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#### Dr. Kuntal Thakur

Assistant Professor, Khejuri College, Purba Medinipur, West Bengal, India

# Effects of gymnastic activities on selected psychological parameters of school girls

## Dr. Kuntal Thakur

#### Abstrac

The term 'Gymnastics' derived from Greek word meaning 'to exercise naked'. Gymnastics develop various components of mental fitness. Actually Gymnastics make a man complete- physically as well as mentally. Attitude and self-concept are complex component of mind and these component may develop through gymnastic activities.

**Methods:** One hundred (N=100) school girls of Howrah District, West Bengal were selected at randomly as subjects for the present study. The age limit of the subjects was 10-12 years. All the subjects were divided in to two equal groups such as Gr. G and Gr. C. Gr. G was experimental group who were practiced gymnastics activities and Gr. C was control group. Initially School Attitude Inventory scale and Self-concept Inventory scale were employed to all the subjects of both the groups and thereafter specific gymnastic activities were given to Gr. G for three days in a week and continued one year and finally the subjects were retested on criterion measures. The data were analyzed by t-ratio to find out the effects of the treatment.

**Results:** The result of the study showed that the school attitude and self-concept were improved significantly among gymnastics group after one year gymnastic treatment but no significant improvement was shown among control group.

**Conclusion:** Significant improvement of school attitude and self-concept were observed by administering one year treatment of gymnastic activities among school going girls.

Keywords: Attitude, body composition, flexibility, self-concept

### Introduction

The term 'Gymnastics' derived from Greek word meaning 'to exercise naked'. Gymnastics develop various component of physical as well as mental. Attitude and self-concept are complex component of mind and they develop through gymnastic activities. Gymnastic activities are not only the reflection of body and mind but also a contribution of oneself and the eternal power.

Self-concept tends to be more malleable when we're younger and still going through self-discovery and identity formation. Humanist psychologist Carl Rogers believed that self-concept is made up of three different parts, such as Ideal self, Self-Image and Self-Esteem. Self-concept is not static, meaning that it can change. Our environment plays a role in this process. Self-concept can also change based on the people with whom we interact. This is particularly true with regard to individuals in our lives who are in leadership roles. They can impact the collective self and the relational self. Our self-perception is important because it affects our motivations, attitudes, and behaviors. Attitude and self-concept are complex component of behavior. Attitude may be defined as a complex mental state involving belief, feelings and values and disposition to act in certain ways. Self-concept may be explained as a person's perception about him or himself. Bala et.al. (2013) [2] studied on self-concept and attitude among school boys and results revealed that gymnastics improved above mental components due to one year treatment among young school boys.

## Methodology

Hundred (N=100) school girls of District Howrah, West Bengal State were selected at randomly as subjects for the present study.

Corresponding Author: Dr. Kuntal thakur Assistant Professor, Khejuri College, Purba Medinipur, West Bengal, India The age limit of the subjects was 10-12 years. All the subjects were divided into two equal groups such as Gr. G and Gr. C. Gr. G was experimental group and Gr. C served as control group.

Initially school attitude and self-concept were employed to all the subjects of both groups and thereafter specific gymnastic activities were given to Gr. G for one year and finally the subjects were retested on criterion measures. The data were analyzed by t-ratio to find out the effects of the treatment.

### Treatment consists of following gymnastic activities

Rolling- forward and backward, cart wheel, front turn and back turn, split sitting, handstand, handspring, round-off, back flip, front and back salt.

Prior to gymnastic activities all the subjects of Gr. G performed warm up exercise for 15 minutes. Gymnastics activities were assigned according to degree of difficulty in four phases. Duration and repetition and degree of difficulty were increased gradually at four phases during the treatment season. The concept of the treatment programmer was framed on the basis of Rhythmic and Educational Gymnastics. Http://www.mnps.org/page:11294.aspx

#### **Result and Discussion**

The data of School Attitude and Self-concept were analyzed by paired t-test and level of significance was set up at .05 level of confidence.

**Table 1:** Group means increase in school attitude and self-concept among Gr. G and Gr. C after one year treatment

Variables	Type of test	Gr. G			Gr. C		
		Mean	SD	T	Mean	SD	T
School Attitude	Pre-test	85.72	10.19	12.4	87.64	8.91	0.38
	Post-test	96.40	9.26		91.32	9.46	
Self-concept	Pre-test	88.24	9.36	7.4	86.56	9.51	-0.08
	Post-test	105.34	10.82		98.04	11.73	

Significant at.05 level of confidence

Table-I represents the mean values of pre and post-test for school attitude and self-concept of Gr. G and Gr. C. The t-values of school attitude and self-concept of Gr. G were 12.4 and 7.4 respectively. The t values of Gr. G in relation to improvement of school attitude and self-concept were significant at 0.05 level of confidence after one year treatment. The t-values of school attitude and self-concept of Gr. C were 0.38 and -0.08 respectively. To be significant at 0.05 level of confidence the t-value should be greater than 2.01. All the t-values of Gr. C were not improved significantly at 0.05 level of confidence after one year treatment.

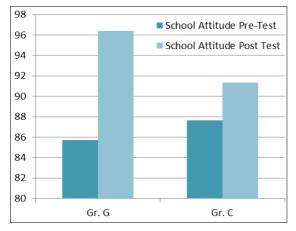


Fig 1: A comparison of means of pre and post test data on school attitude among Gr. G, and Gr. C.

Psychology takes leading role to make a man complete. Attitudes are part and parcel of our behavior and beliefs. Attitudes are generally thought to influence behavior. It builds by previous experiences and it is confirmed and modified through repeated trials. It is a realistic summery of experiences. Positive school attitudes should build through gymnastic activities. Table-I represents that gymnastics group improved attitude significantly at 05 level of confidence. The results have been reflected by bar graph (Fig. 1). The result of the present study corroborates with the findings of Bandopadhyay (2012) [3], Arabaci (2009) [12], Liu Wenhao (2008) [9], Tokmakidis (2006) [11], Hagger (1997) [7] and Ben-Shlomo (1983) [13].

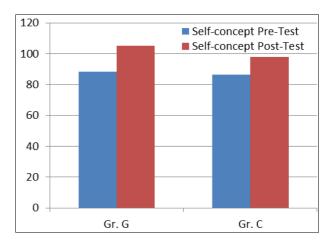


Fig 2: A comparison of means of pre and post test data on Selfconcept among Gr. G, and Gr. C.

Self-concept may be explained as person's perception about himself. It is a central point of phenomenology to one's personality. It may be describe as a looking glass. It is a mental and conceptual understanding and persistent regard that sentient beings hold for their own self existence. Selfconcept includes physical, psychological and social attributes, which can influence individual's attitudes, habits, beliefs and ideas. Sports contribute a great deal to the development of self-concept utilized by an individual to understand himself and others, to direct his own behavior. Table-I represents gymnastics group improved self-concept significantly at.05 level of confidence. These improvements have been presented by bar graph (Fig.2). Anderson et al. (1982) [1], Deshpande (2009) [6], Eilin Ekeland (2004) [14], Jadhav (2006) [15], Bala and Thakur (2013) [2] have reported that gymnastics have greater impact on self-concept.

Gymnastics activities not only develop the physical fitness, but also make a sense of fair play and develop individual esthetic values and mental alertness. It also helps to develop mental state.

The investigator had not given gymnastic activities as a treatment to control group but the means of both attitude and self-concept were improved by both experimental and control groups. The investigator had control over the treatment variables such as teaching-learning process, school curriculum, family environment, peer group, socio-economic status, cognitive and effective domain which could not be controlled in Gr. G and also in Gr. C. The hypothetical mean values were considered from post test data for both the groups; nevertheless significant improvement was observed in the psychological parameter among gymnastics group.

## Conclusion

Under the conditions of the present study the results seem to

#### conclude the following:

- 1. Significant improvement of school attitude was observed by administering one year treatment of gymnastic activities among school going girls.
- 2. Self-concept was improved significantly due to one year treatment programmer of gymnastic activities.

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