

Neurocounseling: Bridging the Recovery Gap

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How could the N of 1 research design be implemented within the Clinical Mental Health field? For example, how would you implement this when working with a client with Borderline Personality Disorder? Would this primarily be based upon the goals of therapy for the client?

A: Great question! There are many ways to implement an N of 1 Study in any clinical setting. Including the treatment goals as the dependent variable (the behavior or activity you are targeting for intervention) and your treatment techniques (DBT, Mindfulness, Thought replacing) as the independent variable would constitute your design. The client would then track and report on the dependent variable, in session you can make the graphs to show progress. The following two references are great articles on N of 1 Design in counseling settings; the Ray article is a “how to” article and the Swank article is an example of what it looks like using a clinical application.

Ray, D. C. (2015). Single-case research design and analysis: Counseling applications. *Journal of Counseling and Development, 93*, 394-402.

Swank, J. M. Shin, S., M., Cabrita, C., Cheung, C. & Rivers, B. (2015). Initial investigation of nature-based, child-centered play therapy: A single-case design. *Journal of Counseling & Development, 93*(4). 440-450.

Could you explain the meaning of neuroplasticity and how it fits with neurocounseling intervention?

A: Neuroplasticity refers to the idea that the brain can be altered and changed throughout life. It was once thought the brain was more rigid and is relatively unchangeable after development occurs. When we do (neuro)counseling interventions we are essentially helping the client to change their brain!

Please explain the physiological process that occurs in the brain that makes mindfulness so effective in relapse prevention?

A: Mindfulness interventions are effective because it targets the limbic system and brings helps a person regulate their emotional response in order to bring the pre-frontal cortex “on-line” to make better decisions. The threat center of the limbic system (the amygdala) is calmed down during mindfulness allowing the client to use the cognitive command center (pre-frontal) cortex to work.

Doesn't the depletion of feel good neurotransmitters add to the craving?

A: Craving is a result of many things and the depletion of dopamine (the feel good neurotransmitters) does play a role as does the habit circuitry of the basal ganglia and the activation of the stress response system in the amygdala.