Dr Kippax professional interests include aeromedical, disaster response and environmental medicine with a focus on altitude-related medicine. Dr Kippax is a keen mountaineer and has made first ascents of a number of peaks over 6800m throughout the world while providing expedition medical support.

Dr Kippax is involved with international disaster response through the Australian Medical Assistance Team (AusMAT). In 2013 he deployed to Tacloban in the Philippines immediately following Cyclone Yolanda in the capacity of Clinical Team Leader and 2IC. He also is involved with National Critical Care Trauma Response Centre (NCCTRC) team leadership training.

Corresponding Author:

Dr Jorian Kippax

Neurofeedback in the Treatment of Posttraumatic Stress Disorder: A Case Series Report

Ms Tamara Lorensen[1]

1 Neurotherapy centre, Bardon, Australia

Abstract

Neurofeedback in the treatment of Posttraumatic Stress disorder: a case series report.

Brain-Computer Interaction devices (BCI) and more specifically Neurofeedback (NFB) devices have been in use for more than 30 years to alter brain activity and neural signals. However NFB is only now gaining prominence and rapidly emerging as a treatment of choice in many psychological conditions. A relatively large body of research exists in the use of neurofeedback to the assist with the physical effects and disabilities in things such as stroke or into its application in a performance enhancement context (Shih et al, 2012) as well as mitigating the symptoms of ADHD. The use of Neurofeedback as a therapeutic option for Posttraumatic Stress disorder (PTSD) has, however, been overlooked in terms of any significant research funding or support. In a recent paper by Van der Kolk, Hodgdon, Gapen, et al (2016) neurofeedback as a treatment modality for PTSD showed significant positive outcomes. Results within this study clearly lend themselves to further investigation in order to promote greater interest in this treatment method. Within the sphere of PTSD, psychological therapies currently used continue to face the challenge of gaining positive outcomes when they do not clearly demonstrate altering or improving physiological hyper-arousal, poor sleep or the ability to self-regulate and sufferers often require ongoing psychopharmacological support. These physiological aspects of dysfunction are being better understood and demonstrated through recent neuroimaging studies. The core of neurofeedback aims to address these very concerns.

Case series reports present a unique and important contribution and stimulus to further research by demonstrating the intervention in real world terms. This is particularly so with PTSD which represents a complex multi-system mental health disorder. This case series was conducted in a clinical setting.

Participants consented to their data collection for the purpose of research and presentation. Assessment consisted of standardised measures as well as a practice-based assessment tool that permitted a closer examination of multiple functional dimensions. Pre/post measures are presented; the outcomes achieved are shown to be in line with the positive results shown by Van der Kolk et al (2016) and demonstrate the efficacy of neurofeedback as, at the very least, an adjunctive treatment modality. This approach also demonstrates the need for further research and a broader approach to the treatment of PTSD as well as an appreciation for the underlying physiological mechanisms that are disturbed in this condition.

References

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Biography

Tamara Lorensen BSc, Grad Dip Couns, MAppSc, Grad Dip Ed.

Is a psychologist with more than 20 years’ experience in the field of neurofeedback. Her Research Masters thesis conducted a quantitative electroencephalogram (qEEG) study. Operating in private practice she has also worked as an Army Reserve psychologist, Tamara currently also works part time at RAAF base Amberley.

Corresponding Author:

Ms Tamara Lorensen