



Letter to the Editor

**Discrimination in COVID-19 vaccination programs – A possible risk for mental health**

The World Health Organization (WHO) issued the first Emergency Use Listing (EUL) for the first vaccine in December 2020; nearly a year after the outbreak of Coronavirus Disease (COVID-19) began and was later declared a pandemic. The WHO has approved or is currently reviewing the efficacy and safety of more than 100 vaccines using various platforms (World Health Organization, 2021). Since then, numerous countries have implemented mass vaccination programs. Though the long-term duration of COVID-19 vaccine protection has not been determined, vaccination is strongly recommended if available. Unfortunately, there is considerable variation in the rate and efficacy of COVID-19 vaccination programs across countries, resulting in an alarming inequity of "the right to health." According to some estimates, a high percentage of the total population in some developed countries has been fully vaccinated against COVID-19, while many other countries are expanding the program. On the other hand, vaccination rates are extremely low in some other countries, primarily developing countries, despite the disease's high prevalence.

Since the burden of COVID-19 is not uniform worldwide, the pandemic's emergence has drawn attention to inequities in health service accessibility. Previous studies have found that inequity in access to health services can lead to adverse health consequences for deprived populations (Arcaya et al., 2015). Mental health is not an exception in this case. Perceived interpersonal discrimination in health care is a risk factor for poorer mental health and psychological distress (Allen, Balfour et al. 2014). Today, perceived inequity is amplified by social media availability. Numerous studies (Boccardi and Boccardi, 2021) have examined the psychosocial consequences of COVID-19 infection and the impact of a pandemic on public mental health (Tandon, 2021a, b). The studies reported that individuals with lower social, medical, and economic resources experience higher anxiety levels and depressive symptoms (Ettman, Abdalla et al. 2020). Furthermore, individuals in more affected communities experienced increased psychological distress due to COVID-19 (Cao, Zuo et al. 2020).

Perceived racial discrimination in clinical care was significantly associated with higher levels of psychological distress among African Americans in a study conducted in the US during the pandemic (Cobb, Erving et al. 2021). Whether real or perceived, any inequity in health care appears to have a detrimental effect on mental health. It is worth noting that a particularly vulnerable group are those who have a severe mental illness, for whom this additional burden may exacerbate their condition and restrict their access to treatment services (Tandon, 2021a, b).

We believe that any form of discrimination, real or perceived, in vaccination, the most effective strategy against COVID-19 at the moment, is a global issue of mental health concern. Perceived inequity in vaccination priorities and vaccine brand can intensify the already high level of uncertainty, fear of death, and loneliness (Kumar and

Nayar, 2021), most likely via psychological phenomena such as fear of missing out and social exclusion. Accountable policymakers would be prudent to address this issue by publishing and broadcasting a vaccination plan with a clear strategy and schedule. Combating misinformation spread by the media, particularly those that compare the efficacy and side effects of available vaccine brands, is also imperative (Tandon, 2021a, b).

On the other hand, the disparity in vaccination programs could affect pandemic control. Longer lock-down and its associated boredom, monotony, and economic challenges (Kumar and Nayar, 2021), alongside perceived discrimination, can lower adherence to quarantine protocols. The risk of the emergence of new variants against which current vaccines are ineffective will not be eliminated until the global contagion cycle is broken. As a result, vaccination coverage of 75 % of the global population is more crucial than the complete vaccination of developed countries. Additionally, vaccines should be prioritized for vulnerable subgroups, such as those with severe mental illness (Tandon, 2021a, b). Equity in COVID-19 vaccination is a primary global health concern, not just an ethical one.

Financial disclosure

None.

Declaration of Competing Interest

The authors report no declarations of interest.

Acknowledgment

None.

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<https://doi.org/10.1016/j.ajp.2021.102758>

Received 16 April 2021

Available online 9 July 2021

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