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Effect of brain gym exercises on attention span in young women

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Abstract

Attention is an act of selectively being aware of the surroundings. Currently, Attention span is decreasing, impacted by various factors. Unfortunately, attention spans will inevitably continue to decrease as long as information technology is permitted to constantly invade our lives. The study aims at investigating the effect of brain gym exercises on attention span in young women. This Quasi-experimental study was conducted among young women, aged between 18-24 years. 100 students were involved in the study according to selection criteria. Students were assessed with MAAS tool after completed their 6 weeks (5 sessions per week) of Brain Gym Exercises. The data collected were statistically analysed by paired sample t-test and shows the subjects was highly significant of ($p < 0.01$). This study concluded a significant improvement in attention span after giving brain gym exercises program for young women.

Keywords: Attention span, brain gym exercises, Mindful Attention Awareness Scale (MAAS)

1. Introduction

Attention refers to the capability to concentrate on specific objects. It encompasses the skills to perceive information and determine what is appropriate from the incoming stimuli. Attention is a prerequisite for memory, as it facilitates communication and execution of brain function^[1]. Attention span refers to the total amount of time a person can devote to focus on a specific activity without being diverted^[2]. Potential cause of attention dysfunction in students include personal issues, lack of attention, lifestyle, physical ailments, and excessive use of technology, personal interests and external factors such as noise, the teacher, and the topic discussed^[3]. Dennison and Dennison developed Brain gym, also referred as educational kinesiology, during 1970s. It is composed of a sequence of movements that stimulate the brain, promote neurological rewiring and support comprehensive brain learning^[4]. Brain gym provides improvement in areas such as focus, concentration, memory, academics abilities (including reading, writing, calculation, test taking), physical coordination, relationships, self-responsibility, organization skills, and attitude^[5]. Brain Gym is made up of simple physical exercises that are intended to stimulate both hemispheres of the brain to synchronize their work^[6]. It comprises of 26 simple movements that can enhance both behavioural and academic performance. These movements results in neurological remodelling, ultimately enhancing skills such as concentration, physical coordination, test-taking, memory, academic reading, writing, and organizational^[7, 8].

2. Materials and Methods

Study design	Single Interrupted Time Series
Study type	Quasi-Experimental study
Study size	100
Study population	Female
Age group	18 to 24 years.
Sample technique	Convenience sampling technique. Study Setting
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Thalambur, Chennai	
Study duration	5 days per week, for duration of 6 weeks

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3. Results

The descriptive statistics of Mindful Attention Awareness Scale shows a mean value of pre-test = 2.6456 & post-test = 2.9032 and standard deviation of pre-test = 0.235043 & post-test = 0.26491 with a t-value of 11.493986 and highly significant of ($p < 0.01$).

3.1 Tables

Analysing the effect of Brain Gym Exercise program by Mindful Attention Awareness Scale: The hypothesis is tested by paired sample t-test.

Table 1: Pre and post values of MAAS

Test	Mean value	SD	T-Value	P-Value
Pre MAAS	2.64	0.23	11.49	0.00001
Post MAAS	2.90	0.26		

4. Discussion

The present study investigated the effect of brain gym exercises on attention span among young women. According to inclusion and exclusion criteria participants were involved in this study. After completing the brain gym exercises, the attention span of young women was assessed by Mindful Attention Awareness Scale as the primary outcome. In comparison of pre and post values of outcome measure showed significant improvement in brain gym exercises.

The human brain has the ability to adapt functionally and influence cognitive abilities. This adaptability, also known as brain plasticity, is influenced by experience, including physical activity. Engaging in physical activity can lead to various effects on the brain. Brain gym exercises aim to integrate the functioning of both the left and right hemispheres of the brain, promoting holistic learning. It also helps to regulate emotional stress that may arise in new learning situations and prepare the brain for learning.

The findings in this study are similar to some previous studies showing positive results for the intervention after implementing the Brain Gym Exercises on attention span.

5. Conclusion

The study found that Brain gym exercises have the potential to enhance the attention span in young women and improve certain academic difficulties. This study concluded that there is a highly significant improvement in attention span after giving brain gym exercises program for young women.

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