# **REVIEW ARTICLE**

# Mental health issues during COVID-19 pandemic

#### Zahid Naeem <sup>1</sup>, Hiba Choudhry <sup>2</sup>, Ghanwa Bareach <sup>3</sup>, Sajida Naseem <sup>4</sup>, Saima Rafi <sup>5</sup>, Sana Mangrio <sup>6</sup>

<sup>1</sup> Professor and HoD, Department of Community Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan.

<sup>2</sup> Demonstrator, Department of Community Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan.

<sup>3</sup> Demonstrator, Department of Community Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan.

<sup>4</sup> Associate Professor, Department of Community Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan.

<sup>5</sup> Demonstrator, Department of Community Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan.

<sup>6</sup> Medical Social Officer, Department of Community Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan.

#### Author's Contribution

<sup>1</sup> Complication and critical review
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<sup>3</sup> Literature searches
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Correspondence
Zahid Naeem
zahid.scm@stmu.edu.pk

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#### ABSTRACT

Mental health issues due to the pandemic of CoVID-19 have not been properly addressed since the outbreak emerged. Numerous studies were conducted worldwide to highlight the importance of the effect of pandemic on mental health. A large number of researches were carried out to address the impacts of CoVID-19. In present times, when social distancing and isolation at home is the main preventive measure suggested by the WHO, mental health problems are surfacing which need to be timely addressed and treated. This review article focuses on the importance of mental health issues after the lockdown, social distancing, staying at home and other measures implemented due to the outbreak of CoVID-19.

Studies have also highlighted the effects of social media on the prevalence of mental health issues in people worldwide. Based on the findings of previous pandemics, mental health problems can leave long lasting and devastating effects on people. Therefore, adequate preventive measures must be taken to avoid such health problems. Studies have been carried out to emphasize the urgent need of research regarding the mental health issues due to CoVID-19. Many psychological problems like depression, anxiety, post-traumatic stress disorder, insomnia, fear of getting infected and death, lack of motivation is common during this perplexing period and the challenge is to remotely access such patients for early diagnosis and prompt treatment. Furthermore, the increase in the cases of domestic violence during this time has also been reported which should be addressed. In order to strengthen the mental health of a community, we must find ways to cope with stress and trauma in a better and healthy way in times of crisis.

**Keywords:** COVID-19, mental health, psychosocial problems, depression, anxiety, stress

# Introduction

In January 2020, a new viral outbreak was declared by the World Health Organization (WHO), which began from the Wuhan City of China in December 2019 in a local fish market. The spread was rapid and thus, a strict lockdown was implemented in the month of March.<sup>1</sup> People were bound to stay at home, wear face masks and

gloves, wash their hands frequently, isolate themselves if they were exposed to the affected person and were advised to a maintain social distance which caused negative effects on the mental health of people worldwide.<sup>1,3</sup> People of all ages and races, belonging to different professions were affected due to the pandemic; be it medical health workers, adults, children or elderly. A lot of psychosocial problems arose; however, very little importance was given to mental health issues globally. As the past pandemics have suggested that these outbreaks leave a long lasting and profound impact on the mental health of people, therefore, serious and rapid steps must be taken to overcome the mental health issues expected in the future.<sup>4-6</sup> Such conditions must be addressed at the right time to provide early diagnosis with timely treatment.<sup>7-9</sup> Here we will discuss the major mental health issues and psychosocial problems among the health care workers and the people from all ages and professions.<sup>10-12</sup>

# Methods

A literature search was conducted in the databases of PubMed, Google Scholar, Medline and PakMediNet published from Feb 2020 to Oct 2020. Ninety articles meeting the eligibility criteria regarding the mental health issues during the era of CoVID-19 were selected through the search. Out of these, 32 most relevant articles were finalized and included for the review which precisely talked about CoVID-19 pandemic causing mental health issues including depression, anxiety, Post Traumatic Stress Disorder, suicidal thoughts, insomnia, domestic violence and its impact on females.

# Depression:

Depression is most common in situations like current pandemic i.e. CoVID-19.<sup>8</sup> the implementation of lockdown and social distancing has left a negative impact on the mental health of people. Most importantly, misconceptions about CoVID-19 being spread on social media lead to a greater number of cases of depression worldwide.<sup>13,15</sup> A number of studies were done during the outbreak of CoVID-19 to compare the effect of pandemic on the mental health of healthcare workers versus nonhealthcare workers which revealed that depression and burnout were more prevailing among the healthcare workers due to increased workload and prolonged stress.<sup>10-12</sup> Previously, pandemics like MERS, SARS and Ebola could have left a long-term negative effect on the mental health of people due to social distancing and less support from the family and friends in times when everyone is worried about their own health.<sup>4-9,16</sup> Some studies showed that depression was more common in young adults due to unemployment, uncertainty and low market for jobs after graduating from universities.<sup>17-19</sup>

A study carried out in Iran found that generally depression is more common in females as compared to males due to the hormonal changes which causes hyper activation of the greater limbic system leading to increased response to the negative stimuli which increases the risk of developing mental health problems like depression.<sup>20</sup> The common clinical manifestations of depression were found to be dull looking skin, loss of appetite, weight loss, loss of interest, irritability etc. due to the negative effects of CoVID-19 pandemic, which can leave profound and prolonged effects on the mental health of people.<sup>21,22</sup> A study by Christoph Pieh showed that physical activity plays an important role in coping with stress during challenging times as the people who were more physically active had less signs of depression.<sup>23</sup>

In order to prevent such problems, awareness programmes to cope with stress during the pandemics must be designed and implemented. There is a need to practice and deliver more effective ways to identify and treat the patients of depression who need more attention during this pandemic.<sup>10, 24</sup>

# Anxiety:

In times of a pandemic, it is common for the people to be stressed as they are socially isolated with few friends and limited family support. In such situations, anxiety is likely to occur especially in children and in young adults due to unemployment and hopelessness.<sup>25</sup> Evidence from a large number of publications indicate that mass tragedies particularly the ones which involve infectious diseases bring a lot of distress and negative impact on the mental health of people worldwide.<sup>26</sup>

One study highlights the prevalence of negative effects on the mental health of people due to the large-scale disasters like mass shooting, infectious diseases, 9/11 world trade Centre USA attack and deep-water horizon oil spill.<sup>27</sup> Some studies showed that social media exposure played a major role in affecting the mental

health of people through the misconceptions and anxiety provoking news about CoVID-19. This resulted in a lot of distress among people in terms of being more scared of getting infected and dying due to CoVID-19.22 Moreover self-isolation, social distancing and having no access to medical care for psychological problems can also cause increased anxiety and fear of death among people.20 People who were not aware of the pandemic spent more time on social media and became more susceptible to developing depression and anxiety symptoms.<sup>18</sup> Many studies focused on the prevalence of anxiety in healthcare workers as mental health problems like panic, distress and anxiety can result in reduced performance at work. Moreover, Young doctors were more susceptible to developing anxiety due to the fear of getting infected, being stigmatized, worried about their families getting infected and above all because of the number of fatalities in the healthcare facilities due to CoVID-19.<sup>15,21</sup>

Another study by Pieh C showed that anxiety was common in children as they experienced lack of concentration, nervousness, and feeling of loneliness at home, also because they were unable to go out and meet friends. It was suggested that increase in the physical activity can prevent symptoms of anxiety disorder.<sup>16</sup> a report by Elisabeth Mahase suggested that interventions should be done to prevent wrong and fake news reaching through social media by promoting right ways to deal with the perplexed situation of CoVID-19 pandemic. Furthermore, it was suggested that health education system must be strengthened, adequate psychological services should be provided and comfortable environment must be given in hospitals and isolation centers to prevent mental health issues during the time of CoVID-19 pandemic.8

#### Suicidal tendencies:

Social distancing and isolation have led to increase in the number of suicide cases.<sup>10</sup> Most common risk factors were testing positive for CoVID-19, stigmatizing the people who were positive, pressure to be self-isolated, loneliness, work related stress, being unable to visit family due to CoVID-19, conflict of families, depression and anxiety due to postponed examinations.<sup>15</sup> A number of studies showed that there was a strong association between economic decline and increase in the number of suicidal attempts worldwide.<sup>20</sup> Statistics of suicide in Pakistan show a rise resulting in extreme stress and anxiety among communities, raising concerns for all the developing and third-world countries .<sup>18</sup>

Furthermore, another study by Mamun MA showed that people who suddenly experienced poverty and economic crisis faced severe situations due to distress and inability to cope with uncertainty. Some suicide attempts were done due to stigmatization and misinformation imposed by other people for example; boycotting people who were suspected of CoVID-19, only to discover later that they were CoVID negative on autopsy. Such inhuman behavior from society can trigger more suicide cases in future.12 a case of infanticide was reported in Saudi Arabia where a nurse killed her infant and then committed suicide as she feared facing economic crisis and getting infected from her sick husband who was hospitalized due to CoVID-19 infection. The uncertainty and fear can lead to devastating incidents worldwide. These problems need to be addressed and fixed by screening the people who are at the risk of developing serious mental health problems.<sup>5</sup>

## Post-traumatic stress disorder (PTSD):

Literature reveals that whenever people were exposed to any such situation, be it mass trauma or pandemics, post-traumatic stress disorder was a global issue. Social media exposure has manifested a major role in increasing depression and anxiety in people in such overwhelming times, which ultimately results in post-traumatic stress disorder.<sup>28</sup> One study indicated that people who survived severe and critical illnesses in the past were at a higher risk of developing depression and PTSD.<sup>29</sup> During the Severe Acute Respiratory Syndrome (SARS) epidemic which was also first identified in China, a number of moderate to severe cases of PTSD were reported among the most affected. Most of the reported cases were females as they are at a higher risk of developing mental health problems in such severe situations.<sup>30</sup> several studies have highlighted the importance of early diagnosis and prompt treatment of mental health problems to avoid severe PTSD symptoms in CoVID-19 pandemic.<sup>28</sup>

# Insomnia:

As CoVID-19 was declared a pandemic by WHO, mental health problems like stress, depression and anxiety became more common among healthcare workers

due to panic and increased workload in the hospital. There was a rise in the number of severe insomnia cases reported among the healthcare workers.<sup>29</sup> A study carried out among healthcare workers in China showed that more than one third of the healthcare workers experienced severe symptoms of insomnia during CoVID-19 pandemic. The risk factors included lower level of education, an isolated environment, psychosocial problems and concerns regarding CoVID-19. Above all, there was a pressure and panic situation at work every day. It was suggested that interventions must be done within the healthcare facility to avoid burnout situations and symptoms related to severe anxiety and insomnia.<sup>19</sup>

A case was presented in China who was negative for CoVID-19, yet showed symptoms of insomnia, restlessness, irritability and bulimia related to stress due to the fear of getting infected and he was diagnosed with early symptoms of mental health issues. He was advised to carry out self-psychological treatment by doing daily workouts, increased physical activity, listening to music, scheduled eating and sleeping habits and by maintaining a healthy lifestyle. Such cases can develop severe symptoms of mental health illnesses with the passage of time. Early diagnosis and prompt treatment can prevent lifelong mental health problems. So, these problems need to be addressed at the right time.<sup>24</sup>

#### Abusive behavior leading to domestic violence:

During the CoVID-19 pandemic, there was a rise in the number of cases of domestic violence all over the world. It is unacceptable at any time and efforts should be made to put an end to such abusive behaviors in our society.<sup>24</sup> such behaviors have a negative impact on the whole family, especially children. In the United Kingdom, a leading domestic abuse organization reported that there was a massive increase in the number of distress calls following the lockdown and strict social distancing measures.<sup>27</sup> Home is a place where one seeks peace and solace, but when people live in an abusive environment, mental health problems are very common. In CoVID-19 pandemic, people who were living in an already abusive environment had to stay at home due to the strict lockdown. This resulted in an increase in the number of domestic violence cases worldwide.30 multiple reports have surfaced due to a noticeable increase in the number of domestic homicides worldwide. A country like Spain,

which was severely affected by the CoVID-19 pandemic, reported its first case of domestic violence within the first week of lockdown where a woman was murdered by her husband in front of their children in the city of Valencia.<sup>27</sup>

Domestic violence is quite common in countries like Pakistan, India and Bangladesh where such cases are not brought to attention due to under reporting and complexities of the reporting process. In order to overcome such problems, it is important to establish an efficient surveillance followed by interventional programmes for domestic violence and child abuse. There should also be an acceptance of the fact that females and children have limited availability to report such cases as some victims are bound to stay at home. Domestic violence and child abuse may have a negative impact on the mental health of a society.28

## Impact on women and girls:

In developing countries like Pakistan, ranking at the second lowest for gender equality as described by the Global Gender Gap Index (UNFPA), gender discrimination remains a major concern even during CoVID-19 Pandemic. Women, who have limited access to education, information and health care, remained most vulnerable during the lockdown as they were the ones taking care of the ill at home as well as doing all the household chores for their families. A study conducted in Pakistan showed that many educated women had to step down from their jobs to carry out their household errands to an extent beyond retrieval.<sup>31</sup> A country like Italy also reported more anxiety in pregnant women during their antenatal period due to social distancing and isolation during the CoVID-19 pandemic.<sup>32</sup>

Due to isolation in the lockdown, domestic violence was increased, placing many women and children at risk.<sup>30</sup> In Pakistan, helpline is commenced for help and facilitation of women when and if required, by the Ministry of Human Rights. Such initiatives should be taken by the governments to prevent the long-term psychological impacts of CoVID-19 on women and children and to protect them.

# Conclusion

The increase in mental health issues during pandemics is alarming as less or no importance was

given to it during previous pandemics. Therefore, with limited literature available, we cannot address these issues effectively. It is evident that pandemics cause mental health issues and we require more research to develop profound measures for early diagnosis of problems like depression, anxiety, insomnia, PTSD to improve the present treatments accordingly.

Furthermore, early diagnosis and intervention through efficient surveillance and screening would be helpful to deal with this impending epidemic of mental health illnesses. In addition, counselling services should also be provided remotely by qualified psychiatrists and clinical psychologists to reach out to the patients who are isolated or quarantined at their homes.

# References

- 1. Mukhtar S. Pakistanis' mental health during the COVID-19. Asia J Psychiatr. 2020; 51:102127.
  - DOI: https://doi.org/10.1016/j.ajp.2020.102127.
- Lee SA. Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. Death Studies. 2020; 44(7):393-401.

DOI: https://doi.org/10.1080/07481187.2020.1748481

- Gao J, Zheng P, Jia Y, Chen H, Mao Y, Chen S, et al. Mental health problems and social media exposure during COVID-19 outbreak. Plos one. 2020; 15(4):e0231924. DOI: https://doi.org/10.1371/journal.pone.0231924
- Holmes EA, O'Connor RC, Perry VH, Tracey I, Wessely S, Arseneault L, et al. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. The Lancet Psych. 2020.
  - DOI: https://doi.org/10.1016/S2215-0366(20)30168-1
- Lee J. Mental health effects of school closures during COVID-19. Lancet Child Adolesc Health. 2020; 4(6):421. DOI: https://doi.org/10.1016/S2352-4642(20)30109-7
- Cullen W, Gulati G, Kelly BD. Mental health in the CoVID-19 pandemic. QJM: In J Med. 2020; 113(5):311-2. DOI: https://doi.org/10.1093/qjmed/hcaa110
- Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: A cross-sectional study. *Int. J. Environ. Res. Public Health.* 2020; 17(7):2381. DOI: https://doi.org/10.3390/ijerph17072381
- Zhang WR, Wang K, Yin L, Zhao WF, Xue Q, Peng M, Min BQ, Tian Q, Leng HX, Du JL, Chang H. Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. Psychother Psychosom. 2020; 89(4):242-50.

DOI: https://doi.org/10.1159/000507639

- 9. Davis N. Urgent studies needed'into mental health impact of Coronavirus. The Guardian. 2020.
- 10. Mahase E. CoVID-19: Mental health consequences of pandemic need urgent research, paper advises.

 Zhang C, Yang L, Liu S, Ma S, Wang Y, Cai Z, et al. Survey of insomnia and related social psychological factors among medical staff involved in the 2019 novel coronavirus disease outbreak. Front Psychiatry. 2020; 11:306.

DOI: https://doi.org/10.3389/fpsyt.2020.00306

- World Health Organization. Mental health and psychosocial considerations during the COVID-19 outbreak, 18 March 2020. World Health Organization; 2020. Available from: https://apps.who.int/iris/bitstream/handle/10665/331490/WHO-2019-nCoV-MentalHealth-2020.1-eng.pdf
- 13. Rasmussen SA, Khoury MJ, Del Rio C. Precision Public Health as a Key Tool in the COVID-19 Response. JAMA. 2020; 324(10):933-4.

DOI: https://doi.org/10.1001/jama.2020.14992

- Williams R, Jenkins DA, Ashcroft DM, Brown B, Campbell S, Carr MJ, et al. Diagnosis of physical and mental health conditions in primary care during the COVID-19 pandemic: a retrospective cohort study. *Lancet Public Health*. 2020; 5(10):e543-50. DOI: https://doi.org/10.1016/S2468-2667(20)30201-2
- Galea S, Merchant RM, Lurie N. The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. JAMA Intern Med. 2020; 180(6):817-8.

DOI: https://doi.org/10.1001/jamainternmed.2020.1562

 Pieh C, Budimir S, Probst T. The effect of age, gender, income, work, and physical activity on mental health during coronavirus disease (COVID-19) lockdown in Austria. J Psychosom Res. 2020; 136:110186.

DOI: https://doi.org/10.1016/j.jpsychores.2020.110186

 Bradbury-Jones C, Isham L. The pandemic paradox: The consequences of COVID-19 on domestic violence. J. Clin. Nurs. 2020.

DOI: https://doi.org/10.1111/jocn.15296

- Gritsenko V, Skugarevsky O, Konstantinov V, Khamenka N, Marinova T, Reznik A, Isralowitz R. COVID 19 Fear, Stress, Anxiety, and Substance Use Among Russian and Belarusian University Students. *Int J* Ment Health Addict. 2020:1. DOI: https://doi.org/10.1007/s11469-020-00330-z
- Mamun MA, Bhuiyan AI, Manzar MD. The first COVID-19 infanticide-suicide case: Financial crisis and fear of COVID-19 infection are the causative factors. Asian J Psychiatr. 2020; 54:102365.

DOI: https://doi.org/10.1016/j.ajp.2020.102365

- Mamun MA, Ullah I. COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty?–The forthcoming economic challenges for a developing country. Brain Behav Immun. 2020. DOI: https://doi.org/10.1016/j.bbi.2020.05.028
- Serafini G, Parmigiani B, Amerio A, Aguglia A, Sher L, Amore M. The psychological impact of COVID-19 on the mental health in the general population. QJM: Int J *Med* Sci Public Health. 2020; 113(8):531-7.

DOI: https://doi.org/10.1093/qjmed/hcaa201

 Zafar SM, Tahir MJ, Malik M, Malik MI, Akhtar FK, Ghazala R. Awareness, anxiety, and depression in healthcare professionals, medical students, and general population of Pakistan during COVID-19 Pandemic: A cross sectional online survey. Med. j. Islam. Repub. Iran (MJIRI). 2020; 34(1):900-7. DOI: https://doi.org/10.34171/mjiri.34.131

 Rogers JP, Chesney E, Oliver D, Pollak TA, McGuire P, Fusar-Poli P, Zandi MS, Lewis G, David AS. Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. Lancet Psychiatr. 2020.

DOI: https://doi.org/10.1016/S2215-0366(20)30203-0

 Wang J, Wang JX, Yang GS. The Psychological Impact of COVID-19 on Chinese Individuals. Yonsei Med J. 2020; 61(5):438.

DOI: https://doi.org/10.3349/ymj.2020.61.5.438

- Ahorsu DK, Lin CY, Imani V, Saffari M, Griffiths MD, Pakpour AH. The fear of COVID-19 scale: development and initial validation. *Int J* Ment Health Addict. 2020. DOI: https://doi.org/10.1007/s11469-020-00270-8
- Ornell F, Schuch JB, Sordi AO, Kessler FH. "Pandemic fear" and COVID-19: mental health burden and strategies. Brazilian Journal of Psychiatry. 2020; 42(3):232-5. DOI: https://doi.org/10.1590/1516-4446-2020-0008
- Kumar A, Nayar KR. COVID 19 and its mental health consequences. J Ment Health. 2020:1-2. DOI: https://doi.org/10.1080/09638237.2020.1757052
- Kofman YB, Garfin DR. Home is not always a haven: The domestic violence crisis amid the COVID-19 pandemic. Psycho trauma: theory, research, practice, and policy. 2020. DOI: https://doi.org/10.1037/tra0000866
- Torales J, O'Higgins M, Castaldelli-Maia JM, Ventriglio A. The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int J Soc Psychiatry*. 2020:0020764020915212. DOI: https://doi.org/10.1177/0020764020915212
- Russell BS, Hutchison M, Tambling R, Tomkunas AJ, Horton AL. Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent–child relationship. Child Psychiatry Hum. Dev. 2020; 51(5):671-82. DOI: https://doi.org/10.1007/s10578-020-01037-x
- Safdar M, Yasmin M. COVID-19: A threat to educated Muslim women's negotiated identity in Pakistan. Gender Work Organization. 2020.
   DOI: https://doi.org/10.1111/journe.10457

DOI: https://doi.org/10.1111/gwao.12457

 Saccone G, Florio A, Aiello F, Venturella R, De Angelis MC, Locci M, et al. Psychological impact of coronavirus disease 2019 in pregnant women. Am J Obster Gynecol. 2020 Aug; 223(2): 293-95.

DOI: https://doi.org/10.1016/j.ajog.2020.05.003