

## **Relationship of Arm Strength Flexibility and Arm Length Scooping Ability in Hockey**

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(Received 12 November 2015 – Accepted & Published 27 December 2015)

### **Abstract**

International Hockey, played on artificial grass is a fast, exciting game requiring high level of individual skills, tactical awareness, mental and physical fitness. Many hours of hard work by coaches and players go in to preparing teams to meet the demands of modern day tournaments. Skills form an integral part of the game. Tactical moves break down because skills fail either on off the ball. Coaches must be able to identify their errors, correct them in the players' performance, and rebuild them into the game situations. Since Hockey is a game consisting of several skills the investigator has taken only the scooping ability for the purpose of the study. The purpose of the study was to find out the relationship between the scooping ability in hockey and arm strength, dynamic flexibility and arm length. Hypothesis It was hypothesised that there would be a positive significant relationship between, scooping ability and arm strength , scooping ability and dynamic flexibility and scooping ability and arm length. The study was conducted only for twenty male hockey players of YMCA College of Physical Education The age of the subjects was ranging from 20 to 28 years The study was further delimited to the following physical fitness components i. Arm strength ii. Dynamic flexibility iii. Arm Length. The height of the subjects, diet, experience, atmosphere and temperature and other environment factors were not considered. Though reaction time influences the scooping ability in hockey, it was not taken for the study due to the shortage of time. The investigator arrived at the following conclusion based on the result of the investigation. Arm strength had a positive significant relationship with the scooping ability in hockey ( $r:0.832$ ) The dynamic flexibility had a positive significant relationship with the scooping ability in hockey ( $r:0.879$ ) The arm length had a positive significant relationship with the scooping ability in hockey ( $r:0.653$ ) It was also concluded that arm strength, dynamic flexibility and arm length had a better positive relationship with scooping ability in hockey.

### **INTRODUCTION**

International Hockey, played on artificial grass is a fast, exciting game requiring high level of individual skills, tactical awareness, mental and physical fitness. Many hours of hard work by coaches and players go in to preparing teams to meet the demands of modern day tournaments. Skills form an integral part of the game. Tactical moves break down because skills fail either on off the ball. Coaches must be able to identify their errors, correct them in the players performance, and rebuild them into the game situations. Since Hockey is a game consisting of several skills the investigator has taken only the scooping ability for the purpose of the study.

### **STATEMENT OF THE PROBLEM**

The purpose of the study was to find out the relationship between the scooping ability in hockey and arm strength, dynamic flexibility and arm length.

### **HYPOTHESIS**

It was hypothesised that there would be a positive significant relationship between **scooping ability and arm strength, scooping ability and dynamic flexibility, scooping ability and arm length**

### DELIMITATION

The study was conducted only for twenty male hockey players of YMCA College of Physical Education. The age of the subjects was ranging from 20 to 28 years. The study was further delimited to the following physical fitness components: i. Arm strength ii. Dynamic flexibility iii. Arm Length

### LIMITATIONS

The height of the subjects, diet, experience, atmosphere and temperature and other environment factors were not considered. Though reaction time influences the scooping ability in hockey, it was not taken for the study due to the shortage of time.

### STATISTICAL TECHNIQUE

To assess the relationship between the scooping ability in hockey and arm strength, scooping ability, and dynamic flexibility and scooping ability and arm length, Pearson moment correlation was used.

**TABLE**

| VARIABLES                     | OBTAINED (r) | PIERSON CORRELATION COEFFICIENT (r) |
|-------------------------------|--------------|-------------------------------------|
| Arm Strength Scooping Ability | 0.832        | 0.444                               |
| Flexibility scooping ability  | 0.879        | 0.444                               |
| Arm Length scooping ability   | 0.653        | 0.444                               |
| Arm Strength Scooping Ability | 0.832        | 0.444                               |
| Flexibility scooping ability  | 0.879        | 0.444                               |
| Arm Length scooping ability   | 0.653        | 0.444                               |

### CONCLUSION

The investigator arrived at the following conclusion based on the result of the investigation.

- Arm strength had a positive significant relationship with the scooping ability in hockey (r:0.832)
- The dynamic flexibility had a positive significant relationship with the scooping ability in hockey (r:0.879)
- The arm length had a positive significant relationship with the scooping ability in hockey (r:0.653)
- It was also concluded that arm strength, dynamic flexibility and arm length had a better positive relationship with scooping ability in hockey.

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