
Psychosocial factors associated with Burnout and Traumatic Stress among Healthcare Professionals during COVID-19 Pandemic.

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ABSTRACT

It is essential to assess the psychosocial associated with burnout and post-traumatic stress among health care professional during COVID-19 pandemic in Pakistan. In the current study the relationship of type D personality, coping strategies, resilience and psychological distress with burnout and traumatic stress was measured among healthcare professionals. The study also explored the most significant predictors of burnout and traumatic stress after controlling for demographic variables. In this cross-sectional study, survey methods was used to collected data from 141 healthcare professional in Pakistan. Psychosocial factors such as Type D personality traits were measured with Distress Scale-14, psychological distress was evaluated with Hospital Anxiety and Depression Scale, coping styles were evaluated with Brief COPE Scale, and Brief Resilience Scale was used to access level of resilience. Moreover, burnout was assessed with Maslach Burnout Inventory (Abbreviated) and traumatic stress was measured with Trauma Screening Questionnaire. In the total sample 58.2 % of the participant were identified with Type D personality. Results also indicated that 60.3% participants reported Burnout while 51.8% of participants experienced post-traumatic stress. High scores on Type D personality trait i.e. Social-Inhibition and Negative-Affectivity, Anxiety and Depression showed higher levels of burnout and post-traumatic stress. Furthermore, marital status, social inhibition, avoidant coping, religious coping, and anxiety were identified as the significant predictors of burnout. Similarly, age, social-inhibition, negative- affectivity, and coping strategies were identified as significant predictors of traumatic stress among health care professional during pandemic. The study concluded that healthcare personnel are at a greater risk for burnout and traumatic stress as the pandemic proceeds which can have an adverse impact on their overall mental health. It is recommended that health care professional may be screened for psychological issues and appropriate counselling and therapeutic interventions may be provided to those who are at risk for psychological distress, burnout and traumatic stress during COVID-19 Pandemic.

Keywords

Healthcare professionals, predictors, burnout, traumatic stress, depression, anxiety, type-D personality, coping strategies

Introduction

A global outbreak of Coronavirus disease (COVID-19) was reported in December 2019 and declared a public health emergency by the World Health Organization (WHO, 2020). Health care professionals such as doctors, nurses and other frontline health care workers were extremely susceptible to COVID-19 because of lack of appropriate medical supplies to deal with this

pandemic(WHO, 2020) . It is very difficult to control the pandemic without protecting healthcare professionals.

The situation resulted in a stressful environment for the people throughout the world (Zandifar & Badrfam, 2020). In the overall population, the healthcare workers are at greater risk of developing psychological distress in terms of traumatic stress, depression, anxiety, insomnia

and exhaustion (Maciaszek et al., 2020; Secosan et al., 2020). Healthcare professionals such as doctors, nurses, and other healthcare staff have been working day and night to treat the infected patient. During pandemic with increasing workload and anomalous conditions, they were working in conditions that made them more susceptible to burnout and post-traumatic stress disorder. Burnout Syndrome is predominant among healthcare professionals during pandemic. Therefore it is very important to identify the levels of burnout among healthcare workers (Rajkumar, 2020).

Research evident has shown that burnout and traumatic stress symptoms can affect people of any field, however healthcare workers are at greater risk. According to Mayo Clinic and American Medical Association, doctors have reported considerably higher levels of psychological distress compared to general population and other professionals. The study also revealed around half of the physician population had at least one sign of burnout (Shanafelt et al., 2016). The Healthcare Personnel are exposed to various stressors during their practice. This recurrent exposure to stressors if left undealt it may subsequently lead to burnout and traumatic stress (Donnelly, 2012).

The term burnout is defined as “*Exhaustion due to the inability to cope with increasing work demands*” (Freudenberger, 1974) can be characterized as a mental exhaustion state that results from chronic stress in the working environment. Burnout occurs when helping professional experience feelings of being drained and feel underappreciated. It is a term that is often synonymous with stress. It was brought to light by Maslach and Leiter that burnout is the result of prolonged interpersonal stressor at work (Maslach et al., 1986). Research study have shown that burnout does not only depend on workplace stressor it also related to multiple other factors such as learning theory, personality factors and factors associated with environment (Rees et al., 2019). In recent years the rising burnout levels among medical professionals has been the focus as it displays a threat to the quality of deliverance

of healthcare services. These Healthcare workers who are burnout tend to be emotionally drained and fatigued due to which their ability to work effectively is impaired (Simpson et al., 2016). A recent research study (Barello et al., 2019) identified diverse physical and psychological implications among Italian healthcare workers during COVID-19 pandemic. The researchers identified somatic complaints, emotional exhaustion and traumatic stress among these healthcare workers (Barello et al., 2019)

Mishra et al (2018) reported prevalence of burnout to be over 50% and has been getting worse among healthcare workers as per medscape national physician burnout & depression report. 14% physicians were found to be both burnouts out and depressed. The report showed about 35% nurses were identified with the significant levels of burnout (Mishra et al., 2018).

A meta-analysis of 82 studies on burnout and quality of safety reported high levels of burnout to be linked with low quality of safety for healthcare workers. In this analysis a multitude of research evidence signifies the prominence of highlighting and discussing the burnout (Salyers et al., 2017). Another meta-analysis and systematic review of 15 studies analyzed the current rate of burnout and other related predisposing factors in palliative care nurses, the result showed that about 28% nurses exhibited reduced levels of personal accomplishment, 24% reported emotional exhaustion, and 30% experienced depersonalization (Gómez-Urquiza, 2020). Another research investigation have documented the significant level (33%) of burnout especially among healthcare professionals (Shakir et al., 2020).

Traumatic Stress is the word originated from Greek word ‘wound’. Traumatic events certainly create extreme stress for individual involved. Trauma arises as a consequence of a potentially life-threatening event that is experienced by an individual (Krupnik, 2019). Healthcare professionals experience traumatic events among others encountering death or critical harm that might lead to traumatic stress. As stated in the diagnostics

and statistical manual of mental disorder (5th edition), Post-traumatic stress disorder is narrowed to “actual or threatened death, serious injury, or sexual violence” (American Psychiatric Association, 2013). Due to the peaking death rate during the COVID-19 pandemic healthcare professionals are experiencing traumatic event on daily basis and more than usual, therefore they might have a higher probability for developing traumatic Stress symptoms. Colville et al (2017) examined 377 Intensive Care Unit staff found that about 13% showed clinically significant post-traumatic stress disorder symptoms (Colville et al., 2017). In another study conducted in Singapore on Intensive Care Unit staff identified about 33% of the healthcare workers reported significant symptoms of post-traumatic stress disorder (Ong et al., 2016). The lack of effective treatment increase in mortality rates and unprecedented growing number of deaths has left the healthcare professionals at an increased risk of post-traumatic stress disorder (Wang et al., 2020). Therefore it is important that healthcare workforces be examined closely during this COVID-19 epidemic as they are at higher risk of developing mental health problems and experience a decline in psychological well-being (Bao et al., 2020). As for the significant psychosocial predictors of burnout and traumatic stress are concerned, Type D personality (Pedersen & Denollet, 2004) which is characterized by negative affectivity and social inhibition. A study reported escalation in post-traumatic stress disorder in type D individuals as compared to individual who scored low in negative affectivity and social inhibition (Kunst et al., 2011). Research evidence have shown that healthcare workers reporting rise in anxiety and depression levels and several other factors are susceptible to burnout (Cho & Kang, 2017) and post-traumatic stress disorder (Rodríguez-Rey et al., 2019) under regular conditions. Current research study have shown that healthcare workers are more prone to mental health issues and psychological distress due to working closely with patient and being live audience to their misery (Rajkumar, 2020). In case of overwhelming conditions healthcare professional and workers are unable to use appropriate coping strategies which

subsequently may affect their psychological wellbeing. In a longitudinal study relationship between burnout and factors such as overwhelming conditions, inaccessibility of emotional or social support, lack of appropriate coping strategies may have an impact on psychological wellbeing of physicians (Shanafelt et al., 2016).

Healthcare personnel are exposed to stress and trauma on daily basis under regular circumstances, therefore during the pandemic their exposure can be assumed to increase and if not identified and dealt with proficiently can lead to severe and even permanent damages (Levy-Gigi et al., 2014).

Keeping in view the above mentioned literature it was important to identify the psychosocial factors such as type D personality, psychological distress, resilience and coping strategies associated with burnout and traumatic stress among healthcare professionals during COVID-19 pandemic. The study further highlighted the most significant predictors of burnout and traumatic stress among healthcare professionals during pandemic.

Methods

In the present research, sample consisted of 140 healthcare professionals. The total sample included 44% male and 56% female healthcare professionals. Mean Age was 31 (SD=4.4, range 25year-43 years). The sample was comprised of 84.4% doctors and 15.6% were nurses, whereas 42.6% of the participants were single and 57.4% were married. The mean years of experience working as healthcare professionals was around 5 years (SD=2.78). The participants reported average number of night shifts were 4 days per week during pandemic.

Research design and settings

In the current cross-sectional research, survey method was used to collect the data from frontline health care professionals (doctors and nurses) from two public and two private hospital in Rawalpindi and Islamabad, Pakistan during COVID-19 pandemic.

Procedure

An official permission was taken from Fatima Jinnah Women University to collect the data from two private and two public hospitals in Rawalpindi and Islamabad. Official permission was taken from the administration of these hospitals. Initially six hospitals were approached however, four hospitals provided official permission to select the participants. Frontline healthcare professional who fulfilled the required criteria were approached for selection as study sample. Informed consent was obtained from participants. Email address was taken from all the healthcare professionals who agreed to participate in the current research. They were contacted via google meet and questionnaires were administered on individual basis in google meet session with the researcher. The data collection was completed within three months.

Study Measures

Following measures were used to collect data for the study.

Demographic Sheet. Demographic data was collected by using a demographic sheet. Healthcare Professionals were asked to list gender, age, marital status, profession (doctor, nurse), working experience, and average night shifts in previous week.

Hospital Anxiety and Depression Scale (HADS). It is 14-item scale with two subscales each contains 7-item. Responses are assigned a score of 0-3. Two separate scores for anxiety and depression are yielded from the scale which vary between 0-21. The cut-off scores are considered as normal from 0-7, mild from 8-10, moderate 11-14 and severe 15-21 a score higher than 11 means existence of anxiety and depression (Zigmond, 1983). In context of current study, it's used for accessing levels of psychological distress among healthcare professionals.

Brief COPE. It is a shorter scale of the original cope scale. It consists of 28 items to access 14 coping strategies i.e. "Avoidant coping that

comprises of subscales of substance abuse, denial, venting, self-blame, self-distraction and behavioral disengagement. Approach coping comprises of subscales of. Active coping, use of emotional support, use of instrumental support, Positive reframing, Planning, Acceptance." (Carver, 1997). Religion and Humor subscales don't fall in either coping. The items are scored on a Likert scale that has 4 points that range from 1 stating I haven't been doing this at all, to 4 stating I've been doing this a lot. This study utilized the brief COPE to access the coping strategies used by the healthcare professionals (Carver, 1997).

Brief Resilience Scale. It is a self-reporting scale with 6 items measuring participant's resilience, defined as "the ability to recover from adversity and stress". The odd number items are positively phrased and even number items are negatively phrased. The total scores are based on mean of all statement's responses and vary from 1 i.e. strongly disagree to 5 i.e. strongly agree. It was scored by adding the scores of all items and dividing it by 6. Score from "1.00 - 2.99 indicate low resilience, 3.00 - 4.30 indicates moderate level of resilience and 4.31 - 5.00 indicate high resilience" (Smith et al., 2008). The current research utilized the scale to access the level of resilience among healthcare professionals during COVID-19 pandemic.

Distress scale -14. The DS14 constructed by Johan Denollet (2005) and is used broadly as an instrument of diagnosis for evaluation of Type D personality traits. The letter D stands for distressed. It was divided into two 7- item subscales of "Negative Affectivity (NA) and Social Inhibition (SI)" each (Denollet, 2005). Each item is rated on a Likert type scale of 5 points that ranges from a 0 showing false to a 4 showing true. To identify the respondent as Type-D, the cut-off score of 10 or higher score on each subscale is considered as an indication of type D personality (Denollet, 2005).

Maslach Burnout Inventory Abbreviated. In the current research an abbreviated version (MBI -9) of Maslach Burnout Inventory was used to measure burnout. The response options consisted

of 7-point Likert scale for both the scales ranging from (0) Never to (6) every day. "It contains three dimensions: Emotional Exhaustion, Depersonalization, and Personal Achievement" (Maslach et al., 1986). For EE and DP, subscale scores of 0 to 9 meant as 'no to low burnout', 10 to 18 was categorized as 'moderate to severe burnout', as for PA higher scores indicated lower burnout. The current research utilized the scale to assess levels of burnout among healthcare professionals.

Trauma Screening Questionnaire (TSQ). It is a 10-item brief measuring instrument with a response of either yes or no used to assess "re-experiencing or arousal symptoms in the past weeks". Research study (Brewin et al., 2002) has identified trauma screening questionnaire as a valid and reliable (α reliability = 0.71) scale to measure traumatic stress. In the current study, it was used for assessing the level of traumatic stress among frontline healthcare professionals during COVID-19 Pandemic.

Ethical Consideration

In the current research, issues of ethical nature were seriously taken into consideration at every step of the research. Permission to conduct the research was formally taken from research review board at Fatima Jinnah Women University. Complete information was provided to the participants regarding the purpose of the study and they were also assured about the confidentiality of the information provided by them. It was also communicated to the participant that they are allowed to withdraw and leave at any stage of the study. A signed informed consent was taken from the healthcare professional (doctors & nurses), who agreed to participate in the study. Researcher was trained to deal with psychological distress which may arise during the administration of questionnaires. Medical health professionals who were identified with high level of burnout and traumatic stress were informed and referred to appropriate mental health professionals.

Data Analysis

Statistical Package for Social Sciences (SPSS 20 version 20) was employed for the statistical analysis of the data. Data was initially screened for missing values, but none were found. Descriptive as well as inferential statistics were computed. Descriptive statistics were employed for assessing the demographic variables. Categorical data was assessed by computing frequencies and percentages. Continuous data, on the other hand, was assessed by computing the Mean and Standard Deviations. Z scores were computed (by using skewness and kurtosis values) to assess the normality of the data. Histograms and P-P plots were also computed for assessing the normality of data graphically. Since the data was normally distributed parametric tests such as Pearson correlation was used to assess the relationship between psychosocial factors (type D personality, psychological distress, resilience, coping strategies) associated with burnout and traumatic stress among health care professionals during COVID-19 pandemic. Hierarchical multiple regression analysis was also used to assess the most significant predictors of burnout and traumatic stress among health care professionals after controlling for demographic variables.

Results

The analysis indicated that 58.2 % of the Participants were identified with Type D personality among healthcare professionals during COVID-19 pandemic. In the total sample of 140 participants 60.3% reported significant level of burnout and 51.8 % were identified with traumatic stress.

As for the correlation, analysis revealed highly significant positive correlation ($p < 0.01$) between burnout and type D personality in terms of social Inhibition and Negative affectivity. Burnout was also positively correlated ($p < 0.01$) with psychological distress i.e. anxiety and depression. Coping strategies such as avoidant coping showed significant positive and religion showed negative relationship with burnout. Similarly a significant positive association ($p < 0.01$) was identified

between traumatic stress and social Inhibition, Negative Affectivity, Anxiety and depression. A significant negative relationship ($p < 0.01$) was shown between traumatic stress, resilience and approach coping among healthcare workers during COVID -19 pandemic.

Table 1 demonstrated the hierarchical regression analysis of burnout. In the first model ($F(2, 138) = 13.90, p < 0.01$), age and marital status accounted for 17% of variance in burnout. While in second model ($F(11, 129) = 9.62, p < 0.01$),

marital status, social inhibition, avoidant coping, religion, and anxiety, accounted for about 45 % of variance in burnout. The analysis revealed that age ($\beta = -.29, p < 0.01$), marital status ($\beta = -2.25, p < 0.01$), social inhibition ($\beta = .21, p < 0.05$) avoidant coping ($\beta = .19, p < 0.05$), religion coping ($\beta = -.18, p < 0.05$) and anxiety ($\beta = .18, p < 0.05$) were identified as significant predictors of burnout among healthcare professionals during COVID-19 pandemic.

Table 1. Hierarchical Regression Analysis of Burnout (N=140)

Variables	R ²	ΔR ²	B	SE B	β	t	p
<i>Step 1</i>	0.17	0.17					.000
Constant			50.62	4.05		12.51	
Age			-0.47	.13	-.29	-3.56	.001
Marital Status			-3.07	1.09	-.23	-2.79	.006
<i>Step 2</i>	0.45	0.28					.000
Constant			28.54	7.66		3.72	
Age			-0.13	0.12	-.27	-1.06	.29
Marital status			-2.25	0.94	-.21	-2.38	.02
Social Inhibition			0.24	0.08	0.22	2.86	.01
Negative Affectivity			0.03	0.08	0.03	.41	.68
Approach Coping			-0.02	0.06	-0.03	-0.35	.73
Avoidant Coping			0.43	0.17	0.18	2.53	.01
Religion			-0.84	0.35	-0.18	-2.39	.01
Humor			-0.21	1.31	-0.01	-1.15	.87
Depression			0.12	0.11	0.08	1.05	.29
Anxiety			0.32	0.14	0.18	2.29	.02
Resilience			-0.86	0.52	-0.12	-1.65	.10

Table 2 explained hierarchical regression analysis of traumatic stress. In the first model ($F(1, 139) = 17.83, p < 0.01$) demographic variable such as age accounted for 11% of variance in traumatic stress. While in second model ($F(10, 130) = 7.61, p < 0.0$), social inhibition, negative affectivity, approach coping and avoidant coping accounted for about 36.9 % of variance in traumatic stress. Age ($\beta = -.34, p < 0.01$) Social Inhibition ($\beta = .192,$

$p < 0.05$), negative affectivity ($\beta = .25, p < 0.05$), approach coping ($\beta = -.20, p < 0.05$), and avoidant coping ($\beta = .09, p < 0.05$) were identified as most significant predictors of traumatic stress among healthcare professionals during COVID-19 pandemic.

Table 2. Hierarchical Regression Analysis of Traumatic Stress (N=140)

Variables	R ²	ΔR ²	B	SE B	β	t	p
<i>Step 1</i>	0.11	0.11					.000
Constant			10.08	1.08		9.26	
Age			-0.15	.04	-.34	-4.22	.001
<i>Step 2</i>	0.37	0.26					.000
Constant			7.48	2.15		3.47	
Age			-0.07	0.03	-.32	-2.19	.001
Social Inhibition			0.07	0.02	0.19	2.40	.03
Negative Affectivity			-0.04	0.02	0.25	3.33	.02
Approach Coping			-0.05	0.01	-0.20	-2.55	.001
Avoidant Coping			0.06	0.05	0.09	-1.11	.01
Religion			0.42	0.09	-0.05	.64	.27
Humor			0.05	0.37	0.08	1.13	.52
Depression			0.03	0.03	0.13	1.58	.26
Anxiety			-0.26	0.04	0.06	.773	.12
Resilience			0.48	0.15	-0.14	-1.80	.44

Independent sample T test analysis also demonstrated that no significance differences were identified between male and female healthcare professionals in terms of burnout ($t(139) = -.467, p > .05$) and traumatic stress ($t(139) = -.421, p > .05$) during COVID -19 pandemic.

Discussions

The study was designed to assess the relationship of Type D personality, coping strategies, resilience and psychological distress with burnout and traumatic stress among healthcare professionals during COVID-19 pandemic. In addition significant predictors of burnout and traumatic stress after controlling for demographic

variables were also investigated. Findings demonstrated that 60.3% of the sample reported burnout and 51.8% of sample experienced significant levels of traumatic stress during COVID-19 pandemic. These elevated levels of stress and burn out maybe attributed to the current COVID-19 Pandemic as indicated by recent research studies that identified high levels of anxiety among general population as well as physician (Rossi et al., 2020). The healthcare professionals are likely to experience higher levels of burnout, due to the fact that they worked as front line health workers during pandemic (West et al., 2020). Burnout levels were found to be same for both male and female participants which

was supported by existing literature (Arrogante & Aparicio-Zaldivar, 2017; Ibtissam et al, 2012).

According to study findings, burnout and traumatic stress had significant negative association with age. Implying that young people are more prone to burnout and higher levels of traumatic stress levels. Regarding marital status the findings of current study indicated that married individuals were less likely to experience burnout. A meta-analysis based on review of 15 studies demonstrated a collective incidence of burnout levels in association with younger and unmarried individuals (Kesarwani et al., 2020). Another study (Cañadas-De la Fuente et al., 2015) showed that being single or divorced was related to higher levels of burnout. Burnout was significantly positively associated with type D personality in terms of Social inhibition and negative affectivity, avoidant coping, anxiety and depression which aligns with the existing empirical evidence (Ibtissam et al, 2012).

The current findings indicated that age and marital status accounted for 17% of the variance in burnout. When other psychosocial factors were added in the model marital status, social inhibition, avoidant coping religion and anxiety were identified as significant predictors of burnout and accounted for 45% variance in burnout among health care professionals during COVID-19 pandemic. Other research studies have indicated that with an increase in distress levels an increase can be seen in Burnout levels to (Pokhrel et al., 2020). A meta-analysis supports the findings which showed that various dimensions of burnout negatively correlate with emotion-focused coping style (Shin et al., 2014). Polman and colleagues (2010) investigated different coping styles as mediating variable and reported 24.9% of the sample were Type D individuals who lean more towards avoidance coping strategy which linked it to higher levels of burnout symptoms. Therefore, preventive measure on primary and secondary levels should aim to address the individual level factors along with community level factors. Findings of current study also showed that burnout was significantly negatively associated with Religion coping which was a positive

significant protective factor of burnout. Similar findings were reported by Wachholtz & Rogoff, (2013) who identified spirituality as a protective factor in the medical student; low levels of spirituality were associated with higher levels of burnout and psychological distress and vice versa. In another research spirituality seemed to lessen the cognitive, physical and emotional symptoms of burnout (Holland & Neimeyer, 2005). Resilience was not reported as a significant associate of burnout. The results of the comparison among Healthcare Physicians and general Population revealed that even though resilience was inversely associated with burnout but most resilient of the Healthcare personnel were at risk of burnout (West et al., 2020). It has been reported that high resilience capabilities may not be influential in reducing levels of burnout or Secondary Traumatic Stress among doctors (McCain et al., 2018). The current research findings are consistent with previous evidence about risk of below 55 years of age as a significant risk factor for higher burnout levels (McCain et al., 2018). However, a study from Canada which showed that healthcare worker reported a decrease in burnout levels when an increase in age was observed. It further stated that younger men and women are more predisposed to burnout (Marchand et al., 2018). The reason for this could be higher professionals experience with age which aid in developing effective strategies and aid in dealing with occupational stress and burnout. Hatche's study on nurses showed that greater age predicting lower levels of burnout (Hatch et al., 2018).

Findings of this study showed that traumatic stress had significant negative association with age. This finding contradicts the finding of a Danish researcher study which indicated that 40-50 year olds are most vulnerable to post-traumatic stress disorder. On the other hand, the finding of study by informed adolescents to be more at risk of traumatic stress (Maercker et al., 2004). Traumatic stress was also significantly associated to the social inhibition traits as well as trait of negative affectivity, anxiety and depression.

Regarding significant predictors of traumatic stress, initially 11 % variance was explained by the age. However, in the second model age, social inhibition, negative affectivity, approach coping and avoidant coping were identified as significant predictors and accounted for 37% of the variance in traumatic stress among health care professionals during COVID-19 pandemic. Traumatic stress levels were significantly affected by both traits of type-D personality. These results are in harmony with findings of Cho et al, (2017) who indicated that Type D personality traits positively correlated with Post Traumatic Stress Disorder among nursing staff of intensive care unit. Results of another study showed signs of post-traumatic stress disorder to be significantly predicted by negative affectivity (Cho G & Kang, 2017).

Furthermore study findings demonstrated a significant negative correlation between approach coping and resilience which is supported by study that assessed nurses for burnout levels and reported high resilience to be associated with low prevalence Post Traumatic Stress disorder (Mealer et al., 2009). Another Research by Wrenn et al, (2011) examined a large sample of 767, the results of regression identified resilience as a significant predictor of low levels of Post-Traumatic Stress Disorder (Wrenn, 2011). According to study findings, approach coping was able to affect traumatic stress levels among healthcare personnel. A previous study reported that people who engage in approach coping strategies are likely to have reduced post-traumatic stress disorder symptoms (Lawrence & Fauerbach, 2003).

Conclusion

The findings of the current study emphasized that healthcare personnel are more susceptible to experience burnout and traumatic Stress during COVID-19 pandemic. Therefore psychosocial factors (type D personality, psychological distress, resilience & coping strategies) associated with burn out and traumatic stress should be taken into account while considering mental health of frontline healthcare professional during COVID-

19 pandemic. It was concluded that there is a significant association of burnout and traumatic stress with type D personality traits (social Inhibition & negative affectivity, psychological distress (anxiety & depression) and coping strategies. The study highlighted the importance of Type D personality traits, psychological distress and impaired coping strategies as significant predictors of burnout and traumatic stress. Burnout and traumatic stress is a common problem faced by a significant percent of healthcare professionals, and if left unchecked can lead to reduced levels of productivity and decline in mental health. Psychological interventions must be devised keeping in view psychosocial predictors to mitigate the risk of burnout and post-traumatic stress disorder among healthcare professionals during difficult times such as COVID-19 pandemic.

Limitations and Future Studies

There were certain limitations to this study that should be acknowledged. Firstly, longitudinal studies may be conducted in order to assess the intricate mechanism of association of type D personality, psychological distress, coping strategies, burnout and traumatic stress. It is also suggested that counseling services may be provided to those healthcare professionals who would be identified with significant level of psychological distress, burnout and traumatic stress. Furthermore, the sample size used in the current study was too small, therefore for future research studies a larger sample size is recommended for better generalizability.

Contribution of current research

The findings of present study indicated that intensive measure are crucial in healthcare services for the prevention and screening of burnout and traumatic stress among healthcare professionals. The outcomes of this research can provide a baseline for government and administrative bodies to develop an insight about significance of impact and extent of burnout and traumatic stress embedded in their medical workforce during COVID-19 pandemic. The

current study also highlighted the need for appropriate intervention that would inculcate positive, problem focused approach coping strategies among healthcare professionals and workers.

Acknowledgement

We would like to acknowledge the support of hospitals and healthcare professional in this study which would not have been possible without their contributions.

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