Editorial: COVID-19 and the digital age

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ABSTRACT

COVID-19 has been a truly viral global pandemic, played out online as well as in the spaces through which the SARS-Cov-2 virus has spread. This has seen a proliferation of new digital technologies, e-learning methods, international collaboration and research methodologies to harness the opportunities of the digital age. This special issue of the *Global Journal of Medicine and Public Health* highlights key opportunities and challenges for global health that have arisen during the pandemic and critiques how these might or should endure beyond it.

Keywords: COVID-19; Data, Digital research methods, e-learning, Infodemics

EDITORIAL

COVID-19 has been a global pandemic not only of infectious disease but also of the masses of data that have accompanied this[1]. Digital technology has enabled scientists around the world to share millions of sequences of the SARS-Cov-2 virus and its many variants[2], enabled real-time tracking of cases and their location around the world[3], recorded vaccinations[4] and has seen the consolidation of multiple COVID-19 databases into massive compendiums of pandemic data[5]. Academic interest has focused on the use of data to populate prediction models[6], has called for consideration of how data can be used more responsibly[7], has pondered the use of artificial intelligence during the pandemic,[8] the value of data to behavioural science[9] and the importance of ensuring that data for global good is open source[10]. The pandemic has pushed forward digital innovoation[11] and has suggested new research directions, particularly in online learning and education. It has accelerated moves towards remote working[12], home schooling and online education[13] but this is not without challenges. Reliance on a reliable connection for remote earning and learning risks exacerbating inequalities between digital have and have nots[14]. This inequality is particularly acute in developing countries,[15] with education highly vulnerable to the digital divide[16]. Those with lower connectivity are at risk of being excluded from public health surveillance, service access, education and information.

SURVEILLANCE, RESEARCH AND COMMUNICATION

This special issue of the *Global Journal of Medicine and Public Health* brings together four papers that consider different impacts of the digital sphere on global health during the COVID-19 pandemic: health surveillance, research and communication. These have all been impacted by the pandemic, but digital technology also offers opportunities to be grasped.

These opportunities include the option to carry out digital surveys at a time when face-to-face interviews have been ill-advised, such as the one described by Yadev and colleagues in this issue, which has enabled a better understanding of knowledge, attitudes and behaviour (KAP) regarding COVID-19 and infection control amongst residents of Rajasthan, India.

Shubham et al explore the perceptions of Nepalese dental students and faculty staff to online learning, showing that there is low satisfaction with new digital teaching methods – a strong preference for in-person classes remains. Chandrachood and colleagues have also used digital surveys, to capture the experiences of medical students in Maharashtra, India. They too find very mixed acceptance of online learning; many struggle to find the motivation or enthusiasm to learn online over the Zoom platform, with particular concerns over how they will gain practical experience. Other studies, however, such as one by Verma et al in our previous issue[17], have found more positive attitudes towards distance learning.

Clearly, more research is needed to understand the complete picture of how medical and public health training should adapt when the pandemic recedes. The impact on students of a permanent move to online schooling must not be underestimated. By analyzing posts made to online discussion forums on www.reddit.com, Balabaskaran, Gammon-Jones and How (all students themselves) and I show that during the pandemic young people have struggled not only with online schooling but with uncertainty about the future, grief over lost experiences such as graduation, and feelings of isolation and loneliness. Online interaction is a poor substitute for real life social interaction, though our research shows that peer-to-peer forums provide space where people can support one another, as well as offering academics and public health professionals a way to survey and monitor emerging health concerns. Such channels can also be used for dissemination of information and guidance that can exacerbate some of the challenges.

Amid an often obsessive focus on the negative aspects of the 'infodemic' that has accompanied COVID-19[18] we need to remember that digital technology offers opportunities and advantages, not only challenges.

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