MINDGYM

Brainwave Breakthroughs: A MindGym Client Journey

Client Overview:
Client E.S. is a 7-year-old girl with severe autism and profound sensory processing challenges. Upon intake, the client was nonverbal and fully dependent on a feeding tube due to complete food refusal. She exhibited extreme sensory defensiveness, making it impossible for her to wear clothing, tolerate touch, or leave her home. Emotional dysregulation was persistent, and she displayed self-injurious behaviors, severe anxiety, and an inability to engage socially.

Given her age and clinical profile, a full qEEG brain map was not able to be conducted, as sitting still for the procedure was a significant challenge. Despite this, neurofeedback sessions were implemented using evidence-based protocol interventions informed through clinical observation and symptom reporting from the family.

Presenting Challenges:

- Nonverbal communication
- Food refusal (feeding tube dependence)
- Severe sensory aversions
- Self-injurious behaviors
- Sleep disturbances
- Social withdrawal and extreme anxiety
- Emotional dysregulation

Neurofeedback Intervention

Total Sessions: 60
Protocol Selection: Clinically observed and symptom-informed, designed to regulate nervous system activity and support functional development in the absence of qEEG mapping.

Phase 1 – Nervous System Stabilization (20 sessions)

- **Sites:** Cz (1-channel)
- **Inhibit:** 4–7 Hz (Theta) and 21–40 Hz (High Beta)
- **Reward:** 12–19 Hz (SMR/Beta)
  Objective: To reduce dissociative (theta) and hyperaroused (high beta) activity while supporting sensorimotor calm and regulation through SMR reward frequencies.

Reported Changes:

- Intentional vocalizations for communication purposes for the first time in years
- Giggles instead of repetitive vocal outbursts
- Gained body awareness with improved regulation

Phase 2 Protocol – Emotional Regulation and Communication (20 sessions)

- **Sites:** F3, F4 (2-channel)
- **Inhibit:** 4–10 Hz (Theta) and 21–40 Hz (High Beta)
- **Reward:** 13–18 Hz (SMR/Beta)
  Objective: Enhance frontal lobe balance and mood regulation by reducing slow-wave and high-frequency dysregulation while rewarding mid-beta for language and cognitive support.

Reported Changes:

- Increased calm verbal output and social interaction
- Greater emotional engagement and self-control
- Willingness to wear clothing and eat food orally

Upcoming Protocol – Sensorimotor Integration

- **Sites:** C3, C4 (2-channel)
- **Inhibit:** 4–10 Hz (Theta) and 21–40 Hz (High Beta)
- **Reward:** 13–18 Hz (SMR/Beta)
  Objective: Support continued behavioral improvements through targeted motor-sensory integration and hemispheric coordination.

Therapist Feedback:
Client's occupational and swim therapists report consistent and remarkable improvements, describing her development as "beyond expectation." Week-to-week, client has shown increased speech, regulation, and participation.

Parent Testimonial:
"My daughter is seven years old, nonverbal, and has severe autism. We had tried everything to help her anxiety, emotional regulation, and inability to engage in everyday life. Since starting neurofeedback at MindGym, the changes have been immediate and extraordinary. She's now speaking words, sleeping through the night, and just took her first bite of food in over a year after being entirely dependent on a feeding tube.

She smiles again. She laughs. She makes eye contact and points to her head saying 'happy.' Her occupational and swim therapists are blown away by her weekly progress. Before this, even leaving the house or wearing clothing was impossible—she lived in constant sensory overload. Now, that pain is easing. She no longer hits herself or seeks pressure through self-harm.

At first, she resisted, and I had to hold her during sessions—but now she smiles and laughs through them, asking to go every day. Neurofeedback has completely changed our lives without a single medication. I cannot recommend this highly enough, especially for children who feel trapped inside their autistic world."

Conclusion

E.S.'s journey demonstrates the remarkable impact of neurofeedback on children with severe autism and extreme sensory dysregulation. Though unable to complete a qEEG due to clinical severity, symptom-informed protocols led to profound changes: vocalization, reduced anxiety, emotional presence, and physical comfort in her body and environment.

Her transformation—from isolated and overwhelmed to expressive, joyful, and engaged—is a powerful example of the nervous system's capacity to heal with the right support. Neurofeedback has unlocked not only her potential, but her voice, her calm, and her ability to connect. E.S.'s progress is a testament to what's possible when we meet the brain where it is and help it find balance.