Open Access

Pak J Med Res
Vol. 61, No. 3, 2022

Original Article

Stress, Resilience and Moral Distress among Health Care Providers during the COVID-19 Pandemic at Government General Hospital G.M. Abad Faisalabad

Nazia Nazir[1], Muhhamad Numan Akram[2], Hafiz Amjad Hussain[2], Maryam Khokhar[3], Muhammad Salman Zafar[4], Mazhar Iqbal[2]

Department of Psychiatry, Government General Hospital G. M. Abad[1], Faisalabad Medical University[2], Abwa Medical College[3], Faisalabad, Mayo Hospital[4], Lahore.

Abstract

Background: Distress amongst health care providers is nowadays a topic of interest globally, however in Pakistan, the link between stress and medical profession during COVID-19 pandemic is still understudied.
Objective: To assess the level of stress, resilience and moral distress among health care workers during COVID-19 pandemic.
Study type, settings & duration: A cross sectional study was carried out at Allied hospital, DHQ Hospital and Government General Hospital, Faisalabad affiliated with Faisalabad Medical University from March to June 2020.
Methodology: A total of 106 health care professionals participated who worked during COVID-19 pandemic.
Results: About 25 (23.6%) of frontline workers had mild, 78 (73.6%) moderate and 3 (2.8%) severe level of anxiety. However, 45.3% of participants reported higher resilience. Similarly, regarding moral distress, 45 (42.5%) experienced mild, 19 (17.9%) distressed and 6 (5.6%) had worst moral distress.
Conclusion: During COVID-19 pandemic, the health care providers reported higher extent of stress and moral distress. Moreover, resilience showed an inverse relationship with stress and moral distress highlighting importance of resilience building to lower the intensity of stress and moral distress faced by health care providers.
Key words: Perceived stress, moral distress, resilience, health care workers, COVID, pandemic.

Introduction

Since the COVID-19 outbreak was first reported in Wuhan, China in December 2019, health care providers (HCP) have been faced with a number of challenges, many of which are largely unprecedented. Along with the compromised provision of quality health care services to the public, the profound adverse impact on the psychological wellbeing of health care providers is another inevitable threat.[1]

Healthcare workers, specifically designated and devoted in medical emergencies, corona intensive care units and laboratories, are considered a vulnerable group among medical staff to suffer from psychological problems during pandemic. The exponential phase of COVID-19 pandemic creates an unwelcoming environment where fear of contracting disease, uncertainty in treatment regime, unclear prognosis, tense working hours, unavailability of prompt safety items & stigmatization render a health care professional to experience sound mental health and lead to various psychosomatic problems including burn out.[2]

The 2014 survey on physicians in China showed 25.6% & 28.13% experienced anxiety and depression, respectively. A burnt out professional of

Corresponding Author:
Nazia Nazir
Department of Psychiatry,
Government General Hospital G. M. Abad, Faisalabad.
Email: naziatanveer@hotmail.com

Received: 21 December 2020, **Accepted:** 27 June 2022,
Published: 18 October 2022

Authors Contribution

NN & MI conceptualized the project and perform the statistical analysis. NN, MNA & HAH did the data collection. MK & MSZ did the literature search and drafting, revision & writing of manuscript.

medicine suffers a great deal of dysfunctional occupational domain where, due to compromised decision making skill at professional level, he/she may be unable to provide better health care services to patients of COVID-19 than in a state of sound mental health. This also hinders his/her participation in interpersonal relationships and thus poses a long lasting adverse impact on his/her quality of life and professionalism.[3] This occupational stress is found to be associated with those fields of medicine which are more demanding and where more patients with poor prognosis and increased mortality are managed.[4]

Moral distress and resilience amongst health care professionals are the under- reported and studied phenomenon. In 1984 the concept of moral distress was coined which elucidated that the institutional constraints serve as a vital and restricted factor to better health care provision to the patients for their best interest by the treating doctor.It is defined as when someone believes to know the ethically correct thing to do, but something or someone restricts ability to pursue the right course of action. Physicians and nurses are the recognized vulnerable group who fall victim to moral distress due to occupational burden, shortage of staff and lack of ample resources for disease management.[5]

During the previous SARS epidemic, a wave of new onset psychiatric disorders have been identified where depressive ,anxiety and substance use disorders were commonly reported by health care workers.[6]

Resilience is defined as 'maintaining health despite adversity' where it develops when altruistic personality traits and experiences leads to productivity and positivity in context of adaptation to distressing circumstances. Resilience has several components which includes the ability to adapt to change, to deal with what comes along, to cope with stress, to stay focused and thinks clearly, to not get discouraged in the face of failure, & to handle unpleasant feelings. There is a variability in response to adversity amongst different people which is of great importance. Resilience in medical workers is found to be an evolutionary and complex phenomena where compassion, commitment to work, professionalism and self-determination help to enjoy the higher resilience signifying its mediating role whereas higher negative affective states lowers it. It is this resilience cultivation that allows to alleviate adverse effects of stressors in short term& into favorable outcomes in the long term.In 2020,among American physicians higher levels of resilience were reported as compared to general population.(mean=6.49) [SD=1.30].[7-9]

In sum, there is compelling evidence that HCP working in institutions caring for COVID-19 patients are at risk of considerable stress and other psychological problems. The magnitude of these issues in the COVID-19 crisis is not well described. We propose an initial cross-sectional approach with subsequent repeated-measures to describe and quantify HCP perceived stress (and the sources of this stress), resilience, and self-reported moral distress among HCP.

In order to control the initial scope of enquiry, our study focuses on HCP. We anticipate that the study findings will inform the development of interventions to provide mental health care in the short term, and to develop relevant organizational strategies for comparable health care challenges in the future.

Methodology

During COVID-19 pandemic, total of 106 health care professionals (doctors and nurses) were reserved for COVID-19 management at Allied hospital, DHQ Hospital and Government General Hospital, Faisalabad. Data was collected from March to June 2020, which included 106 health care professionals (doctors and nurses) through random probability sampling technique. The demographic data was collected through questionnaire. Perceived stress scale (PSS-10) was used to measure the perceived stress among the doctors which comprises of 6 positively-stated and 4 negatively stated items. The perceived stress score was calculated by reverse coding the negatively-stated items and then summing the scores of all 10 items. The final scores range from 0 to 40 with ranges mild (0-13), moderate (14-26) and severe (27-40).[10]

Resilience is defined as "a dynamic process encompassing positive adaptation within the context of significant adversity".[7] To measure resilience 10-item Conner-Davidson resilience scale was used. Each item was rated on a 5-point Likert scale from 0 ('not true at all') to 4 ('true nearly all the time'). Total scores were obtained by summing all responses and ranged from 0 (minimum resilience) to 40(maximum resilience).

Moral distress is defined as "having the knowledge that what is the ethically correct action to take but you are constrained from taking it".[5] To measure, moral distress thermometer scale was used,a total of 10 scored intensity such as 0-1 indicated none, 2-3 mild, 4-5 uncomfortable, 6-7 distressing,8-9 intense and 10 worst possible.[11]

After obtaining the consent of the subjects, the data was collected using convenience sampling using PSS-10, Resilience-10 and moral distress

questionnaire. The analysis of the data was completed using SPSS-20. Pearson Chi Square test was used to evaluate associations between various qualitative variables of interest. For all purposes, p-value of <0.01 was considered statistically significant. Categorical variables were expressed as number (%) and compared by Chi square test.

The Ethical approval was obtained from Institutional Ethical Review Committee of Faisalabad Medical University, Faisalabad.

Results

Among 106 health care professionals who worked during COVID-19 pandemic, 48 (45.3%) were males and 58 (54.7%) females.

Table-1 shows that the majority of health care workers 78 (73.6%) serving during COVID pandemic experienced moderate intensity of perceived stress ,however remarkably very few reported 3 (2.8%) the severity.

Table 1: Assessment of Intensity of perceived stress through PSS-10 scale.

Perceived Stress	*F*	*%*
Mild	25	23.6
Moderate	78	73.6
Severe	3	2.8

Table 2: Assessment of Intensity of moral distress through moral distress thermometer scale.

Moral Distress	*F*	*%*
None	6	5.7
Mild	45	42.5
Uncomfortable	24	22.6
Distress	19	17.9
Intense	6	5.7
Worst	6	5.6

Table 3: Gender based comparison of intensity of moral distress.

*Moral distress * Gender Cross tabulation*				
		Male	*Female*	*Total*
Moral distress	None	5	1	6
	Mild	17	28	45
	Uncomfortable			5
	Uncomfortable	11	13	24
	Distress	0	1	1
	Distress	8	10	18
	Intense	1	1	2
	Intense	3	1	4
	Worst	1	0	1
	Worst	2	3	5
		48	58	106

As shown in Table-2 & 3, majority of participants (42.5%) had mild whereas 19 (17.9%) had distressed level of moral distress. While only 5.7% & 5.6% doctors had intense and worst level of moral distress respectively with no significant gender difference.

Table 4: Correlation among perceived stress, moral distress and resilience.

		Resilience	*Perceived Stress*	*Moral Distress*
Resilience	Pearson Correlation	1	-.254**	-.460**
	Sig. (2-tailed)		.009	.000
	N	106	106	106
Perceived stress	Pearson Correlation	-.254**	1	.361**
	Sig. (2-tailed)	.009		.000
	N	106	106	106
Moral distress	Pearson Correlation	-.460**	.361**	1
	Sig. (2-tailed)	.000	.000	
	N	106	106	106

**. Correlation is significant at the p<0.01 level (2-tailed).

Table-4 shows a significant positive relationship between perceived stress and moral distress (p =0.361) among health care professionals during COVID-19 pandemic. However, disproportionate negative association has been established of both perceived stress (p =-.254) and moral distress (p =-.460) with resilience.

Discussion

This cross sectional study highlighted the greater extent of perceived stress and moral distress among frontline health care providers during COVID-19 pandemic. In addition to this, a significant disproportionate relationship between stress and resilience has been identified. The present study shows that 23.6% reported none to mild & a significant proportion of participants (76.4%) had moderate to severe level of anxiety. In this context, a study conducted in China showed that the majority (55.4%) of health care professionals remained stress free whereas only 12.3% reported moderate and severe intensity of stress & 71.5% psychological distress.[2] Another study conducted following the previous SARS epidemic in 2007 showed the greater extent of stress experienced by frontline health care workers as compared to survivors of SARS outbreak which persisted for more than 1 year.[12]

Among the participants, the gender difference has been recognized in perceived stress & moral distress where females experienced more pressured than male health care workers. A similar survey in 2015 showed that nurses were more prone to moral distress than other professionals although nearly all groups of medical workers reported the moral distress.[13,14] In 2015, a study reported higher level of stress among lady doctors as compared to opposite gender in view of role and speciality variation.[4] Conflict between professional job demands and social expectations about home life being a primary responsibility of particularly married female physicians has been identified as one of the possible reasons of higher anxiety level as compared to male doctors.[15]

In current study almost 10% participants had intense to worst level of moral distress. In 2016, a systemic review on primary health care workers indicated that nurses and paramedical professionals involved in direct patient care had significantly higher moral distress than physicians and other indirect care professionals.[8] In 2020,during pandemic of COVID-19 ,disparity between inadequate resources provided to doctors to reduce self infection and to their families along with the inability to completely prevent the replication of disease have induced higher moral distress as compared to previous pandemics.[16]

A Canadian study highlighted the similar negative correlation between stress and resilience amongst medical students where female gender, insecure attachment and relationship anxiety were identified as the vulnerable factors for higher stress and lower resilience. In this context, current study suggests resilience as a promotable protective factor against stress among physicians and health care workers during COVID-19 pandemic.[17] Another study conducted during COVID-19 pandemic in China showed low resilience of medical professionals where higher perceived stress, lack of understanding about disease's nature, uncertainty about prognosis ,under-rated protective resources, high infectivity and fatality were the identified negative factors.[7]

During lockdown in COVID-19 pandemic in United States, modifiable factors have been recognized to improve psychological resilience in general population. Sedentary life style, under religiosity, weak psychosocial support, social isolation & economic burden were identified as the poor prognostic factors prone to anxiety and lower the resilience.[18] In developing countries like Pakistan, due to limited resources during this pandemic of COVID-19, it has been proposed that multimedia based Cognitive Behavioral therapy can be offered to patients of COVID-19, their families and especially to health care professionals by trained mental health workers to prevent and settle both current and future mental health problems as well as to boost resilience which is associated with better outcome.[19]

It has been concluded that the medical professionals are facing higher level of perceived stress and moral distress during COVID-19 pandemic. Attention should be paid to the vulnerable group like female gender and medical professionals working in emergency and intensive care units. Prompt provision of stress management facilities along with the collaboration in patient's management between the hospital administration and health care professionals may help to improve resilience and reduce perceived stress and moral distress.

Conflict of interest: None declared.

References

1. Bahar A, Koçak HS, Bağlama SS, Çuhadar D. Can Psychological Resilience Protect the Mental Health of Healthcare Professionals during the COVID-19 Pandemic Period. Dubai Med J 2020; 3: 133-9.
2. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Network Open 2020; 3(3): e203976.
3. Gong Y, Han T, Chen W, Dib HH, Yang G, Zhuang R, et al. Prevalence of anxiety and depressive symptoms and related risk factors among physicians in China: a cross-sectional study. PLOS One 2014; 9(7): e103242.
4. Rashid I, Talib P. Occupational Stress and Coping Styles among Doctors: Role of Demographic and Environment Variables. Vis J Bus Perspect 2015; 19(3): 263-75.
5. David Oliver: Moral distress in hospital doctors. BMJ 2018; 360. (Accessed on 10th Septemeber 2022) Available from URL:https://www.bmj.com/content/360/bmj.k1333
6. Lancee WJ, Maunder RG, Goldbloom DS. Prevalence of psychiatric disorders among Toronto hospital workers one to two years after the SARS outbreak. Psychiatr Serv 2008; 59(1): 91-5.
7. Huang L, Wang Y, Liu J,Ye P, Cheng B, Xu H, et al. Factors Associated with Resilience Among Medical Staff in Radiology Departments During The Outbreak of 2019 Novel Coronavirus Disease (COVID-19): A Cross-Sectional Study.Med Sci Monit 2020; 26: e925669.
8. Helen D. Alison M. Resilience of primary healthcare professionals: a systematic review. Br J Gen Pract 2016; 66(647): e423-33.
9. West CP, Dyrbye LN, Sinsky C, Trockel M, Tutty M, Nedelec L, et al. Resilience and Burnout Among Physicians and the General US Working Population.JAMA Netw Open. 2020; 3(7): e209385.

10. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. J Health Soc Behav 1983: 24(4): 385-96.
11. Wocial LD, Weaver MT. Development and psychometric testing of a new tool for detecting moral distress: the Moral Distress Thermometer. J Adv Nurs 2013; 69(1):167-74.
12. Antoinette ML , Josephine GWSW, Grainne MM, Vinci C. Stress and psychological distress among SARS survivors 1 year after the outbreak. Can J Psychiatry 2007; 52(4): 233-40.
13. Xu X, Bao H, Strait K, Spertus JA, Lichtman JH, Spatz E, et al. Sex Differences in Perceived Stress and Early Recovery in Young and Middle-Aged Patients with Acute Myocardial Infarction. Curculation 2016; 131(7): 614-23.
14. Misigo BL. Gender differences in the perceived level of stress and coping strategies among university students in Kenya: A case of public universities. Int Acad J SocSci Educ 2015; 1(3): 44-52.
15. Whitehead PB, Herbertson RK, Hamric AB, Epstein EG, Fisher JM. Moral distress among healthcare professionals: report of an institution-wide survey. J Nurs Scholarsh 2015; 47(2): 117-25.
16. Berg S. 4 ways COVID-19 is causing moral distress among physicians. Physician Health 2020. (Accessed on 10th September 2022) Available from URL:https://www.ama-assn.org/practice-management/physician-health/4-ways-covid-19-causing-moral-distress-among-physicians
17. Thompson G, Wrath A, TrinderK, Adams GC. The roles of attachment and resilience in perceived stress in medical students. Can Med Educ J 2018 Nov; 9(4): e69-77.
18. Killgore WDS, Taylor EC, Cloonan SA, Dailey NS. Psychological resilience during the COVID-19 lockdown. Psychiatry Res 2020; 291: 113216.
19. Naeem F, Irfan M, Javed A.Coping with covid-19: urgent need for building resilience through cognitive behaviour therapy. Khyber Med Uni J 2020; 12(1): 1-3.