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## Research in Neurosurgery: An Advantage of COVID Pandemic



Research yield in neurosurgery is an essential and urgent subject with the potential to enhance patients' lives and prognosis. Several publications have reviewed and graded neurosurgery program scholarly contributions.<sup>1-3</sup> Scholarly productivity has an impact on program certification, program prestige, funds, future resident enrollment, and academic advancement. As measured by mean board scores, theoretical performance, and research activity, applicants to neurosurgery remain intellectually competitive within the population of medical students.<sup>4</sup>

A nationwide study of views and perspectives of US neurosurgery residents about research found that half (49.6%) were motivated to do research during their residency, whereas the other half were either neutral (36.7%) or discouraged (13.7%). The three leading limiting variables for resident research were adequate time, call scheduling, and funding.<sup>5</sup> Additional research in neurosurgery and other medical specialties has established a correlation between publishing during residency and future academic performance.<sup>6,7</sup>

The COVID-19 pandemic has posed several hurdles in global health and neurosurgery. This timeframe, however, can be used to teach neurosurgery residents about research concepts and techniques. Adopting a multidisciplinary research approach is one way to accomplish this. This model has immense prospects in cases of crises, such as the current pandemic, where robust evidence is crucially required, but potentially lifesaving and vital services must strive. It allows for the rapid transmission of information, the aggregation of data from various settings, and the contribution to improving clinical practice.<sup>8</sup>

Several validated surveys have been published, in which residents were asked to share experiences and perceptions on research activities.<sup>9</sup> The aforementioned study showed that the majority of respondents agreed that scientific research, including both clinical and laboratory research, is an essential aspect of training. However, only a relatively small number of residents have been able to publish. They had difficulty finding and managing time with their clinical duties and their lack of knowledge on how to perform research. Among physicians who were able to participate in a scientific project during their resident years, only a few had the chance to participate in multicentric national and international research projects, and even fewer were familiar with collaborative research models.<sup>9</sup>

In Nepal, the research opportunities for neurosurgical residents are quite limited. Several aspects including shortage of mentors, limited time, financial challenges, and insufficient understanding

of research principles and methodology are widely ascribed to the aforementioned concern. During the COVID epidemic, the number of patients and routine surgical cases has dropped. As a result, considering this moment to be an advantage of the pandemic, it is high time that neurosurgery residents are directed toward research concepts and methods. Overall, this would have an influence on the academic and professional performance of the residents, which would, in turn, have an impact on the prognosis and lives of patients in need.

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