



THE IMPACT OF YOGIC PRACTICES ON COLLEGE STUDENTS TO ENHANCE COGNITIVE ABILITIES

Dr. C. Lakshmanan

Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu, India

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Abstract:

Background: The human brain is a distributed network, but similar functional areas belong together because they constantly share information. The prefrontal cortex (PFC) is the central structural region of the brain that is responsible for executive functions such as planning, problem solving, working memory, cognition, and social control. In the present day, information technology has emerged as a blessing for a person's total growth. Using social networking sites frequently on a computer and mobile device reduced attention, response capabilities and level of memory.

Aims and Objectives: The main objective of the study was to assess the effect of holistic yoga practices to increase memory and concentration for college students (adults).

Materials and Methods: The study started with 400 college students in various department who scored less mark in CT1 and CT2 exams. Experimental group and control group were given pre-test to assess their concentration as well as their memory capacity. Holistic yoga module consist of OM chanting, Shatkriya, Asana, Pranayama, Yoga Nidra was given to experimental group for 12 weeks. The experimental and control groups were post-tested for their performance in concentration and memory tests.

Results: The findings show that the college students who participated in the holistic yoga module have improved to a great extent to their concentration and memory capacity.

Key Words: Concentration, Memory, Holistic Yoga Module, Adult.

Introduction:

Yoga is a holistic science of life, which deals with physical, mental, emotional and spiritual health. It is a curative, preventive, and promotional science of health and wellness that encompasses all aspects of life. Various yogic concepts like Chittaprasadanam, Chaturvidha Purusharthas, Chatur Ashrama, Pancha Klesha, Nishkama Karma, Vairagya and others enable us to live as healthy a life as possible in a dynamic state of wellbeing. The regular practice of Yoga helps to reduce the levels of physical, mental and emotional stress and emphasize right thought, right action, right reaction and right attitude.

Concentration:

Concentration is the ability to keep your mind and attention on the task at hand until it is done. Basically, once you're able to focus on a task, your mind then would need to concentrate on that task until it is complete.

The characteristic of good health is also mentioned as deep concentration on samana (energy of digestion) leads to radiant effulgence (Samana Jāthara Jvalanam - Yoga Darshan III: 41).

Memory:

It refers to the psychological processes of acquiring, storing, retaining and later retrieving information. There are 3 major processes involved in memory. Encoding, Storage and Retrieval. Human memory involves the ability to both preserve and recover information. However this is not a flawless process. Sometimes people forget or misremember things. Other times information is not properly encoded in memory in the first place.

Om Chanting:

The vibration of OM recharges the cells and organs of the body with ENERGY. It is said that 30 minutes of om chanting helps to rejuvenate our consciousness and improve memory power. Utterance of A affects the spinal cord, Utterance of U affects the thyroid glands, Utterance of M affects the brain its centres. This practice enhances the efficiency of the brain cells, thereby improving memory power.

Asana:

The inverted postures nourish the brain with increased blood supply and supply of oxygen to the cells that help in developing memory.

Pranayama:

Deep breathing help increased flow of prana and oxygen to the body parts and the brain to enhancing memory power.

Kriya:

Improves vision, concentration and memory. Hence, highly recommended for school and college students. Cures exam-related disorders such as anxiety, headache, insomnia, etc. By fixing the gaze the restless mind to comes to a halt.

Yoga Nidra:

Its help to clear the mind of unwanted thoughts and reduces excessive thinking. Regular Yoga Nidra practitioners find that the practice improves their memory, helps prevent cognitive decline, and enhances focused attention and concentration.

Review of Literature:

Yoga practices affect higher functions of the central nervous system like perception and planning, execution, and learning and memory. [1-3]

Sahaja Yoga Meditation involves long-term sustained attention in the present moment that in theory results in mental silence or thought-free awareness. The authors reported greater connectivity of both the right anterior cingulate cortex and mPFC with the inferior parietal cortex during mental silence. They also noted a reduction in connectivity between the thalamus and para hippocampus gyros during meditation [4]

Greater functional connectivity in the caudate in Vipassana mediators compared to meditation-naïve controls. The caudate has implications for attentional shifting. [5]

Materials and Methods:

The study started with 400 college students in varies department of SRM, Katangulathur, Chennai, Tamilnadu. Who scored less mark in CT1 and CT2 exams. Out of 400 students 300 students were accepted to come for yogic practices for research. 100 of them are not interested due to personal reasons like travel, parents were not permitted, and health issue. In a Random experimental design 100 students were allotted for Experimental group I for concentration, 100 students were allotted into Experimental group II for improving memory capacity and 100 students for control group, were given pre-test to assess their concentration as well as their memory capacity. Holistic yoga module consist of OM chanting, shatkriya, asana, pranayama, yoga nidra was given to experimental group for 12 weeks. The experimental and control groups were post-tested for their performance in concentration and memory tests. The experimental group had a yogic practices for weekly 5 days i.e. Monday, Tuesday, Wednesday, Thursday, Friday between 7.30 am to 8.30 am.

Prospective-Retrospective Memory Questionnaire was used to analyse the memory level and Concentration Questionnaire was used to analyse for concentration.

Training Schedule:

Name of the Yogic Practices	Time
Om Chanting	10 Minutes
Asanas	15 Minutes
Pranayama	10 Minutes
Kriya	10minutes
Yoga Nidra	15minutes

Analysis of Data:

ANCOVA for the Data Derived from the Pre-Test and Post-Test on Concentration, Memory and Control Group.

	Concentration	Memory	CTG	SOV	SOS	DF	MS	OFR
PTM	3.75	3.76	3.75	BW	0.001	2	0.01	1.20
SD	0.02	0.01	0.03	WI	0.02	97	0.01	
PTTM	3.96	3.85	3.75	BW	0.31	2	0.15	260.96*
SD	0.02	0.02	0.03	WI	0.03	97	0.0001	
APTTM	3.96	3.85	3.76	BW	0.30	2	0.15	275.58*
				WI	0.02	96	0.0001	

Scheffe's post hoc test indicates the differences among the paired means of the apt on concentration, memory and control group.

Concentration	Memory	CTG	MDF	CIV
3.96	3.85		0.11*	0.03
3.96		3.76	0.20*	
	3.85	3.76	0.09*	

The above table lists the outcomes after the application of Scheffe's post hoc test. It could also be observed that the Mean Difference (MDF) between Concentraion and memory level 0.11* was exceed the needed Confidence Interval Value (CIV) of 0.03 and the comparability was remarkable at 0.05 level. It can be obviously seen that Concentration showed more influence through the above yogic practices in comparison with memory and control group (CTG)

Conclusion:

Yogic practices were found to be beneficial for students, as they increase concentration and memory levels. Yogic practices help students face examinations without fear. Hence, colleges can implement yogic practices to improve students' academic performance.

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