# EFFECT OF HATH YOGA AND AEROBIC ON SELECTED PSYCHOLOGICAL VARIABLES OF SCHOOL GOING GIRLS

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**Abstract:**
***Hath yoga is an ancient Indian philosophy. In Sanskrit 'Ha' means 'Sun' and 'Tha' means 'Moon'. Hath yoga is the most widely practiced form of Yoga. Aerobic exercise, such as aerobic dance, is a fun way to get fit. In this article an attempt has been made to observe the improvement occur in the psychological variable following aerobic & yoga practices among the adolescent. Aerobic dance is a popular exercise in adolescent pupil. The purpose of the study was to evaluate acute psychological (Interest and Reaction time) responses to hath yoga asana (poses), Aerobic and Combined (Hath yoga & Aerobic). 60 subjects (12-16 yrs.) were recruited and randomized to four groups. Experimental subjected completed a 6-week supervised exercise program. Control subjects continued usual activity. Three experimental group were practiced thrice a week and 30 min. per day. Interest was measured by questionnaire method. Reaction time was measured by the Nelson Hand Reaction test (1965). For testing the difference between means of selected Psychological variables of Hath Yoga Group, Aerobic Dance Group, Combined Group (Hath yoga and Aerobic dance) and control group of girls. ANOVA and ANCOVA were applied. The level of significance was set as at 0.05 level of significance. It was supervised that Hath yoga, Aerobic, Combined groups increased Interest and Reaction time but it showed that combined group (yoga & Aerobics) is better than all other groups.***

**Key Words: Hath Yoga and Aerobic Dance**

## Introduction

Since time honored the lore of the Yoga was developed and refined by the Indian sages in search of the real-most state of human nature. In course of time that traditionally evolved system of Yoga has been a science of consciousness development and finally in modern time Yoga was seen as the science of possibilities, latent within oneself and helpful in dealing with crucial problems of human life. After the popularization of health promotion potentials of Yoga practices among masses, certain other applied aspects of the Yoga system, concerned with human resource development, have been remained to be substantiated scientifically. Yoga makes the mind strong and able to endure pain and unhappiness. The power of determination and concentration are developed. Equilibrium and vitality became the normal state of mind after regular practice of Yoga one is able to face the sorrow, anxieties and problems of the world with peace, without being disturbed. Stability of mind is developed, life becomes easy and difficulties become stepping stones to perfect mental health. With the Yoga a man is able to inspire others by his behavior and actions. In Yoga asana make the body flexible and able to adjust itself easily to change of environment. The muscles and bones, nervous, glandular, respiratory, excretory and circulatory system is coordinated so that they help one another. The sympathetic and parasympathetic system are brought in to a state of balance so that the internal organs are neither overactive nor under active. The endocrine system is controlled and regulated to secrete the harmony from the glands in balance quantities. Even if one gland is malfunctioning a noticeable loss in health many be experienced. Regular practice of Yoga can maintain the organs in proper condition, and encourage an unhealthy body to become healthy. The muscles and bones, nervous, glandular, respiratory, excretory and circulatory system is coordinated so that they help one another. In Yoga asana make the body flexible and able to adjust itself easily to change of environment. The sympathetic and parasympathetic system are brought in to a state of balance so that the internal organs are neither overactive nor under active. The endocrine system is controlled and regulated to secrete the harmony from the glands in balance quantities. Even if one gland is malfunctioning a noticeable loss in health many be experienced. Regular practice of Yoga can maintain the organs in proper condition, and encourage an unhealthy body to become healthy.

Yoga makes the mind strong and able to endure pain and unhappiness. The power of determination and concentration are developed. Equilibrium and vitality became the normal state of mind after regular practice of Yoga one is able to face the sorrow, anxieties and problems of the world with peace, without being disturbed. Stability of mind is developed, life becomes easy and difficulties become stepping stones to

perfect mental health. With the Yoga a man is able to inspire others by his behavior and actions. Aerobic exercise such as aerobic dance is a fun way to get fit. Aerobic dance is a popular exercise in adolescent pupil. it combines fat burning movements ,muscle binding exercises, and stretching in to routines that are performed to music .in this article an attempt has been made to observe the improvement occur in the psychological variables following aerobic and yoga practices among the adolescents. The purpose of the study was to evaluate acute psychological to find the changes if any in interest and reaction time following the yoga and aerobic dance practices.

**Methods:**

The subjects for the study were selected from the Baroda High School, ONGC, Vadodara. The range of the age varied 12-16 years. Total 60 subjects were selected for the study. i.e. 15 yoga group, 15 aerobic dance group, 15 combined group (yoga and aerobic) and 15 control group. Period of treatment was six weeks.ach group of Yoga, Aerobic dance, Combined (Yoga and Aerobic) were practice trice a week and 30 minutes per day. Interest and reaction time were measured by Questionnaire Method and Nelson Hand Reaction test (1965) respectively. Experimental subjects completed a 6- week exercise program. Control subjects continued usual activity. The subjects were practiced the Asanas & Pranayama 30 minutes/day & thrice a week. Asanas were Tadasana, Trikonasana, Triyak Trikonasana, Ardha Kati Chakrasana, Pavan Muktasana, Ardha Halasana, Sarvangasana,Halasana, Bhujangasana, Dhanurasna, Vakrasana, Parvatasana, Suryanamaskar and pranayams were Anulom- Vilom, Bhastrika, Bhramari. Aerobic dance with music also practiced thrice a week and 30 minutes/day. For statistical analysis first Mean and S.D. were computed. For obtaining the significance differences ANCOVA was adopted.

**Results:**

For testing the difference between means of selected Psychological variables of Hath yoga group, aerobic dance group, combined group (hath yoga and aerobic dance) and control group of subjects. The level of significance was at 0.05 of significance.

Table -1

Represents the adjusted means of Interest of different groups

| Groups | $Mean_x$ | $Mean_y$ | $Mean_{x.y}$ (adj.) |
|---|---|---|---|
| Yoga | 120.47 | 127.63 | 128.89 |
| Aerobic Dance | 122.80 | 131.10 | 131.06 |
| Combined | 122.03 | 130.63 | 131.02 |
| Control | 125.63 | 119.63 | 118.20 |
| General Means | 122.73 | 127.25 | 127.25 |

Table -2

Represents the differences of Interest among the groups

| Groups | $SE_D$ | Diff. Adj. Mean |
|---|---|---|
| Yoga vs. Aerobic dance Gr. | 1.56 | 2.17 |
| Yoga vs. Combined Gr. | 1.56 | 2.13 |
| Yoga vs. Control Gr. | 1.56 | 10.87* |
| Aerobic Dance vs. Combined Gr. | 1.56 | 0.04 |
| Aerobic dance vs. Control Gr. | 1.56 | 13.04* |
| Combined vs. Control Gr. | 1.56 | 13.00* |

*Sig. at 0.05 level of significance tab $F_{(0.05)(55,5)}$= 2.38

Table -3

Represents the adjusted means of Reaction time of different groups

| Groups | $Mean_x$ | $Mean_y$ | $Mean_{x.y}$ (adj.) |
|---|---|---|---|
| Yoga | 0.20 | 0.18 | 0.18 |
| Aerobic dance | 0.22 | 0.19 | 0.19 |
| Combined(Y&A) | 0.21 | 0.18 | 0.18 |
| Control | 0.21 | 0.19 | 0.19 |
| General means | 0.21 | 0.19 | 0.19 |

Table -4

Represents the differences of Reaction time among the groups

| Variables | $SE_D$ | Diff. Adj. Means |
|---|---|---|
| Yoga vs. Aerobic dance Gr. | 0.01 | 0.001 |
| Yoga vs. Combined Gr. | 0.01 | 0.004 |
| Yoga vs. Control Gr. | 0.01 | 0.008 |
| Aerobic dance vs. Combined Gr. | 0.01 | 0.005 |
| Aerobic dance vs. Control Gr. | 0.01 | 0.007 |
| Combined vs. Control Gr. | 0.01 | 0.012* |

Sig. at 0.05 level of significance

Above table indicate that there is no significant result was found except combined group.

**Conclusion:**

On the basis of result the following conclusion may be drawn:

In terms of Interest All the experimental groups following the aerobic dance and yoga practice increased their interest in compare to the control group. Reaction time was also reduced following participation in the scheduled program but the result was not significant. In reaction time combined vs. control group significantly reduced at 0.05 level of significance. The organized yoga and aerobic dance program in which the girl's subjects participated for about six weeks definitely improved their performance in selected psychological potentialities.

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