

Innovations

Impact of Yoga Training on Selected Motor Abilities among Pubertal Tribal Students

Mrs. K. Sobha

PhD Scholar, Dept. of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Barathi Park Road. Coimbatore

Dr. P. Nandhini

Assistant Director of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Barathi Park Road Coimbatore

Abstract: *The intention of this investigation was to find out the impact of yoga training on selected motor abilities among pubertal tribal students. To achieve the purpose of the study, thirty girls students from Government higher secondary school, Kalpetta, Wayanad, Kerala, India were selected as subjects. Their age ranged from 12 years to 17 years. Two equal groups of 15 participants each were formed by randomly dividing the chosen subjects. Group-I underwent yoga training, Group-II acted as control group. Sit and reach test and Groningen reaction time test was used to measure the chosen dependent variable's flexibility and reaction time both before and after training. Through the use of a paired 't' test, the evaluated data from the two groups was analysed. The magnitude (%) of the changes was also computed. To abolish the early mean disparity, the two group's data (Pre & Post) were calculated through 'T' test. The confidence level 0.05 was set. Due to the effect of yoga training flexibility and reaction time of girls students were notably progressed.*

Keywords: *Yoga Training, Flexibility and Reaction time*

Introduction

Yoga is a long-standing Indian tradition that dates back more than 3,000 years. The exact meaning of the term "yoga" is "to yoke" the mind, body, and spirit. Yoga is more than simply a physical activity for young children. Children who practice yoga regularly can build abilities that will benefit them in adolescence and later in life. Young children are spending more time on screens, therefore practicing concentration and memory is important. Yoga improves attention and focus, which can lead to increased focus, memory, and academic achievement.

Yoga broadens your child's range of motion and balances the muscles that surround their tendons by making them more flexible. Various positions are

intended to extend and stretch the body while strengthening growing joints. Your youngster will benefit from regular yoga practise in terms of flexibility. The positions encourage adolescent cartilage growth in addition to bone strengthening. Try the stretches below to get more flexible.

Reaction time, in contrast to reflexes, which the brain does not process, may be honed and enhanced by dietary and behavioral modifications. The safe and beneficial use of cognitive training, mindfulness and meditation practices, nutritional supplements, and other variables can all increase reaction speed.

Statement of the Problem

The intention of this investigation was to find out the impact of yoga training on selected motor abilities among pubertal tribal students.

Methodology

To achieve the purpose of the study, thirty girls students from Government higher secondary school, Kalpetta, Wayanad, Kerala, India were selected as subjects. Their age ranged from 12 years to 17 years. The selected subjects were randomly assigned into two equal groups of 15 subjects each. Group-I underwent yoga practices and group-II acted as control. The selected dependent variables flexibility and reaction time was assessed by using sit and reach test and Groningen reaction time test before as well as after training.

Training Programme

The design for the experimental group-I yoga practices the subjects were examined for their heart rate in response to different work bouts, for proposed repetitions and sets, alternating with active recovery based on work-rest ratio. They performed three different types of yoga such as asana, suryanamaskar and pranayama was increased once in two weeks.

Statistical Technique

The data on flexibility and reaction time collected from the experimental and control groups were statistically evaluated using the paired 't' test to see if there were any statistically significant differences between the pre- and post-test. A selection of dependent variables' changes as a result of the experimental treatment were also calculated using percentage changes. In each case, the threshold of confidence for significance was set at 0.05.

The pubertal girl's flexibility and reaction time was analyzed statistically and presented in table- I.

Table – I: Paired ‘t’ Test results and % of changes on flexibility and reaction time of chosen three groups

Group	Test	N	Mean	SD	DM	‘t’ – ratio	%
Flexibility							
Yoga Practices	Pre Test	15	8.13	3.69	1.13	4.26*	13.89
	Post Test	15	9.26	3.64			
Control Group	Pre Test	15	8.18	3.62	0.03	0.18	0.36
	Post Test	15	8.21	3.65			
Reaction time							
Yoga Practices	Pre Test	15	13.26	2.65	0.49	3.13*	3.69
	Post Test	15	12.77	2.68			
Control Group	Pre Test	15	13.28	2.67	0.01	0.17	0.75
	Post Test	15	13.27	2.61			

Table value for df 14 is 2.15(*significant)

The obtained ‘t’ ratio value is 4.26 of flexibility was greater than the required table value of 2.15 for the degrees of freedom 14 at 0.05 level of confidence. Hence it was concluded that due to the effect of twelve weeks of yoga practices on flexibility of the subjects was significantly improved.

The obtained ‘t’ ratio value is 3.13 of reaction time was greater than the required table value of 2.15 for the degrees of freedom 14 at 0.05 level of confidence. Hence it was concluded that due to the effect of twelve weeks of yoga practices reaction time of the subjects was significantly decreased.

Conclusion

As a results of the study yoga practice on flexibility (13.89%) and reaction time (3.69%) pubertal girls was greatly enhanced. Research suggests that appropriate yoga practice will improve flexibility and reaction time.

References

1. L. A. (2023). *A Literature Review of Bhujangasana and its Physioanatomical Aspect. International Journal For Multidisciplinary Research, 5(2).*
2. Akdeniz, Ş., & Kaştan, Ö. (2023). *Perceived benefit of yoga among adults who have practiced yoga for a long time: a qualitative study. BioPsychoSocial Medicine, 17(1).*
3. Baklouti, S., Aloui, A., Baklouti, H., Souissi, N., & Jarraya, M. (2022). *Effects of Hatha yoga on cognitive functions in the elderly: a cross-sectional study. Libyan Journal of Medicine, 17(1).*
4. Bhowmik Bhunia, G., & Ray, U. S. (2023). *Training and detraining management of performance measures by Yoga among middle-aged blue-collar men. International Journal of Ayurvedic Medicine, 13(4).*

5. De, A., & Mondal, S. (2020). *Yoga and brain wave coherence: A systematic review for brain function improvement. In Heart and Mind (Vol. 4, Issue 2).*
6. Dinkel, D., Lujan, C., Johnson, J., Olson, D. D., Armstrong, J., Dai, H. D., Qiu, F., & Bice, M. R. (2023). *Feasibility of a Mental Wellbeing Program for Rural Family Childcare Home Providers. Early Childhood Education Journal.*
7. Kocyigit, B. F., Sagtaganov, Z., & Yessirkepov, M. (2023). *The effectiveness of yoga as a form of exercise in the management of rheumatic diseases. In Rheumatology International (Vol. 43, Issue 5).*
8. Kuppusamy, M., Kamaldeen, D., Pitani, R., Amaldas, J., Ramasamy, P., Shanmugam, P., & Thirupathy, V. S. (2021). *Effect of Bhramari pranayama practice on simple reaction time in healthy adolescents - A randomized control trial. International Journal of Adolescent Medicine and Health, 33(6).*
9. Madan, S., Sembhi, J., Khurana, N., Makkar, K., & Byati, P. (2023). *Yoga for Preventive Health: A Holistic Approach. American Journal of Lifestyle Medicine, 17(3).*
10. Phung, D. X., Nguyen, V. Q., Tran, D. Q., & Duong, T. N. (2023). *The Effects of 12 Weeks Yoga Training on 4-5-Year-Old Preschoolers' Fitness Components. Annals of Applied Sport Science, 11(2).*