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## Effects of varied combinations of aerobic dance, brain gym and yogasana on the selected psychological among school girls

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### Abstract

**Introduction:** The purpose of the study was to find out the effects of varied combinations of aerobic dance, brain gym and yogasana on the selected psychological variables among school girls.

**Methodology:** Of the study was formulated as pre and posttest random group design. The selected subjects were the participants of the school girls in the trichy district. The age of the subjects for the study was ranged in between 14 to 18 years. The subjects were randomly selected and divided into four equal groups - Group I, aerobic dance group, Group II, aerobic dance with brain gym, Group III aerobic dance with yogasana and Group IV, control group and each group consisting of 15 subjects, totally 60 subjects. The selected subjects were initially tested on the criterion variables used in the study and it is considered as the pre-test. After assessing the pre-test, the subjects belonging to the group-I aerobic group were treated with the aerobic dance, the group II treated with the aerobic dance with brain gym, Group III aerobic dance with yogasana and the group III control group was not given specific training.

**Statistical Tool:** The collected data were statistically analyzed with a paired (sample) t test to find out the significant improvement between pre and post-test of all the groups. The groups during the experimental period of twelve weeks to the criterion measures were tested for the significance by applying t test at 0.05 level. It was considered as sufficient for the study.

**Discussion:** Before and after training the pre-test and the post test was conducted for the four groups. Subjects in the experimental groups were treated with the respective treatment for three days a week for the duration of 12 weeks. After completion of the treatment period all the subjects were again tested on the criterion variables and considered as the post test.

**Conclusion:** It was concluded that the group I, aerobic dance group and the group II, aerobic dance with brain gym, the group III aerobic dance with yogasana after 12 weeks training showed a significant improvements on the selected physical fitness variables.

**Keywords:** brain gym, aerobic training, yogasana, physical fitness

### Introduction

Health, recreation, and dance are frequently referred to as allied fields of physical education, exercise science and sport. These fields share many purposes with physical education exercise science and sport, namely the development of the total individual and concern for quality of life. Health education concerns itself with total well-being of the individual, encompassing physical, mental, social, emotional and spiritual health. Teachers need to take into consideration that the brain has parallel processes. While one side of the brain is used for more creative thinking and artistic expression, the other is more analytical and logical. Although these processes occur in different parts of the brain, when students learn, they need to be able to access and use both processes simultaneously. The needs of each student are very different and knowledge of how they learn is crucial to developing activities and lessons that will allow them to attain knowledge. In order to meet the needs of all learners, teachers need to use a plethora of methodologies. By incorporating a variety of methods, the brain is able to find patterns in seemingly random information. This helps to make information more logical and meaningful (Reardon, 1999). One method that has been strongly tied to increasing student learning is incorporating movement into educational practices. Physical fitness is the body's ability to function efficiently and effectively. It is a state of being that consists of at least five health-related and six skill-related, physical fitness components, each of which contributes to

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the total quality of life. Physical fitness is associated with a person's ability to work effectively, enjoy leisure time, be healthy, resist hypokinetic diseases, and meet emergency situations. It is related to, but different from, health and wellness. Although the development of physical fitness is the result of many things, optimal physical fitness is not possible without regular physical activity. The five components of health-related physical fitness are body composition, cardiovascular fitness, flexibility, muscular endurance and strength. Each health related fitness characteristic has direct relationship to good health and reduced risk of hypo-kinetic diseases.

### Methodology

The selected subjects were the participants of the school girls in the trichy District. The age of the subjects for the study was ranged in between 14 to 18 years. The subjects were randomly selected and divided into three equal groups namely Experimental group-I, Aerobic dance (ADG), Experimental group-II, Aerobic dance with brain gym (ADWBG), Experimental group-III, Aerobic dance with yogasana

(ADWYG) and Group-IV, Control Group (CG) each consisting of 15 subjects. The selected subjects were initially tested on the criterion variables used in the study and it was considered as the pre-test. After assessing the pre-test, the subjects belonging to the experimental group-I were treated with the aerobic dance, the subjects belonging to the experimental group-II were treated with the aerobic dance with brain gym and the subjects belonging to the experimental group-III were treated with the aerobic dance with yogasana. As far as the subjects in the group IV - Control Group (CG) was concerned they were not given any specific training. Subjects in the experimental groups I and II were treated with their respective treatments for three days a week and for a duration of 12 weeks. After completion of the treatment period, all the subjects were again tested on the criterion variables and considered as the post test.

### Effects of Varied Combinatons of Aerobic Dance, Brain Gym and Yogasana on the Selected Psychological Among School Girls

Table 1

| Group   | Variables   | Pre- Test | Post- Test | Md   | Sd   | Sem  | t-ratio |
|---------|-------------|-----------|------------|------|------|------|---------|
| ADG     | Anxiety     | 32.86     | 30.26      | 2.60 | 3.85 | 0.99 | 2.62*   |
| ADWBG   |             | 30.53     | 27.33      | 3.20 | 1.52 | 0.39 | 8.15*   |
| ADWY    |             | 27.33     | 25.06      | 2.26 | 0.59 | 0.15 | 14.78*  |
| Control |             | 32..81    | 31.6       | 0.40 | 1.12 | 0.28 | 1.38*   |
| ADG     | Stress      | 27.8      | 24.93      | 2.86 | 1.36 | 0.35 | 8.18*   |
| ADWBG   |             | 27.13     | 24.46      | 2.66 | 0.81 | 0.21 | 12.64*  |
| ATWY    |             | 25.9      | 23.46      | 2.46 | 0.51 | 0.13 | 18.50*  |
| Control |             | 27.4      | 29.2       | 1.80 | 2.48 | 0.64 | 2.80*   |
| ADG     | Self esteem | 10.66     | 13.73      | 3.06 | 1.16 | 0.30 | 10.21*  |
| ADWBG   |             | 11.26     | 12.6       | 1.33 | 0.89 | 0.23 | 5.73*   |
| ADWY    |             | 10.53     | 11.73      | 1.20 | 0.56 | 0.14 | 8.29*   |
| Control |             | 10.51     | 9.93       | 0.60 | 0.98 | 0.25 | 2.35*   |

The Table-I reveals that the pre and posttest values of aerobic dance, combination of aerobic group with brain gym group, aerobic group with yogasana group and control group on selected psychological variables namely anxiety, stress and self-esteem. The pre-test mean values of aerobic group are 32.86, 27.8 and 10.66 respectively. The pre-test mean values of combination of aerobic group with brain gym group are 30.53, 27.13 and 11.26 respectively. The pre-test mean values of combination of aerobic group with yogasana group are 27.33, 25.9 and 10.53 respectively. The pre-test mean values of control group are 32, 27.4 and 10.43 respectively.

The post-test mean values of aerobic group are 30.26, 24.93 and 13.73 respectively. The post-test mean values of combination of aerobic group with brain gym group are 27.33, 24.46 and 12.6 respectively. The post-test mean values of combination of aerobic group with yogasana group are 25.06, 23.46 and 11.73 respectively. The post-test mean values of control group are 31.6, 29.2 and 9.93 respectively.

The obtained t-values of ADG, ADWBG group, ADWYG are 2.62, 8.15, 14.78, 8.18, 12.64, 18.50, 10.21, 5.73 and 8.29 respectively. The required table value was 2.02. Since the obtained t-ratios are greater than the required table value at 0.05 level of confidence there were significant difference, between pre and posttest values of psychological variable among school girls.

The obtained t-values of control group are 1.38, 2.80 and 2.35 respectively. The required table value was 2.02. Since the obtained t-ratios are less than the required table value at 0.05

level of confidence there were insignificant differences, between pre and post-test values of psychological variable among school girls.

### Discussion on Findings

Having such salient features the investigator has intended to varied combination of aerobic dance, brain gym and yogasana on selected psychological variables among school girls. It was tested under two different forms namely experimental group-I Aerobic dance group (ADG), Experimental group-II Aerobic dance with brain gym (ADWBG), Experimental group-III Aerobic dance with yogasana (ADWYG). The derived results on Aerobic dance group (ADG- Experimental group-I), Experimental group-II Aerobic dance with brain gym (ADWBG), Experimental group-III Aerobic dance with yogasana (ADWYG). and control group (CG- group-III) on criterion variables from their base line to post treatment, the treatment groups I, II and III produced significant effects.

- The result of the study showed that the Aerobic dance group would have significant improvement on selected psychological variables namely self-esteem and anxiety of school girls.
- The result of the study showed that the Aerobic dance with brain gym group would have significant improvement on selected psychological variables namely stress, self-esteem and anxiety of school girls.
- The result of the study showed that the Aerobic dance

with yogasana group would have significant improvement on selected psychological variables namely stress, self-esteem and anxiety of school girls.

### Conclusion

- In light of the above findings of the present study the following conclusions have been made. It was concluded that the aerobic dance and aerobics dance with brain gym, aerobics dance with yogasana produced a significant improvement on selected psychological variable namely anxiety, stress and self-esteem school girls.
- It was concluded that the control group will not be significant improvement on selected psychological variable namely anxiety, stress and self-esteem school girls.
- It was concluded that the aerobics dance will be more significant improvement than the aerobic dance with brain gym group, aerobic dance with yogasana group and control group on selected psychological variable namely anxiety, stress and self-esteem school girls.

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