Treatment & Research

Stroke

happyneuron

Duration, Frequency, Intensity Meta-Analysis

This complied meta-analysis aims to identify structures necessary for maximizing the effectiveness of an adaptable cognitive training program for different disorders and diseases.

More specifically, we compiled the current research to answer these overarching questions:
- How much should someone train to significantly improve his/her cognitive profile?
- Is there an ideal regimen or approach to brain training that produces the optimal results?

Research has proven that brain training conducted in certain criteria may yield positive results for certain populations. As with any form of rehabilitation, cognitive training exercises' duration, frequency, and intensity should be determined based on appropriate diagnosis/assessment. These assessments and diagnoses should be completed by a trained professional with the individual functional needs of the individual in mind.

Disclosure:
This meta-analysis aims to create a place for clinicians to find the research connected with brain training easily. HappyNeuron is not claiming that participating in any form of brain training will result in higher functions, full recovery, or delayed disease onset. The information below is non-bias compliance of the evidence of computerized brain training to be used as a source reference or a supporting document for clinicians to use to help with the care of their clients. Some of this research uses our product, while others use other digital tools.

Stroke

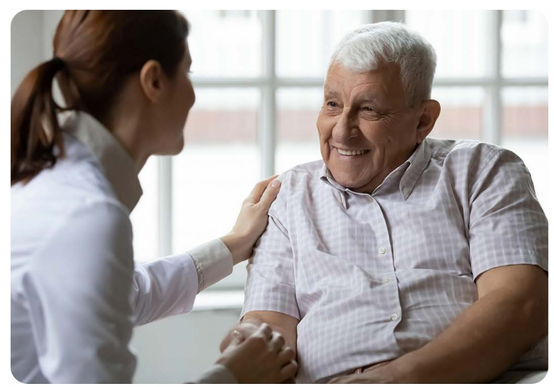
Stroke, also known as a cerebrovascular accident (CVA), occurs when blood flow is disrupted to the brain. A stroke may occur when one of the arteries providing blood flow to the brain is blocked or when one of these arteries is ruptured, causing a bleed to occur. A stroke may impact one or both sides of the brain, resulting in survivors experiencing different complications common complications resulting from stroke include cognitive, psychological, and physical problems.

Common Cognitive Deficits of Individuals with Stroke

Cognitively, stroke survivors often have processing speed, memory, language, attention, executive functioning, visual-spatial skill, and motor skill deficits. Memory problems are an exceptionally common cognitive complaint following a stroke and can potentially affect the ability to complete functional activities. If a stroke occurs on the left side of the brain, a stroke survivor may have aphasia or the loss of language. Stroke survivors typically work with speech therapists, occupational therapists, psychologists, and physical therapists in order to recover and rehabilitate from their stroke. Cognitive Rehabilitation programs either attempt to retrain lost or poor functions or teach patients strategies to cope with them.

Meta-Analysis of Research

Participants who received Cognitive Rehabilitation for memory problems following a stroke reported benefits from the intervention on subjective measures of memory in the short term (i.e., the first assessment point after the intervention, which was a minimum of 4 weeks). There was a significant effect of treatment on subjective reports of memory in the short term. This effect was not, however, observed in the longer term (i.e., the second assessment point after the intervention, which was a minimum of three months) (das Nair, 2016).



Some studies have reported positive results of cognitive rehabilitation for memory problems, but the literature surrounding this specific domain is extremely minimal. As research continues to evolve, so will our resources touching on stroke patients engaged with Cognitive rehabilitation. We strive to keep you as scientifically informed and up-to-date as possible.

Treatment Recommendations

Based on this research, HappyNeuron Pro recommends that Cognitive Rehabilitation should take place for a minimum of 4 weeks, for 30 minutes to 1 hour per day.

Research

In a Cochrane review, das Nair and colleagues (2016b) examined if participants who have received Cognitive Rehabilitation for Memory problems following a stroke have better outcomes than those given no treatment or a placebo control. The outcomes of interest were subjective and objective assessments of memory function, functional ability, mood, and quality of life. Immediate and long-term outcomes of memory rehabilitation were considered.

References

das Nair, R. (2016, September 1). Cognitive rehabilitation for memory deficits after stroke. The Cochrane Database of Systematic Reviews, 9(9). 10.1002/14651858.CD002293.pub3.

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