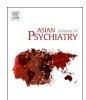
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Letter to the Editor

How COVID-19 may impact mental health research conduct, interpretation and priorities?



Dear Sir.

As the world moves firmly in the grip of COVID-19 pandemic with more than 7 million cases worldwide, the disruptions caused by it on the economic front, social discourse and daily life have been considerable ("Coronavirus Update (Live)," 2020; Nicola et al., 2020). The varying extent of lockdowns in different countries, social distancing protocols, and restrictions in the transport of goods and people have resulted in massive subtle and explicit changes in the way we carry out our lives. The impact of the pandemic on mental health of individuals, communities and nations is surely palpable and needs attention in the present circumstances (Tandon, 2020). The progression of the pandemic may necessitate changes in the manner in which mental health research is interpreted, prioritized and subsequently conducted in the future. In this write-up, we opine on some ways in which COVID-19 may impact on the mental health research pursuits.

The first aspect to consider would be practical aspects of the conduct of mental health research, especially of the ongoing research. Current research pursuits might have paused, or the processes might have altered in some ways. As sample recruitment becomes difficult due to impediments of travel (of both the prospective participants and research staff), delays may accrue in gathering the targeted sample(s) or research participants. This may also have implications in the manner potential participants are approached in the future. Data gathering process, especially outcome assessment, is also another challenge that would be needed to be tackled. Online assessments have an appeal of ability to gather data, while at the same time maintain social distancing. As online assessments take a firmer standing in recording outcomes, comparability issues may arise when some of the data has been collected face to face and some through automated online questionnaires. With such digital means of data gathering, issues of privacy, data safety, confidentiality, and ease of response by prospective participants are issues that need attention. Some follow-up researches may also have to forego biological sample collection (but continue with behavioral data gathering online) due to difficulties in the transport of samples and/or patients. Project management may also become challenging due to the inability to gather people, move through paperwork and regulatory processes efficiently, and in some circumstances, to have people around to carry out designated tasks. From a technological perspective, this could mean a greater application of digital technology in all aspects of research processes, especially in settings where digitalization has been sparse or fragmented. This may be at the project conceptualization stage, funding and management, ethics approval and compliance, approaching participants, sample collection, data gathering, analysis and dissemination.

The other related aspect pertains to the interpretation of research. Differences in data gathering and assessment procedures across different phases (pre, inter, and post COVID-19) may lead to challenges in comparing the outcomes. The economic impact may likely result in a

higher degree of social distress, which may manifest as increasing rates of anxiety, depression, and substance use disorder (Frasquilho et al., 2016). Such psychological impact of economic difficulties has been seen previously and may produce a 'cohort effect' leading to increased baseline rates of these conditions. The difference from previous economic distress situations is that the present pandemic also mandates social distancing, resulting in an increasing sense of loneliness and taxing an individual's resilience. Berksonian bias (Berkson, 1946) may apply more substantially as individuals may try to avoid hospitals because of fear of contracting infection, or change in hospital resource designation with some areas designated for COVID-19 patients. It is possible that patients defer hospital care for conditions that are considered less serious by them, and rely more heavily on telemedicine services. Untreated cases of certain diseases may increase. Additionally, online research may have selection biases, favoring those who have appropriate devices (generally smartphones) and who are comfortable with online data collection. One way to cater to this inference-related issue might be to segregate results according to the time of conduct of research. Similarly, future meta-analyses may run a sensitivity testing based COVID-19 pandemic phase. However, it may be difficult to define the time frames reasonably accurately, as there has been substantial heterogeneity in the implementation of control measures and impact on people's lives even within countries.

The third issue pertains to research directions that would receive attention. The pandemic is a threat to humanity, and hence it is likely to draw research attention from all nations and disciplines. Funding would need to be allocated to research efforts that cater to solutions to COVID-19 pandemic from different perspectives, including immunology and virology to develop vaccines, internal medicine, and intensive care to find the ways of reducing mortality, pharmacology to develop and test molecules to prevent virus taking over the body, community medicine to find ways of reducing the spread in the community, mental health to mitigate the psychological impact (short and long-term) of the pandemic on individuals, and others. Multidisciplinary and multinational efforts are likely to yield more substantive and generalizable knowledge. However, research on other conditions is expected to be put on the backburner, which, if coupled with restrictions on funding due to economic constraints, may result in interruption of specific fields of scientific inquiry. Policymakers and funders would have customary decisions to make while making outlays, impacting the research directions of interest. However, constraints on funding may result in losing the momentum gathered over the last few decades in mental health research. Even, looking inside the field of mental health, a balance needs to be struck between COVID-19 related research and other pursuits.

One could assume that COVID-19 would impact mental health research in many ways (as in Fig. 1), and would change our everyday practice. As the world waits for solutions to the pandemic, it might be fruitful to make a pit stop, to reflect on and firm up our research

Research conduct

- Sample recruitment/ collection due to travel restrictions
- Data gathering process may go online when feasible
- Project management challenges
- Possible greater use of digital technology

Research interpretation

- Differences in assessment procedures pre, inter, and post pandemic
- Berkson bias due to differential hospital access than past
- Surge in certain types of cases
- Reporiting of results can be segregated, and meta analysis can run additional sensitivity analysis

Research priorities

- Decidedly more focus on CVOID 19
- Multidisciplinary and multinational attempts to address the pandemic
- Other research pursuits may need scruitny
- Other research pursuits may be relegated

Fig. 1. Impact of COVID-19 on mental health research.

priorities, processes, pragmatics, and propagation mechanisms. It needs to be seen how dynamic balancing the research and clinical service priorities are promulgated in the future.

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