



Effect of calisthenics exercises on shoulder strength

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Abstract

Purpose: The present study has been designed to investigate the effects of 3 months training of Calisthenics Exercises on shoulder strength of the school boys. Calisthenics Exercises are designed to tone and strengthen muscle, and to promote general fitness.

Design of the Study: Pre-posttest experimental design was used to in this study

Methodology: For accomplish the study Only 30 boys students of rural area high school of Haryana state will be selected for the present study. 30 fresh students would be included in the Calisthenics exercises experimental group. Age group of the samples will be "12 to 14" years boys of high school. Selected Calisthenics exercises will be provided to Calisthenics experimental group only. The domain of the study will be delimited to rural high school boys of Haryana state. Experimental Group 'A' (12 to 14 years) (pre) v/s experimental Group 'A' (12 to 14 years) (post).

Result: Statistically a positive effect of calisthenics exercises was found on shoulder strength of rural school boys.

Keywords: calisthenics, exercises, shoulder strength

1. Introduction

Calisthenics is a form of physical training consisting of a variety of exercises, often rhythmical movements, generally without using equipment or apparatus. They are intended to increase body strength and flexibility with movements such as bending, jumping, swimming, twisting or kicking. Using only one's body weight for resistance. They are usually conducted in concert with stretches. Calisthenics when performed vigorously and with variety can benefit both muscular and cardiovascular fitness, in addition to improving psychomotor skills such as balance, agility and coordination.

Objective of the study

To find out the effect of 'Calisthenics' exercises on shoulder strength of the school boys.

Hypotheses

There will be significant difference of Calisthenics exercises on shoulder strength between experimental groups of school boys.

Methodology

Only 30 boys students of rural area high school of Haryana state will be selected for the present study. 30 fresh students would be included in the Calisthenics exercises experimental group. Age group of the samples will be "12 to 14" years boys of high school. Selected Calisthenics exercises will be provided to Calisthenics experimental group only. The domain of the study will be delimited to rural high school boys of Haryana state. Experimental Group 'A' (12 to 14 years) (pre) v/s experimental Group 'A' (12 to 14 years) (post).

Training Program

10 min – General Warming-up, 40 min – Calisthenics exercises workout, Push-up, Wide Grip push-up, Close grip pus-up, Pull-ups, Inline pull-up, Static holds, Wide Grip pull-up, Box Dip, Triceps Dip, Wall Walks, Wall-supported Handstand, Plank, Side Plank, Crunch, Sit up, Hanging knee raise, Squat, Lunge, Bridge, Calf Raise, Squat Thrust, 10 min – Cooling down

Tools and technique used

The pull up test is widely used as a measure of shoulder strength.

Purpose: This test measures upper body muscle strength and endurance.

Equipment Required: Horizontal overhead bar, set at an adequate height so that the participants can hang from it with their arms fully extended and feet not touching the floor. (see pull-up bars)

Pre-Test: Explain the test procedures to the subject. Perform screening of health risks and obtain informed consent. Prepare forms and record basic information such as age, height, body weight, gender and test conditions. Measure and record the height of the bar. Perform a standard warm-up. See more details of pre-test procedures.

Procedure: Grasp the overhead bar using either an overhand grip (palms facing away from body) or underhand grip (palms facing toward body), with the arms fully extended. The subject then raises the body until the chin clears the top of the bar, then lowers again to a position with the arms fully extended. The pull-ups should be done in a smooth motion. Jerky motion, swinging the body, and kicking or bending the legs is not permitted. As many full pull-ups as possible are performed.

Scoring: The total number of correctly completed pull-ups is recorded. The type of grip should also be recorded with the results.

Table 1: Mean Score of Experimental Group A at Pre and Post Phase in their Shoulder Strength

Variable	Measure	Group	Phase	N	Mean	Sd
Shoulder Strength	Pull Ups	Experimental A	Pre	30	6.23	.817
		Experimental A	Post	30	9.33	.884

The table no 1 explores the descriptive characteristics of Experimental group A in terms of mean and standard deviation and it was observed that mean and standard deviation at pre phase was $6.23 \pm .817$ and at post phase was $9.33 \pm .884$ respectively.

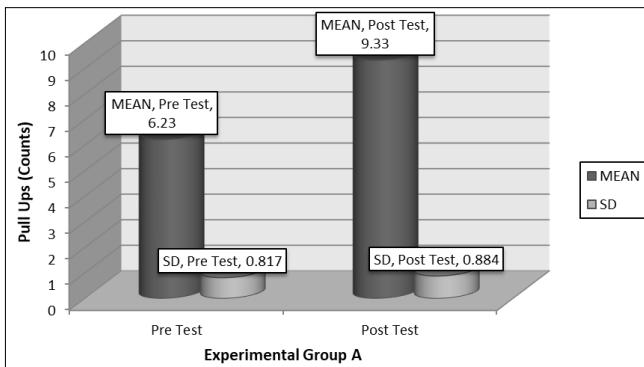


Fig 1: Graphical Profiles of Mean Score of Experimental Group A at their Pre and Post Phase

Table 2: ‘t’ Statistics between Pre and Post Phase of Experimental Group A in their Shoulder Strength

Variable	Group	Phase	df	(t)	Sig.
Shoulder Strength	Exp. A	Pre	29	25.658	.000
	Exp. A	Post			
Alpha = 0.05 (p<0.05)					

In table 2 dependent t statistics was illustrated between **pre** and **post** phase of experimental group A and it was take into notice that calculated value of t was 25.658 respectively which was considerable at 0.05 alpha level and shows a significant difference between pre and post phase of measurement.

Conclusions

Experimental group A in terms of mean and standard deviation and it was observed that mean and standard deviation at pre phase was $6.23 \pm .817$ and at post phase was $9.33 \pm .884$ respectively. It was concluded that pre and post phase of experimental group A and it was take into notice that calculated value of t was 25.658 respectively which was considerable at 0.05 alpha level and shows a significant difference between pre and post phase of measurement. So the hypothesis which was formulated earlier that “There will be significant difference of Calisthenics exercises on shoulder strength between experimental groups of school boys” was accepted. A positive effect of calisthenics exercises was find out on shoulder strength of rural school boys.

References

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