

## Pediatric research during the pandemic

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In the last year, *Archivos Argentinos de Pediatría* has reviewed the impact of the COVID-19 pandemic on different activities of our practice.

Thus, we reflected on its effects on postgraduate education,<sup>1</sup> scientific publications,<sup>2</sup> and healthcare practice.<sup>3</sup>

At a time when it seems that everything is over, it is good to broaden the analysis to other areas and also reflect on the lessons that such extraordinary circumstance has taught us in relation to pediatric research.

There is no doubt that the COVID-19 pandemic gave rise to one of the most far-reaching and rapid biomedical research efforts in living memory. Numerous diagnostic, therapeutic, and preventive resources were validated or ruled out in record time. Although this true epic accomplishment reached almost all areas of human health, the case of pediatrics deserves special consideration.

We are used to children and adolescents being left behind in health research, especially in pediatric drugs development. It is true that the initiatives to stop children from being considered “therapeutic orphans,” developed over the past 30 years, are yielding results,<sup>4</sup> but there is still some wariness in some areas in terms of pediatric research, based on an excess of protection that has proven to be deleterious.

The pandemic was a very particular case because children were affected the least and, therefore, the need for research seemed less

urgent. However, they were rapidly included in disease-related research initiatives.

Some time ago, Buonsenso et al. published an article on the impact of the pandemic on pediatric research.<sup>5</sup> They relied on the comments of different researchers on how the pandemic had impacted their personal activities, with a somewhat intimate perspective. They recalled the prevailing spirit of cooperation, teamwork, and networking that transcended all borders. They also did not forget to mention the uncertainty, the exhaustion, and even the pain of personal tragedies.

As in all age groups, the pandemic also affected ongoing pediatric research, forcing it to be limited to emergency procedures and, at the same time, ensuring the integrity of the investigation and the safety of the participants.<sup>6</sup> Many scheduled investigations were suspended due to the need to allocate resources to address the pandemic, while other already ongoing studies were affected in their ability to recruit due to limitations on travel as part of the mitigation measures established worldwide.<sup>7</sup>

Some pediatric studies, such as those related to cancer, were particularly affected by the causes mentioned above.<sup>8</sup> Other studies, such as those carried out on common respiratory infections—the leading cause of disease in children—suffered doubly; in addition to their suspension due to mobility restrictions and the lack of resources to deal with the pandemic, there was the enormous

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alteration in the circulation of usual viruses for almost 3 years.<sup>9</sup>

Besides, many investigators had to postpone their specific activities to be part of the healthcare systems' response to the pandemic or have adapted to provide support, as researchers, to this new challenge.

But, despite these and other negative aspects, it should also be noted that research related to COVID-19 in childhood quickly followed that conducted in the adult population. Thus, for example, an effective and safe vaccine for children and adolescents became available very soon after the adult vaccine was developed.<sup>10</sup>

It is worth mentioning the early epidemiological research that allowed to demonstrate that children were not "super-contagious;"<sup>11</sup> this evidence helped to limit the worst effects of the pandemic on children and adolescents, as a consequence of endless forced isolation.

As in any article regarding the pandemic, we cannot help but add a touch of nostalgia in the face of the disaster that struck society, a time during which we witnessed the most heinous pettiness and, at the same time, some of the best qualities of human beings. ■

## REFERENCES

1. Ferrero F. Impacto de la pandemia en la residencia de pediatría. *Arch Argent Pediatr*. 2022 Jun;120(3):146-7.
2. Ferrero F. La publicación científica en tiempos de la pandemia. *Arch Argent Pediatr*. 2021; 119(6):362-3.
3. Moreno RP. La niñez y adolescencia, los pediatras y el ejercicio de la pediatría después de la pandemia COVID-19. *Arch Argent Pediatr*. 2023;121(2):e202202798.
4. Ward RM. Improving Drug Therapy for Pediatric Patients: Unfinished History of Pediatric Drug Development. *J Pediatr Pharmacol Ther*. 2023;28(1):4-9.
5. Buonsenso D, Roland D, Yock-Corrales A, González-Dambraskas S, et al. The challenges of doing paediatric research during the first year of the COVID-19 pandemic. *BMJ*. 2022;379:o2750.
6. Fleming TR, Labriola D, Wittes J. Conducting Clinical Research During the COVID-19 Pandemic: Protecting Scientific Integrity. *JAMA*. 2020;324(1):33-4.
7. Tran NN, Tran M, Lopez J, Woon J, et al. Impact of COVID-19 on Pediatric Clinical Research. *J Pediatr Nurs*. 2021;61:240-4.
8. Auletta JJ, Adamson PC, Agin JE, Kearns P, et al. Pediatric cancer research: Surviving COVID-19. *Pediatr Blood Cancer*. 2020;67(9):e28435.
9. Ferrero F. Impacto de la pandemia por COVID-19 en la circulación de los virus respiratorios comunes. *Arch Argent Pediatr*. 2022;120(4):218-9.
10. Tian F, Yang R, Chen Z. Safety and efficacy of COVID-19 vaccines in children and adolescents: A systematic review of randomized controlled trials. *J Med Virol*. 2022;94(10):4644-53.
11. Munro APS, Faust SN. Children are not COVID-19 super spreaders: time to go back to school. *Arch Dis Child*. 2020;105(7):618-9.