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A commentary on “Impact of the coronavirus (COVID-19) pandemic on scientific research and implications for clinical academic training – A review” (Int J Surg 2021;86:57–63)

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Dear Editor,

COVID-19 pandemic is considered as the most crucial global health calamity of the century and the greatest challenge that mankind faced since the 2nd World War. In December 2019, a new infectious respiratory disease emerged in Wuhan, Hubei Province, China and was named by the World Health Organization as COVID-19 (coronavirus disease 2019) [1]. A new class of corona virus, known as SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) was found to be responsible for this disease [2]. As far as the history of human civilization is concerned, there have been instances of severe outbreaks of diseases caused by a number of viruses. According to a recent report of the World Health Organization, the current outbreak of COVID-19 has affected over 200 million people and killed more than 4 million people throughout the world.

COVID-19 pandemic has promoted health and medical research as countries establish resilient health systems with rapid responsive prevention, detection, and treatment methods [3]. However, the pandemic has negatively affected the capacity and outcomes of the health and medical research sector. We read with great interest the article by Sohrabi et al. [4] entitled “Impact of the coronavirus (COVID-19) pandemic on scientific research and implications for clinical academic training-A review”. The authors found that basic scientific research has been particularly been hard hit in light of nationwide lockdown measures, whilst clinical scientists have witnessed similar hardships in response to suspension of healthcare services and an abrupt return to full-time clinical duties.

COVID-19 pandemic has also placed a tremendous strain on clinical research. With redirection of resources and temporary halting of in-person visits, studies in other therapeutic areas have been unavoidably constrained. Although recruitment and enrolment for most other studies stopped during early stages of the pandemic, both study sponsors and sites developed new approaches to conduct remote visits by telehealth, use home-based testing or monitoring technologies, and provide curbside or courier pick-up and delivery of participant samples and investigational products. Research leaders, investigators and staff have made concerted efforts to provide study updates to participants-by telephone, email and through electronic health record portal-during and after

studies.

Notably, we must be cognizant that COVID-19 may affect key study outcomes. For example, SARS-CoV-2 infection could worsen glycaemic control in patients with diabetes, raise or lower blood pressure in those with hypertension, or accelerate progression of those with chronic kidney diseases. Adverse events, particularly acute illnesses, hospitalizations and mortality may be caused by the viral infection or by deferral of care due to fear of contracting it. Patients participating in studies are also likely to have changed their lifestyles to minimize contact with others, which may also affect outcomes. These are crucial considerations for study analysis and interpretation. Potential confounding should be addressed by examining pre-and post-pandemic outcome rates and COVID-19 surveillance with control for evidence of exposure or infection entered into data analysis plans. Nevertheless, with proactive measures, it is feasible to maintain interest, participation and quality in clinical research.

Investigators, coordinators and clinicians have a renewed sense of urgency and purpose to use science to solve problems that are important to patients and the public. We do get tired at times, and burnout is a real risk. Yet, we should move forward with mutual support, encouragement and focus on tangible goals to keep making research better. All of these are positive changes that we should retain long after the COVID-19 pandemic subsides.

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Declaration of competing interest

We have no conflicts of interest.

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