

COVID-19: MENTAL HEALTH ISSUES FACED BY HEALTH CARE PROFESSIONALS

MUHAMMAD ABDULLAH KARIM¹, RANA KHURRAM AFTAB², FARHAT IJAZ³, IMTIAZ BASHIR³
¹King Edward Medical University, ²Punjab Institute of Cardiology, Lahore,
³CMH Lahore Medical College & Institute of Dentistry (NUMS), Lahore

ABSTRACT

Objective: Various studies have been conducted during this pandemic which dealt with prevalence of mental health problems among the HCWs and indicated a strong association between the disease and the pandemic. In this article, we will try to provide a systematic review of the studies done so far in this regard. We also aimed to find out a relationship between COVID-19 related variables and mental health issues of HCWs.

Methods: Using keyword search on PubMed, Asian Journal of Psychiatry, and Web of Science electronic databases, we collected original articles, reviews, preprints, and letter to editors, related to our topic. 10 of them were shortlisted. After studying them extensively and intensively, a systemized review is presented in this article.

Results: Increased levels of anxiety, anger, hesitation, perplexing, and post-traumatic distress are reported during the lockdown due to this pandemic, especially in Pakistan. Health Care Workers are the most psychologically affected with this pandemic.

Conclusion: The mental states of HCWs should be monitored and a detailed plan should be devised to discuss and resolve the psychological concerns of HCWs.

Keywords: COVID-19, Mental Health, Health Care Professionals, Psychological Effects

How to cite this article: Karim MA, Aftab RK, Ijaz F, Bashir I. Covid-19: Mental health issues faced by health care professionals. *Pak Postgrad Med J* 2020;31(2): 108-112

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Pandemics cause an increased workload and create a panic, a sense of anxiety, fear, frenzy and hysteria in all the people generally and in Health Care Professionals especially because HCWs are on the front line to combat the situation.^{1,2} The present pandemic has rendered the HCWs more vulnerable to acquire the virus and thus produced an increased mental stress in them.¹ They are worried, scared and mentally traumatized for their families acquiring the infection, and for their health also.

*Correspondence to: Dr. Farhat Ijaz, MPhil.
Assistant Professor, Department of Physiology,
CMH Lahore Medical College & Institute of Dentistry,
Lahore, Pakistan.*

Email: farhat_khurram_rana@cmhlahore.edu.pk

Received: July 31, 2020;

Revised: November 16, 2020

Accepted: November 25, 2020

There is a psychological burden, and physical pressure of increased risk of infection, isolation, exhaustion, lesser safety facilities, and lack of contact with family among health care professionals since the advent of pandemic in world. It is leading to further mental health problems which might impair their ability to perform well and might have long-term devastating effects on their wellness.¹⁻⁴

Although, the HCWs are trained to manage health crises, but they are not immune to psychological burden and trauma caused by them. The front-line workers are directly involved in handling and managing the patients, so they are at more psychologically burdened than the others.^{1,2} One of the evident reasons is the increase rate of infection and mortality in the medical staff. The sudden shift from a warrior to a victim might lead to stigma, helplessness, frustration, worry, anxiety, and fear of discrimination.¹ The reasons for such results are varying. They include a lack of moral and material support, inadequate equipment for personal safety, increased workload, and frenzy caused by media.⁵

Outbreak of SARS also suggested a decade ago that Health Care Professionals with no experience of emergency management have showed worse mental health status, and they tend to be affected more from psychological trauma on phobic anxiety, and interpersonal sensitivity.^{6,7} Thus, high level of professional experience, emergency management training, and social support are necessary for HCWs. Although many studies were done since the start of this pandemic to assess the psychological impact of COVID-19 on health care workers. But there is a lack of systematic evaluation and analysis on the existing studies.

METHODS

Various studies have been conducted during this pandemic which dealt with prevalence of mental health problems among the HCWs and indicated a strong association between the disease and the pandemic. In this article, we will try to provide a systematic review of the studies done so far in this regard. We also aim to find out a relationship between COVID-19 related variables and mental health issues of HCWs.

Article Selection: Articles were searched using keyword search and by applying filters, from PubMed, Google Scholar, Research Gate, PJSMBlog, and Asian Journal of Psychiatry. Keywords used are: psychological, or stress, or mental health, or psychiatric issues, and COVID-19, corona, novel corona virus and HCW, or doctors, or medical staff, or health care professionals. Original articles, reviews, commentaries, and letter to editors relevant to our study were extracted, wherever applicable reports were also extracted through cross references.

Inclusion and Exclusion Criteria: Original articles published in the last five months relevant to our topic were included. Titles were reviewed to eliminate studies that did not meet the inclusion criteria.

Description of Articles Selected: 26 articles were selected after initially search and screening. Out of which, 5 were original articles, 3 were editorials, 4 were reviews, 5 were correspondence/commentaries, and 9 were letters to the editor. 12 articles were extracted after a final screening. Six of them were from China,^{1,5,9-12} three from Pakistan¹³⁻¹⁵, one from India.¹⁶ and two from Singapore¹⁷⁻¹⁸.

RESULTS

Socio-demographic Variables: The mean age of the participants in the studies reviewed was 26-40 years, and majority participants were females (68.7%-85.5%). Studies indicated that being a female and possessing intermediary job was linked with increased level of

distress, anxiety, stress, and depression.⁵ Likewise, medical staff with age <30 showed higher self-rated depression.

HCWs with age ranging from 31-40 years were more concerned about their families, while those with age <50 years patient's death caused higher stress. Factors like personal safety were the major concern of HCWs with age 41-50 years. Older staff reported elevated stress owing to elevated workload and lack of Personal Protective equipment (PPE). Lack of proper treatment for COVID-19, and safety of colleagues was a concern of all the HCWs.¹ No statistically significant association was found between self-rated anxiety and depression scores and the department of HCW. Whether the HCW belonged to a corona related department or not, the score did not differ much. Frontline workers and nurses were found to have increased depressive symptoms, fear, stress, and anxiety. Social support decreased these symptoms and improved self-efficacy.¹⁹

Summary of the few main studies included in the review:

Study conducted by Cai et al.(2020) included doctors, nurses and other hospital staff(n=534). It was a Cross-sectional study. They used Questionnaire developed by Lee et al.(2018). Results showed that medical staff experienced emotional stress during this pandemic.¹

Kang et al.(2020) conducted cross-sectional study and there were 994 medical and nursing staff of Wuhan. Instrument used by them was Patient health questionnaire-9, Generalized Anxiety Disorder and Insomnia Severity Index. There were 36.9% had subthreshold mental health disturbances, 34.4% had mild disturbances, 22.4% had moderate disturbances, and 6.2% had severe disturbances.⁹

Liang et al.(2020), included 59 doctors and nurses from COVID-19 associated departments and others Guangdong Province. They used Zung's self-rating depression scale (SDS), Zung's self-rating anxiety scale(SAS). Most of the participants were having significant depressive symptoms.¹¹

A study conducted in China on 1521 HCWs relates the emergency management experience with the stress faced during the pandemic. Among those 1521, 147 people had prior experience in public health emergency. On the other hand, 1374 people were fresh staff who had no prior experience. All participants were asked to complete the Symptom Check-List 90 (SCL-90). This SCL-90 check List is a Chinese version of SSRS (Social Support Rating Scale) and CD-RISC (Connor-Davidson resilience scale) and. Results showed the prevalence of psychological abnormality was 14.1%.¹² Fresh staff had significantly less scores in the categories of SSRS,

objective support, subjective support as compared to the experienced staff ($p < 0.05$). However, the availability of support between the two groups was not much different. Fresh staff also showed a relatively lower scores in CD-RISC total and other 3 categories as compared to the experienced staff ($p < 0.001$). If both of these are compared, it is apparent that fresh staff presented a significantly lower level of strength, resilience, tenacity, and optimism.¹²

In a study conducted by Mohindra et al. (2020), They Interviewed their participants. Following points were identified for mental health promotion of health workers: 1-Positive Motivational factors 2-Negatives, frustrations associated with patient care 3-Personal fears and annoyances experienced by doctors.¹⁶

Mental factors: The role of social help to HCWs and its relationship with self-viability, rest quality, level of nervousness and stress is significant. Results proposed that the social help given to clinical experts caused a control in uneasiness and feelings of anxiety and expanded their self-viability.¹⁸ Worries for individual security, worries for their families, and worries for persistent mortality were the significant pressure activating elements in the clinical staff. The consequences of an examination directed in 34 emergency clinics of China expressed that 3/4ths of the wellbeing laborers being contemplated were in trouble, half of the members announced side effects of despondency and 1/3rd of them detailed a sleeping disorder, while 2/5th of them revealed uneasiness side effects.⁵

In the researches conducted in Pakistan, the wellbeing experts revealed certain individual feelings of trepidation and worries about being source of infection, being isolated, putting relatives and other staff in danger, dread of inappropriate utilization of PPE, dread of family unit issues because of lockdown and clinical protection. Better people group mindfulness and increment in labor can essentially help decreasing these worries.

COVID-19 Related Stress: One of the studies covered the elements responsible for the decreasing worry due to COVID-19.¹ Wellbeing of family had the most elevated role in lessening pressure. Applicable direction, successful preventive measures and inspirational mentality from their partners additionally helped surprisingly in diminishing trepidation (more in female staff). The level of contact with diagnosed or suspected COVID-19 patients was related to high feelings of anxiety though the mental assistance was conversely identified with the extent of emotional wellness aggravations.⁹

Coping and Psychological Care Needs: The coping strategy adopted by the medical professionals to tackle this current pandemic was to implement strict protective measures, social isolation measures, spreading awareness about virus prevention and transmission, social support, positive self-attitude.¹ Healthcare staff including doctors and paramedics who had higher levels of mental health issues were more interested in learning skills for their own rescue. An urgent desire for seeking help from psychiatrists and psychologists was noted in these staff members to seek help from.⁹

Vexations relating to Patient's Care: Medical management and treatment is just one of the needs of the patients in isolation. They also require social, psychological, and rehabilitative attention. All these cannot be looked after by the treating doctor alone. All these needs cannot be fulfilled by the attending medical staff alone. This can be draining and exhausting for the on-call medical professional. Financial and social needs including welfare and safety of the family of the patient who is to be quarantined is a major issue that needs to be addressed. Attending medical staff cannot address these issues but the patients have no one else to turn to. Development of a multi-disciplinary team that can help in rapid identification of the problems of different patient areas is the need of the hour.¹⁶

Moral Dilemmas: There are a couple of good and moral conundrums that can be faced by HCWs while going to the honorable obligation that may trouble their psychological well-being:

Dilemma 1: Should the ventilatory help for a basic patient be held who is probably not going to endure or utilize the ventilator for a less basic patient with better anticipation? As much as specialists are limited by the Hippocratic pledge that endows each specialist to get every wiped out patient the best of their capacities, in times, for example, these, triaging of finite assets is an even minded thought. Thusly, bleeding edge HCW s may find themselves in a terrible circumstance where they need to settle on a decision of allotting scant assets for the individuals who need them the most.²⁰

Dilemma 2: If the accessible if the need arises human services specialist has some respiratory side effects and imagines that he/she may have been uncovered, would it be a good idea for him to open up about his indications and remain at home, gambling public activity and his activity; or keep on approaching his work of course, taking a chance with his partner's wellbeing, till the test comes positive? How would one equalization physical and psychological wellness care needs against the obligation at hand in these testing times? Each human services specialist tallies during these occasions and there have been examples where

whole medical clinics have been compelled to close down due to assumed presentation or associated status with one social insurance laborer. In such an all involved deck situation, to attempt to stretch oneself to the furthest reaches of perseverance, disregarding physical side effects and needs, is standard for the course.²⁰

DISCUSSION

There is a considerable amount of people facing psychological issues like anxiety, hesitation, insomnia and perplexity due to COVID-19 pandemic according to a review. These mental issues concern with its way of transmitting, spreading rapidly, and lack of treatment protocols or vaccine. This was more disastrous due to widespread global connectivity of media as compared to the outbreak of SARS. According to a report the main risks for development of health issues are related to media like, lack of social support, no professional training, lack of management and no communication. In this review, the effect of social support on health issues were shown like insomnia, frustration and depression. It shows the working staff like nurses have high anxiety and depression as compared to doctors.

A few proposals to handle the previously mentioned situations:

- 01- Medical Institutions handling COVID-19 ought to be set up in their approaches, systems and standard working methods to deal with each circumstance. Accessibility of patient consideration, wellbeing hardware and hazard stratification conventions ought to be imparted unmistakably and refreshed on institutional sites. The entire clinical staff ought to be informed occasionally about the balanced use with respect to PPE so their security is guaranteed and simultaneously, assets are used in an efficient way. As COVID-19 obligation is doubtlessly requesting and troublesome, clinical staff's obligation hours ought to be decreased (for example, 4–6 hours) per work day to forestall burnout.
- 02- Institutions must oblige and isolate its tainted staff. In spite of constrained assets, this office must be made accessible in any event to the HCWs present on the COVID-19 obligation; on the grounds that a considerable lot of them may not regard fit returning to their families in this condition.
- 03- Pre-arranged preparing of HCPs before setting off to the forefront to fight the pandemic may assist with lightening the worries and explain the security questions. The in advance of referenced moral and good problems can be examined already

with the goal that clinical staff is intellectually arranged to deal with such system. Inclusion of emotional well-being experts at this stage would enhance the procedure.

- 04- Setting up an online COVID-19 help cell in each foundation would end up being a guaranteed winner in dealing with the mental human services needs of HCWs. It will likewise give a gathering to HCPs, who may feel overpowered by the requests of their obligation, to talk about important concerns and help forestall the burnout. One such incredible activity is taken by the staff network of King Edward Medical University, Lahore and Mayo Hospital, Lahore Pakistan. An online mindfulness cell by the name of "KEMU Telemedicine Help Desk" has been set up to help and organize clinical staff just as the neighborhood network giving the necessary social and clinical help.
- 05- Finally, individual wellbeing is one's own individual duty. On the off chance that a HCW is showing some respiratory indications and doesn't wish to imperil others, the onus is on them to remain back and give a legitimate clarification for their choice. Setting out standard working techniques for HCWs in such manner would expel vagueness, encourage singular choices and decrease separation.

Insufficient sample size or relevant statistical data on the topic of mental health issues of health care professionals during the recent pandemic of COVID-19 are the major limitations of these studies.

CONCLUSION

Increased levels of anxiety, anger, hesitation, perplexing, and post-traumatic distress are reported during the lockdown due to this pandemic, especially in Pakistan. Health Care Workers are the most psychologically affected with this pandemic. A high level of professional experience, complete training, social support and resilience is necessary for all the professionals in healthcare and associated areas who are battling the pandemic on the front lines. The mental states of HCWs should be monitored and a detailed plan should be devised to discuss and resolve the psychological concerns of HCWs.

ETHICAL APPROVAL:

The study was approved by the Ethical Review Committee of CMH Lahore Medical & Institute of Dentistry, Lahore, Pakistan. IRB Reference No. 57/ERC/CMHLMC Dated: 24th May, 2020.

REFERENCES

1. Cai, H., Tu, B., Ma, J., Chen, L., Fu, L., Jiang, Y., Zhuang, Q. 2020. Psychological impact and coping strategies of frontline medical staff in Hunan between January and March 2020 during the outbreak of coronavirus disease 2019 (COVID19) in Hubei, China. *Med. Sci. Monit.* 26, e924171.
2. Tam, C.W.C., Pang, E.P.F., Lam, L.C.W., Chiu, H.F.K., 2004. Severe acute respiratory syndrome (SARS) in Hong Kong in, 2003: stress and psychological impact among frontline healthcare workers. *Psychol. Med.* 34, 1197–1204.
3. Lee, S.M., Kang, W.S., Cho, A., Kim, T., Park, J.K., 2018. Psychological impact of the 2015 MERS outbreak on hospital workers and quarantined hemodialysis patients. *Compr. Psychiatry* 87, 123–127.
4. Styra, R., Hawryluck, L., Robinson, S., Kasapinovic, S., Fones, C., Gold, W.L., 2008. Impact on health care workers employed in high-risk areas during the Toronto SARS outbreak. *J. Psychosom. Res.* 64, 177–183.
5. Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., et al., 2020. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA network open* 3, e203976.
6. Wu, K.K., Chan, S.K., Ma, T.M., 2005a. Posttraumatic stress after SARS. *Emerg. Infect. Dis.* 11, 1297–1300.
7. Wu, K.K., Chan, S.K., Ma, T.M., 2005b. Posttraumatic stress, anxiety, and depression in survivors of severe acute respiratory syndrome (SARS). *J. Trauma. Stress* 18, 39–42.
8. Chan, A.O.M., Huak, C.Y., 2004. Psychological impact of the 2003 severe acute respiratory syndrome outbreak on health care workers in a medium size regional general hospital in Singapore. *Occup. Med. Oxf. Engl.* 54, 190–196.
9. Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B.X., et al., 2020. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *Lancet Psychiatry* 7, e14.
10. Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., et al., 2020. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *N. Engl. J. Med.* 382 (13), 1199–1207.
11. Liang, Y., Chen, M., Zheng, X., Liu, J., 2020. Screening for Chinese medical staff mental health by SDS and SAS during the outbreak of COVID-19. *J. Psychosom. Res.* 133, 1101–1102.
12. Wenpeng Caia, Bin Lianb, Xiangrui Songa, Tianya Houa, Guanghui Denga and Huifen Lib, 2020. A cross-sectional study on mental health among health care workers during the outbreak of Corona Virus Disease 2019. *Asian J. Psychiatry* 51, 102111. <https://doi.org/10.1016/j.ajp.2020.102111>
13. Sandesh R, Shahid W, Dev K, et al. (July 02, 2020) Impact of COVID-19 on the Mental Health of Healthcare Professionals in Pakistan. *Cureus* 12(7): e8974. doi:10.7759/cureus.8974
14. Rana, W., Mukhtar, S., Mukhtar, S., 2020. Mental health of medical workers in Pakistan during the pandemic COVID-19 outbreak. *Asian J. Psychiatry* 51, 102080
15. Haider, I., Tiwana, F., & Tahir, S. (2020). Impact of the COVID-19 Pandemic on Adult Mental Health. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4). <https://doi.org/10.12669/pjms.36.COVID19-S4.2756>
16. Mohindra, R., R.R, Suri, V., Bhalla, A., Singh, S.M., 2020. Issues relevant to mental health promotion in frontline health care providers managing quarantined/isolated COVID19 patients. *Asian J. Psychiatry* 51, 102084.
17. Kar S.K., Yasir Arafat S.M., Kabir R., Sharma P., Saxena S.K. (2020) Coping with Mental Health Challenges During COVID-19. In: Saxena S. (eds) *Coronavirus Disease 2019 (COVID-19). Medical Virology: From Pathogenesis to Disease Control.* Springer, Singapore. https://doi.org/10.1007/978-981-15-4814-7_16
18. Ho, C.S., Chee, C.Y., Ho, R.C., 2020. Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Ann. Acad. Med. Singapore* 49, 1–3.
19. Xiao, C., 2020. A novel approach of consultation on 2019 novel coronavirus (COVID-19) Related psychological and mental problems: structured letter therapy. *Psychiatr. Invest.* 17 (2), 175–176.
20. Menona V, Padhyb SK, 2020. Ethical dilemmas faced by health care workers during COVID-19 pandemic: Issues, implications and suggestions. *Asian J. Psychiatry* 51, 102116. <https://doi.org/10.1016/j.ajp.2020.102116>.

AUTHORS' CONTRIBUTION:

MAK, RKA: Literature search, study design and concept, questionnaire design, data collection, data analysis

FI: Drafting, Revision and final approval

IB: Data analysis, data interpretation, drafting