



## **EFFECT OF TRADITIONAL EXERCISES ON SELECTED HEALTH RELATED PHYSICAL FITNESS COMPONENTS OF JUNIOR COLLEGE BOYS**

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### **Abstract**

*The purpose of the study was to collect scientific evidence in connection with the utility of traditional exercise for the promotion of Selected Health Related Physical Fitness Components of Junior College boys. 70 male students were selected as sample of the study. The selected subjects then divided into two groups i.e. experiment and control group with equal number of subjects assigned randomly in each group. The subjects of experimental group underwent for traditional exercise as per the training schedule of six weeks, control group did not received traditional exercise training.. Results indicate that six weeks of traditional exercise training has been improved Muscular Strength, and Flexibility of experimental group as compared to the control group. It was concluded that traditional exercise i.e. Dand and Baithaka was significantly improved the selected HRPF Components of Junior College Boys.*

**Keywords:** *HRPF, Dand, Baithaka, Muscular Strength, Flexibility*



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### **Background and Rationale**

According to National Plan of Physical Education and Recreation. "The aim of Physical Education is to make every child physically, mentally and emotionally fit and also to develop in him or her personal and social qualities as will help them to live happily with others and build them up as a good citizen." At present, all ancient and traditional sports / activities in the world have been taken their cognizance on the international level likewise Dand. Baithaka etc. were popular among boys and youngsters and the youth on a large scale in order to acquire sturdy body and health, excellent strength and energy. (Joseph, 1941) Dand and Baithakas are peculiarly indigenous exercises which go to secure strength and development of body, Dand are valuable for developing strong arms and chest while Baithakas are for developing strong legs Dand and Baithakas are practiced all over country by those who are enthusiastic about their bodily development. Dands and Baithakas are peculiarly indigenous exercise which goes to secure strength and development of whole

body. Dands are valuable for developing strong arm and chest, and Baithakas helps in developing strong legs.

The investigator interested in the field of Dand Baithakas practices among junior college boys for the improvement of selected Health Related Physical Fitness variables such as Muscular Strength and Muscular Endurance, and Flexibility

### **Objective of the Study**

The Specific Objectives Formulated for the Present Study were as follows

- To compare the adjusted Mean Scores of Muscular Strength of Junior College Boys of Traditional Exercise Group and Non-Traditional Exercise Group by taking pre Muscular Strength as Covariate.
- To compare the adjusted Mean Scores of Flexibility of Junior College Boys of Traditional Exercise Group and Non-Traditional Exercise Group by taking pre Flexibility as Covariate.

### **Hypotheses**

The null hypotheses formulate to be tasted is as under

**Ho<sub>1</sub>:** There is no significance difference in adjusted Mean Scores of Muscular strength of Junior College Boys of Traditional Exercise Group and Non-Traditional Exercise Group by taking pre Muscular strength as Covariate.

**Ho<sub>2</sub>:** There is no significance difference in adjusted Mean Scores of Flexibility of Junior College Boys of Traditional Exercise Group and Non-Traditional Exercise Group by taking pre Flexibility as Covariate.

### **Methodology:**

The purpose was to collect scientific evidence in connection with the utility of traditional exercise for the promotion of selected Heath Related Physical Fitness Components of Junior College boys. The present study was conducted by adopting the experiment method of research. The experiment design of the study was the Non Equivalent Control Group Design.

In this present investigation, two group design were used. In this design, two independent groups are randomly selected to ensure their equality before starting the experiment. Then the experimental group were underwent for the experimental treatment and the remaining non traditional group does not get any training or experimental treatment, hence group was known as control group. Before start of traditional exercise training programme the both group has underwent for pre test, To see the effect of training

programme the researcher has the post test. After the completion of traditional exercise training programme again both group has underwent for post test.

**Population and Sample:**

Population sampling is the process of taking a subset of subjects that is representative of the entire population. In the present study a sample of 70 (n=70) male students were selected from Bunts Sangha’s Arthi sashi kiran Shetty Junior college, Kurla, Mumbai, These selected subjects were divided into two groups i.e. experiment and control group with equal number of subjects assigned randomly in each group. Group “A” = Traditional Exercise Group (Experimental Group) Group “B” = Non-Traditional Exercise Group (Control Group)

**Dependent Variables**

The following Health Related Physical Fitness Components variables are considering as dependent variables of the study.

<b>DEPENDENT VARIABLES</b>	<b>TEST</b>	<b>CRITERION MEASURES</b>
<b>HEALTH REALTED PHYSICAL FITNESS</b>		
<ul style="list-style-type: none"> <li>• <b>Muscular Strength</b></li> <li>• <b>Flexibility</b></li> </ul>	Push Ups Sit & Reach	Counts per minutes Centimetres

**Independent Variables**

<b>Traditional Exercise Training Programme</b>	
<b>DAND</b>	<b>BAITHAK</b>
Ordinary Dand	Dand Vaja
Seedhe Dand	Ordinary Baithak
Dand Jor	Chahal Kadami
Guthan Dand	Sapate Lagav Baithak
Seena Kasi or Seena dand	Panja Baithak
Garden Kas	Neem Panja Baithak
Saf- Suf- Dand	Neem Khadi Baithak
Chakra Dand	Lahera Baithak

**Training Schedule:**

<b>Training program</b>	<b>Duration</b>
Warm up	10 Minutes
Dand	20 Minutes
Baithak	20Minutes
Limbering down	10 Minutes
Total	60 Minutes

**Procedure of the Study:** The data was collected in three phase

Phase - Pre Test, Phase II - Training Phase, Phase III- Post Test

### **Pre Test**

Before the actual administration of the pre-test the subject were oriented about the testing by giving the detailed explanation about the testing procedures as well as by explaining do's & don'ts of the tests. Further, they were also acquainted with the procedure by giving them opportunity of practice if needed. The subject will also be encouraged for the participation as well as execute their falls potential. The researchers will carefully insure that all the subjects are medically normal.

### **Training Phase**

The total training programme of the experimental group was of 6 weeks, 4 days in a week i.e. Monday, Wednesday, Friday and Saturday in the morning session for 1hour.

### **Post Test**

The entire variable was measured after 6 weeks of training and scores were recorded at the same time and further the data were analyzed with the help of SPSS.

### **Statistical Procedure Used**

Since, there were two groups for this experimental study viz. experimental group and control group, wherein the researcher has decided to compare the change in mean scores of pre and Post Test of Traditional Exercises Group and Non-Traditional Exercises group in order to see the efficacy of experimental treatment. One way ANCOVA was appropriately used for the data analysis.

### **Results on Health Related Physical Fitness**

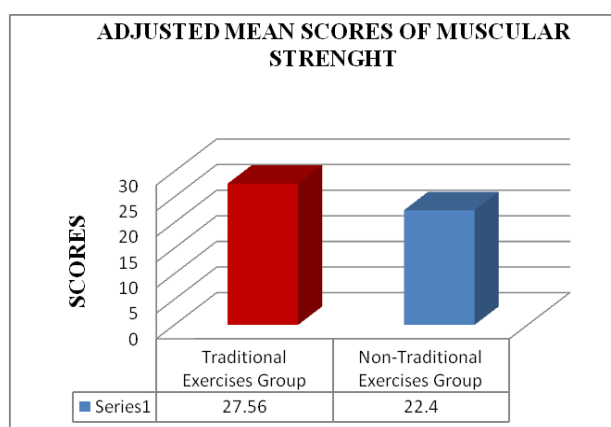
**Treatment Wise Comparison of Adjusted Mean Scores of Muscular Strength by Taking Pre Muscular Strength As Covariate**

**Summary of One Way ANCOVA of Muscular strength by taking Pre Muscular strength as Covariate**

Source of Variance	df	SSy.x	MSSy.x	Fy.x	Remark
Group	1	405.67	405.67		
Error	67	499.56	7.46	54.41	p<0.01
Total	69				

From above table it can be seen that the adjusted F-value is 54.41 which is significant at 0.01 level with df=1/67 when Pre-Muscular Strength was taken as covariate. It shows that adjusted mean scores of Muscular strength of Junior College Boys of Traditional Exercises Group and Non-Traditional Exercises group differ significantly when pre Muscular strength was taken as covariate. Thus, the Null Hypothesis that there is no significant difference in adjusted mean scores of Muscular strength of Junior College Boys of Traditional Exercises Group and Non-Traditional Exercises group by taking pre Muscular strength as covariate is rejected.

Further the adjusted mean score of Muscular Strength of traditional exercises group is 27.26 which is significantly higher than that of Non- traditional exercises group where adjusted mean score of Muscular Strength is 22.40. It may, therefore, be said that traditional exercises group was found to be effective in improving Muscular Strength of Junior College Boys than that of non-traditional exercises group where pre Muscular Strength as covariate. The result is Presented Graphically in following Figure



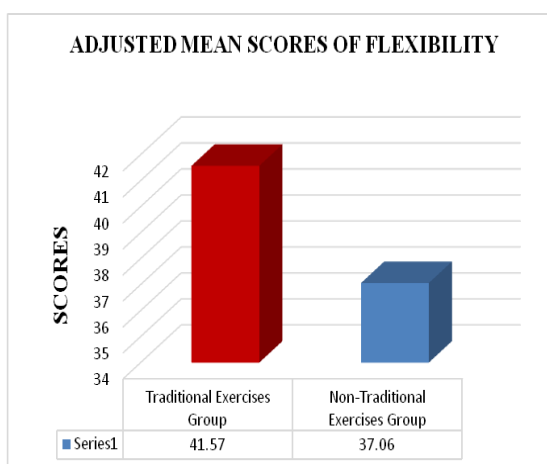
**Treatment Wise Comparison of Adjusted Mean Scores Of Flexibility By Taking Pre Flexibility As Covariate**

**Summary of One Way ANCOVA of Flexibility by taking Pre Flexibility as Covariate**

Source of Variance	df	SSy.x	MSSy.x	Fy.x	Remark
Group	1	347.19	347.19		
Error	67	1436.71	21.44	16.19	p<0.01
Total	69				

From the above table it can be seen that the adjusted F-value is 16.19 which is significant at 0.01 level with df=1/67 when Pre- Flexibility was taken as covariate. It shows that adjusted mean scores of Flexibility of Junior College Boys of Traditional Exercises Group and Non-Traditional Exercises group differ significantly when pre Flexibility was taken as covariate. Thus, the Null Hypothesis that there is no significant difference in adjusted mean scores of Flexibility of Junior College Boys of Traditional Exercises Group and Non-Traditional Exercises group by taking pre Flexibility as covariate is rejected.

Further the adjusted mean score of Flexibility of traditional exercises group is 41.57 which is significantly higher than that of Non- traditional exercises group where adjusted mean score of Flexibility is 37.06. It may, therefore, be said that traditional exercises group was found to be effective in improving Flexibility of Junior College Boys than that of non-traditional exercises group where pre Flexibility as covariate. The result is Presented Graphically in following Figure



**Discussion on Findings**

The objective of this study was to see the Effect of Traditional exercises Training Programme on Selected Health Related Physical Fitness of Junior College Boys.

- In case of Muscular Strength of Traditional Exercises Group, it is found that there is significant difference as compared to Non-Traditional Exercises Group hence the hypothesis sought that - Ho1 There is no significance difference in adjusted mean scores of Muscular Strength of Junior College Boys of Traditional Exercises Group and Non-

Traditional Exercises Group by considering Pre Muscular Strength as covariate is rejected.

- In case Flexibility of Traditional Exercises Group, it is found that there is significant difference as compared to Non-Traditional Exercises Group hence the hypothesis sought that - Ho4There is no significance difference in adjusted mean scores of Flexibility of Junior College Boys of Traditional Exercises Group and Non-Traditional Exercises Group by considering Pre Flexibility as covariate is rejected.

### **Conclusion**

The above result helps to conclude that the Traditional Exercises **Programme (Training)** was found to be helpful to improve selected Health Related Physical Fitness variables such as, Muscular strength and Flexibility.

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