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Study of Body Attitude Criteria of Indoor Hockey Players Based on Body Height to Obtain Accurate Passing Techniques

Adi Padli Hamzah[1], Hernawan[2], Yusmawati[3], Iwan Sugihartono[4], Achmad Ainul Yaqin[5], Ramdan Pelana[6]

[1,2,3,6] Physical Education, Universitas Negeri Jakarta, Indonesia

[4,5] Mathematics and Natural Science, Universitas Negeri Jakarta, Indonesia

ABSTRACT: In this study, the authors analyzed the posture of indoor hockey players for ball passing techniques based on posture which consists of initial attitude, implementation attitude, and final attitude. These three gestures have been demonstrated by a male indoor hockey player from the Sports Science Faculty, Jakarta State University. Data was collected in September at Hall B, Room Hockey Field, Faculty of Sports Science, Jakarta State University. The data obtained in this study were obtained through filling out questionnaires, observations, and interviews. The aim of this research is to determine the ideal height of a indoor hockey player who has accurate passing techniques. The samples in this study were all male indoor hockey athletes at the State University of Jakarta who followed a quasi-experimental research method with a time series design on indoor hockey passing techniques. As a result, we will get data on height and body position when doing the passing technique and the accuracy of the technique. Then from this study the respondents stated that the experience of playing, comfort, and body posture of the respondents supported the ability of the passing technique, which respectively indicated by the percentages of strongly agreeing and agreeing that were 63% and 30%, 52% and 48%, 56% and 37%. Furthermore, in terms of height, the largest percentage was 45% disagreed, 11% strongly disagreed and 33% doubted. Whereas in the case of 52% disagree, 4% strongly disagree and 33% are doubtful and in terms of the distance between hand grips it affects the accuracy of the passing technique with a percentage of 59% agree and 4% strongly agree. We're going to give some recommendations for coaches and hockey players to have multiple height classifications with postures that give better accuracy for passing the ball.

KEYWORDS: Indoor Hockey, Posture, Height, Passing, Accuracy

I. INTRODUCTION

Indoor hockey is a modification of the sport of field hockey where this game appears as an alternative to playing hockey in extreme weather in winter so that hockey can still be played in any weather conditions. The game of indoor hockey is more practical because it doesn't require many players and the field used is relatively smaller than field hockey. Indoor hockey is a team sport, played by six players from each team using a stick / stick and ball as a tool used in the game. Each player holds a stick / stick and uses it to play a ball in a rectangular court and tries to score against the opponent's goal to win the game. Each team that plays has one goalkeeper, and five players in front of him who cooperate with each other by using the techniques and abilities they have to beat their opponents. The game will run well and the ball will take longer in control when each player has mastered playing techniques well so that they can play according to the desired strategy to win.

The sport of indoor hockey in Indonesia is growing quite rapidly at the student, college, or general level, seen from the number of championships that have been held. Room hockey in Indonesia can develop to be more advanced and can perform even better, as evidenced by the achievements of the Indonesian indoor hockey national team which was able to win 2 silver medals in the men's and women's numbers at the 2017 SEA GAMES event in Malaysia.

In every championship at the regional, national, or international level, each team selects players to get the team with the best players. Selection of players in terms of playing hockey skills tests at the student, regional, and national levels, there is no standard that is used as a reference because almost every athlete selection is only carried out by physical ability tests. This skill test is actually very important to do in order to find out how well an athlete is capable of mastering basic hockey techniques such as basic techniques of passing the ball (passing), receiving the ball (stoping / receiving), dribbling (dribbling) and shooting

the ball (shooting). Each technique carried out has several stages of movement, namely the initial attitude, the implementation attitude, and the final attitude which are mutually sustainable between stages. If each series of movements is carried out properly and correctly, starting from the stance of the stance (bending), posture, hand stance when holding the sticks and the direction of the gaze, the technique will be good, so that each movement is expected to be more effective and efficient. Humans basically have a shape, size (height, width, etc.), weight, etc. that are different from one another. Therefore, the different conditions that each person has will certainly affect the series of movements that are carried out.

Everyone has a different height depending on environmental and genetic factors. Human height varies according to anthropometric measurements, likewise every room hockey player has a different height. Height may have an influence when viewed from body posture when performing stages of motion on room hockey players to obtain good passing techniques. Previous research shows that there has been no comprehensive research on the sport of indoor hockey which concerns the study of body posture criteria for indoor hockey players based on height to obtain accurate ball passing techniques.Thus, this research has a novelty regarding the substance which includes analysis of coaching programs. achievements made by involving multidisciplinary disciplines, namely the field of anthropometry, physics, and the sport of hockey itself.

Indoor Hockey is a team sport played by men or women on a rectangular field by two teams where each player uses a stick / stick to play a ball then opposes each other and aims to score a goal against the opponent's goal. Budi Utami in his journal said, "hockey is a sport game that is played by men and women using a stick and a ball." (Utami & Aliandu, 2013). According to Primadi Tabrani in a journal (Dwika Yuli Setyawati, Tandiyo Rahayu, 2014) "

Hockey is a game played between two teams, each of which holds a bent stick called (stick) to move a ball". Furthermore, in the journal (Febrihan, 2019) Primadi Tabrani also argues that "hockey is a game played between two teams, each of which holds a bent stick called a stick to move, dribble, control and hit the ball." Hockey has three game numbers, namely indoor hockey, field hockey and ice hockey. The fields where field hockey, indoor hockey and ice hockey play are different, as well as the tools used by each which differ at the time the game takes place. Hockey (hockey) is a type of small ball game that is played on the surface of grass or a carpet specifically for playing hockey (Hermawan, 2018).

Basically the game of indoor hockey is a game that highly upholds sportsmanship and safety values. Because as described in the rules of the hockey game. That is, when playing hockey, the ball must not rise from the surface of the playing field, if the rules are not respected, a fatal accident will occur. The competition regulations in the sport of hockey are all regulated by the international hockey federation (The international hockey federation) and these rules are always updated every year, so that players are required not to show violence but beauty in the game of hockey.

Accurate Passing Technique. In the large Indonesian dictionary (KBBI), the word accuracy has a meaning or meaning as accuracy, thoroughness and accuracy. Accuracy is often associated with the target or objectives to be achieved. Accuracy measures the accuracy and similarity of results at the same time by comparing them to absolute values. Therefore, the closer to the size, the higher the accuracy level. Accuracy depends on how the data is collected. Accuracy refers to the accuracy and similarity of results at the same time by comparing them to absolute values. Accuracy reaches actual measurements close to standard sizes, i.e. right on target. So, the closer to the size, the higher the level of accuracy.

The passing technique is one of the techniques that every room hockey player must master well. This is because playing room hockey is very dynamic and very fast, so passing is one of the determinants of the team's success in processing the ball and controlling the match so that it can win the match. Pass (successful / unsuccessful), operationally defined as an attempt to project the ball which is subsequently controlled by a player on the same team. (Vinson & Peters, 2015). There are two types of passing techniques when viewed from the way they use the stick, namely the forehand pass and the reverse pass. As explained earlier, when playing indoor hockey using the sticks, you can only use the front section and not use the reverse section (back and forth) because it is a violation when playing. Accurate passing techniques are obtained from continuous training (drill) and continuously, so the results will be better. To master passing skills, it is necessary to master the movement so that the desired target is achieved. (Rosdiana Dini, 2012).

According to Milic, anthropometry can change during growth and physical abilities can be improved through effective training (Milic et al., 2017). Anthropometry too, is one of the factors to improve playing abilities and skills (Saraya, 2018). Anthropometric measurement variables include measurements of length, width, diameter, circumference and others. Anthropometric measurement variables can be used to identify body shape, size, and topography. Anthropometric measurements are needed to determine the physical condition of an athlete (Maulina, 2018). Anthropometry is useful for

knowing the body structure of an athlete and for consideration of a sport that is more suitable for the competition. Basic information about the structure of the human body can be used to estimate the forces acting on the joints and tissues of the body, as well as the resulting forces. Basically, humans will have a different shape, height, and weight from one another. One of these anthropometric measurements includes measurements of height, weight and arm length.

An indoor hockey player must master good ball passing techniques in order to pass the ball to his teammates and win the match. For that we need proper coaching and training which is the basis for improving skills in playing room hockey. In the game of room hockey, in addition to arm muscle strength, leg muscle strength and wrist flexibility, body position and height also play an important role in ball passing techniques. To get an accurate passing technique, players must train intensively and programmatically, the ability of this ball passing technique is very important to find out the skill level of indoor hockey athletes, which is expected to spur athletes to excel in indoor hockey and to optimize performance coaching. Indoor hockey sports that can support increased indoor hockey play. The better a person's passing technique, the better the skills in the game of room hockey.

Therefore, it can be assumed that body position and height have a positive relationship with the ability to pass the ball in room hockey. This means that if a room hockey player has an ideal height and is in a good body position when doing ball passing techniques, the better the passing ability of a hockey player. However, that does not mean that the hockey performance of the room is only determined by good ball passing techniques. So it needs to be done or proven empirically by doing this research.

II. METHOD

This research uses qualitative research methods that are descriptive in nature to obtain data through a questionnaire in the form of a questionnaire. Qualitative research is a study aimed at describing and analyzing phenomena, events, social activities, attitudes, beliefs, perceptions, thoughts of individuals and groups (Bachri, 2010). This study aims to describe passing techniques in indoor hockey based on height. In this study, a questionnaire was made to determine the responses of respondents. The questionnaire was created through the Google Form platform with indicators of playing experience, playing knowledge, height, arm length, and distance between handles.

Research Sites are carried out in their respective places online by filling out a questionnaire in the form of a questionnaire created on the Google Form platform. Research time was carried out in September 2020. The population in this study were all male athletes in indoor Hockey Universitas Negeri Jakarta while the research sample was the entire population sampled. The sample in question is the male athletes of indoor hockey at the State University of Jakarta who are active and grouped based on several criteria that must be met, including being willing to take the test, male hockey athletes at the Jakarta State University, and mastering passing hockey techniques.

III. RESULT AND DISCUSSION

The questionnaire that has been made received a positive response where the questionnaire was filled in by 27 male hockey athletes at the State University of Jakarta who cooperatively answered every available statement. Some of the statements on the questionnaire are made in the form of a histogram. The indicators of game experience, game knowledge, height, arm length and distance between handles.

Game Ecperience Indicators

The first statement of the 27 responses were entered 63% answered strongly agree, 30% answered agree and 7% answered disagree. It can be concluded that as many as 17 people felt the influence of playing experience in passing accuracy.

The second statement of the 27 responses were entered 63% answered strongly agree, 29% answered agree, 4% answered doubtful and 4% answered disagree. It can be concluded that 17 people felt the influence of the amount of playing experience on the accuracy of their passing.

The third statement of the 27 responses were entered 7% answered strongly agree, 30% answered agree, 11% answered doubtful, 45% answered disagree and 7% answered strongly disagree. It can be concluded that as many as 12 people felt the influence of playing experience on passing accuracy.

The fourth statement, of the 27 responses were entered 4% answered strongly agree, 22% answered agree, 11% answered doubtful, 44% answered disagree and 19% answered strongly disagree. It can be concluded that as many as 12 people felt the influence of playing experience on passing accuracy.

Game Knowledge Indicators

The fifth statement of 27 responses were entered 52 % answered strongly agree and 48 % answered agree. It can be concluded that the comfort in holding the sticks affects the accuracy of passing.

The sixth statement of 27 responses were entered 56% answered strongly agree and 37% answered agree and 7% answered doubtfully it can be concluded that posture affects the accuracy of passing.

The seventh statement of 27 responses were entered 19% answered strongly agree, 70% answered agree, 7% asnwered doubtful, 4% answered disagree. It can be concluded that game knowledge has an effect on passing accuracy.

The eight of 27 responses 4% answered strongly agree, 22% answered agree, 26% answered doubtful, 41% answered disagree and 7% answered strongly disagree. It can be concluded that game knowledge has an effect on passing accuracy.

Height Indicators

The ninth statement of the 27 responses were entered 4% answered strongly agree, 7% answered agree, 33% answered doubtful, 45% answered disagree and 11% answered strongly disagree. It can be concluded that height has no effect on passing accuracy.

The tenth of the statement of the 27 responses were entered 4% answered that they agreed, 33% answered doubtfully, 52% answered disagree and 11% answered strongly disagree. It can be concluded that height has no effect on passing accuracy.

The eleventh statement shows of the 27 responses that came in 19% answered strongly agree, 59% answered agree, 11% answered doubtful, 11% answered disagree. It can be concluded that height has no effect on passing accuracy.

Arm Length Indicators

The twelfth statement of the 27 responses were entered 4% answered strongly agree, 7% answered agree, 33% answered doubtful, 52% answered disagree and 4% answered strongly disagree. It can be concluded that arm length has no effect on passing accuracy.

The thirteenth shows that out of 27 responses, 7% answered agree, 30% answered doubtful, 56% answered disagree and 7% answered strongly disagree. It can be concluded that arm length has no effect on passing accuracy

The fourteenth statement shows, of the 27 responses that entered 37% answered doubtful, 48% answered disagree and 15% answered strongly disagree. It can be concluded that arm length has no effect on passing accuracy.

The of the fifteenth statement shows, of the 27 responses that entered 7% answered strongly agree, 52% answered agree, 26% answered doubtful, and 15% answered disagree. It can be concluded that arm length has no effect on passing accuracy.

Distance between handles indicators

The of the sixteenth statement shows that out of 27 responses, 4% answered strongly agree, 59% answered agree, 30% answered doubtful, and 7% answered disagree. It can be concluded that the distance between the hand grips affects the accuracy of passing.

The seventeenth of the statement shows, of the 27 responses that entered 11% answered strongly agree, 19% answered agree, 44% answered doubtful, 22% answered disagree and 4% answered strongly disagree. It can be concluded that the farther distance between the handrails does not necessarily affect the accuracy of passing.

The eighteenth of the statement shows, of the 27 responses that came in, 11% answered strongly agree, 56% answered agree, 26% answered doubtful, and 7% answered disagree. It can be concluded that the distance between the hand grips affects the accuracy of passing.

The nineteenth statement shows, of the 27 responses that came in, 30% answered strongly agree, 59% answered agree, 7% answered doubtful, and 4% answered disagree. It can be concluded that the distance between the handrails according to comfort affects the accuracy of passing.

IV. CONCLUSIONS

The conclusion that can be drawn from this study based on the problems raised and supported by a description of the theory, frame of mind and data analysis is that indoor hockey athletes at Universitas Negeri Jakarta with different height criteria are seen from indicators of playing experience, playing knowledge, arm length and distance between grip through the body posture of the respondent supports the ability to carry out accurate indoor hockey passing techniques. Then in terms of playing experience, comfort, body posture of the respondents supporting the ability of the passing technique, respectively, the percentage strongly agree and agree is 63% and 30%, 52% and 48%, 56% and 37%. Furthermore, in terms of height, the largest percentage was 45% disagreed, 11% strongly disagreed and 33% doubted. Whereas in the case of 52% disagree, 4% strongly disagree and 33% are doubtful and in terms of the distance between the hand grips it affects the accuracy of the passing technique with a percentage of 59% agree and 4% strongly agree.

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