Brazilian Journal of Psychiatry

# LETTERS TO THE EDITORS

# Conflicts of interest in invasive brain stimulation research

Braz J Psychiatry. 2022 Nov-Dec;44(6):674 doi:10.47626/1516-4446-2022-2747

CC BY-NC

We read with great interest the recently published manuscript "A narrative review on invasive brain stimulation for treatment-resistant depression" by Dandekar et al.<sup>1</sup> Since major depressive disorder is highly prevalent, associated with significant impairment, and patients who do not respond to therapy face multiple challenges, it is of utmost importance to develop innovative and personalized interventions. The authors reviewed several studies on different treatment modalities, including case reports, cohort studies, open-label, and randomized clinical trials. The conflicting results and limitations of the current studies were discussed, with the authors concluding that "based on current data, invasive neurostimulation therapies may be considered a promising therapy for treatment-resistant depression."

One important point not raised by the authors is the potential effect of the original investigators' financial conflicts of interest and industry sponsorship of clinical trials on surgical interventions. Manufacturer-sponsored drug and device trials tend to report more favorable results and conclusions.<sup>2</sup> The potential impact of conflicts of interest on drug intervention studies and the allegiance effect<sup>3</sup> in psychotherapy trials are commonly acknowl-edged and, more recently, bias in psychiatric neurosurgery research<sup>4</sup> has been increasingly recognized, although it is still underreported. Invasive brain stimulation involves the use of devices to administer and monitor the clinical effect of treatment, and several companies have a great interest in developing and receiving approval from regulatory agencies.<sup>5</sup>

Due to the non-systematic nature of Dandekar et al.'s review,<sup>1</sup> no formal risk of bias assessment was performed for the included studies and no conclusions can be drawn about the influence of potential biases (including conflicts of interest) on positive outcomes in the reviewed trials. Future systematic reviews should address this important issue and shed further light and transparency on this important field of research. Meanwhile, the lack of data

regarding conflicts of interest in narrative reviews should be considered and properly addressed as a limitation.

Fabiano A. **Gomes**, ib Elisa **Brietzke** ib Department of Psychiatry and Centre for Neuroscience Studies, Queen's University, Kingston, ON, Canada.

Submitted Jun 27 2022, accepted Jun 30 2022, Epub Nov 04 2022.

## Acknowledgements

FAG has received research funding from the Brain & Behavior Research Foundation (NARSAD Young Investigator Award/P&S Fund Investigator), the Canadian Menopausal Society/Pfizer Research Award, Queen's University Faculty of Health Science, Southeastern Ontario Academic Medical Organization (SEAMO), and Queen's University Department of Psychiatry internal grants. EB has received research funding from the PSI Foundation, Queen's University Faculty of Health Science, Centre for Neuroscience Studies (CNS), Queen's University, and Department of Psychiatry internal grants. All these fundings are unrelated to the current manuscript.

### Disclosure

FAG has received honoraria as speaker/consultant from Abbott, Allergan, Apsen, Daiichi-Sankyo, Libbs, Lundbeck, and Otsuka. EB has received honoraria as speaker/ advisory board member from Janssen and Daiichi-Sankyo. All these fundings are unrelated to the current manuscript.

**How to cite this article:** Gomes FA, Brietzke E. Conflicts of interest in invasive brain stimulation research. Braz J Psychiatry. 2022;44:674. http://doi.org/10.47626/1516-444 6-2022-2747

### References

- 1 Dandekar MP, Diaz AP, Rahman Z, Silva RH, Nahas Z, Aaronson S, et al. A narrative review on invasive brain stimulation for treatment-resistant depression. Braz J Psychiatry. 2022;44:317-30.
- 2 Lundh A, Lexchin J, Mintzes B, Schroll JB, Bero L. Industry sponsorship and research outcome. Cochrane Database Syst Rev. 2017; 2:MR000033.
- 3 Dragioti E, Dimoliatis I, Fountoulakis KN, Evangelou E. A systematic appraisal of allegiance effect in randomized controlled trials of psychotherapy. Ann Gen Psychiatry. 2015;14:25.
- 4 Cabrera LY, Boyce HMK, McKenzie R, Bluhm R. Conflicts of interest and industry professional relationships in psychiatric neurosurgery: a comparative literature review. Neurosurg Focus. 2018;45:E20.
- 5 McIntosh T, DuBois JM, Perlmutter JS. Ethical challenges in the commercialization of neurotechnology: contending with competing priorities. AJOB Neurosci. 2022;13:60-2.