

## Effect of Om Chanting and Pranayama on Triglyceride Level of Obese Pre-Diabetic Male and Female

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### Abstract

**Objective:** To test whether there was effect of OM chanting and pranayama on Triglyceride level of obese pre diabetic male and female. **Methods:** 50 Male and female practiced OM chanting and pranayama for 10 weeks. **Results:** In posttest there were no significant mean differences on the mean score of Male Total Triglyceride between the groups,  $F(1, 48) = 1.21, p = 0.28$ . There were significant mean differences on the mean score of Female's Total Triglyceride between the groups,  $F(1, 48) = 7.93, p = 0.01$ . **Conclusions:** OM chanting and pranayama should be practiced with Asanas. **Key words:** Om Chanting, Pranayama, Obese etc

### Introduction:

The essence of all beings is the earth. The essence of the earth is water. The essence of water is the plant. The essence of the plant is man. The essence of man is speech. The essence of speech is the Rigveda. The essence of Rigveda is the Samveda. The essence of Samveda is OM. Thus OM is the best of all essences, deserving the highest place. Visually, OM is represented by a stylized picture to graph. A deeper insight into this mystic symbol reveals that it is composed of three syllables combined into one, not like a physical mixture but more like a chemical combination. Indeed in Sanskrit the vowel 'o' is constitutionally a diphthong compound of a+u; hence OM is representatively written as AUM. Fittingly, the symbol of AUM consists of three curves (curves 1, 2, and 3), one semicircle (curve 4), and a dot. The large lower curve 1 symbolizes the waking state (jagrat), in this state the consciousness is turned outwards through the gates of the senses. The larger size signifies that this is the most common ('majority') state of the human consciousness. The upper curve 2 denotes the state of deep sleep (sushupti) or the unconscious state. This is a state where the sleeper desires nothing nor holds any dream. The middle curve 3 (which lies between deep sleep and the waking state) signifies the dream state (swapna). In this state the consciousness of the individual is turned inwards, and the dreaming self holds an enthralling view of the world behind the lids of the eyes. These are the three states of an individual's consciousness, and since Indian mystic thought believes the entire manifested reality to spring from this consciousness, these three curves therefore represent the entire physical phenomenon. The chanting of OM drives away all worldly thoughts and removes distraction and infuses new vigour in the body. When you feel depressed, chant Om fifty times and you will be filled with new vigor and strength. The chanting of Om is a powerful tonic. When you chant Om, you feel you are the pure, all pervading light and consciousness. Thus, it was hypothesized that whether there is any effect of Om chanting and pranayama on serum cholesterol of pre diabetic obese male and female subjects.

**Methods:**

The subjects of the study were selected from Varanasi. 50 male and female were selected as the subjects. Triglyceride was measured in mg/dl. Height was recorded to the nearest centimeter. Weight was recorded nearest to half a kilogram. Obesity was determined by measuring body mass index. Obesity was considered if the BMI is equal to 30 or greater than 30. Data was taken at the diabetic centre of Varanasi when the patients are not busy and have enough time to spare for testing. Necessary instructions were given to the subject before the administration of each test. The data were collected before the starting of experimental treatment (pre-test) and the end of training period (post-test). Two groups i.e. Experimental group and Control group were formed in which the experimental group performed Bhastrika Pranayama, Ujjayi Pranayama and Om chanting. The training programme was conducted for a total duration of ten weeks. Omkara (Om Chanting) was performed in padmasana posture with the hand on the knee, spine erect. Deep breath was taken in and produce a low pitch sound of the word OM till the last breath and was repeated.

**Results**

**Table:1**

Analysis of Co-Variance (ANCOVA) of One Experimental Group and One Control Group in Relation to Male Total Triglyceride

Tests	Mean		SOV	SOS	df	MSS	F-ratio (p)
	Exp. Group	Control Group					
Pre	100.00 (17.87)	105.85 (30.09)	A	240.14	1	240.14	0.39 (0.54)
			W	15929.71	48	612.68	
			Total	16169.86	49		
Post	138.00 (47.50)	121.42 (29.87)	A	1922.29	1	1922.29	1.21 (0.28)
			W	40935.43	48	1574.44	
			Total	42857.71	49		
Adjusted Mean	137.49	121.94	Cov_Pre	490.11	1	490.11	0.30 (0.59)
			A	1666.206	1	1666.206	1.03 (0.32)
			W	40445.32	47	1617.81	
			Corrected Total	42857.71	50		

SoV- Source of variance, SoS – sum of square, df- degree of freedom, MSS - mean sum of square, \* Significant at 0.05 level of significance, A = Among Means variance, W = Within Group variance, F = Ratio needed for significance at 0.05 level of significance =  $df(1,48) = 4.04$ ,  $df(1, 47) = 4.04$

In pre test a statistically insignificant difference was found among the Experimental Group Om Chanting & Pranayama training) on the Total,  $F(1, 48) = 0.39, p = 0.54$ . As shown in Table-1 the mean score in Male Total Triglyceride was 100.00 for Experimental Group and 105.85 was for control groups. This shows that at initial level the groups were similar in nature. Likewise, in posttest there were no significant mean differences on the mean score of Male Total Triglyceride between the groups,  $F(1, 48) = 1.21, p = 0.28$ . Further, there was a no significant difference in the Om Chanting & Pranayama Training and Control Group on the adjusted mean score of Male Total Triglyceride of the subjects after controlling the effect of pretest score,  $F(1, 47) = 1.03, p = 0.32$ .

Table :2  
Analysis of Co-Variance (ANCOVA) of One Experimental Group and One Control Group in Relation to Female Total Triglyceride

Tests	Mean		SOV	SOS	df	MSS	F-ratio (p)
	Exp. Group	Control Group					
Pre	96.09 (12.62)	93.81 (18.71)	A	28.41	1	28.41	0.11 (0.74)
			W	5096.55	48	254.83	
			Total	5124.96	49		
Post	107.54 (30.21)	138.36 (20.11)	A	5223.68	1	5223.68	7.93 (0.01)
			W	13167.27	48	658.36	
			Total	18390.96	49		
Adjusted Mean	108.00	137.91	Cov_Pre	799.68	1	799.68	1.23 (0.28)
			A	4895.661	1	4895.661	7.52 (0.01)
			W	12367.59	47	650.93	
			Corrected Total	18390.96	50		

SoV- Source of variance, SoS – sum of square, df- degree of freedom, MSS - mean sum of square, \* Significant at 0.05 level of significance, A = Among Means variance, W = Within Group variance, F = Ratio needed for significance at 0.05 level of significance =  $df(1, 48) = 4.04, df(1, 47) = 4.04$

In pre test a statistically insignificant difference was found among the Experimental Group Om Chanting & Pranayama training) on the Total,  $F(1, 48) = 0.11, p = 0.74$ . As shown in Table-18 the mean score in Female Total Triglyceride was 96.09 for Experimental Group and 93.81 was for control groups. This shows that at initial level the groups were similar in nature. Likewise, in posttest there were significant mean differences on the mean score of Female Total Triglyceride between the groups,  $F(1, 48) = 7.93, p = 0.01$ . Further, there was a significant difference in the Om Chanting & Pranayama Training and Control Group on the adjusted mean score of Female Total Triglyceride of the subjects after controlling the effect of pretest score,  $F(1, 47) = 7.52, p = 0.01$ .

## Discussion of Findings

The present study showed that no significant difference was found after an OM chanting and Pranyama practice of 10 weeks in male triglyceride level whereas significant difference was found in case of female participants. Yogasana can be used as supportive therapy in patients with lipid disorders, heart diseases, hypoglycemia, and so on. There is a need for conducting the experiments on a larger number of participants, to explore the results and mode of action. Kumar and Elangovan (2011) Study suggest, that asana and suryanamaskar are beneficial for selected physiological variables among diabetic patients. Nikam, et al. (2010)The study suggests that practicing of these five pranayama with drug therapy increases the activity of antioxidant enzymes and reduces the lipid peroxidation and heart profile enzymes which prevents cellular damage due to free radicals in CAD. Suba and Shyamala Valve cardiac and pulmonary mechanisms are linked, and improvement in one vagal limb might spill over into the other. Baroreceptor sensitivity can be enhanced significantly by slow breathing (supported by a small reduction in the heart rate observed during slow breathing and by reduction in both systolic and diastolic pressure). Slow pace bhastrika pranayama (respiratory rate 6/min) exercise thus shows a strong tendency to improving the autonomic nervous system through enhanced activation of the parasympathetic system. Saxena and Saxena (2009) conducted a study on the topic “The effect of various breathing exercises (pranayama) in patients with bronchial asthma of mild to moderate severity” and said that the incidence of bronchial asthma is on increase. Manzoni GM, Pagnini F, Castelnuovo G, Molinari E.(2008)showed consistent and significant efficacy of relaxation training in reducing anxiety. Ospina MB, and et.al (2008) studied to provide a descriptive overview of the clinical trials assessing meditation practices for health care. Ospina MB, and et.al (2007)concluded on the effects of meditation practices in healthcare cannot be drawn based on the available evidence. Pal, Velkumary, and Madanmohan (2004)conducted a study on the topic “Effect of short-term practice of breathing exercises on autonomic functions in normal human volunteers”and said that practice of breathing exercises like pranayama is known to improve autonomic function by changing sympathetic or parasympathetic activity.

Thus different authors reported that there was benefit of Pranayama on overall health of the humans but as far as obese prediabetic patients are concerned no significant effect was found on triglyceride level after 10 week practice of Om chanting and Pranayama in male whereas significant difference was found in case of female. This may be attributed to the fact there may be different physiological limit of male and female which might affect. Secondly, as the training was of ten weeks, it might be also one of the reason for its in effect. If the OM chanting is continued for a longer duration of time say for example of 1 years, a significant difference may be seem Thus, it is recommend that future research to be carried out on those who are chanting OM for a longer duration of time. Further, it is also recommend that OM chanting should be performed after doing asana. As the present study did not organized any asana programme, thus it might be one of the research for its insignificant difference.

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