

The Benefits of Quantitative EEG and Neurofeedback

Case example of treatment resistant schizophrenia

Demographics

- 27 year old female living with abusive partner
- On Disability Support Pension

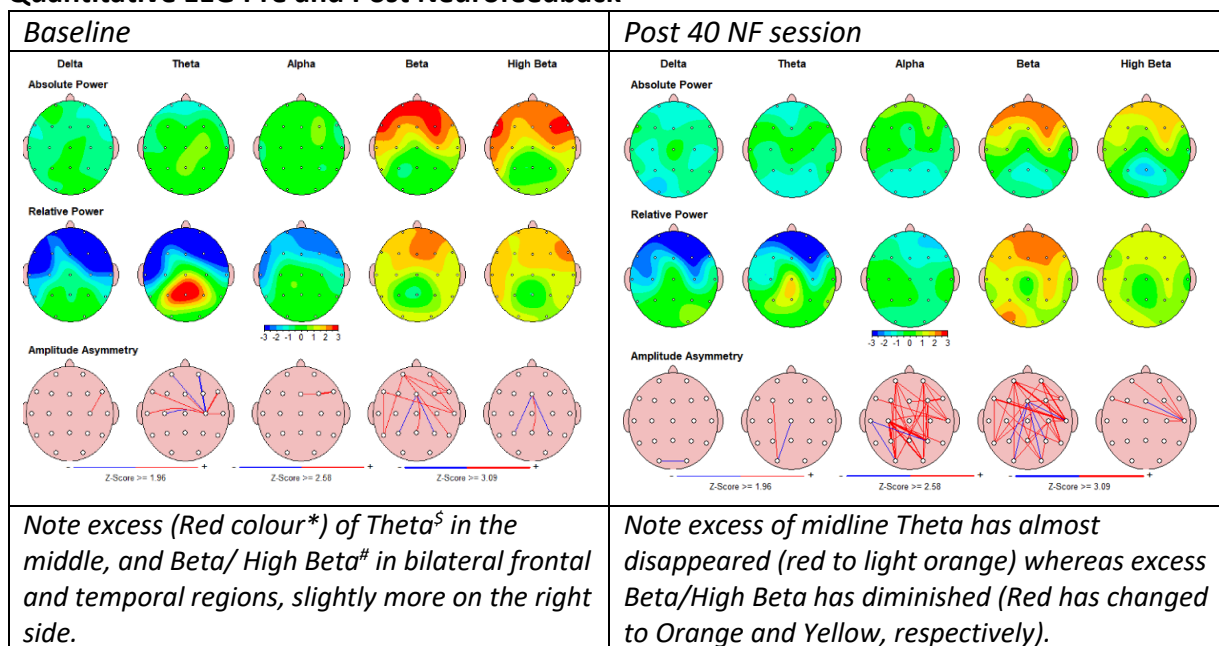
Past History

- OCD noted at 7 years (swirling around the bed 3 times, superstitions, rituals)
- Anorexia Nervosa at 12 years, Bulimia Nervosa in teens (Westmead Children’s Hospital)
- Developmental trauma, parents split, physical + emotional abuse by caring Grand Mother
- 2016 first admission with ICE induced psychosis for 3 months
- Being watched, brief “voices”; diagnoses as first episode psychosis
- 2017 admission for 2 months, referred to headspace Early Psychosis Youth Service
- Trials of Olanzapine, Quetiapine, Amisulpride, Aripiprazole, Sertraline
- 2019 x 2 admissions, paranoia with suicidal crisis; diagnosed as **Treatment Resistant Schizophrenia**, started on clozapine
- Clozapine 300 mg-reduced due to constipation, weight gain, palpitations

Psychopathology Before Neurofeedback, while taking Clozapine

- People can read my thoughts, see my imagination, telepathy is real
- People wearing colour orange means *I am going to die*
- strange/mean thoughts popping in head about family (“Die”)
- Very high levels of anxiety, using illicit drugs with abusive boyfriend

Quantitative EEG Pre and Post Neurofeedback



Test of Variables of Attention (TOVA): Visual Pre - 0.01 After 20 sessions +3.27

Progressive effects of Neurofeedback over 43 sessions

- Became calm and able to relax and sleep normally
- Start feeling “good”
- Stopped use of illicit drugs and much reduced alcohol
- Able to control OCD and paranoid thoughts
- Became organised, time management
- Improved concentration, reading and writing skills
- Improved communication, speech more fluent
- Better able to socialise with people, more empathic
- Minimal doses of clozapine and sertraline

Ditched abusive boyfriend, learnt to drive, enrolled at university

“Overall things have improved 300% since starting neurofeedback!”

One year follow up – benefits of neurofeedback continue and she still states it has been the best treatment she has experienced.