**An Acad Bras Cienc (2020) 92(4): e20201292 DOI 10.1590/0001-3765202020201292**
Anais da Academia Brasileira de Ciências | *Annals of the Brazilian Academy of Sciences*
Printed ISSN 0001-3765 I Online ISSN 1678-2690
www.scielo.br/aabc | www.fb.com/aabcjournal

LETTER TO THE EDITOR

# Unwrapping the long-term impacts of COVID-19 pandemic on Brazilian academic mothers: the urgency of short, medium, and long-term measures

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**Abstract:** Since the beginning of the COVID-19 pandemic, publications have highlighted the disproportionate impact of the COVID-19 pandemic on academic mothers, mostly focusing on the impact of social distancing and quarantine. A few months later, despite the lack of effective vaccines or therapeutics in sight, many economic activities are being resumed. Nurseries and schools are expected to be among the latest to reopen, which will amplify the impacts of the pandemic on academic mothers. In this letter, we unwrap the pandemic impacts on academic mothers and describe a set of specific short-, medium- and long-term policies that, if implemented, could reduce setbacks for gender equality during the pandemic and can help to level the playing field for academic mothers.

**Key words:** coronavirus, gender, pandemic, mothers in science.

Recent publications have highlighted the disproportionate impact of the COVID-19 pandemic on academic mothers (Alon et al. 2020, Staniscuaski et al. 2020a). While much has been said about the impact of social isolation and home-schooling of children on women's productivity due to the unequal division of housework and childcare, little was discussed about the situation of academic mothers after the suspension of lockdown and social distancing. Despite the lack of effective vaccines or therapeutics in sight, governments around the world have begun resuming economic activities. In this letter, we argue that many of the proposed arrangements, on top of the aggravated economic crisis, are likely to amplify the impacts of COVID-19 on academic mothers, especially those with small children (1 to 6-year-old) (Myers et al. 2020, Staniscuaski et al. 2020a, b).

Schools are expected to be among the last institutions to reopen, and many parents, including academic mothers, may not have a place to leave their children during working hours (Stock 2020). New arrangements on the number of children allowed at school per day, the proportion of virtual vs. in-person classes, and adaptation to new school routines (Melnick & Darlin-Hammond 2020) will likely burden academic mothers requiring them to support their children navigate this new reality. At the same time, as researchers, many will need to juggle face-to-face and remote classes, which for many, will require extra planning and preparation. Unlike their childless peers, academic mothers are unlikely to resume fieldwork and return to their labs, which may widen existing gender gaps and shrink academic mothers' chances to develop new research. Their impossibility to contribute to research that requires in-person data collection or that requires academic mothers to physically

attend meetings, and other academic responsibilities can increase microaggression, workplace hostilities, and harassment (Blithe & Elliott 2019). Increased household responsibilities, including childcare and diminished research opportunities, can undermine the competitiveness of early-career academic mothers, many currently in temporary positions. These differences between academic mothers and their childless peers can take their toll on academic mothers' future careers. The post-pandemic scenario is likely to be even more competitive, with foreseeable cuts to science funds and diminished access to grants and fellowships, especially in non-medical fields. If policies are not urgently drafted and implemented, we risk a significant setback on gender equality in science that might have consequences for generations.

To counteract the aggravation of gender inequality in the post-pandemic academic world, we suggest a few short, medium, and long-term strategies to be implemented immediately, within 1-2 years and five years, respectively. We summarized these strategies in Figure 1.

Finally, we defend that institutions must consider the needs of their academic mothers on a case-by-case basis. Mothers of children with special needs and/or those who belong to minority groups, including transgender people, people of color and/or with a disability, as well as single parents and mothers without a supportive network, must be embraced by policies and initiatives that guarantee an inclusive working environment.

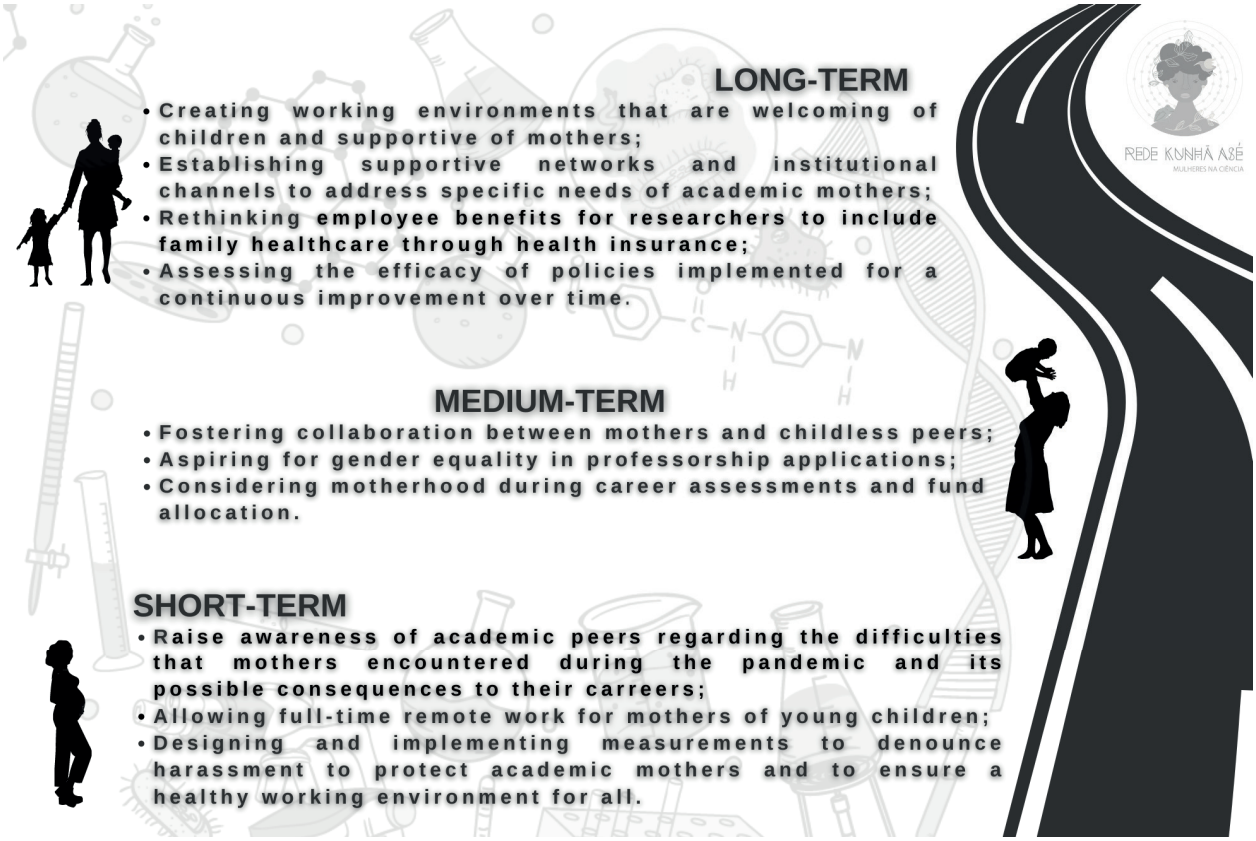


**Figure 1. Strategies to lessen the impact of COVID-19 on academic mothers over time.**

## Acknowledgments

We thank the Kunhã Asé Network of Woman in Science for promoting the discussion that originated the idea of this manuscript and Dr. Ben Phalan for English review. This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001.

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**How to cite**

HIPÓLITO J, DIELE-VIEGAS LM, CORDEIRO TEF, SALES LP, MEDEIROS A, DEEGAN KR & LEITE L. 2020. Unwrapping the long-term impacts of COVID-19 pandemic on Brazilian academic mothers: the urgency of short, medium, and long-term measures. An Acad Bras Cienc 92: e20201292. DOI 10.1590/0001-3765202020201292.

*Manuscript received on August 14, 2020;*
*accepted for publication on September 10, 2020*

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## Author contributions

JH conceptualized and lead this letter; JH, LL wrote the first version of this letter; AM, LS, KD provided useful insights to the construction of the manuscript; LMDV designed the figure; LMDV, TC helped writing and organizing the manuscript; All authors contributed and approved the final version of this letter.