social isolation at work or home, and emotional problems (Kumar & Reinartz, 2016).

However, there may be various personal and interpersonal protective sources and coping strategies which may be utilized to overcome such prolonged stressors. Such strategies may include problems solving skills and personal accomplishments resources, to revert to a normal life within a short timeframe, if applied with due consideration.

During the COVID-19 situation, healthcare providers faced the most adamant working hours which resulted in unbalanced workload. The consistent misbalance in working hours though caused COVID-

19 stress depleted physical strength, sleep deprivation, emotional exhaustion and depersonalization among healthcare providers (Horgan et. al., 2014) however, the sense of personal accomplishment and perseverance among healthcare providers remained a positive coping factor to tackle these unprecedented situations during the pandemic (Horgan et. al., 201).

The COVID-19 pandemic brought about various social and behavioral reverberations. Therefore, to unfold the aftermaths of such a large-scale health calamity, it was important to investigate the causes and effects of coronavirus pandemic. Various researchers have been conducted to probe the psychological impacts of COVID-19 on public since 2020. Even in Pakistan, various researchers have explored psychological distress and burnout among medical professional but there is hardly an evidence for a particular focus on COVID stress. This study particularly aimed to investigate the impact of COVID stress i.e. Pakistan countered various structural impediments in facilitating healthcare providers during the pandemic. This included limited financial and human resources, lack of coordination among provinces and the central government, management issues, and lack of political consensus (Mazhar & Shaikh, 2016). All these conflicts directly affected healthcare providers including doctors and nurses which provided a motivation and need to complete this study.

Keeping in view the aforementioned reasons the major objective of the current study is to find out the Impact of COVID-19 stress on burnout among healthcare providers. Another objective of the study was to find the gender differences on COVID-19 stress and Burnout among healthcare providers.

Method

Study design

The current study followed a cross-sectional correlation design targeting a sample of healthcare providers with a purpose of studying the impact of COVID-19 stress on burnout during pandemic.

Participants

Sample of the current study comprised of 154 healthcare providers including 84 males (55% of the total sample) and 70

females age ranged 24 to 60 years ($M = 38.71$ and $SD = 8.51$). Sample was collected from different government hospitals of Abbottabad district of Pakistan following a convenient sampling technique.

Measures

COVID Stress Scales (CSS)

The scale comprises 36 items with 5 subscales, including COVID Danger and Contamination Fears, COVID Fears about Economic Consequences, COVID Xenophobia, COVID Compulsive Checking and Reassurance Seeking, and COVID Traumatic Stress Symptoms. The CSS is a 4-point Likert scale. 0 for *Not at all*, and 4 for *Extremely*. The scales showed good indices of reliability and validity as all of the coefficients were greater than .80 (Taylor et al., 2020).

Maslach Burnout Inventory (MBI)

The scale is used to measure burnout among health care providers, (Maslach, Jackson, & Leiter, 1996). It consists of three Sub-Scales i.e. Depersonalization, Emotional Exhaustion and Personal Accomplishment.

There are 9 items (1, 2, 3, 6, 8, 13, 14, 16, & 20) which directly measure the aspect of emotional exhaustion as a factor of burnout during work. The other 5 items are of “depersonalization” subscale measuring subject’s unsympathetic and impersonal response towards the service or one’s care. In both of these scales i.e. emotional exhaustion and depersonalization, the higher scores of the subject indicate the higher degree of expected burnout. There is a third subscale of the inventory that is the “personal accomplishment”. This subscale has 8 items which describe the subject’s feelings of competence and achievement so the lower scores of this subscale indicate higher level of burnout. The scoring of the items ranges from 1 to 6 where 1 indicates *a few times a year or less* and 6 indicates *every day*. The reliability of subscales ranges from .59 to .89 (Maslach, et al., 1997).

Data analysis

The data analysis has been done through SPSS 21. The Pearson product-moment correlation coefficient has been taken to find out the

correlation between COVID stress and burnout, multiple regression was used to find the causal relationship between variables and *t*-test was used to find out the gender differences.

Procedure

The brief introduction was given to the District Health Officer (DHO) and Deputy DHO of Abbottabad Health sector in order to get data from various hospitals of same district. The permission was granted by the Directorate of Health and then data collection was carried out. An orientation was given to the participants, prior to data collection. The orientation includes the reason of research, its main objectives and the types of study. The participants' willingness was taken and they were assured about the confidentiality and they were given a pledge that none of their information will be disclosed to any one and the information will be used for research purpose only. After that, a booklet containing the questionnaires i.e., COVID Stress Scale and Maslach Burnout Inventory of the study was given to each participant. The questionnaire was completed in about 30 minutes by each of the participant. Participants were thanked for their cooperation.

Results

Results in Table 1 describe the descriptive analyses including means, standard deviations, skewness and kurtosis along with alpha reliabilities and inter-scale correlations. Values of skewness lie in acceptable range suggesting that the data was normally distributed. Alpha coefficients show good reliability index (.79 to .89) for all the study scales except personal accomplishment dimension (.47). Tables also illustrate relationships between the study variables. Values indicate a significant positive correlation ($p < .001, .01, .05$) between each of the type of COVID-19 stress (i.e., danger and contamination fears, fears about economic consequences, xenophobia, compulsive checking and reassurance seeking, and traumatic stress symptoms) and burnout (i.e., emotional exhaustion and depersonalization) while each of covid-19 stress types have significant negative relationship ($p < .001, .01$) with personal accomplishment.

Table 1

Inter-scale Correlation, Alpha Coefficients, and Descriptive Statistics of the Study Variables (N=154)

	1	2	3	4	5	6	7	8	9
1. CSSD	-	.72**	.63**	.62**	.56**	.48**	.65**	.57**	-.44**
2. CSSS	-	-	.73**	.66*	.65*	.48**	.57**	.47**	-.51**
3. CSSX	-	-	-	.75**	.68**	.57**	.62**	.57**	-.54**
4. CSSC	-	-	-	-	.69**	.59**	.43*	.38**	-.43**
5. CSST	-	-	-	-	-	.62**	.47**	.41*	-.41**
6. CSSCC	-	-	-	-	-	-	.36**	.25*	-.43**
7. MBIEE	-	-	-	-	-	-	-	.89*	-.61**
8. MBID	-	-	-	-	-	-	-	-	-.57**
9. MBIPA	-	-	-	-	-	-	-	-	-
α	.79	.83	.82	.82	.78	.79	.89	.85	.47
<i>M(SD)</i>	18.6(4.0)	17.7(4.2)	18.4(4.1)	18.8(4.2)	17.2(4.2)	17.9(3.)	41.9(7.9)	23.6(5.1)	36.9(5.4)
Skewness	-1.2	-.77	-1.1	-1.1	-.61	-.76	-1.4	-1.4	-.93
Kurtosis	2.4	.31	1.5	1.4	.15	.71	1.2	1.7	.93

Note. CSSD = COVID Stress Scale-Danger, CSSS = COVID Stress Scale-Socio economic consequence, CSSX = COVID Stress Scale-Xenophobia, CSSC = COVID Stress Scale-Contamination, CSST = COVID Stress Scale-Traumatic, CSSCC = COVID Stress Scale-Compulsive checking, MBIEE = Maslach Burnout Inventory- Emotional Exhaustion, MBID = Maslach Burnout Inventory- Depersonalization, MBIPA = Maslach Burnout Inventory- Personal Accomplishment.

* $p < .001$, ** $p < .05$.

Table 2
Regression Analysis Predicting Burnout (Emotional Exhaustion)
(N=154)

	MBI- Emotional Exhaustion				95% CI	
	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>LL</i>	<i>UL</i>
CSSD	.83	.12	.41	.000	.58	1.9
CSSS	.43	.13	.23	.002	.17	.70
CSSX	.48	.14	.25	.001	.20	.76
CSSC	.38	.13	.20	.005	.12	.65
CSST	.10	.12	.05	.417	.14	.34
CSSCC	.01	.11	.007	.907	.24	.22

$R=.70, R^2=.49, \Delta R^2=.48 (F=48.1^{**})$

Note. CSSD = COVID Stress Scale-Danger, CSSS = COVID Stress Scale = Socio-economic consequence, CSSX = COVID Stress Scale-Xenophobia, CSSC = COVID Stress Scale-Contamination, CSST = COVID Stress Scale-Traumatic stress, CSSCC = COVID Stress Scale-Compulsive checking.

** $p < .001$, * $p < .05$.

Table 2 is depicting the impact of sub-scales of COVID-19 stress i.e., COVID danger, COVID socio-economic consequences, COVID-xenophobia, COVID stress compulsive checking, COVID stress of contamination, traumatic stress and compulsive checking on emotional exhaustion. The results showed that all sub-scales of COVID-19 stress collectively accounted for 48% of variance in emotional exhaustion. On individual account, danger and socioeconomic consequences were significant ($p > .05$) predictors of emotional exhaustion. Whereas Traumatic stress and Compulsive Checking did not predict emotional exhaustion. Based upon these results it can be concluded that COVID-19 stress leads to consequence of like emotional exhaustion among healthcare providers.

The Table 3 shows impact of COVID-19 Stress on Depersonalization. The results indicated that all sub-scales of COVID-19 stress mutually accounted for 39% of variance in depersonalization. On individual accounts, danger and socio-economic stress dimensions significantly ($p < .001$) predicted depersonalization among healthcare providers whereas xenophobia, contamination, traumatic stress and compulsive checking did not predict depersonalization. The overall result depicted that COVID-19 stress leads to an outcome of depersonalization among healthcare providers.

Table 3
Regression Analysis Predicting Burnout (Depersonalization) (N=154)

	MBI- Depersonalization				95% CI	
	B	SE	β	p	LL	UL
CSSD	.46	.08	.35	.000	.28	.63
CSSS	.37	.09	.30	.000	.18	.56
CSSX	.17	.10	.14	.081	.02	.37
CSSC	.17	.09	.14	.068	.01	.35
CSST	.10	.08	.08	.245	.07	.24
CSSCC	.15	.08	.12	.059	.05	.32

$$R=.63, R^2=.40, \Delta R^2=.39 (F=32.9^{**})$$

Note. CSSD = COVID Stress Scale-Danger, CSSS = COVID Stress Scale = Socio-economic consequence, CSSX = COVID Stress Scale-Xenophobia, CSSC = COVID Stress Scale-Contamination, CSST = COVID Stress Scale-Traumatic stress, CSSCC = COVID Stress Scale-Compulsive checking.

** $p < .00$.

Table 4
Regression Analysis Predicting Burnout (Personal Accomplishment) (N=154)

	MBI- Personal Accomplishment				95% CI	
	B	SE B	β	p	LL	UL
CSSD	-.07	.10	-.05	.49	-.12	.28
CSSS	-.29	.10	-.22	.006	-.31	-.12
CSSX	-.43	.11	-.32	.000	-.36	-.11
CSSC	-.09	.10	-.06	.40	-.30	.12
CSST	-.29	.09	-.06	.40	-.27	.11
CSSCC	-.29	.09	-.20	.002	-.28	-.14

$$R=.58, R^2=.34, \Delta R^2=.33 (F=25.75^{**})$$

Note. CSSD = COVID Stress Scale-Danger, CSSS = COVID Stress Scale = Socio-economic consequence, CSSX = COVID Stress Scale-Xenophobia, CSSC = COVID Stress Scale-Contamination, CSST = COVID Stress Scale-Traumatic stress, CSSCC = COVID Stress Scale-Compulsive checking.

** $p < .001$. * $p < .05$.

The Table 4 Indicate that Subscales of Socio-Economic Consequence, Xenophobia, and Compulsive Checking accounted for 33 % variance in Personal Accomplishment.

Table 5

Gender Differences on Danger, Socio economic consequence, Xenophobia, Contamination, Traumatic Stress, Compulsive Checking, Emotional Exhaustion, Depersonalization, and Personal Accomplishment (N = 154)

	<u>Males</u>		<u>Females</u>		<i>t</i>	<i>df</i>	<i>p</i>	<u>95%CI</u>		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				LL	UL	
Danger	17.8	4.4	19.8	3.0	-4.3	152	.001	-2.8	-1.0	0.53
Socio economic consequence	17.2	4.7	18.5	3.3	-2.7	152	.001	-2.2	-.36	0.32
Xenophobia	17.4	4.4	19.6	3.3	-2.8	152	.001	-3.1	-1.3	0.56
Contamination	18.1	4.4	19.6	3.6	-3.3	152	.218	-2.5	-.94	-
Traumatic stress	16.4	4.5	18.3	3.5	-3.8	152	.020	-2.8	-.98	0.47
Compulsive checking	17.2	4.2	19.1	2.8	-4.2	152	.001	-2.6	-.98	0.53
Emotional Exhaustion	39.1	9.0	45.7	3.5	-7.8	152	.001	-8.2	-4.9	0.96
Depersonalization	21.9	5.9	25.9	2.1	-7.2	152	.001	-5.0	-2.9	0.90
Personal Accomplishment	40.1	5.7	34.6	2.9	-9.8	152	.001	-6.5	-4.3	1.21

Note. CSSD = COVID Stress Scale-Danger, CSSS = COVID Stress Scale-Socio economic consequence, CSSX = COVID Stress Scale-Xenophobia, CSSC = COVID Stress Scale-Contamination, CSST = COVID Stress Scale-Traumatic, CSSCC = COVID Stress Scale-Compulsive checking, MBIEE = Maslach Burnout Inventory- Emotional Exhaustion, MBID = Maslach Burnout Inventory- Depersonalization, MBIPA = Maslach Burnout Inventory-Personal Accomplishment.

As evident in the statistical analyses of Table 5, there are four factors of COVID stress i.e., Danger, Socio-economic Consequences, Xenophobia and Compulsive Checking and all factors of Burnout are significantly different among males and females. The factor of traumatic stress and contamination shows non-significant difference among males and females.

The results showed that female health care providers showed significantly ($p < .01$) higher level of danger, socio-economic consequence, xenophobia and compulsive checking as factors of stress as compared to male Healthcare providers in the outbreak of COVID-19. Furthermore, the study also analyzed higher level of personal accomplishment among male healthcare providers whereas higher level of emotional exhaustion and depersonalization among female healthcare providers in COVID-19 outbreak.

Discussion

The first objective of the current research was to study impact of COVID-19 stress on Burnout among Healthcare providers and the second objective of current study was to study gender differences across study variables.

Results in Table 1 showed that higher level of COVID stress increased emotional exhaustion and depersonalization whereas it decreased personal accomplishment among Healthcare Providers in the outbreak of pandemic. The literature also supported the current idea and predicted that due to extreme flow of in-patients and out-patients and due to institutional incapacities, the service health providers feel exhausted and reaches the state of confusion and frustration. Moreover, by working hard for long duration under emergencies they feel sleep deprived and the situation lead to enhance the burnout tendencies (Gavidia & Santana, 2020).

Table 2 results show the impact of COVID-19 stress on level of emotional exhaustion during the pandemic among healthcare providers. The results showed the COVID-19 stress collectively accounted for 48% of variance in emotional exhaustion. The statistical analysis also showed that danger, socio-economic consequence, xenophobia and contamination predicted emotional exhaustion. The dimension of "danger" leads to maximum variance of "emotional exhaustion". The non-significant impact of compulsive checking is probably because the doctors and nurses are already in routine of reassurance of cleanliness i.e., washing hands frequently, wearing gloves and masks etc. thus they did not stress out of

such compulsive acts during COVID pandemic. However, danger, socio-economic consequence, xenophobia and contamination were the stressors which were novel and specific to COVID thus were more intensely experienced by the healthcare workers and caused burnout significantly.

The results shown in Table 3 indicated that an increased level of COVID-19 stress factors collectively accounted for 39% variance in depersonalization. For depersonalization, the danger and socio-economic consequences showed a significant impact. Moving forward, the table 4 results showed the combined effect of all factors of COVID-19 stress on personal accomplishment was 33%. The results showed that factor of danger, socio-economic consequence and compulsive checking significantly impacted the personal accomplishment. As discussed earlier, the novel and highly threatening features of COVID-19 including danger, socio-economic consequence, xenophobia and contamination were intense experience for everyone in general and healthcare professional in particular as they were directly dealing with the COVID patients. Accordingly, such fears and stressors not only caused them suffer emotional exhaustion and depersonalization but also significantly lowered their sense of personal accomplishment. Another important factor was print and social media which played a major role in creating a terror and panic leaving people stressed and fearful. The way media portrayed infected and casualty rates and spread of virus in hospitals lead the healthcare workers more burdened, emotionally exhausted and depersonalized (Riaz & Hashmi, 2021).

The last Table highlighted the gender wise differences across COVID-19 stress and burnout. The results showed a significant gender difference in all factors of COVID-19 stress and burnout except contamination and traumatic stress. The results revealed the presence of COVID-19 stress and burnout is more among female healthcare Providers as compared to male service health providers. Especially females have “good knowledge”, “good attitude”, and “good practices” and the majority with a positive attitude and with good practice used personal accomplishment act as a moderators among Pakistani Healthcare providers (Saqlain et al., 2020). Chesney-Lind (2006) reported that one can halt out the undesirable emotions and negative thoughts and can enhance the positive state of mind by using the positive dimension. Among various dimension, the personal accomplishment is the one that get decreased by increased level of stress (Brown, et al., 2002; Chang, et al., 2006).

Conclusion

The current study aimed to find the impact of COVID 19 stress on burnout among health care providers during the pandemic. The results also showed a positive correlation among all the Subscales of COVID-19 Stress scale with Emotional Exhaustion and Depersonalization of burnout. The subscale of Personal Accomplishment showed a negative relationship with all factors of COVID-19 stress. Moreover the study further showed that level of burnout among healthcare provider's increases as the COVID-19 stress increases. Another significant contribution of the study is with reference to gender where female's service health provider's feels more stressed and burnout as compared to male healthcare providers, further highlighting the fact that different interventions need to be designed to address these gender differences.

Implications

The current study holds a practical implication for higher authorities of Government hospitals to take preventive and intervention measures to equip their medical staff to deal with such kind of emergency and pandemic situations. These measures not only include boosting psychological resources but also providing them with safest and modern facilities where they feel protected and comfortable while dealing with any kind of infectious or viral diseases and patients.

Limitations

The limitations of study include concerns related to the sample size which was small due to COVID situation. Moreover, the sample was taken from the hospitals of Abbottabad district only which further limits the generalizability of the findings. Along with that alpha reliability for accomplishment domain of burnout was found as low as .47 which is a limitation of the study. Another limitation of the current study was only doctors and nurses were taken as service health providers but there were a lot of other medical faculty members who were in direct contact with infected patients. Future studies can be conducted with other members like drivers taking the funerals of infected patients, the para-medical staff involved in diagnostic team and so on. Moreover, the pandemic resection of social distancing

made data collection a tiredly and troublesome process and that can be negated in normal new condition.

Recommendations

A more diverse sample incorporating rest of the healthcare staff i.e., sanitary workers during such pandemics will depict a broader and comprehensive understanding of the problem under study. Moreover, future researchers are recommended to conduct item analysis of Maslach Burnout Inventory before using for any hypothesis testing in order to establish its psychometric strength, particularly of personal accomplishment dimension so that the reliability issue found in this study may be addressed.

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