

Impact on mental health by “Living in Isolation and Quarantine” during COVID-19 pandemic

Dear Editor,

We read with great interest the recent article by Rohilla *et al.* published in your esteemed journal.^[1] We would hereby like to add our perspective of mental health issues during COVID-19 era.

The ongoing Coronavirus (COVID-19) pandemic by the novel strain SARS-CoV-2 has dragged the entire world to its feet leaving people scared and anxious. Starting in December 2019 from Wuhan, China, COVID-19 has spread like rapid fire to more than 200 countries.^[2] As of July 20, 2020, worldwide there are 14,686,829 confirmed COVID-19 cases and 609,835 deaths.^[3] COVID-19 is challenging not just for its medical phenomenon, but also for its capability to affect the financial, mental, emotional wellbeing of the individuals across the globe.^[4,5] National agencies, Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and many other organizations are promoting to follow non-pharmacological interventions (NPIs) to combat the pandemic.^[6] However, amidst the challenges of mitigating COVID-19, little has been known about the mental health impact of NPIs.

There is significant evidence to suggest the importance of socialization and connectivity in maintaining a good mental wellbeing.^[7] Social networking, community engagement, and participation have been shown to be associated with both physical and psychological well-being.^[7,8] Detrimental effects on mental health are expected to arise with isolation, neglect, and loneliness. COVID-19 pandemic has multi-dimensional impact on our physical, mental, social, and emotional wellbeing.^[8,9] Similar experience was reported during previous coronavirus pandemics, namely SARS and MERS pandemic.^[10-12] Mental health issues like anxiety, depression, post-traumatic stress disorder (PTSD) are some of the mental illnesses that are on rise ever since the COVID-19 pandemic started which needs immediate attention.

Usually, people suffering from mental illnesses are advised to socialize as a part of therapy in most of the psychiatric illnesses. However, for containment of the COVID-19 pandemic, almost all countries are endorsing the concept of social distancing, quarantine, and isolation as the most effective strategies.^[13] It has been a couple of months since many countries like India, Italy, Spain, France, etc., are on lockdown with citizens sheltering inside their own houses and following the social distancing protocols.

With “restriction of movement” and “not socializing with each other” becoming a new normal lifestyle for most of us, mental vulnerability to conditions like anxiety and depression has been increasingly recognized.

During previous outbreaks of severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS) outbreak, many studies confirmed that there were worsening mental illness symptoms in an individual with preexisting mental health conditions as well as healthy individuals. For example, in Hong Kong, about 70% of people expressed anxiety about getting SARS and people reported they believed they were more likely to contract SARS than the common cold.^[14] Hypervigilance, for example, can arise because of fear and anxiety and, in severe cases, result in post-traumatic stress disorder (PTSD) and/or depression.^[15] Another aspect that can complicate mental illness symptoms during such times is discrimination. For example, the 2014 Ebola outbreak was considered an African problem resulting in discrimination against those of African descent.^[16] Similarly, the 2009 H1N1 flu outbreak in the USA saw Mexican and migrant workers targeted for discrimination.^[17] Since January 2020, the UK and the USA have reported increased reports of violence and hate crimes towards people of Asian descent and an overall rise in Anti-Chinese sentiment because of the spread of COVID-19.^[18]

Since isolation and quarantine from the loved ones is the norm of the current world situation, it can often precipitate depression and anxiety and often feel they are being ripped off their purpose of living. Isolation is known to cause a lot of stress which can exacerbate feelings of anxiety and uncertainty.

Post-Traumatic Stress

Having to be isolated from the society being affected with the SARS-CoV-2 virus, and the fear of transmitting it to the loved ones, patients are prone to experience PTSD which could affect the mental wellbeing of an individual in the long run. Psychological trauma can result in mixture of emotional surges like nightmares, self-blame, flashbacks, and experiencing recurrent thoughts of the trauma.^[19] This could happen to the patients as well as to the health care providers. Risk factors that makes patients susceptible to PTSD are self-quarantine, self-isolation, fear of death social discrimination, witnessing others becoming sick and dying and so on. Similarly, for health care professionals, COVID-19 has brought innumerable challenges.^[6] Witnessing frequent deaths, fear of acquiring the infection, spreading to the other family members, lack of adequate personal protective equipment's etc., can expose them to recurrent mental trauma and to PTSD.^[20]

A study was conducted in China on patients who were infected with COVID-19.^[21] Online assessment using a 17 item self-reported

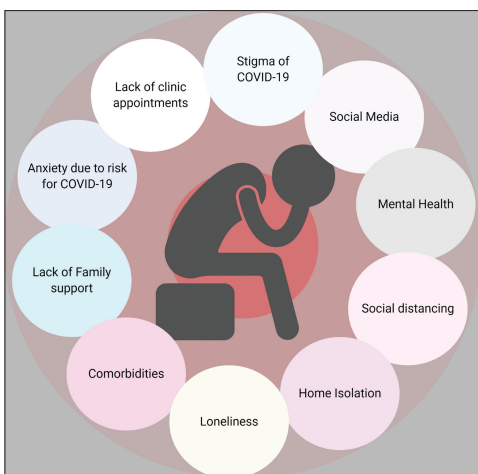


Figure 1: Pictorial description of the potential concerns of a person during COVID-19

PTSD checklist (PCL-C) was used. A total of PCL-C score of ≥ 50 is an indication of having significant posttraumatic stress symptoms. A total of 730 COVID-19 patients were assigned in the study and the prevalence of significant posttraumatic stress symptoms was 99.6.2% (95% CI: 94.8% -97.6%).

In addition to the psychological impact, a recent report suggested immune dysregulation in patients suffering from chronic stress secondary to PTSD which might make them prone to opportunistic infections like COVID-19 pneumonia.^[22]

Information Adding Anxiety and Fear

In a crisis like this, it's a common interest of people to find out as much information as possible to stay tuned on what is going on around them people are consuming information on every platform available like WhatsApp, Facebook, YouTube, Twitter, and many others, which necessarily does not contain accurate information. Subjects who used updates via phone text messages and used social media for critical updates during the lockdown had higher chances of exposing themselves to false information and stress [Figure 1]. Higher acute stress was seen in heavy social media users in the study. This report highlights the importance of releasing substantive official updates at regular intervals during a crisis event and monitoring social media to reduce exposure to misleading information and distress 36.2% (95% CI: 94.8% -97.6%).^[21] Other factors that could contribute to the anxiety and mental unrest are fear of losing job, financial crisis, interruption in studies, physical inactivity, running out of medicines, lack of sleep, social isolation, fear of acquiring infection.^[23-26]

When we are grappling with this gigantic global crisis humans can get creative with their social interactions and can even have trivia nights with your coworkers or friends or maybe even have a virtual date night. Having this social connection can improve not just your mental health but your physical health as well. These social interactions give us a sense of togetherness as a species in our fight against this virus. Moreover, experts suggest having

a daily routine can help fight anxiety during this unprecedented time. Having a routine while maintaining the sleep cycle can have a positive impact.^[27]

Emerging Role of Telemedicine in Psychiatry

The impact of isolation can be more severe in individuals with preexisting mental illness, with worsening of anxiety, depression, despair, and feeling of loss of control. Coping with pandemic can get especially difficult when patient's access to its primary source of support and care is restricted. There is a tremendous role of psychotherapy in the treatment of anxiety, depression, and PTSD, and other mental illnesses. Not only do regular visits to the clinic help in getting appropriate therapy and care, but they also add a good working schedule for individuals. Patients suffering with alcoholism and other substance use disorders who are associated with various deaddiction programs might also find it difficult to refill their prescribed medications like methadone, suboxone, etc., Also, it is difficult to continue their engagement with support groups, and programs due to closure of these societies.

However, despite knowing the importance of in person encounter in clinical practice of psychiatry, unfortunately due to the fear of community transmission, cross infections, and other logistic reasons of lockdown, travel restrictions, and limited health care access, health care providers are not able to execute their health services to their patients suffering from various mental health issues.

Telemedicine service has proved itself as an important asset, and a way of effective communication between patients and their physicians.^[28] It has especially proven to be of great benefit for patients with mental conditions to receive psychoeducation in a timely fashion via using telemedicine and remote medical care services.^[29] This will be of utmost importance especially in patients who are having active psychiatric disease flare up.^[29,30] Kalin *et al.* recently share their successful institutional experience with telemedicine in the inpatient setting. They shared their experience based on 110 tele encounters during inpatient psychiatry consults.^[31] They could successfully accomplish an effective dialogue exchange and were able to execute supportive psychotherapy during tele encounters. Although, in our opinion a telemedicine is certainly an immediate solution to provide the supportive therapy to patients, it can never replace the impact, and positive outcome of an in-person meeting. Also, it might not be possible to communicate and engage in an effective conversation in patients who are mentally challenged or in children with ADHD, autism, etc., A healthy parenting might help in such scenarios till the regular clinic visits services are resumed.

Conclusion

From the mental health perspective, so far, the COVID-19 pandemic has been extremely challenging. With the uncertainty of the current living situation, people with preexisting mental illnesses like PTSD, anxiety, depression, and severe persistent

mental illness are prone to having worsening of their conditions, and studies from the past pandemics reflect the same. Time-bound behavioral therapy should be provided to persons who exhibit signs of mental disorders to reduce the cognitive effects of the pandemic. Psychiatrists and psychotherapists should maximize the use of telemedicine services use to connect to their patients.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Ankit Jain¹, Krishna Priya Bodicherla², Qasim Raza¹, Kamal Kant Sahu³

¹Department of Psychiatry, Penn State College of Medicine, Milton S. Hershey Medical Center Hershey, Pennsylvania, United States, ²New York Institute of English and Business, New York, ³Department of Medicine, Saint Vincent Hospital, Worcester, USA

Address for correspondence: Dr. Kamal Kant Sahu,
Saint Vincent Hospital, Worcester 01608, USA.
E-mail: drkksahu85@gmail.com

References

1. Rohilla J, Tak P, Jhanwar S, Hasan S. Primary care physician's approach for mental health impact of COVID-19. *J Family Med Prim Care* 2020;9:3189-94.
2. Sahu KK, Kumar R. Current perspective on pandemic of COVID-19 in the United States. *J Family Med Prim Care* 2020;9:1784-91.
3. Coronavirus Update (Live): 8,228,019 Cases and 444,442 Deaths from COVID-19 Virus Pandemic-Worldometer [Internet]. [cited 2020 Jun 16]. Available from: <https://www.worldometers.info/coronavirus/#countries>
4. Banerjee D. The COVID-19 outbreak: Crucial role the psychiatrists can play. *Asian J Psychiatr* 2020;50:102014.
5. Mishra AK, Lal A, Sahu KK, Sargent J. Cardiovascular factors predicting poor outcome in COVID-19 patients. *Cardiovasc Pathol* 2020;49:107246.
6. Sahu KK, Kumar R. Preventive and treatment strategies of COVID-19: From community to clinical trials. *J Family Med Prim Care* 2020;9:2149-57.
7. Cornwell B, Laumann EO. The health benefits of network growth: New evidence from a national survey of older adults. *Soc Sci Med* 2015;125:94-106.
8. Bäuerle A, Teufel M, Musche V, Weismüller B, Kohler H, Hetkamp M, *et al.* Increased generalized anxiety, depression and distress during the COVID-19 pandemic: A cross-sectional study in Germany. *J Public Health (Oxf)* 2020. doi: <https://doi.org/10.1093/pubmed/fdaa106>
9. Kontoangelos K, Economou M, Papageorgiou C. Mental health effects of COVID-19 pandemic: A review of clinical and psychological traits. *Psychiatry Investig* 2020;17:491-505.
10. Chua SE, Cheung V, Cheung C, McAlonan GM, Wong JWS, Cheung EPT, *et al.* Psychological effects of the SARS outbreak in Hong Kong on high-risk health care workers. *Can J Psychiatry* 2004;49:391-3.
11. Jeong H, Yim HW, Song Y-J, Ki M, Min J-A, Cho J, *et al.* Mental health status of people isolated due to Middle East Respiratory Syndrome. *Epidemiol Health* [Internet] 2016 [cited 2020 Jul 20]; 38. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5177805/>.
12. Lee AM, Wong JGWS, McAlonan GM, Cheung V, Cheung C, Sham PC, *et al.* Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry* 2007;52:233-40.
13. Jindal V, Sahu KK, Gaikazian S, Siddiqui AD, Jaiyesimi I. Cancer treatment during COVID-19 pandemic. *Med Oncol* 2020;37:58.
14. Cheng C, Cheung MWL. Psychological responses to outbreak of severe acute respiratory syndrome: A prospective, multiple time-point study. *J Pers* 2005;73:261-85.
15. Perrin PC, McCabe OL, Everly GS, Links JM. Preparing for an influenza pandemic: Mental health considerations. *Prehosp Disaster Med* 2009;24:223-30.
16. Project MUSE-Ebola as African: American media discourses of panic and otherization [Internet]. [cited 2020 Jun 24]. Available from: <https://muse.jhu.edu/article/658604/summary>.
17. McCauley M, Minsky S, Viswanath K. The H1N1 pandemic: Media frames, stigmatization and coping. *BMC Public Health* 2013;13:1116.
18. Van Dorn A, Cooney RE, Sabin ML. COVID-19 exacerbating inequalities in the US. *Lancet* 2020;395:1243-4.
19. Nesterko Y, Jäckle D, Friedrich M, Holzapfel L, Glaesmer H. Factors predicting symptoms of somatization, depression, anxiety, post-traumatic stress disorder, self-rated mental and physical health among recently arrived refugees in Germany. *Confl Health* 2020;14:44.
20. Hall H. The effect of the COVID-19 pandemic on healthcare workers' mental health. *JAAPA* 2020;33:45-8.
21. Bo H-X, Li W, Yang Y, Wang Y, Zhang Q, Cheung T, *et al.* Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med* 2020. doi: 10.1017/S0033291720000999.
22. Liang X, Zhu Y, Fang Y. COVID-19 and post-traumatic stress disorder: A vicious circle involving immunosuppression. *CNS Neurosci Ther* 2020;26:876-8.
23. Gibbs L, Minelli N, Larrivee J, Sahu KK, Siddiqui AD. Oncology dietitians sound alarm in key nutrition needs of cancer patients during COVID-19 pandemic. *JCO Oncol Pract* 2020. doi: 10.1200/OP. 20.00349.
24. Infographic: Pandemic Causes Spike in Anxiety & Depression [Internet]. Statista Infographics. [cited 2020 Jul 20]. Available from: <https://www.statista.com/chart/21878/impact-of-coronavirus-pandemic-on-mental-health/>.
25. 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.
26. Santini ZI, Jose PE, York Cornwell E, Koyanagi A, Nielsen L, Hinrichsen C, *et al.* Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among

older Americans (NSHAP): A longitudinal mediation analysis. *Lancet Public Health* 2020;5:e62-70.


27. Cortese S, Asherson P, Sonuga-Barke E, Banaschewski T, Brandeis D, Buitelaar J, *et al.* ADHD management during the COVID-19 pandemic: Guidance from the European ADHD Guidelines Group. *Lancet Child Adolescent Health* 2020;4:412-4.
28. Sánchez-González MÁ. The role of consultation-liaison psychiatry in the COVID-19 pandemic. *Prim Care Companion CNS Disord* 2020;22. doi: 10.4088/pcc.20com02669.
29. Shah K, Kamrai D, Mekala H, Mann B, Desai K, Patel RS, *et al.* Focus on mental health during the coronavirus (COVID-19) pandemic: Applying learnings from the past outbreaks. *Cureus J Med Sci [Internet]* 2020 [cited 2020 Jun 24];12. Available from: <https://www.cureus.com/articles/29485-focus-on-mental-health-during-the-coronavirus-covid-19-pandemic-applying-learnings-from-the-past-outbreaks>.
30. Sahu KK, Mishra A, Naraghi L. Erythema ab igne as a complication of cannabinoid hyperemesis syndrome. *BMJ Case Rep* 2019;12:e227836.
31. Kalin ML, Garlow SJ, Thertus K, Peterson MJ. Rapid implementation of telehealth in hospital psychiatry in response to COVID-19. *Am J Psychiatry* 2020;177:636-7.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Received: 02-08-2020

Accepted: 18-08-2020

Published: 30-10-2020

Access this article online	
Quick Response Code: 	Website: www.jfmpc.com
	DOI: 10.4103/jfmpc.jfmpc_1572_20

How to cite this article: Jain A, Bodicherla KP, Raza Q, Sahu KK. Impact on mental health by "Living in Isolation and Quarantine" during COVID-19 pandemic. *J Family Med Prim Care* 2020;9:5415-8.

© 2020 Journal of Family Medicine and Primary Care | Published by Wolters Kluwer - Medknow