

**EFFECT OF A SPECIFIC TRAINING PROGRAMME ON HAND GRIP STRENGTH
AMONG 14–16 YEAR OLD BOYS**

***Dr. Deepak Bhagwan Jundre & **Dr. Sangita Gade**

**Direct of physical education , MJM Art's commerce and science college karanjali, tal Peth, Dist Nashik*

***Direct of physical education, MVP' art's commerce and science College, ,Satpur*

Introduction:

Today's world is highly competitive, and to sustain oneself in such an era, physical fitness is extremely essential.

A healthy mind resides in a healthy body, and hence the development of physical fitness is crucial for holistic development.

Physical activities play a vital role in achieving this development.

Due to advancements in science and technology, life has become more sedentary. As a result, physical education has gained significant importance.

The number of students and teachers involved in

physical education has risen greatly. Additionally, research in physical fitness has increased.

Regular physical exercise improves bodily strength and overall well-being. However, modern lifestyle changes have reduced children's outdoor activities.

Television, computers, mobile phones, and video games have replaced physical play. This situation has contributed to lower fitness levels among children.

A structured and scientific physical training programme can help improve children's physical fitness. Hence, the present research focuses on studying the effect of a specific training programme on hand grip strength among boys aged 14–16 years.

Copyright © 2025 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

Methodology:

This research was carried out among boys aged 14 to 16 at the Indian Medium School, Bavdhan, Pune. The objective was to study the effect of a specialised physical training programme on hand grip strength.

Research Method: Experimental Method

Research Design: One-Group Pre-test and Post-test

Design

O1 – Pre-test

X – Training Programme

O2 – Post-test

A total sample of 20 boys aged 14–16 was selected using purposive sampling.

A structured physical training programme was

implemented for a fixed duration. Standardised tests were used for assessing hand grip strength.

Statistical tools such as Mean, Standard Deviation and t-test were used for analysis.

Data Analysis and Interpretation:

Table 4.1 – Mean and Standard Deviation of Right-Hand Grip Strength

Pre-test (N=20): Mean = 29.88, SD = 9.18

Post-test (N=20): Mean = 30.96, SD = 9.02

Table 4.2 – t-value for Right-Hand Grip Strength
 $t = -4.04$ (Significant at 0.05 level)

Table 4.3 – Mean and SD of Left-Hand Grip Strength

Pre-test (N=20): Mean = 27.95, SD = 8.03

Post-test (N=20): Mean = 28.55, SD = 7.71

Table 4.4 – t-value for Left-Hand Grip Strength

$t = -1.48$ (Not Significant)

Discussion:

The study aimed to analyse the effect of a specific training programme on hand grip strength of 14–16-year-old boys.

Results show that right-hand grip strength improved significantly after the training programme.

Left-hand grip strength also improved slightly but the improvement was not statistically significant.

This indicates that the training programme was more effective for the right hand, possibly because most children use the right hand dominantly.

Variations in muscle development, practice time and participation levels may have influenced the outcomes.

Conclusions:

1. The specific training programme significantly improved right-hand grip strength among 14–16-year-old boys.
2. The left-hand grip strength showed a slight improvement but it was not statistically significant.

References:

1. William, H. (1980). *Physical Education and Sport in Changing Society*. Delhi Publications. pp. 12–13.
2. Pandey, P.K., & Gangopadhyay, S.R. (1995). *Health Education for School Children*. Delhi: Friend Publications.
3. आडे, भा. श. (2001). *शारीरिक शिक्षण मानव व समाजशास्त्र*. पुणे: समय प्रकाशन.

Cite This Article:

Dr. Jundre D. B. & Dr. Gade S. (2025). Effect of a Specific Training Programme on Hand Grip Strength among 14–16 Year Old Boys. In Aarhat Multidisciplinary International Education Research Journal: Vol. XIV (Number VI, pp. 130–131). Doi: <https://doi.org/10.5281/zenodo.18181731>