

# The impact of cyclic meditation and selected yogic program on Balance in Diabetic Patients

Priyankar Bhowmik<sup>1\*</sup>, Dr. Maheep Kumar Mishra<sup>2</sup>, Dr Rakesh Bharti<sup>3</sup>, Dr. Amit D Patel<sup>4</sup>, Dr. Tanvi Vitthaldas Tarpara<sup>5</sup>, Dr. Dilip Kumar Bhagoji Gholap<sup>6</sup>

<sup>1</sup>Scholar, Monad University, UP

<sup>2</sup>Professor, Monad University UP

<sup>3</sup>Associate Professor, Lovely Professional University, Punjab

<sup>4</sup>Assistant Professor, Sarvajani University, Surat, India

<sup>5</sup> Assistant Director Department of Physical Education and Sports Vanita Visharam Women's University, Surat

<sup>6</sup>Assistant Professor (Physical education) Rajju Shroff Rofel University, Vapi, Gujarat

**\*Corresponding Author:** Priyankar Bhowmik

<sup>\*</sup>Scholar, Monad University, UP

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## ARTICLE INFO

## ABSTRACT

The main objective of this study was to find out the impact of cyclic meditation and selected yogic programme on Balance in Diabetic Patients. Forty-five type-2 diabetic patients were chosen at random from Indra Gandhi Memorial Hospital and the yoga and fitness club in Agartala to fulfill the study's objectives. They are between the ages of 40 and 60. They were randomly divided into three equal groups. The groups were assigned as Experimental Group I, Experimental Group II and Control Group equivalently. Experimental Group I was exposed to Cyclic Meditation (CM), Experimental Group II was exposed to Yogic asanas (YA) and Control Group (CG) was not exposed to any experimental training other than their regular daily activities. The analysis of covariance was used to analyze the significant differences, if any among the groups. Three groups were compared, and whenever they obtained 'F' ratio for adjusted post-test was found to be significant, the Scheffe's test to find out the paired mean differences, if any. The 0.05 level was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as appropriate. The result of the study indicates due to training on balance have been improved significantly.

**Keywords:** MEDITATION, Yoga & ANACOVA

## Introduction

The word 'Yoga' is not unfamiliar to us. We have some ideas about it, though the ideas may be wrong or right. At one time, yoga was confined to very few dedicated people, initiated to that order by their Gurus, most of whom were ascetics and hermits. The general belief, even among the educated people, was that yoga was meant only for those people who had left their worldly life and started living in hermitage, and not for the householders. But, after it has been practiced among the masses by yogis like Swami Ramdev, Shri Ravi Shankar and others, through mass-media, particularly through television and mass-yoga-camps, it is now widely practiced by the common people, irrespective of gender, religion, caste, birth, age and profession, in order to gain relief from ailments and to lead a healthy, happy and prosperous life.

We evaluated the immediate impact of meditation practice on state mindfulness using a short Mindfulness Attention Awareness Scale (MAAS).

Meditation techniques such as mindfulness meditation or one of the various forms of mindfulness is the practice of a unique transcendental meditation includes specific postures, focused technique called Cyclic Meditation (CM). CM is a moving attention, or an open attitude toward distractions defined by National

meditation practice derived from an ancient Indian text, Mandukiya Center for Complementary and Alternative Medicine (NCCAM), Upanishad (Nagendra & Nagrathana, 1997). It was fundamentally the USA. Regular practice enhances calmness and relaxation, improve designed for novice practitioners and combines the practice of yoga psychological balance, cope with illness, or enhance overall health postures with guided meditation. CM is known to induce quiet and well-being (NCCAM, 2010). State of mind, which is compatible with the description of meditation (dhyana or effortless expansion), according to Sage Patanjali Mindfulness meditation involves paying heightened awareness to (Subramanya & Telles, 2009a).

### Methodology Selection Of Subjects

To achieve the purpose of this study, forty five type- 2 diabolic patients subjects were randomly selected from Indra Gandhi Memorial Hospital, and yoga and fitness club Agartala. Their age ranges between 40 years to 60 years. They were randomly divided into three equal groups. The groups were assigned as Experimental Group I, Experimental Group II and Control Group equivalently. Experimental Group I was exposed to Cyclic Meditation (CM), Experimental Group II was exposed to Yogic asanas (YA) and Control Group (CG) was not exposed to any experimental training other than their regular daily activities. Practices for a time of 12 weeks. After 12 weeks of participation in the respective treatments, the posttest was administered to the aforementioned dependent variables. From Monday through Saturday, the practice training program ran from 6:00 a.m. to 7:00 a.m. and from 7:00 a.m. to 8:00 a.m.

### Criterion Measures

S.no	Variable	Tools administered	Unit of measurement
Psychophysical variables			
1.	Balance	Static balance test	Second

### Experimental Design

This experimental study was administered to only two experimental groups and one control group of 15 subjects each. For this purpose Group I underwent , cyclic meditation Group II underwent yoga and Group III acted as control group.

### Training Program

During the program of yogic practices the experimental group I underwent cyclic meditation program for six days a week from Monday to Saturday 6:00 am to 7:00 am and experimental group II underwent Yoga practices program for six days a week from Monday to Saturday 7:00 am to 8:00 am. Experimental treatment was restricted to 12 weeks only.

**Table II and III show the yogic training schedules.**  
**TABLE – I 12-Week Training Schedule of Cyclic Meditation**

Week	Meditation Phase	Duration	Rest	Sets	Repetitions
1 and 2	Instant Relaxation Technique (IRT)	5 min	1 min	1	1
	Slow Stretching + Quick Relaxation Technique (QRT)	10 min	2 min	1	1
	QRT + Deep Breathing (Pranayama)	8 min	2 min	1	1
	IRT + QRT	10 min	1 min	1	1
	Repeat Day 1 Routine	5 min	1 min	1	1
	Repeat Day 2 Routine	10 min	1 min	1	1

Week	Meditation Phase	Duration	Rest	Sets	Repetitions
3 and 4	IRT + QRT + Breathing Awareness	10 min	1 min	1	1
	Standing Stretches + QRT + IRT	12 min	2 min	1	1
	IRT + Breathing Exercise (Pranayama)	10 min	1 min	1	1
	QRT + IRT + Focus on Body Awareness	12 min	1 min	1	1
	Repeat Day 1 Routine	10 min	1 min	1	1
	Repeat Day 2 Routine	12 min	1 min	1	1

Week	Meditation Phase	Duration	Rest	Sets	Repetitions
	IRT + QRT + Breathing (Pranayama)	15 min	2 min	1	1
	Standing Stretches + IRT + Quick Relaxation	15 min	2 min	1	1
	IRT + Breathing Awareness	15 min	2 min	1	2
	QRT + IRT + Guided Meditation	15 min	2 min	1	1
	Repeat Day 1 Routine	15 min	2 min	1	1
	Repeat Day 2 Routine	15 min	2 min	1	1

Week	Meditation Phase	Duration	Rest	Sets	Repetitions
7 and 8	IRT + QRT + Pranayama	18 min	2 min	1	1
	Standing Stretches + IRT + QRT	18 min	2 min	1	2
	IRT + Pranayama + Guided Body Awareness	18 min	2 min	1	2
	QRT + IRT + Guided Relaxation	18 min	2 min	1	1
	Repeat Day 1 Routine	18 min	2 min	1	1
	Repeat Day 2 Routine	18 min	2 min	1	1

Week	Meditation Phase	Duration	Rest	Sets	Repetitions
9 to 10	IRT + QRT + Pranayama	20 min	2 min	1	2
	Standing Stretches + QRT + Pranayama	20 min	2 min	1	2
	IRT + QRT + Body Awareness	20 min	2 min	1	2
	Guided Relaxation + Deep Breathing	20 min	2 min	1	1
	Repeat Day 1 Routine	20 min	2 min	1	2
	Repeat Day 2 Routine	20 min	2 min	1	2

Week	Meditation Phase	Duration	Rest	Sets	Repetitions
11 to 12	IRT + QRT + Guided Body Awareness	25 min	2 min	1	2
	Standing Stretches + QRT + Breathing	25 min	2 min	1	2
	IRT + QRT + Guided Visualization	25 min	2 min	1	2
	Full-Body Relaxation + Pranayama	25 min	2 min	1	1
	Repeat Day 1 Routine	25 min			

### Training Schedule For Package II

Weeks	Surya Namaskar	Bhujangasana	Paschimottanasana	Ardha Matsyendrasana	Sarvangasana	Halasana	Shavasana	Matsyasana	Kapalbhati	Vyutkarma	Sheetkari Karma
1 2	2 sets, 5 reps, low intensity	2 sets, hold 10 sec each	2 sets, hold 10 sec each	2 sets, hold 10 sec each	2 sets, hold 10 sec each	2 sets, hold 10 sec each	1 set, 5 min	1 set, hold 10 sec	2 sets, 10 breaths	1 set, 1 min	1 set, 1 min
3 4	2 sets, 8 reps, low-medium intensity	2 sets, hold 15 sec each	2 sets, hold 15 sec each	2 sets, hold 15 sec each	2 sets, hold 15 sec each	2 sets, hold 15 sec each	1 set, 6 min	1 set, hold 15 sec	2 sets, 15 breaths	1 set, 2 min	1 set, 2 min
5 6	3 sets, 10 reps, medium intensity	3 sets, hold 20 sec each	3 sets, hold 20 sec each	3 sets, hold 20 sec each	3 sets, hold 20 sec each	3 sets, hold 20 sec each	1 set, 8 min	1 set, hold 20 sec	3 sets, 20 breaths	1 set, 2 min	1 set, 2 min
7 8	3 sets, 12 reps, medium-high intensity	3 sets, hold 25 sec each	3 sets, hold 25 sec each	3 sets, hold 25 sec each	3 sets, hold 25 sec each	3 sets, hold 25 sec each	1 set, 10 min	2 sets, hold 20 sec	3 sets, 25 breaths	2 sets, 2 min	2 sets, 2 min
9 10	4 sets, 14 reps, high intensity	4 sets, hold 30 sec each	4 sets, hold 30 sec each	4 sets, hold 30 sec each	4 sets, hold 30 sec each	4 sets, hold 30 sec each	1 set, 12 min	2 sets, hold 25 sec	4 sets, 30 breaths	2 sets, 3 min	2 sets, 3 min
11 12	4 sets, 15 reps, high intensity	4 sets, hold 30-45 sec each	4 sets, hold 30-45 sec each	4 sets, hold 30-45 sec each	4 sets, hold 30-45 sec each	4 sets, hold 30-45 sec each	1 set, 15 min	2 sets, hold 30 sec	4 sets, 35 breaths	2 sets, 3 min	2 sets, 3 min

### Statistical Technique

Analysis of covariance (ANCOVA) statistical technique was used to test the significant difference among the three groups. If the adjusted post-test results were significant, Scheffe's post hoc test was used to determine the paired mean significant difference.

Analysis of Covariance on Balance of Experimental and Control groups

Test	CM	YP	Control	Sov	Sum of squares	df	Meansquare	F Ratio
Adjusted Mean	31.99	41.76	17.68	B	3518.8	2	1759.41	73.98*
post test				W	761.1	32	23.78	

Table values for 2&33, 2&32 degrees of freedom are 3.29 & 3.30, Significant at 0.05 level

Table demonstrating that pre-test mean values of the variable Balance CM, YP and Control groups are 20.94, 22.29 and 19.98 individually. The calculated 'F' value 2.078 for the pre-test scores of Balance CM, YP Control groups lesser than required table value 3.29 for significant at 0.05. Henceforth it isn't vast and it uncovered that there is no significant change among Balance CM, YP and Control groups on Balance before the start of training..

The posttest mean values of Balance on Balance CM, YP and Control groups are 31.71, 42.17 and 20.47 in a specific order. The 'F' ratio 59.12 for the post test score is higher than required table value 3.29 for 2& 33degrees of freedom at 0.05 level. It demonstrates that here is a significant change among Balance CM, YP and Control groups on the variable Balance.

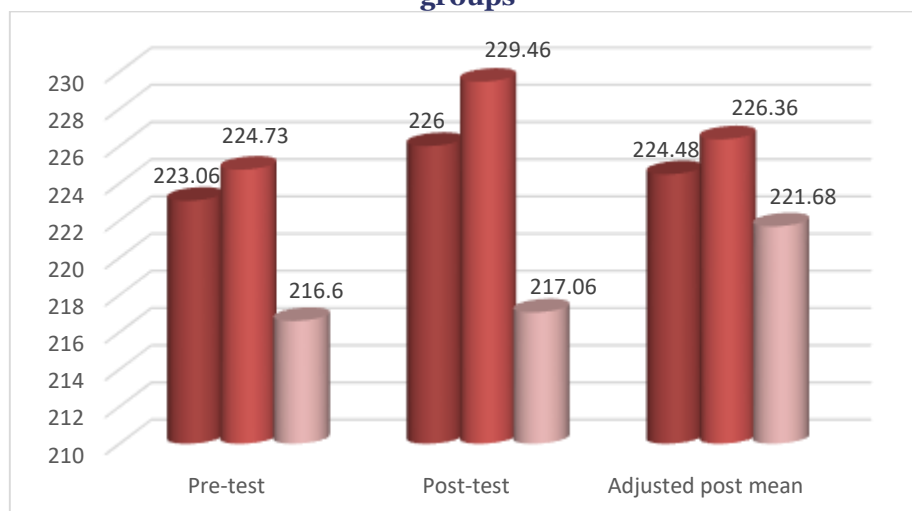
Adjusted post-test mean values of Balance on Balance CM, YP and Control groups are 31.73, 41.94 and 20.67 separately. Adjusted post-test mean value is 49.63 which is higher than required table value 3.30 for 2& 32 degrees of freedom at 0.05 level of significance. Thus in view of the Balance CM, YP groups when compare with control group, it demonstrates that there is significant change on Balance. Henceforth the outcome is found as that there is a significant betterment among Balance CM, YP and control groups for the variable Balance.

Table - Scheffe's post hoc test on the variable balance among cyclic meditation ,yoga program and control group in analysis of co variance

CM	YP	Controlgroup	Mean differences	CI
32.0		17.68	14.32*	5.13
	41.76	17.68	24.08*	
32.0	41.76		9.76*	

Table scheffe's post hoc test which was the strategy for testing the significance to determine the mean difference among the Balance CM, YP and the control group for the variable of Balance. CM (Adjusted Mean = 32.0) is greater than Control group (Adjusted Mean = 17.68) and adjusted mean difference is 14.32, which is more than CI value 5.13 so there is a significant difference exist between YP and control group.. The YP training group (Adjusted Mean = 41.76) is higher than control group (Adjusted Mean = 17.68) in adjusted mean difference with 24.08. CI value 5.13 is less than the mean difference 24.08 so there is a significant betterment occur in between CM, YP (Adjusted Mean = 32.0) is less than the YP adjusted mean value 41.76, and the mean difference value (9.76) is higher than the CI value 5.13.

**Figure – 1 Bar Diagram Showing the Mean Values on Balance of Experimental and Control groups**



## Conclusions

Based on the results obtained and by analyzing the data collected on the dependent variables for the study, the following conclusions were drawn Cyclic meditation and yoga practice had shown better improvement in balance when compare to control group..

Yogic practices had shown better improvement in balance through the practices of cyclic meditation practice.

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