

Suicide of a farmer amid COVID-19 in India: Perspectives on social determinants of suicidal behavior and prevention strategies

Md Mahbub Hossain,¹ Neetu Purohit,² Rachit Sharma,³ Sudip Bhattacharya,⁴
E. Lisako J. McKyer,¹ Ping Ma¹

ABSTRACT

The coronavirus disease (COVID-19) has impacted not only physical health but also mental health and wellbeing globally. These impacts can be critically higher among marginalized individuals and populations like farmers in India. While most of them live in poor socioeconomic conditions, recent psychosocial challenges due to the COVID-19 lockdown had brought endless suffering in their lives. In this article, we describe a case of suicide of an Indian farmer amid COVID-19 lockdown, who had debts and could not find laborers during the lockdown leading to a helpless situation committing suicide. In India, nearly 16,500 farmers commit suicide each year, which can aggravate if psychosocial and economic challenges like COVID-19 continues to affect them. We recommend psychosocial interventions among vulnerable farmers alongside strengthening economic support and institutional measures alleviating socioeconomic challenges and minimizing disparities in social determinants of suicidal behavior to prevent suicide among Indian farmers amid the COVID-19 pandemic.

Keywords: Suicide; Suicidal Behavior; Coronavirus; COVID-19; Mental Health; Farmers; India

¹ Department of Health Promotion and Community Health Sciences, Texas A&M School of Public Health, TX 77843, USA.

² Indian Institute of Health Management Research, Jaipur, Rajasthan, India.

³ The INCLEN Trust International, New Delhi, India.

⁴ Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand, India.

Corresponding author: Md Mahbub Hossain, Department of Health Promotion and Community Health Sciences, Texas A&M School of Public Health, TX 77843, USA.

Email: mhossain@tamu.edu

Introduction

The novel coronavirus disease (COVID-19) has become a global health concern that is impacting both physical and mental health across populations. Alongside depression, anxiety, distress, phobia, and many other psychological impacts (Rajkumar, 2020), COVID-19 is also found to be associated with suicidal behavior (Sher, 2020). Several cases of suicide are reported amid COVID-19 (Goyal et al., 2020; Mamun and Griffiths, 2020; Sahoo et al., 2020), where the affected individual experienced psychosocial stressors attributable to fears and misconceptions on COVID-19. In this article, we describe a case of suicide committed by a farmer in India, evaluate the social determinants of suicidal behavior in that context, and discuss potential interventions addressing the same.

COVID-19 and suicide of a farmer in India

Rajkaran Shukla, a 52-year-old farmer from Uttar Pradesh, India, reportedly committed suicide by hanging himself from a tree in his own agricultural field (The Telegraph, 2020). Reports from his family members and villagers provided several insights on the etiology of his suicide. He recently lost two-acre lentil crop out of his four acres land due to waterlogging. Similar incidence threatened the remaining two-acre land where he cultivated wheat, necessitating rapid harvesting to save the crop. However, harvesting required laborers who refused to work during the lockdown. Rajkaran was also worried about repaying Rs. 1.5 lacs of debt that he had taken from a private moneylender.

Social determinants of suicidal behavior among Indian farmers

The case of Rajkaran Shukla is unique as he was not living with a fear of being infected with COVID-19, as seen in earlier cases of suicide amid this pandemic (Goyal et al., 2020; Mamun and Griffiths, 2020; Sahoo et al., 2020). Rather, he experienced critical psychosocial stressors that determined his suicidal behavior, especially when he lost hope to harvest due to the scarcity of laborers (The Telegraph, 2020). A nationwide

lockdown has impacted mobility and employment across India, where the marginalized populations like farmers and day laborers are affected the most (BBC, 2020). As this informal workforce remains beyond the scope of institutional assessments and protections, economic benefits offered through organized approaches are less likely to reach these populations effectively. Those who are already living under poor socioeconomic conditions and experiencing adverse psychosocial events become more vulnerable to the psychological impacts of COVID-19 as they have fewer means to cope with the challenging situations around themselves.

Suicidal behavior is not new among farmers in India. Between 1995 and 2012, a total of 298,084 cases of suicides are recorded among Indian farmers with an estimation that nearly 16,500 farmers die by suicide in India each year (Nagaraj et al., 2014). This number is likely to be underreported as the cases of suicide are less likely to be documented, and the underlying reasons associated with those cases remain unexplored and unaddressed. A review evaluated factors associated with such a high burden of suicide among Indian farmers (Merriott, 2016), which found that socioeconomic factors, rather than psychiatric problems, were predominantly associated with suicidal behavior in this vulnerable population. Those factors include a lack of agricultural investments, increased credits from noninstitutional sources, the use of cash crops, issues related to irrigation, and challenges associated with trading the crops. These challenges highlight the importance of emphasizing on social determinants of mental health among Indian farmers. Their day-to-day life is constrained by structural inequities that affect their socioeconomic wellbeing and quality of living (Merriott, 2016; Nagaraj et al., 2014). Moreover, a prolonged deterioration of psychosocial health and wellbeing often leaves them helpless and hopeless, making it difficult for them to cope with acute stressors, often leading to suicidal behavior.

COVID-19 may directly impact mental health and wellbeing among individuals and populations; however, infection prevention measures like lockdown may have indirect socioeconomic and psychological implications (Hiremath et al., 2020; Hossain et al., 2020b), as found in the case of Rajkaran Shukla. A lack of unavailability of laborers amid COVID-19 lockdown was a critical challenge for him, whereas he had already lost one crop and had been living with debt and associated psychosocial stress (The

Telegraph, 2020). Taken together, preexisting psychosocial challenges followed by adverse life events amid COVID-19 may have influenced his suicide. Furthermore, mental disorders are highly prevalent in India and other South Asian countries (Hossain et al., 2020a), whereas the mental health systems are inadequate to provide preventive and therapeutic care to the affected individuals. Especially in rural areas, both the awareness of mental health and the availability of mental health services are critically low (Maulik et al., 2018). Therefore, farmers experiencing depression, anxiety, and suicidal behavior are less likely to receive mental health care, which could be another imperative issue pertinent to inequitable mental health access among marginalized individuals. Such challenges should be considered while assessing the social determinants of suicidal behavior in this context. As harvesting season approaches in India, more farmers like him are likely to experience similar challenges during this lockdown, who would have deteriorated socioeconomic disparities and poor access to psychosocial care when they need it most. These necessitate multipronged interventions to prevent future cases of suicide among Indian farmers.

Recommended strategies for preventing suicide among farmers and marginalized populations

Several strategies to prevent suicide are recommended in the context of COVID-19 (Gunnell et al., 2020). However, the relevance of such strategies should be carefully assessed for marginalized individuals like Indian farmers, who continue to experience unique psychosocial challenges associated with suicidal behavior. We recommend the following strategies to prevent suicide among farmers and marginalized populations in India:

1. Extending institutional financial aid to provide immediate support to recover from economic losses amid COVID-19
2. Revising the rates of interests and terms of repayment for institutional loans as appropriate for each context and individual needs

3. Evaluating informal debts and arranging formal agreements under the supervision of public regulatory authorities alleviating the economic burden among marginalized individuals
4. Mobilizing public and private agencies to facilitated harvesting and trading of crops during the peak season
5. Recruiting laborers, temporary workers, and volunteers using preventive precautions monitored by local health and agricultural authorities
6. Strengthening social welfare and safety-net programs to protect the ultra-poor during the COVID-19 lockdown
7. Organizing mass media campaigns and infotainment programs to alleviate the fear of COVID-19 and promote regular activities with preventive measures
8. Arranging community-based mental health promotion programs engaging community stakeholders and psychosocial care providers
9. Incorporating mental health services in primary care as well as telemedicine programs with provisions of referral for qualified cases
10. Providing targeted individual and group-based interventions for individuals who have acute or chronic psychosocial problems
11. Prioritizing psychosocial needs of marginalized populations in health and social policymaking amid COVID-19
12. Fostering multisectoral collaborations to improve social determinants of mental health and continuum of psychosocial care for the affected individuals

These recommendations emphasize improving the root causes of suicidal behavior that are associated with socioeconomic challenges experienced by Indian farmers alongside psychosocial measures. Such multipronged interventions, especially those focusing on alleviating agro-economic burden, may substantially reduce the risks of suicide among farmers (Merriott, 2016). A study evaluating inter-state variations of suicide rates and associated factors found that states with easy-to-access financial services and pro-agricultural policies had lower rates of suicide in India (Sadanandan, 2014). Amid COVID-19 lockdown, such measures may substantially reduce the socioeconomic challenges experienced by Indian farmers and prevent suicidal behavior.

Conclusion

COVID-19 is imposing psychosocial challenges among individuals and populations, which can be unique and severe among marginalized populations like Indian farmers who have a preexisting psychosocial burden of suicidal behavior. In addition to regular mental health interventions, it is necessary to assess the social determinants of suicidal behavior in this population and adopt multipronged multilevel interventions, including social and economic support to the affected individuals. Furthermore, a well-committed policy-level collaboration among mental health practitioners, researchers, health policymakers, and stakeholders from social welfare authorities is critical to acknowledge and address suicide among vulnerable farmers in India.

Conflict of interest: We declare no conflict of interest.

Funding: No funding was received at any stage of preparing this manuscript.

Acknowledgment: None.

Authors contributions: MMH and NP conceptualized this correspondence. MMH, RS and SB conducted the literature review. MMH, NP and ELJM evaluated and extracted data from the selected literature. MMH wrote the first manuscript and PM critically edited the same. All the authors contributed in revising and finalizing the submitted version of the manuscript.

References

- BBC, 2020. Coronavirus: India's pandemic lockdown turns into a human tragedy - BBC News [WWW Document]. URL <https://www.bbc.com/news/world-asia-india-52086274> (accessed 5.9.20).
- Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., Singh, M.P., 2020. Fear of COVID 2019: First suicidal case in India ! *Asian J. Psychiatr.* <https://doi.org/10.1016/j.ajp.2020.101989>
- Gunnell, D., Appleby, L., Arensman, E., Hawton, K., John, A., Kapur, N., Khan, M., O'Connor, R.C., Pirkis, J., Caine, E.D., Chan, L.F., Chang, S. Sen, Chen, Y.Y., Christensen, H., Dandona, R., Eddleston, M., Erlangsen, A., Harkavy-Friedman, J., Kirtley, O.J., Knipe, D., Konradsen, F., Liu, S., McManus, S., Mehlum, L., Miller, M., Moran, P., Morrissey, J., Moutier, C., Niederkrotenthaler, T., Nordentoft, M., O'Neill, S., Page, A., Phillips, M.R., Platt, S., Pompili, M., Qin, P., Rezaeian, M., Silverman, M., Sinyor, M., Stack, S., Townsend, E., Turecki, G., Vijayakumar, L., Yip, P.S., 2020. Suicide risk and prevention during the COVID-19 pandemic. *The Lancet Psychiatry.* [https://doi.org/10.1016/S2215-0366\(20\)30171-1](https://doi.org/10.1016/S2215-0366(20)30171-1)
- Hiremath, P., Suhas Kowshik, C.S., Manjunath, M., Shettar, M., 2020. COVID 19: Impact of lock-down on mental health and tips to overcome. *Asian J. Psychiatr.* 51, 102088. <https://doi.org/10.1016/j.ajp.2020.102088>
- Hossain, M.M., Purohit, N., Sultana, A., Ma, P., McKyer, E.L.J., Ahmed, H.U., 2020a. Prevalence of mental disorders in South Asia: An umbrella review of systematic reviews and meta-analyses. *Asian J. Psychiatr.* 51, 102041. <https://doi.org/10.1016/j.ajp.2020.102041>
- Hossain, M.M., Sultana, A., Purohit, N., 2020b. Mental Health Outcomes of Quarantine and Isolation for Infection Prevention: A Systematic Umbrella Review of the Global Evidence. *SSRN Electron. J.* <https://doi.org/10.2139/ssrn.3561265>
- Mamun, M.A., Griffiths, M.D., 2020. First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. *Asian J. Psychiatr.* 51, 102073. <https://doi.org/10.1016/j.ajp.2020.102073>
- Maulik, P.K., Kallakuri, S., Devarapalli, S., 2018. Operational challenges in conducting a community-based technology-enabled mental health services delivery model for rural India: Experiences from the SMART Mental Health Project [version 1; referees: 3 approved]. *Wellcome Open Res.* 3. <https://doi.org/10.12688/wellcomeopenres.14524.1>
- Merriott, D., 2016. Factors associated with the farmer suicide crisis in India. *J. Epidemiol. Glob. Health.* <https://doi.org/10.1016/j.jegh.2016.03.003>
- Nagaraj, K., Sainath, P., Rukmani, R., Gopinath, R., 2014. Farmers' Suicides in India: Magnitudes, Trends, and Spatial Patterns, 1997–2012. *Rev. Agrar. Stud.* 4, 1997–2012.
- Rajkumar, R.P., 2020. COVID-19 and mental health: A review of the existing literature. *Asian J. Psychiatr.* 52, 102066. <https://doi.org/10.1016/j.ajp.2020.102066>
- Sadanandan, A., 2014. Political economy of suicide: financial reforms, credit crunches and farmer suicides in India. *J. Dev. Areas* 48, 287–307.
- Sahoo, S., Rani, S., Parveen, S., Pal Singh, A., Mehra, A., Chakrabarti, S., Grover, S., Tandup, C., 2020. Self-harm and COVID-19 Pandemic: An emerging concern – A report of 2 cases from India. *Asian J. Psychiatr.* <https://doi.org/10.1016/j.ajp.2020.102104>

Sher, L., 2020. COVID-19, anxiety, sleep disturbances and suicide. *Sleep Med.*
<https://doi.org/10.1016/j.sleep.2020.04.019>

The Telegraph, 2020. Farmer suicide during coronavirus lockdown tied to harvest [WWW Document]. URL <https://www.telegraphindia.com/india/farmer-suicide-during-coronavirus-lockdown-tied-to-harvest/cid/1764452> (accessed 5.9.20).