
EFFECT OF YOGIC INTERVENTION ON MEMORY WITH REGARDS TO CERTAIN DEMOGRAPHIC VARIABLES

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Abstract

The main purpose of this research is to examine “Effect of Yogic Intervention on Memory with regards to certain Demographic Variables”.

Total 80 participants (20 male, 20 female, 20 urban and 20 rural) have been selected from various yoga institute from Ahmedabad City. Convenient sampling technique was used for sample selection. PGI memory scale by Dwarka Persad and N.N. Wig was used for collection of data. To analyzed the data ‘t’ test was used. Results shows that Significant yogic intervention effect was found on memory among male participants. Yogic intervention could significantly help in enhancing memory among male participants. Significant yogic intervention effect was found on memory among female participants. Yogic intervention could significantly help in enhancing memory among female participants. Significant yogic intervention effect was found on memory among urban participants. Yogic intervention could significantly help in enhancing memory among urban participants. Significant yogic intervention effect was found on memory among rural participants. Yogic intervention could significantly help in enhancing memory among rural participants.

❖ INTRODUCTION

Yoga significantly improves memory and cognitive function by boosting brain blood flow, promoting neuroplasticity (forming new neural connections), reducing stress (cortisol), and enhancing focus through asanas, pranayama like Bhramari, Kapalbhathi, and meditation, strengthening regions like the hippocampus crucial for memory. Practices like Lotus Pose, Shoulder Stand, Tree Pose and specific breathing exercises help increase grey matter and improve attention, making yoga a powerful, enhancement.

Asanas deliver more oxygen and nutrients to the brain, optimizing neural function. Yoga also helps the brain reorganize and form new pathways, vital for learning and memory. It also lowering cortisol levels, yoga calms the nervous system, improving mental clarity. Pranayam and medication train the mind to stay present, improving concentration needed for memory. Studies indicate that yoga can increase grey matter in the hippocampus and prefrontal cortex and key memory areas.

Research shows that yoga improves attention, processing speed, and executive functions, with benefits seen in both children and adults. Combining yoga with memory training yields greater results than either practice alone, highlighting yoga's supportive role.

Yogic intervention including asanas, pranayama (breathing techniques), and medication, have shown significant positive effect on memory and cognitive function across both urban and rural population. While urban populations generally have higher access to yoga resources, studies indicate that structured yogic programs are equally, if not more beneficial in rural, low-resource setting, especially for children and the elderly.

In urban areas high stress and limited time are primary barriers, but the availability of trained yoga instructors makes implementation easier. In rural areas limited infrastructure, lack of trained yoga instructors and sometimes sociocultural factors can restrict access to structured yoga training.

Shatrughan (2005) studies suggest that yoga techniques can improve the spatial and verbal memories. Visual memory increases through the practice of yoga. Dynamic *asana* practices were given to the school children for nine days. When measured, the visual memory showed an improvement.

Nagendra HR (1999) results reveals that yogic methods to develop memory include deepening perception, increasing the attention span, activating dormant areas of the brain, and replacing useless memories with useful ones.

Thomson (2003) In this research researcher evaluates the effect of yogic training on short-term memory in a middle-aged group. It was found that short-term memory was improved significantly in the form of the serial learning score after 6th and 12th weeks of yoga training. From the evidence, it could be observed that aging may disrupt old memory and the processing of new memory. Yoga is a type of mind-body intervention, regular

practice of which helps to improve individual memory, which includes perception, concentration, and attention span.

Subramanya (2009) In his study reported that memory scores were improved immediately after the practice of cyclic meditation.

❖ **STATEMENT OF PROBLEM**

In this research researcher has try to examine the effect of Yogic Intervention on Memory in relation to certain demographic variables like male, female, urban and rural participants. The appropriate problem of this research is to “**Effect of Yogic Intervention on Memory with regards to certain Demographic Variables**”.

❖ **OBJECTIVES :**

1. To examine the effect of Yogic intervention on memory among male participants.
2. To examine the effect of Yogic intervention on memory among female participants.
3. To examine the effect of Yogic intervention on memory among urban participants.
4. To examine the effect of Yogic intervention on memory among rural participants.

❖ **HYPOTHESIS :**

Ho₁ There is no significant effect of Yogic Intervention among male participants with regards to memory.

Ho₂ There is no significant effect of Yogic Intervention among female participants with regards to memory.

Ho₃ There is no significant effect of Yogic Intervention among urban participants with regards to memory.

Ho₄ There is no significant effect of Yogic Intervention among rural participants with regards to memory.

❖ **SAMPLE**

In this research total 80 (20 male, 20 female, 20 urban and 20 rural) participant were selected. Convenient sample technique was used for sample selection.

● **Inclusive Criteria :**

1. 21 to 30 years age group of participant were selected.
2. Participants who wants to participant voluntarily were included in present research.

3. Participant were selected from urban and rural areas of Ahmedabad district.
4. At least evaluate level of participant were taken in this research.

- **Exclusive Criteria**

1. Participants who have chronic physical and mental illness were not included in this research.
2. Social-economic status of participants was excluded.

- ❖ **RESEARCH DESIGN**

In this research single group pre-post research design was applied.

- ❖ **VARIABLES**

- **Independent Variable**

In this research Yogic Intervention was considered as independent variable.

- **Dependent Variable**

Overall scores of PGI Memory Scale was considered as dependent variable

- ❖ **TOOL**

In this research PGI memory scale by D. Persad and N.N. Wig was used for data collection.

PGI Memory Scale contains ten sub-tests.

1. Remote Memory 2. Recent Memory 3. Mental Balance 4. Attention Concentration
5. Delayed Recall 6. Immediate Recall 7. Retention for Similar Parts 8. Retention for Dissimilar Pairs 9. Visual Retention 10. Recognition

- **Reliability :**

The reliability of the Scale is concerned, It was re-administered on 40 subjects after and interval of one week. The test-retest reliability ranged between .70 and .84 for organic-psychotic groups, .48 and .84 for 'neurotic-normal' group. Mean differences were not significant for many of the sub-tests (Pershad, 1977). On the whole however, an increase of 4 points was observed on repeated testing. For these two groups split half reliability was found to be .91 and .83 respectively.

- **Validity :**

PGI Memory Scale (PGIMS) was found to have a correlation of .71 with Boston Memory Scale and .85 with Wechsler Memory Scale.

- **Scoring :**

Scoring was done as per the scoring key of all the sub-test given in the annual of PGI memory scale.

- ❖ **PROCEDURE OF DATA COLLECTION**

In this research data collection was done in two phase. In first phase after establishing rapport and given the appropriate instruction to the participants. PGI memory scale was administered in small group of participants. After completion of the first phase data collection, scoring was done with help of manual PGI memory scale.

In second phase of data collection for days in a week 50 minute for 4 months Yogic practice was given to small group participants. After completion Yogic Practice second phase, again PGI memory scale was administered to the participants. Scoring was done with then help of scoring key, data of both phase were arranged in tabular form for data analysis.

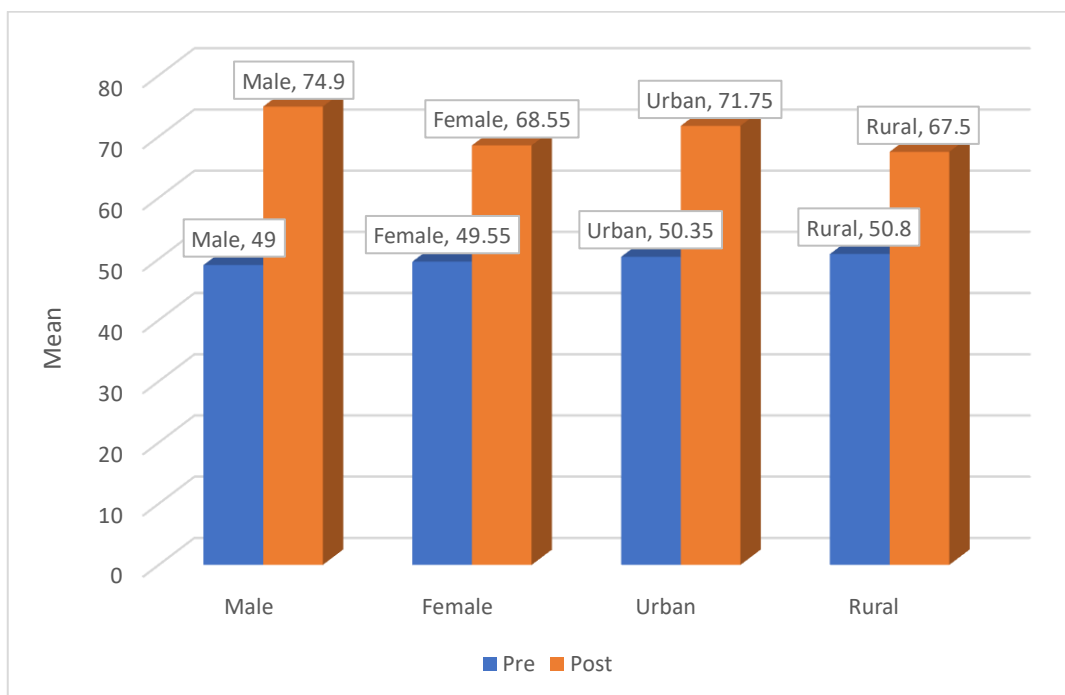
- ❖ **STATISTICAL ANALYSIS**

To know the effect of intervention on memory among participants. Mean, SD and 't' test were applied. Each hypothesis was tested at 0.01 and 0.05 level of significance.

Table – 1

**Mean SD and t value of Pre and Post Yogic Intervention on
Memory among male, female, urban and rural participants**

Sub Test	Group	N	Mean	SD	t value	Level of Significance
Male	Pre	20	49.00	11.84	11.36	0.01
	Post	20	74.90	8.90		
Female	Pre	20	49.55	11.00	10.92	0.01
	Post	20	68.55	6.73		
Urban	Pre	20	50.35	10.17	7.64	0.01
	Post	20	71.75	7.24		
Rural	Pre	20	50.80	9.52	8.51	0.01
	Post	20	67.50	5.06		



The results of above table the t value of pre and Post Yogic International on memory among male, female, urban and rural participants.

In above table the 't' value of Pre and Post Yogic Intervention on memory among male participant is 11.36, which is significant at 0.01 level. Therefore, the null hypothesis "There is no significant effect of Yogic Intervention among male participants with regards to memory" is rejected. It indicates that significant yogic intervention effect was found on memory among male participants. The mean score of pre and post test on memory among male participants were 49.00 and 74.90 with SD 11.84 and 8.90 respectively. Results reveals that Yogic intervention could significantly help in enhancing memory among male participants.

The 't' value of Pre and Post Yogic Intervention on memory among female participant is 10.92, which is significant at 0.01 level. Therefore, the null hypothesis "There is no significant effect of Yogic Intervention among female participants with regards to memory" is rejected. It indicates that significant yogic intervention effect was found on memory among female participants. The mean score of pre and post test on memory among female participants were 49.55 and 68.55 with SD 11.00 and 6.73 respectively. Results reveals that Yogic intervention could significantly help in enhancing memory among female

participants.

The 't' value of Pre and Post Yogic Intervention on memory among urban participant is 7.64, which is significant at 0.01 level. Therefore, the null hypothesis "There is no significant effect of Yogic Intervention among urban participants with regards to memory" is rejected. It indicates that significant yogic intervention effect was found on memory among urban participants. The mean score of pre and post test on memory urban participants were 50.35 and 71.75 with SD 10.17 and 7.24 respectively. Results reveals that Yogic intervention could significantly help in enhancing memory among urban participants.

The 't' value of Pre and Post Yogic Intervention on memory among rural participant is 8.51, which is significant at 0.01 level. Therefore, the null hypothesis "There is no significant effect of Yogic Intervention among rural participants with regards to memory" is rejected. It indicates that significant yogic intervention effect was found on memory among rural participants. The mean score of pre and post test on memory among rural participants were 50.80 and 67.50 with SD 9.52 and 5.06 respectively. Results reveals that Yogic intervention could significantly help in enhancing memory among rural participants.

❖ **CONCLUSION**

- Significant yogic intervention effect was found on memory among male participants. Yogic intervention could significantly help in enhancing memory among male participants.
- Significant yogic intervention effect was found on memory among female participants. Yogic intervention could significantly help in enhancing memory among female participants.
- Significant yogic intervention effect was found on memory among urban participants. Yogic intervention could significantly help in enhancing memory among urban participants.
- Significant yogic intervention effect was found on memory among rural participants. Yogic intervention could significantly help in enhancing memory among rural participants.

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