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Author's response

Dear Sir,

We would like to thank the readers for their interest and comments related to the issue of significant psychological distress reported by majority of people receiving COVID-19 vaccines¹. They have pointed out the possibility of still poorly understood patho-immuno-pharmacological link responsible for the variable response to both the COVID-19 infection and subsequent immunological response observed in a given individual post-COVID-19 vaccination. They have also discussed the potential role of co-infection with other endemic infections such as dengue, effects of asymptomatic or undiagnosed past COVID-19 infection and inter-individual genetic differences as some of the factors contributing towards the differential effects of COVID-19 immunization in the population. We agree with their suggestion regarding the need to conduct more systematic studies to better understand the impact of COVID-19 immunization and other related clinical issues.

Apart from the above-mentioned factors, there is also a possibility that COVID-19 vaccine might be associated with psychiatric adverse effects in some people. The subsequently available literature reported a wide range neuro-psychiatric adverse reactions following COVID-19 vaccination^{2,3}. These include depression, mania, anxiety, psychosis and functional neurological disorder. Further, the initial analysis of limited literature available in the form of case reports or case series suggested that young or middle aged adults within a period of the first 10 days of receiving the vaccination were at an increased risk of experiencing such psychiatric disorders. Moreover, there might also be a certain amount of perceived fear and/or discomfort among people receiving the COVID-19 vaccine due to the possibility of them developing rare but serious adverse effects following COVID-19 vaccination such as acute transverse myelitis, Guillain-Barré

syndrome, increased thrombotic events such as stroke or myocardial infarction⁴. These factors might also play an important role in determining the pattern of psychological distress amongst people receiving COVID-19 vaccination.

We suggest that further research aimed at assessing the role of different sociodemographic and clinical factors that could potentially moderate and/or mediate the effectiveness and risk of developing different adverse effects to the COVID-19 vaccine, should be conducted amongst a larger and more representative study population. Further, preferably, it should also include longitudinal follow up of the study participants to help better understand the impact of the COVID-19 vaccine on the mental health status of people over a period of time.

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