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# Relationship between Upper Body Anthropometric Parameters and Throwing Performance of Handball Players

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***Abstract*-** The purpose of the study was to find out the Relationship between Upper Body Anthropometric Parameters and Throwing Performance of Handball Players. To achieve the purpose of this study, 30 handball players were selected. The nature and importance of this study was explained the subjects and they were expressed their willingness for this study. The players were selected from who had participate in the inter collegiate Handball competition in Pondicherry University their age ranged from 17 to 25 years as per college record at the year of 2009-2011 batch. There was no training programme for them. Test was conducted for Anthropometric Parameters and Throwing Performance namely Arm length, Forearm girth, Medicine ball put data was collected and analyzed statistically by Pearson product movement co-relation to find out the significant level.

***Index Terms***- Arm length, Forearm girth, Medicine ball put.

## I. INTRODUCTION

**PHYSICAL EDUCAION**

Barrow defined Physical Education as an education of human movement where many of educational objectives are achieved by means of big muscle activities involving sports, games, gymnastic, dance and exercise.

**HANDBALL**

Handball is basically a running sport and it can provide a large contribution to muscular endurance framing in the required skills common to other sports such as running, jumping, throwing and catching the rules are simple and the activity level is high. Handball is a relatively uncomplicated team game with twelve players to a side where six court players and a goalie of one team oppose the same number from another team. The remaining five players may be substituted in from the side lines at centre court at any time.

**ANTHROPOMETRY**

Anthropometry is the science of measuring human body and its parts. It is used us an aid to the study of human evaluation and variation. The study of human physical measurements is deal by another science anthropometry, which has wide application as one of the essential parameters constituting the selective diagnostics of any game or sport. The study of "Body Type" has a significant place in the field of sports. Anthropometric indices alder in evaluating potentiality for athletic performance. The physical structure especially the height and arm length have definite decisive advantage in many games and sports. Similarly segmental length of individual body parts the arm length specifically is of considerable advantage in selected events in athletics and in certain games.

## II. SIGNIFICANCE OF THE STUDY

- This study would be helpful to the subject to know their arm length, forearm girth, and throwing performance for handball.
- The result of the study would be useful to the students to improve their skill related performance in handball and other sports and games.
- The result of the study also would keep the coaches to know their students arm length, forearm girth, and throwing performance for handball and other sports and games.

**ARM LENGTH**

Arm length is measured from the acromion process above the shoulder joint to the tip of the middle finger in the side view.

**FOREARM GIRTH**

Girth: A girth or yard is a measure of length. The word is of Saxon origin, taken from the circumference of the human body. Girth is contracted from girded, and signifies as much as girdle. The measure around any subject, such as a body at the waist or belly, or a box the circumference of anything as in order to be acceptable for mailing the total of height and girth of a package must not exceed 63 inches.

## III. METHODOLOGY

The purpose of the study was to find out Relationship between Upper Body Anthropometric Parameters and Throwing Performance of Handball Players.

Selection of variables

1. Arm length
2. For arm girth
3. Medicine ball put

## IV. STATISTICAL PROCEDURE

The relationship between independent variable arm length, fore arm girth and medicine ball put were established by computing Pearson Product moment correlation. The data collected from 30 handball players were selected from the Pondicherry University in the Department of Physical Education and Sports, Pondicherry. The data pertaining of the variables under the study have been examined by applying correlation. The level of significance was fixed at 0.05 level confidence.

**Table I**
**Mean, Standard Deviation, And Correlation on Arm Length, Forearm Girth and Medicine Ball Put Pondicherry University Handball Players**

| Groups | Mean | S.D |
|---|---|---|
| **Arm length** | **70.8333** | **3.79731** |
| **Forearm girth** | **25.9000** | **1.58332** |
| **Medicine ball put** | **8.5067** | **0 .76524** |

CORRELATIONS

| | | VAR00001 | VAR00002 | VAR00003 |
|---|---|---|---|---|
| Variable 1 | Pearson Correlation | 1 | 0.215 | 0.238 |
| | Sig. (2-tailed) | | 0.254 | 0.205 |
| | N | 30 | 30 | 30 |
| Variable 2 | Pearson Correlation | 0.215 | 1 | 0.484** |
| | Sig. (2-tailed) | 0.254 | | 0.007 |
| | N | 30 | 30 | 30 |
| Variable 3 | Pearson Correlation | 0.238 | 0.484** | 1 |
| | Sig. (2-tailed) | 0.205 | 0.007 | |
| | N | 30 | 30 | 30 |

***. Correlation is significant at the 0.05 level (2-tailed).***

Significant at 0.05 level of confidence with degrees of freedom 28.

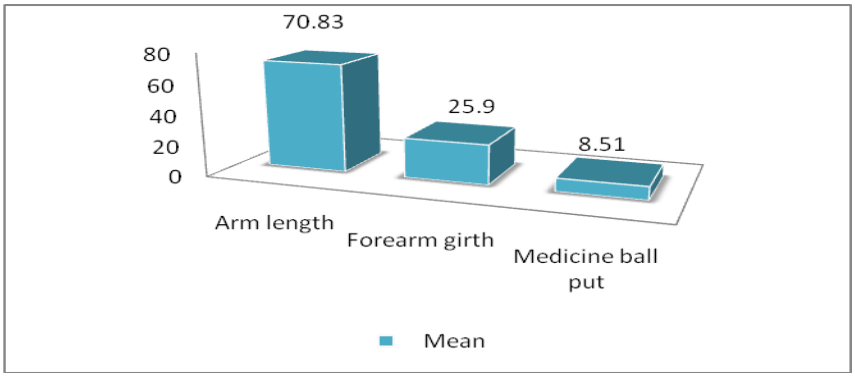


*Fig. 1*

**Mean Values on Arm Length, Forearm Girth and Medicine Ball Put Of Pondicherry University Handball Players**

## V. CONCLUSION

Within the limitation of the study and on the basis of the obtained results from this study, the following conclusions had been drawn:

It was concluded that the handball players forearm girth anthropometric variables are influence the throwing performance in handball game. But the anthropometric variable arm length will not influence any skills in handball game and sports.

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