

## Is this for real?

Citation for published version (APA):

Mikellides, G. (2023). *Is this for real? The role of advanced placebo technology when using Transcranial Magnetic Stimulation in clinical practice*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20230911gm>

**Document status and date:**

Published: 01/01/2023

**DOI:**

[10.26481/dis.20230911gm](https://doi.org/10.26481/dis.20230911gm)

**Document Version:**

Publisher's PDF, also known as Version of record

**Please check the document version of this publication:**

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

**General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

**Take down policy**

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.

## PROPOSITIONS OF THE THESIS

### **Is this for real?**

### **The role of advanced placebo technology when using Transcranial Magnetic Stimulation in clinical practice**

1. Administering repetitive transcranial magnetic stimulation administered over the left dorsolateral prefrontal cortex (DLPFC) results in reduced cigarette consumption, nicotine dependence, craving, and perceived stress among smokers. – *This thesis*
2. When using advanced placebo TMS technology capable of mimicking all aspects of the real TMS experience, the effects of placebo TMS and real TMS are not significantly different when treating smoking cessation in adult smokers who are highly motivated to stop using. They just all stop. – *This thesis*

3. Both rTMS and intramuscular (IM) ketamine therapies lead to improvements of depressive and anxiety symptoms among patients with treatment-resistant depression (TRD).– *This thesis*
4. Reducing cortical excitability of bilateral orbitofrontal cortex (OFC) with inhibitory low-frequency (LF)-rTMS protocols can effectively reduce the frequency of focal attacks in epileptic patients. – *This thesis*
5. High-frequency (HF)-rTMS over the right primary motor cortex (M1) is a safe and well-tolerated therapeutic approach for improving symptoms of Parkinson's disease.– *This thesis*
6. Placebo effects in clinical practice are not per se a problem. In fact, if specific to a certain intervention, the placebo effect of this intervention has therapeutic value.
7. Improving mental health needs new non-pharmacological treatment alternatives. Noninvasive brain stimulation and ketamine have proven to be such effective and safe treatment alternatives.

8. In the end, it is about the patients and their well-being that should be central in all our treatment efforts with decisions exclusively based on the science, not on ideology, commercial interest, or lobbying which too often influence health policy makers and regulatory approvals.

9. The ability to be in the present moment is a major component of mental wellness. *Abraham Maslow.*

10. Healing takes time, and asking for help is a courageous step. *Mariska Hargitay*