

## IMPACT OF RHYTHMIC EXERCISES ON SELECTED HEALTH RELATED VARIABLES AMONG SCHOOL CHILDREN

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### Abstract

This study examined associations between school children health related physical fitness and physical activity (PA), as well as what specific physical fitness components were more significant correlates to being physically active in different settings for children's. The authors analyzed the impact of rhythmic exercise on health-related variables such as muscular endurance and flexibility on school children of a random sample of 30 students living from karaikudi, Tamilnadu, India The age of the subject was between 14 to 16 years only. They were assigned into two equal groups. Each group consists of fifteen subjects. The two groups are namely Group I acted as Experimental Group I (Rhythmic Exercise), Group II acted as Control group. The research design of the study was random group design. The duration of experimental training period was 12 weeks. After the experimental treatment, all hundred subjects were administered on the selected health related physical fitness variables. This final test scores forms as post test scores of the subjects. This final test scores forms as post test scores of the subjects. The 't' ratio was applied to examine the significance of difference between the post test and pre test means of all the four groups to study the significance of improvement in physical fitness parameters as a results of the training.. In all cases 0.05 level of significance was fixed to test the hypotheses. The selected health related physical fitness variable such as muscular endurance and flexibility were significantly improved by the experimental group namely the Rhythmic Exercise training among school children.

**Keywords:** School children, Rhythmic Exercise, Health related fitness varibales.

### Introduction:

Sound mind and healthy body are the foundations for the human life. WHO (2006) defines "Health is a state of completely physical, mental, and social well being not merely the

absence of disease or infirmity". A condensed definition of health states "Health is the quality of life that enables the person to live most and serve best". Health is thus a level of functional efficiency of living being and a general condition of person's mind, body and spirit. Most disease has their origin in mind. A person can be said to be healthy when his or her body is healthy and the mind is clear and calm. Health is the foundation upon which rest the happiness of the people and the strength of the nation. Medical experts are of the unanimous opinion that, exercise helps in keeping good health and one who is in a good physical condition is seldom prone to any disease. Proper exercise is unfortunately one of the most ignored aspects in a healthy lifestyle, which is one of the main reason why obesity is becoming very common. Majority of individuals do not perform adequate exercise to balance their calorie need to be familiar with the basics of good exercise, as well as how regular exercise can do well to the body. The greatness of a nation is dependent to a large extent on the total fitness of every citizen.

Cardiovascular disease (CVD) causes 17.5 million deaths worldwide each year, representing 30% of all global deaths (World Health Organization, 2007). According to the World Health Organization (2007), over 80% of cardiovascular death occur in low-and middle-income countries. In developing countries in Africa, Western Asia and Southern Asia 15% to 20% of the annual deaths are due to CVDs (American Heart Association, 2001).

When your child takes part in activities and moves to the beat of the music, for example clapping, jumping, playing rhythmic patterns with instruments to music, songs and rhymes they are taking part in something that comes very naturally to them. They are ultimately developing the skills they will use for language, literacy, coordination, concentration and building a strong relationship between brain and body. Feeling the beat of rhythm and through words, rather than just understanding the concept, is a vital aspect in accomplishing a lifelong love of music.

### **Methods:**

The purpose of the study was to find out the impact of rhythmic exercise on health-related variables such as cardio respiratory endurance, muscular strength, muscular endurance, flexibility, body composition on school children of a random sample of 100 students living from karaikudi, Tamilnadu, India The age of the subject was between 14 to 16 years only. They were assigned into two equal groups. Each group consists of twenty five subjects. The two groups are namely Group I acted as Experimental Group I (Rhythmic Exercise), Group II acted as Control group. The research design of the study was random group design. The duration of experimental training period was 12 weeks. After the experimental treatment, all hundred subjects were administered on the selected health related physical fitness variables. This final test scores forms as post test scores of the subjects. The 't' ratio was applied to examine the significance of difference between the post test and pre test means of all the four groups to study the

significance of improvement in physical fitness parameters as a results of the training.. In all cases 0.05 level of significance was fixed to test the hypotheses.

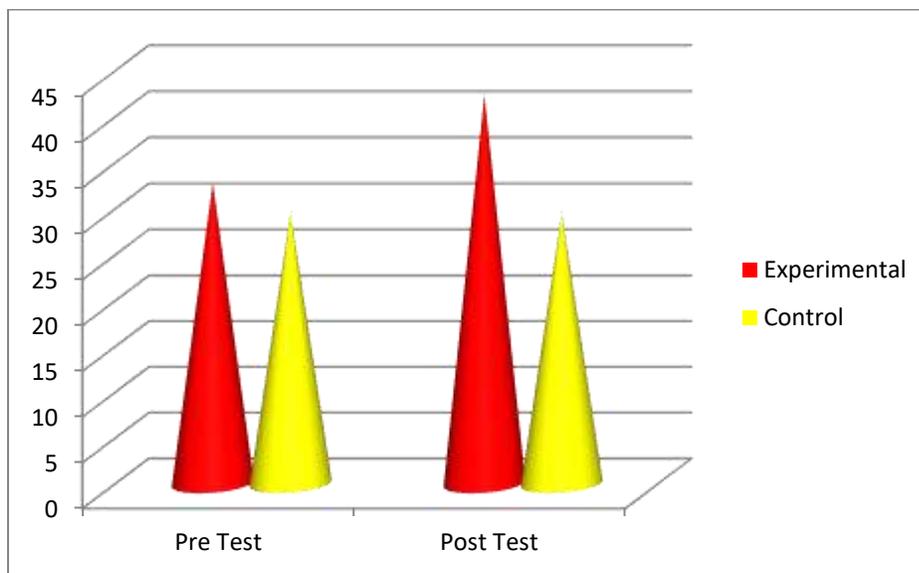
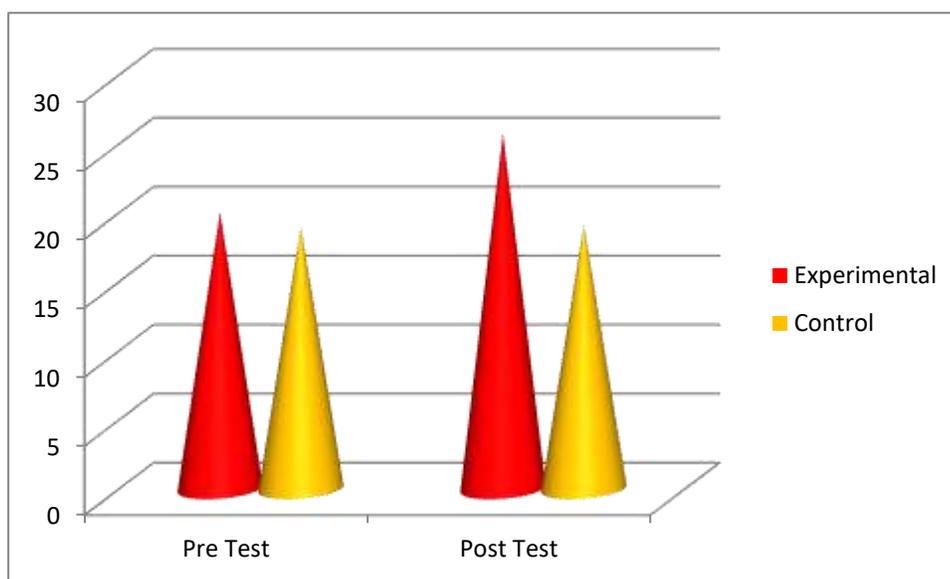
**Table I**

**COMPUTATION OF 'T' RATIO ON MUSCULAR STRENGTH AND FLEXIBILITY OF RHYTHMIC EXERCISE TRAINING GROUP AND CONTROL GROUP**  
(Scores in seconds)

Pre Test				Post Test					
Group	Mean	SD(±)	SEM	Mean	SD(±)	SEM	Mean Diff	%	't'
<b>RETG</b>	32.86	3.80	0.98	42.33	3.15	0.81	11.87	9.47	7.84*
<b>CG</b>	29.66	4.08	1.05	29.66	4.11	1.06	0.00	0.00	1.87
Pre Test				Post Test					
<b>RETG</b>	20.06	3.84	0.99	25.80	4.14	1.06	5.74	22.24	19.09*
<b>CG</b>	19.06	2.81	0.72	19.20	2.33	0.66	0.14	0.72	0.45

\* Significant at 0.05 level for the degrees of freedom 1 and 14, 2.145

Table I shows the computation of 't' ratio on Muscular strength and endurance and flexibility of experimental and control group. The obtained 't' ratio for Rhythmic exercise group are 7.84 and 19.09 respectively. These values are higher than the required table value of 2.145 for significance at 0.05 level for degrees of freedom 1 and 14. Whereas the obtained 't' value of control group 1.87 and 0.45 was lesser than the required table value of 2.145 it was not significant. The result revealed that the experimental group improved their performance in Muscular strength and endurance and flexibility due to rhythmic exercise training group on school children.

**Figure 1****BAR DIAGRAM ON PRE AND POST TEST SCORES ON EXPERIMENTAL AND CONTROL GROUPS ON MUSCULAR STRENGTH ENDURANCE****Figure 2****BAR DIAGRAM ON PRE AND POST TEST SCORES ON EXPERIMENTAL AND CONTROL GROUPS ON FLEXIBILITY****Discussion on findings:**

Impact of Rhythmic exercise training group on selected health related variables was found better significant improvement on flexibility 't' value 7.84 and 19.09 respectively. The

above result in line with Vijaya. (2009) found that aerobic dancing group has significantly improved the cardio respiratory endurance among among school girls. Vajda et al. (2007) found that physical activity brought about such development in the cardio-respiratory functions of the obese subjects.

**Conclusion:**

The selected health related physical fitness variable such as muscular endurance and flexibility were significantly improved by the experimental group namely the Rhythmic Exercise training among school children.

**Conflict of interest:**

There is no conflicting of interest.

**Acknowledgement:**

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