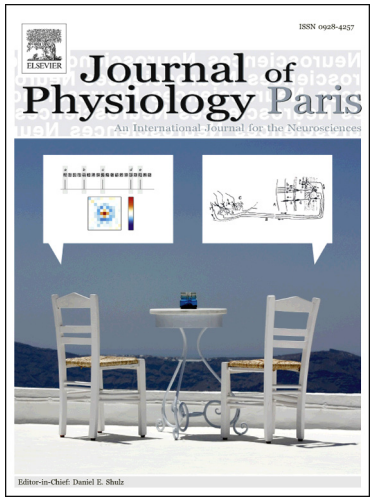

EEG-Guided Meditation: A Personalized Approach

Andrew A. Fingelkurts, Alexander A. Fingelkurts, Tarja Kallio-Tamminen

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EEG-Guided Meditation: A Personalized Approach

Andrew A. Fingelkurts [a,*], Alexander A. Fingelkurts [a], Tarja Kallio-Tamminen [b]

[a] *BM-Science – Brain and Mind Technologies Research Centre, Espoo, Finland*

[b] *Physics Foundations Society and Society for Natural Philosophy, Helsinki, Finland*

* Corresponding author:

Dr. Andrew A. Fingelkurts, Ph.D., Co-head of research

BM-Science – Brain and Mind Technologies Research Centre,

P.O. Box 77, FI-02601, Espoo, Finland.

Tel: +358 9 5414506, Fax: +358 9 5414507,

E-mail: andrew.fingelkurts@bm-science.com

Url: www.bm-science.com/team/fingelkurts.html

Abstract:

The therapeutic potential of meditation for physical and mental well-being is well documented, however the possibility of adverse effects warrants further discussion of the suitability of any particular meditation practice for every given participant. This concern highlights the need for a personalized approach in the meditation practice adjusted for a concrete individual. This can be done by using an objective screening procedure that detects the weak and strong cognitive skills in brain function, thus helping design a tailored meditation training protocol. Quantitative electroencephalogram (qEEG) is a suitable tool that allows identification of individual neurophysiological types. Using qEEG screening can aid developing a meditation training program that maximizes results and minimizes risk of potential negative effects. This brief theoretical-conceptual review provides a discussion of the problem and presents some illustrative results on the usage of qEEG screening for the guidance of mediation personalization.

Keywords:

Meditation; Yoga; Electroencephalogram (EEG); Mind–body practice; Physical well-being; Cognitive processes; Brain

Abbreviations:

Quantitative electroencephalogram – qEEG; Diagnostic and Statistical Manual of Mental Disorders – DSM; Orbitofrontal cortex – OFC; Positron Emission Tomography – PET; Functional Magnetic Resonance Imaging – fMRI.