A COMPARATIVE STUDY OF MUSCULAR STRENGTH VARIABLES OF DIFFERENT LEVEL TARGET BALL PLAYERS

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Abstract

In the present study, an attempt has been made to compare fitness variable namely muscular strength between national Targetball players and state Targetball players. The study was carried out on 100 men Targetball players (50 national Targetball players and 50 state Targetball players who participated in National and state Tournaments). The data was collected by use of measurements of muscular strength as well as by application of test like wet sit and reach. The data was analyzed and compared with the help of statistical procedures in which arithmetic mean, standard deviation (S.D.), t-test were employed. National Targetball players and State Targetball players muscular strength was found significantly national level Targetball players whereas state level Targetball players showed significantly lower values in muscular strength.

Keywords- Muscular Strength, national Targetball players, state Targetball players.

Introduction

Targetball is an exciting, fast and skillful game of fair contest. It is a game in which two teams of six players each strive to keep or gain possession of the ball. The team with the ball, through running, jumping, throwing and catching, attempts to move the ball into its goal circle from where a target may be scored, while the opposing team uses defensive movements and strategies to prevent this and to gain possession. The team with the greater number of goals is the winner of the match. Players have specified areas in which they can move. The Rules are
based on the core values of equal opportunity, fair play and respect for an opponent’s skill and safety.

**Objective**

To measure the Muscular Strength of the legs.

**Equipment used:**

Jumping pit, measuring tape and marking powder.

**Procedure:**

A take off line is drawn near one edge of the jumping pit. The subject is asked to take her position with toes just behind the take off line and feet slightly apart. Taking off with both the feet simultaneously he has to jump to cover the maximum possible distance in forward direction, landing on both feet. While jumping he is asked to crouch slightly by bending the knees and swing the arms to aid the jump. Three trials are allotted and the best of the three jumps is recorded as the standing broad jump performance.

**Scoring:**

The measurement was taken from take-off line to the nearest point of contact on the landing (back of the heels). Record the longest distance jumped, the best of three attempts.

**SAMPLING PROCEDURE**

In this study, only those Targetball players were selected, who had participated in national and state level Targetball tournaments? The players falling under the age between 18 and 25 years were studied. The state and national level performance of the players was conformed from the coaches and state secretaries, on the basis of whom some players were recorded before the competition also, but later on they were classified as per their competition performance.

**Analysis of Muscular Strength**

Table 1
Descriptive statistics of the data measured in the Muscular Strength

<table>
<thead>
<tr>
<th>variable</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscular Strength</td>
<td>National level Targetball players</td>
<td>100</td>
<td>2.08</td>
<td>0.27</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>State level Targetball players</td>
<td>100</td>
<td>1.98</td>
<td>0.32</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Table no.1 indicates the values of descriptive statistics of the National level Targetball players and State level Targetball players for Muscular Strength, which shows that the mean and S.D. values of National level Targetball players and State level Targetball players was found to be 2.08±0.27 and 1.98±0.32 respectively. Above table also indicates the S.E.D values of National level Targetball players and State level Targetball players were found to be 0.04 and 0.05 respectively.

**Table No.2**

**Comparison of Muscular Strength between National level Targetball players and State level Targetball players**

<table>
<thead>
<tr>
<th>Variable</th>
<th>F-value</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscular Strength</td>
<td>1.06</td>
<td>1.12</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Table no.2 indicates the independent t-test values of National level Targetball players and State level Targetball players for Muscular Strength. The National level Targetball players and State level Targetball players t-value was found to be 1.12, which shows that there were significant difference in National level Targetball players and State level Targetball players of Muscular Strength, as the F-value has found to be 1.06, which is significant at 0.05 level.
Conclusion-

The muscular strength value was found significantly higher value of national level Targetball players whereas state level Targetball players showed significantly lower values in muscular strength.

It is suggested that a longitudinal study with the subjects employed in this research work may be carried out in order to find the changes in contributing variables and their effect on the performance of Targetball players.

National performance in sports depends upon many factors such as psychological, sociological, physiological, physical fitness etc. These variables should be incorporated in
similar studies to know the relationship of these variables with physical fitness variables and performance.

References-