DOI: 10.7763/IPEDR. 2013. V64. 12

Effect of Yogic Exercise on Myopia of High School Girls

Rajendra Lolage[1+] and Narayan Jadhav[2]

[1]Government college of Education Aurangabad (MH) INDIA

[2] Arts, com.& science college Lasalgaon (MH) INDIA

Abstract. The purpose of the study was to measure the effect of Yogic exercise on Myopia of high school girls. This experiment therefore included thirty (N=30) high school girls age ranged from 11-15 from Guajarati Kanyaprashala gulmandi Aurangabad. The subjects were divided in to two groups i.e. control group (n=15) and experimental group (n=15) Initial test of Myopia was conducted to all subjects. In training of Yogic Exercise, I have included OM stawan,Anulom-vilom, Kapalbhati, Bhramari, Ujjayi Pranayama, OM recitation, eye exercise tratak,palming and Yoganidra. In evening sixty min for each session of the day. Although the subject of control group did not practice in the above programmed, they are kept busy with interesting activity separately during the experimental period. After one month, training of Yogic exercise final test was conducted for the entire subjects. The obtained data would statistically analyzed by using T ratio. It was found that the practice of Yogic Exercise was improved the Eyesight of high school girls.

Keywords: Yogic Exercise, Myopia and High School Girls.

1. Introduction

There is no other gift greater than the gift of health. It is rightly said that health is wealth. We should aspire to develop all round physical, mental and spiritual health. Imbalance or improper functioning of the physical or mental bodies results in serious indirect effect on the well being of a person, which would require medical attention.

Myopia (Nearsightedness) Refractive errors requiring the use of eyeglasses exist in nearly one-fifth of children before the adolescent. The most common clinically significant refractive error is myopia (nearsightedness), usually seen in school-aged children and correctable with eyeglasses. Hyperemia (farsightedness) can cause problems in performing close work but usually does not require correction in children unless it is sufficient to cause crossed eyes or reduced vision.

“The face is the index of the mind and the eyes are the windows of the soul.” On a real level, eyes are our only windows to the world.

Human eyes need care and attention. As years go by, the muscles around the eyes lose their tone. Eyesight becomes weak after the muscles around the eyes lose their elasticity and become rigid, thereby reducing the power to focus different distances. In addition, tension

Around the eyes affects the brain causing stress and anxiety Eyesight is dramatically improved when the muscles of the eyes are relaxed. There is a deep correlation between the eyes and the mind. It is said that vision occupies 40 percent of the brain's capacity. Therefore, when we close our eyes, relaxation is induced in the brain. Eye health corresponds to the level of relaxation it experiences.

2. Guide for Author : Independently

2.1. Submitting

2.1.1. Purpose of the Study

- This study may confirm that Yogic Exercise was a specific technique can be used as a means for improving the Eyesight in Myopia of High school girls. This will help to improve the eyesight and health of high school girls.

[+] Corresponding author. Tel.: + 919420811548.

E-mail address: rajendrasudhakarlolage@gmail.com.

- This investigation may establish Yogic exercise as a training schedule for High school girls for maintaining better the eye sight & health, which is even important during school education.
- This report may influence the High school teacher to incorporate Yogic exercise in their training schedule for High school girls.
- It is hoped that this study will propagate the knowledge "The efficacy of Yogic exercise in Myopia & health' among High school teacher, physical education teacher.
- This work will add important information to the knowledge of physical education and sports fields.

2.1.2. Methodology

Experimental methods will be used. For the study, informal experimental design will be considered. The present investigation is an experimental study designed with parallel group (Hubbard, 1973) to see the effect of Yogic Exercise on Myopia of High school girls. Guajarati Kanyaprashala High school girls of the Z.P. Aurangabad formed the population purposive sampling technique at the beginning, is designed so as to select the sample from the Guajarati Kanyaprashala High school. A total Thirty subjects (N = 30) assigned randomly in to two equally matched groups on the basis of result of visual acuity test. The subjects of the two distributed groups are named as Experimental group (N = 15) and Control group (N =15) the whole experiment was conducted by three phases 1st phase (i.e. pre test) in this phase of pre test the subject of the both the experimental and control groups were instructed to participate in Visual Acuity test.

2nd phase (i.e. Treatment/training phase) The subject of experimental groups will participate in the respective training sessions daily 1 hour in the evening session expect Sunday and holidays for a total period of one months, the subject of the control group will not articipate in any of the training sessions.

3rd phase (i.e. posttest) in this phase all the data will be collected as per the procedure as mentioned in the pretest.

2.1.3. Result

The results of the present study were as follow:

- The results of this study indicate that Visual Acuity Test used for measuring Eyesight could show the improvement due to the effect of Yogic Exercise.

2.1.4. Discussion

- The results of this study indicate that Visual Acuity Test used for measuring Eyesight could show the improvement due to the effect of Yogic Exercise.

Table 1**:** The details of Mean Performance Scores and Standard Deviation in Myopia of girls as measured in Visual Acuity Test.

Group	Test	PEI Score	
		Mean	SD
Control Group	Pre-Test	15.16	9.22
	Post-Test	15.16	9.22
	Pre-Test	14	4.19
Expt-Group	Post-Test	11	4.34

- It is evident form Table 1 that the mean performance scores in of both experimental and control groups in the pre test were 14 and 15.16 respectively. Table 1 also indicated the post-test scores, which represent the training effect of Pranayama. The posttest mean performance scores in Myopia were 11 and 15.16 respectively along with large dispersion in standard deviation (4.19 and 4.34) of experimental group.
- Although there is change in pre-test and post-test mean performance scores, the results of improvement were significant. To confirm this result, the data were analyzed again with 'T' test. The value of 'T' test in 0.05 level of confidence 1.76 and the calculated value are 3.80 'T' test in 0.01 level of confidence 2.62 and the calculated value are 3.80. Therefore, it had significant effect on Myopia of my subjects.
- The result, thus, revealed that Yogic Exercise has favorable influence in improving Eye strength of High school girls as measured through Visual Acuity Test included in the present study.

- Although there was no change observed in the pre and posttest mean of Myopia of control group.
- The results of this study indicate that Visual Acuity tests used for measuring Myopia could show the improvement in due to the effect of Yogic Exercise.
- The results of this study indicate that Visual Acuity Test used for measuring Eyesight could show the improvement in due to the effect of Yogic exercise.
- Table 1 showing the details of Mean Performance Scores and Standard Deviation in Myopia of girls as measured in Visual Acuity Test.
- It is evident form Table 1 that the mean performance scores in of both experimental and control groups in the pre test were 14 and 15.16 respectively. Table 1 also indicated the post-test scores, which represent the training effect of Pranayama. The posttest mean performance scores in Myopia were 11 and 15.16 respectively along with large dispersion in standard deviation (4.19 and 4.34) of experimental group.
- Although there is change in pre-test and post-test mean performance scores, the results of improvement were significant. To confirm this result, the data were analyzed again with 'T' test. The value of 'T' test in 0.05 level of confidence 1.76 and the calculated value are 3.80 'T' test in 0.01 level of confidence 2.62 and the calculated value are 3.80. Therefore, it had significant effect on Myopia of my subjects.
- The result, thus, revealed that Yogic Exercise has favorable influence in improving Eye strength of High school girls as measured through Visual Acuity Test included in the present study.
- Although there was no change observed in the pre and posttest mean of Myopia of control group.
- The results of this study indicate that Visual Acuity tests used for measuring Myopia could show the improvement in due to the effect of Yogic Exercise.

Table 2: The details of Mean Performance Scores and Standard Deviation Myopia of girls as measured in Visual Acuity test.

Group	Test	PEI Score	
		Mean	SD
Control Group	Pre-Test	17.4	13.7
	Post-Test	17.4	13.7
	Pre-Test	15.2	7.30
Expt-Group	Post-Test	11.2	3.29

It is evident form Table 2 that the mean performance scores in of both experimental and control groups in the pre test were 15.2 and 17.4 respectively. Table 2 also indicated the post-test scores, which represent the training effect of Yogic Exercise. The posttest mean performance scores in Myopia were 11.2 and 17.4 respectively along with large dispersion in standard deviation (7.30 and 3.29). Although there is change in pre-test and post-test mean performance scores, the results of improvement were significant. To confirm this result, the data were analyzed again with T test. The value of 'T' test in 0.05 level of confidence 1.76 and the calculated value are 3.17. 'T' test in 0.01 level of confidence 2.62 and the calculated value are 3.17.Therefore; it had significant effect on Myopia of my subjects.

The result, thus, revealed that Yogic Exercise has favorable influence in improving Eyesight of High school girls as measured through Visual Acuity Test included in the present study

Although there was no change observed in the pre and posttest Mean of Myopia of control group.

The above results in turn indicate that there were significant differences in experimental group and control group. Thus the hypothesis is accepted.

3. Acknowledgements

I give grateful thank to Dr. T. K. Bera. Research officer Lonavla. He was the first guide to me during my M.phil dissertation. It was because of his encouragement that I developed interest in experimental research and he strengthened my fundamentals.

I also give thanks to Dr. P. R. Gaikwad. Principal of our college for motivating me to attend the International conference and pursue various research work also. I give thanks to Prof-Dr. Chondekar N.R. for her co-operation from initial stage to this final stage of presentation for this International Conference.

I also give thanks to my wife Mrs. Archana Lolage who gave me her immense support and valuable time to complete this research and prepare myself for the conference.

Lastly, I give thanks to Prin- Jadhav.N.M. For his kind co-operation for completion of this research paper.

4. References

[1] Acharya Balkrishna. (2007). Yog in Synergy with Medical Science. (2nd Ed) Hardwar: Divya Prakashan Divya Yog Mandir Trust Kripalu Bagh Ashram Kankhal Hardwar.

[2] August colenbrander. (1988) Visual acuity measurement standard . Italian journal of ophthalmology.

[3] Ayyangar. B.K.S. (2007) Yoga for All. Pune: Rohan Publication.

[4] Best John W. and Khan James V. (1986). Research in Education. (6th Ed). Toronto: Prentice Hall of Canada.

[5] Bhole .M.V. (1985) Abstracts and Bibliography of Articles on Yoga. Lonavla: Kaivalyadhama S.M.Y.M. Samiti Lonavla.

[6] Buch. M.B.(Ed). (1991). Sixth Survey of Research in Education (1993-2000), New Delhi: vol. II, NCERT, New Delhi

[7] Clarke, H. H. & Clarke, D. H. (1987). Application of measurement to physical education (6th Ed). N. J. Prentice Hall, Inc.

[8] Jadhav K.G., et al (2007). Research Process in physical education & sports: An Introduction. New Delhi: Khel sahitya Kendra.

[9] Kamalesh M.L. (2006) Methodology of research in physical education and sports (3rd ed). New Delhi: Metropolitan Book Co. Pvt. Ltd

[10] Kuvalayananda, Swami. (1966). Pranayama. Bombay: Bombay Popular Prakashan, 35 C, Tardeo Road.