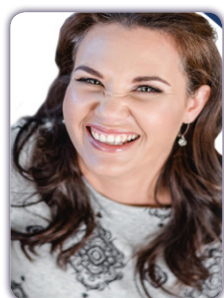


World Congress on  
**EPILEPSY AND BRAIN DISORDERS**

November 22-23, 2018 Cape Town, South Africa



## *Tanya Lochner*

*Brain Harmonics, South Africa*

### **Neurofeedback and epilepsy – A critical review of using neurofeedback as an alternative treatment for epilepsy**

We will do a critical review of using operant conditioning of the sensorimotor rhythm (SMR) as a clinical utility and alternative treatment for epilepsy. Issues taken into consideration will include physiology, learning principles, and methodology, while focusing on the treatment of epilepsy with sensorimotor rhythm training, probably the best established clinical application of EEG-operant conditioning. The skilled practice of neurofeedback requires a solid understanding of operant learning principles and mechanisms, the neurophysiology underlying EEG oscillation, as well as an in-depth comprehension of how the various hardware/software equipment options work, that are currently available to the practitioner. It has been suggested that the best clinical practice includes systematic mapping of quantitative multi-electrode EEG measures against a standard norm sample base before and after treatment, to guide the choice of treatment and record progress towards EEG standardization. We conclude that research literature as well as practical case studies justifies the idea that neurofeedback treatment of epilepsy / seizure disorders may be a well-founded and viable alternative to anticonvulsant pharmacotherapy.

#### **Biography**

Tanya Lochner is a Neurofeedback Practitioner with Brain Harmonics in Cape Town, South Africa. She graduated from the University of South Africa in 2006 with a Bcom degree in Industrial & Organisational Psychology. She has also practiced as a Neurofeedback Practitioner and Rapid Transformation Coach since 2017. She has successfully treated various imbalances using EEG neurofeedback including cerebral palsy, ADD, ADHD, anxiety and stress and continues her research in the field of neuroscience and neurofeedback as a holistic treatment leading to optimal brain functioning.

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#### **Notes:**