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Case Study: ReAttach Therapy for PTSD and Hyperalertness Following a TIA The missing link in treating complex patients?

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Abstract

This case study explores the effectiveness of ReAttach therapy as a transdiagnostic intervention for a complex patient with PTSD and hyperalertness following a Transient Ischemic Attack (TIA). The subject, a 49-year-old vitality coach named Naomi, experienced severe fatigue, cognitive impairments, and persistent PTSD symptoms after her TIA, which were unresponsive to previous treatments, including Eye Movement Desensitization and Reprocessing (EMDR). Over three ReAttach therapy sessions, Naomi showed remarkable improvements in sensory processing, energy levels, cognitive functioning, and overall quality of life. Her PTSD symptoms decreased significantly, allowing her to resume her professional duties and daily activities with enhanced resilience. The results of this single case study suggest that ReAttach therapy may provide a crucial therapeutic link in treating complex patients with overlapping mental health and neurological conditions, offering a cost-effective and patient-friendly approach to restoring learning conditions in the brain and promoting personal growth. Further research is warranted to validate these findings and explore the broader applicability of ReAttach therapy in diverse clinical settings.

Keywords: ReAttach, PTSD, TIA, Stroke, Cognitive Impairment, Transdiagnostic Intervention, Mental Health, Therapy

Introduction:

The comprehensive systematic review by Morgan et al. (2014) suggests that fatigue, loss of cognitive abilities, depression, and anxiety are enduring impairments following a transient ischemic attack (TIA). Van Rooij et al. (2017) further validate these findings, noting that patients experience a decline in executive function in the first six months after a TIA or transient neurological attack. The prevalence of patients with Transient Ischemic Attack (TIA) or ischemic stroke (IS) is on the rise (Feigin et al., 2009; Johnson et al., 2019), while mental health disorders in general affect 1 in 5 adults globally (WHO, 2019). The impact of these mental health disorders on learning conditions in the brain is not just significant; it is profound. If an individual with psychological complaints, such as early childhood trauma, burnout, or PTSD, suffers a TIA or infarction, the learning conditions in the brain are further affected. *ReAttach* is a short-term, transdiagnostic intervention that focuses on restoring those learning conditions and optimizing personal growth in patients with multiple diagnoses. It is not specific to a single disorder but can be applied across various mental health conditions (Bartholomeus, 2021).
By detailing this complex single case study, the authors want to highlight the transdiagnostic nature of ReAttach therapy to demonstrate its potential for various professional disciplines in mental health care. This report includes the occupational therapist's description of the treatment process and the patient's narrative to show how friendly and accessible ReAttach therapy is and future practitioners can get a clear vision.

Single Case-Study:

Clinical characteristics

Naomi, a 49-year-old woman, works as a vitality coach in a health center. After experiencing a TIA (Transient Ischemic Attack) in September 2023, she struggled with severe fatigue, cognitive issues (memory problems, increased distractibility, difficulty maintaining focus), poor sleep, and was unable to perform her job effectively, leading to her taking sick leaves. In addition to these physical complaints, she was dealing with PTSD, stemming from several significant life events, including traumatic experiences in her childhood. She had previously undergone an EMDR (Eye Movement Desensitisation and Reprocessing) program with a psychologist to process some of these traumas, but her symptoms persisted.

Her rehabilitation physician, specifically referred her for ReAttach therapy, hoping that this approach, in conjunction with his medical interventions, could help calm her nervous system, alleviate her PTSD symptoms, and enable her to resume her work and life.

Symptomatology before ReAttach: pre-measurement

● *Sensory Processing Score* - measured with a Visual Analogue Scale (0-10)
Naomi's sensory processing score, which measures her ability to interpret and respond to sensory information, was 3 before the treatment.

● *Activity Weigher*

We utilized the Activity Weigher (Evenhuis & Eyssen, (2012), a tool to assist the patients in assessing and balancing daily activities according to their energy levels and capabilities. The Activity Weigher helps prioritize tasks and manage energy more effectively by weighing the demands of different activities against the person's current physical and mental capacity. This tool is particularly useful for people recovering from illness or injury, or those dealing with chronic conditions, as it helps them avoid overexertion and maintain a balanced lifestyle. On the pre-test, Naomi scored 16 points on the Activity Weigher.

● *QOLS (Quality of Life Scale)*

Before ReAttach, Naomi's QOLS score was 5.

Treatment Approach

The therapist developed a strategic treatment plan for this patient consisting of three ReAttach sessions. The goal was to further process the remaining emotional tensions and reduce the hyperalertness of her nervous system. After the three ReAttach sessions, he would evaluate the effects of the therapy and the treatment approach.

First session: We began by stabilizing her emotional state and reducing hyperalertness, creating a foundation of safety for further processing. The therapist was aware of the dynamics of transference and countertransference. By using rapport techniques (mirroring, predicates, etc.), he aimed to facilitate optimal communication in a safe environment for her. During the first session, the therapist explained the autonomic system and ReAttach therapy and also conducted the first ReAttach treatment.

She immediately reported that the ReAttach session was a very positive experience. She described feeling a sense of calm and clarity, with noticeable effects right away (better focus, colors appeared brighter, feeling more grounded, a calm mind, steady breathing). The blockage she felt in her throat was gone, and she mentioned that her energy was flowing more freely. She became more aware of her body, whereas, before the treatment, she felt more 'stuck in her head.'

Second session: There was a 1.5-week gap between the first and second sessions. The client, actively participating in her recovery, reported that many positive changes had occurred. She felt more connected to her body, slept much better, woke up refreshed, had more energy, actively incorporated short rest periods into her day, and was more focused. For the second ReAttach session, we focused on addressing her fear of relapse. The session emphasized trusting her body, building self-confidence, and her recovery and future.

Third session

Two weeks between the second and third sessions passed. The patient shared that she had taken a weekend trip to Paris with her partner and had thoroughly enjoyed it. She also resumed her work and managed to maintain a balance between her workload and her capacity. This significant progress demonstrated the lasting effects of the ReAttach therapy. The final session focused on restoring balance in her nervous system, strengthening her resilience, and setting goals. We mutually agreed that this would be the last session, with the understanding that she could schedule a follow-up appointment if needed.

Results

After these three ReAttach sessions, the therapist observed a significant improvement in the patient. Her PTSD symptoms further decreased, her hyperalertness decreased, and she regained enough energy and clarity to resume her work as a vitality coach. She reported improved cognitive functioning, allowing her to work more effectively and with less stress. She had also developed greater body awareness.

Post-measurement

● ***Sensory Processing Score*** **-** measured with a Visual Analogue Scale (0-10)
After ReAttach, Naomi's sensory processing score, which measures her ability to interpret and respond to sensory information, was a 10.

● ***Activity*** *Weigher*

On the post-test, Naomi scored 32 points on the Activity Weigher compared to 16 points on the pre-test. Naomi's score increased from 16 to 32, indicating a significant improvement in her ability to carry out activities. After ReAttach, Naomi's

energy levels increased, allowing her to complete more tasks. This improvement, along with the doubling of her score, suggests clear progress in managing her activities. It's an encouraging sign of the therapy's effectiveness.

● ***QOLS (Quality of Life Scale)***
After ReAttach, Naomi's QOLS score increased from a 5 at the pretest to a 9.5 on the post-test.
What struck the therapist the most was how Naomi described ReAttach therapy. She called it a "gift to herself" and said it was difficult to summarize in just a few words what the therapy had done for her. In short, she said it had profoundly changed her life:

Patient's narrative
I came to a referral from the rehabilitation doctor because, as a result of a brain injury, I was susceptible to stimuli and very tired. After eight months of rehabilitation, there was still no improvement. I could not predict how I would feel the next day. In the morning, I could walk the dog for ten minutes, do laundry in the afternoon, and cook dinner in the evening—the maximum of activities I could do in a day. I would sleep in the morning and need to rest again in the afternoon. After just one ReAttach session, these complaints wholly disappeared! Two days after ReAttach, I walked 25,000 steps daily for two days in Paris. Whereas before (even before my brain injury), visiting a city was a challenge for me because of the many stimuli, I had no trouble at all this time. There was a filter between me and my surroundings instead of me absorbing everything.
Another result relates to a problem that existed even before my brain injury. I suffered from a traumatic and very unsafe childhood. I had already worked on this trauma through various forms of therapy (including EMDR). Therefore, I knew my patterns and pitfalls and where they came from and could choose different behaviors. However, in my body, things often happened that I did not control and was not always aware of. For example, when I entered the canteen at work, and there were many colleagues, I wasn't myself anymore because I was scanning the room. Many things happened unconsciously in my body and would surface later due to fatigue or intense emotions.
Since the ReAttach treatment, I have become aware of what is happening in my body and feel it immediately. I just let it be. As a result, I am less tired and much calmer in life.
The most significant difference for my husband is that since ReAttach, I have had more energy.

Discussion

Occupational therapists typically offer a congruent treatment strategy to patients after transient ischemic attacks (TIA) or stroke, focusing on helping them manage residual symptoms that, according to professional literature, are often chronic (Johansson & Hoglund, 2022). As a practitioner, it is typical to guide patients toward these symptoms and find ways to compensate for them. A common approach for managing chronic fatigue is to plan daily activities, thereby enabling patients to maintain a more balanced lifestyle despite their limitations.
In this context, the occupational therapist developed a *strategic* treatment plan for this patient, which included three ReAttach therapy sessions. This plan was grounded in the therapist's understanding that ReAttach could enhance information processing and learning conditions by addressing residual emotional tensions and reducing hyperalertness in the nervous system. The therapist's confidence in ReAttach's effectiveness was reflected in his decision to evaluate the results after only three sessions. His optimism about the therapy's outcomes suggests that he anticipated a positive change within this brief period, which might also contribute to a placebo effect.
However, the patient's rehabilitation doctor, responsible for overseeing her overall recovery, approached the situation more cautiously. The doctor and the patient were likely skeptical about the possibility of significant improvements within a short timeframe. This skepticism is understandable, given that professional literature and clinical experience often indicate limited recovery potential after TIA or stroke (Boulanger et al., 2020). This cautious outlook could have led to a nocebo effect, where low expectations might have influenced the perceived outcomes.

Despite the initial skepticism, the occupational therapist succeeded in using ReAttach therapy not only to stabilize the patient's cognitive decline and mental health issues but also to foster personal growth. Remarkably, the patient demonstrated improved control over her life and daily activities. The ReAttach sessions supported her in regaining executive functioning and enhancing her ability to process stimuli effectively. Interestingly, the patient described the therapy as a pleasant experience, highlighting that the treatment was neither prolonged nor overly intense. This positive perception underscores the therapeutic value of ReAttach, even in the face of initial doubt.

In summary, this case illustrates the potential of ReAttach therapy to bring about significant improvements in patients recovering from TIA or stroke, despite initial skepticism from both healthcare providers and patients. It also highlights the importance of a therapist's confidence and its role in the therapeutic process, potentially influencing outcomes through both placebo and nocebo effects.

Explanation of Cost-Effectiveness and Hypothesized Benefits of ReAttach Therapy

Cost-effectiveness is a measure used to determine different interventions' relative expenses and outcomes. It helps assess whether the benefits of a treatment or intervention justify its costs. For healthcare interventions, this involves comparing the price of the intervention to the benefits it provides, often in terms of improved health outcomes or quality of life. In this context, measuring cost-effectiveness would involve evaluating Costs, which include the financial expenses related to the ReAttach therapy sessions, such as therapist fees, time spent, and other associated costs. On the other hand, benefits include improvements in patient outcomes, such as reduced symptoms of PTSD, better cognitive functioning, improved quality of life, and the ability to return to work or daily activities. One can determine if ReAttach therapy is a cost-effective intervention by comparing the costs to these benefits. Therefore, the research can assume that the below Benefits for Different Stakeholders:

For Patients: *Enhanced Quality of Life:* Naomi's significant improvement in her Quality of Life Scale (QOLS) score, from 5 to 9.5, highlights the direct benefit of ReAttach therapy. Increased energy levels, improved cognitive functioning, and reduced PTSD symptoms translate into better overall well-being and personal satisfaction. Increased Functionality: Naomi's ability to return to her job and engage in activities she previously struggled with (e.g., taking a trip to Paris) underscores the therapy's effectiveness in restoring daily functioning. This can lead to increased self-esteem and independence. *Reduced Symptoms:* The substantial decrease in PTSD symptoms and cognitive issues demonstrates that ReAttach therapy can help alleviate severe mental health issues, improving patients' mental and emotional health.

For Organizations/ReAttach: *Improved Productivity:* Naomi's return to work and improved performance as a vitality coach suggest that ReAttach therapy can help employees recover more quickly from health setbacks, minimizing absenteeism and lost productivity.

Cost Savings: If ReAttach therapy leads to faster recovery and reduced need for long-term treatments, organizations may benefit from lower healthcare costs and reduced expenditure on disability benefits or extended sick leaves.

Enhanced Employee Well-being: Providing access to effective treatments like ReAttach can improve employee well-being, potentially conducive to a more approving workplace culture and heightened worker retention rates. For Society,

Reduced Healthcare Costs: Effective therapies that improve recovery outcomes can reduce the overall burden on healthcare systems. Society benefits from lower healthcare expenditures by decreasing the need for prolonged or multiple treatments.

Increased Workforce Participation: By facilitating a quicker return to work for individuals affected by severe health conditions, ReAttach therapy can help maintain or improve overall workforce participation. This contributes to economic productivity and reduces the societal costs associated with disability and unemployment.

Improvement in Educational Settings: Many behavioral and academic problems in educational settings can be prevented and treated by using ReAttach. The prevalence of academic procrastination, exam anxiety, learning disabilities, perfectionism, and career indecision in schools and universities is high, and it is vital in therapy sessions with this type of client to have a plan for cognitive functioning.

Enhanced Public Health: Improved management of mental health conditions and recovery from neurological events like TIAs can contribute to better public health outcomes, leading to a healthier population with fewer individuals experiencing severe or chronic health issues. For example, in all types of cancers, the quality of life is one of the significant issues, and with the use of ReAttach, it is possible to help them raise the quality of life. It could be supposed that ReAttach can help with the mediation of coping strategies that are the primary key to dealing with the stress of cancer. Some research refers to the importance of coping strategies with stress, lifestyle, and quality of life in patients with cancer (Abdi Zarrin, Masoumi & Tavallaei Nezhad, 2021; Macía, Barranco, Gorbeña & Iraurgi, 2020).

ReAttach therapy has demonstrated substantial benefits in a single case study, including a remarkable improvement in quality of life, cognitive function, and energy levels. These benefits extend beyond the individual, potentially leading to cost savings for organizations and positively impacting societal health and economic productivity. It is crucial to consider both the costs and benefits when evaluating ReAttach therapy, as this approach can guide decision-making and help determine its cost-effectiveness and potential positive impact on patients, organizations, and society (Burckhardt & Anderson, 2003; Evenhuis & Eyssen, 2012; Moran et al., 2013; Bartholomeus, 2021).

Conclusion

Although further research in controlled settings is required to understand the implications of ReAttach for patients, organizations, and society, we would like to emphasize its potential in complex patient groups: “ReAttach is the missing link in treating complex patients, as referred to in this case study.”

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Declaration of interest
Paula Bartholomeus is developer of ReAttach. Authors received no funding for this study.

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