IMPACT OF ASHTANGA YOGA PRACTICES AND MUSIC THERAPY ON SYSTOLIC BLOOD PRESSURE AMONG GESTATIONAL DIABETIC WOMEN

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ABSTRACT

The purpose of the present study was to find out the effect of Ashtanga Yoga practices and music therapy on Systolic Blood Pressure among Gestational diabetic women. The study was conducted on 45 Gestational diabetic women Totally three groups, namely, control & experimental group I & II, consisting or 15 Gestational diabetic women underwent six weeks practice in Ashtanga Yoga practices and music therapy whereas the control group did not under go any type of training. The Systolic Blood Pressure was measured before and after the experimentation using the Standardized Test to measure the Systolic Blood Pressure. The data were analyzed by Analysis of Co-variance (ANCOVA) and it was concluded that the Ashtanga Yoga practices and music therapy had significant (P < 0.05) effect on the Systolic Blood Pressure level.

Keywords: Ashtanga Yoga Practices and Music Therapy, Systolic Blood Pressure



1. INTRODUCTION

Pregnancy is time of great physical and emotional change for women. Everything from the size of the belly to the speed at which their heart beats will change over the nine months leading up to childbirth. This is partly the result of hormonal fluctuations and partly the physical strain of carrying extra body weight. Yogic practice is one of the best practices for Pregnancy.

Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into supreme reality. The individual approaches truth by a science. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Yoga has the surest remedies of physical as well as psychological ailments for both male and female. It makes the organs of the body active in their functioning

and has good effect on internal functioning of the human body. Yoga is a re-education of one's mental process, along with the physical.

2. STATEMENT OF THE PROBLEM

The purpose of the study was to find out the effect of Ashtanga Yoga practices and music therapy on Systolic Blood Pressure among Gestational diabetic women .

3. HYPOTHESIS

It was hypothesized that there would be a significant differences on Systolic Blood Pressure among Gestational diabetic women due to Ashtanga Yoga practices and music therapy groups than the control group.

4. METHODOLOGY

The study was to find out the effect of Ashtanga Yoga practices and music therapy on Systolic Blood Pressure among Gestational diabetic women totally forty-five Gestational diabetic women were chosen on random basis from Erode only. Their age group ranges from 25 to 35. The subjects were divided into three group of fifteen each. The experimental group I would undergo Ashtanga Yoga practices with music therapy and the experimental group II undergo Ashtanga Yoga practices without music therapy and third group consider as control group not attend any practices, and the pre test and post test would be conducted before and after the training. Training would be given for six weeks. It would be found out finally the effect of Ashtanga Yoga practices and music therapy on Systolic Blood Pressure among Gestational diabetic women in scientific method. The Standard test measured for Systolic Blood Pressure. The collected data were statistically analyzed by using analysis of covariance (ANCOVA).

5. TRAINING SCHEDULE

Experimental Group I: Ashtanga Yoga practices with music therapy

Experimental Group II: Ashtanga Yoga practices without music therapy

Group III: Control Group (No Training).

The statistical analysis comparing initial and final means of Systolic Blood Pressure due to Ashtanga Yoga practices and music therapy among Gestational diabetic women is presented in Table I.

TABLE – I COMPUTATION OF ANALYSIS OF COVARIANCE OF THE TWO EXPERIMENTAL GROUPS AND CONTROL GROUP ON SYSTOLIC BLOOD PRESSURE (Scores in mmHg)

Test	Exp. Gr. I	Exp. Gr. II	Cont. Group	Source of variance	Sum of squares	Degree of freedom	Means squares	Obtained F value
PRE	142.267	141.80	142.73	between	6.53	2	3.267	0.44
TEST				within	312.27	42	7.43	
POST	128.8	133.00	133.00 141.67	between	1291.51	2	645.76	48.98*
TEST				within	553.73	42	13.18	
ADJUSTED	128.80	132.90	141.77	between	1306.36	2	653.18	49.71*
POST TEST				within	538.692	41	13.14	
MEAN GAIN	13.4667	8.80	1.07				·	

^{*}significant.

Since significant improvements were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table II.

To find out which of the paired means had a significant difference, the Scheffe's post-hoc test is applied and the results are presented in table II.

^{*}Significant at 0.05 level of confidence. * F(0.05)(2,42 and 2,41) = 3.23.

TABLE II SCHEFFE'S POST-HOC TEST FOR SYSTOLIC BLOOD PRESSURE:

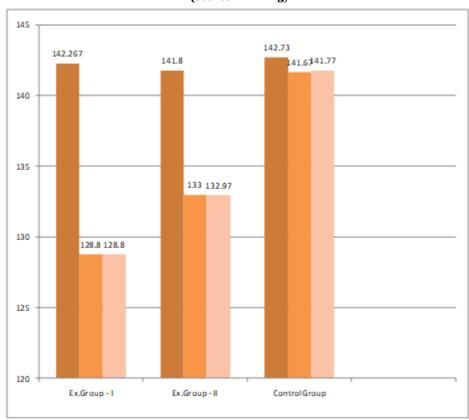
1	(Scores	in	mm	/hσ)
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Exp. Gr. I	Exp. Gr. II	Control group	Mean difference	C.I
128.80	132.90	-	4.10*	3.30
128.80	-	141.77	12.97*	3.30
-	132.90	141.77	8.87*	3.30

^{*}significant

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in Figure 1.

FIGURE – 1
Bar diagram showing the mean difference among Experimental Group I,
Experimental Group II and Control Group of Systolic Blood Pressure
(Scores in mmHg)



6. RESULTS AND DISCUSSIONS OF SYSTOLIC BLOOD PRESSURE

Taking into consideration of the pre test means and post test means adjusted post test means were determined and Analysis of Covariance was done and the obtained F value 49.71 was greater than the required value of 3.23 and hence it was accepted that the Ashtanga Yoga practices and music therapy significantly improved (Decrease) the Systolic Blood Pressure among Gestational diabetic women at 0.05 level.

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between Ashtanga Yoga practices with music therapy group and control group and Ashtanga Yoga practices without music therapy group and control group on Systolic Blood Pressure. This proved that due to six weeks of Ashtanga Yoga

practices with music therapy practices and Ashtanga Yoga practices without music therapy Systolic Blood Pressure was significantly improved (Decrease) among Gestational diabetic women.

7. DISCUSSION ON THE FINDINGS OF SYSTOLIC BLOOD PRESSURE

The Analysis of Co-variance of Systolic Blood Pressure indicated that experimental group I (Ashtanga Yoga practices with music therapy), experimental group II (Ashtanga Yoga practices without music therapy Practices), were significantly improved (Decrease) than the control group on Systolic Blood Pressure. It may be due to the effect of Ashtanga Yoga practices with music therapy and Ashtanga Yoga practices without music therapy.

The findings of the study showed that the experimental group I (Ashtanga Yoga practices with music therapy) had improvement (Decrease) Systolic Blood Pressure more than the experimental group II (Ashtanga Yoga practices without music therapy). Nearly everything in life requires balance. Ashtanga Yoga practices and music therapy on its own is a good step toward a healthy life style. However, as individual, it is important to malaise that we need to work on our body as well as our mind.

8. CONCLUSION

There was a significant improvement (Decrease) in Systolic Blood Pressure of experimental groups when compared to the control group. Yogic practice with music therapy group has shown improvement than the Ashtanga Yoga practices without music therapy.

CONFLICT OF INTERESTS

None.

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REFERENCES

- Aashima Garg and Sushma Kashyap. 2006. Effect of counseling on nutritional status during pregnancy. Indian Journal Pediatrics, volume 73.
- Abel EL, Kruger M, Burd L. 2002. Effects of maternal and paternal age on Caucasian and Native American preterm births and birth weights. Am J Perinatol 19: 49-54.
- Abrams, B., Altman, S.L. & Pickett, K.E. 2000. Pregnancy weight gain: still controversial. Am. J. Clin.Nutr.,71: 1233S-1241S. Barker DJP. 1998. Mothers, babies and health in later life. 2nd ed. Edinburgh: Churchill Livingstone.
- Beaton G, Kelly A, Kevany J, Martorell R, Mason J. 1990. Appropriate uses of anthropometric indices in children: a report based on an ACC/SCN Workshop: United Nations Administrative Committee on Coordination/Subcommittee on Nutrition. ACC/SCN State-of-the-art series Nutrition Policy Discussion Paper No. 7.
- Beaton, G.H., J. Milner, P. Corey, V. Mc Guire, M. Cousins, E. Stewart, M. de Ramos, D. Hewitt, P. V. grambsch, N. Kassim, and J. N little. 1979. Sources of variance in 24-hour dietary recall data: implication for nutrition study design and interpretation. Am. J. Clin. Nutr. 32:2546-2559.
- Beaton, GH., J. Milner, V. Mc Guire, T.E. Feather, and J. N Little. 1983. Source of variance in 24-hour dietary recall data implications for nutrient study design and interpretation. Carbohydrate sources, vitamins and minerals. Am. J. Clin. Nutr. 37:986-995.
- Belizan JM, Villar J, Bergel E, del Pino A, Di Fulvio S, Galliano SV, Kattan C. 1997. Long term effect of calcium supplementation during pregnancy on the blood pressure of offspring: follow up of a randomized controlled trial. BMJ 315: 281±5.
- Bendich, A. 2001. Micronutrients in women's health and immune function. Nutrition 17: 858-867.
- Eswaramoorthy, A. & Suresh Kumar, M. (2020). Effect of yogic practices and aerobic training on flexibility among physical education students. Purakala, *31,8,417-420.*
- J.Lee, J.Lee, H.Lim. 2009. Morning sickness reduces dietary diversity, nutrient intakes, and infant outcome of pregnant women. Nutrition Research, Volume 24, Issue 7 Pages, 531-540.

Jane E. Harding. 2001. Fetal nutrition and growth. Int. J. Diab. Dev. Countries Vol. 21.

JF Ludvigsson, Ludvigsson J. 2004. Milk consumption during pregnancy and infant birth weight. Acta Paediatr 93:1474–1478.

Suresh, Kumar M. (2019). Effect of yogic practices on selected lung volumes among asthmatic men. The International journal of analytical and experimental modal analysis, *XI,VII, 1286-1290*.