



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2022; 7(1): 09-12

© 2022 Yoga

www.theyogicjournal.com

Received: 16-09-2021

Accepted: 17-10-2021

Alaa Jawad Kadhim

Assistant Lecturer, College of
Physical Education and Sports
Sciences, University of Misan,
Misan, Iraq

Zahraa Rady Jabbar Lafta

Assistant Lecturer, General
Directorate of Education, Misan,
Iraq

Hind Qasim Mhalha

Assistant Lecturer, College of
Physical Education and Sports
Sciences, University of Misan,
Misan, Iraq

Corresponding Author:

Alaa Jawad Kadhim

Assistant Lecturer, College of
Physical Education and Sports
Sciences, University of Misan,
Misan, Iraq

Percentage of the contribution of some motor and physical abilities to the performance of the skill of overwhelming hitting in badminton

Alaa Jawad Kadhim, Zahraa Rady Jabbar Lafta and Hind Qasim Mhalha

Abstracts

Included Problem this is studying in a lack of research Scientific that ate The skill performance is linked to some motor abilities that affect the performance of sports skills, including the performance of the crushing beating in badminton, and given the importance of these variables in the performance of the skill of crushing hitting and their important role in being an offensive skill that determines the results of matches, so the researchers wanted to delve into this phenomenon, This problem was also crystallized by saying that the nature and speed of performing the skill of crushing beating requires physical characteristics and special physical abilities, and this can be observed through the results reflected in the performance of that skill, so the researchers decided to know the extent of the contribution of these variables to the performance of the skill of crushing beating, which will be Scientific evidence that achieves the benefit in raising a high athletic level, while the study aimed to find contribution ratios for the skill of crushing beating in terms of some motor abilities. And to identify the percentage of the contribution of these variables to the performance of that skill, and the researchers concluded that the motor abilities contributed with statistically significant percentages to the performance of that skill.

Keywords: Abilities, motor, physical, smash hit, badminton

Introduction

Physical and sports education has become full of colors of physical activity and has been closely linked to other sciences, such as psychology, physiology, biomechanics, sociology, and others. Badminton is one of the individual sports that requires trainers and specialists in charge of it (Qusay, 2005), to conduct comprehensive tests that combine physical abilities and components on the one hand, and motor skills on the other hand, to be a guide to evaluating the athletic level and standing up to the level of development of the training process Badminton coaches perform during their training stages, as the individual's access to higher levels depends on the extent of his physical and physical capabilities appropriate to the type of activity he practices and that allow him to succeed and excel when training is available to him based on sound scientific foundations. Badminton is one of the popular games of the peoples of the world in general, and the development of the level of performance of their players has been linked to some motor abilities, which necessitates the Those working in this field should adopt modern, contemporary training curricula and plans on the one hand, and on the other hand, identify the players' levels and abilities in the game's requirements (skill, physical, functional, and tactical) that provide the opportunity for the coach and player to identify the players' levels. (Ezzat, 1987)

Therefore, the importance of the research lies in knowing the extent of the contribution of some appropriate motor abilities to the skill of crushing badminton and its requirements in terms of speed of performance, which the researchers determined to delve into or deal with this topic by studying because this skill deserves high-level attention at all levels of sports and to find the percentage of contribution of some abilities Kinetics in the performance of the skill of crushing hitting.

Research problems

Through the researchers’ review of many scientific sources in the sports literature, I noticed that this field of study did not take enough in the field of sports, especially in the field of badminton. Problem this is studying in a lack of research Scientific that ate Topics of skill performance in relation to motor abilities and knowing the extent of the impact of these variables on the performance of the skill of overwhelming hitting in volleyball, which requires special motor abilities. Given the importance of the kinetic abilities of badminton players in performing the skill (crushing hitting) and its important role in being an offensive skill, which can go into this phenomenon in addition to that, and when that skill occupies great importance among the basic skills and shares with many of them in common qualities, which The researchers resorted to studying this problem by taking note of the variables that have an impact on that skill, as well as reaching the percentage of the contribution of some motor abilities in the performance of the skill of crushing beating.

Research Objectives

1. Identifying the ratios of some of the special motor and physical abilities of the members of the research sample.
2. Identifying the percentage of the contribution of some motor and physical abilities to the performance of the skill of crushing badminton among the members of the research sample.

Research assumes

1. The motor and physical abilities contribute to the good performance of the skill of overwhelming hitting with badminton in the research sample.

Research methodology and field procedures

Research Methodology

Scientific research methods are “which determine the scientific method that the researcher follows, as it is the primary tool for all information, imposing hypotheses, and setting goals to solve a specific problem and reach it.” (Deewold, 1985), and therefore the researchers used the descriptive approach in the survey method.

Research Sample

The process of selecting the sample is closely related to the nature of the community from which the sample is taken, because it is “that part of the community on which the tests are conducted and the community is properly represented. (Wajih, 1990), the research sample was deliberately chosen, and they are the players of the Maysan Governorate badminton team, the category of applicants for the season (2020-2021), and their number is (6) players, as they represented (75%) of the original community, as well as an operation was conducted Homogeneity and equivalence of the research sample members between the variables (height, weight, chronological age and training age) and equivalence in terms of the skill studied, and it was found that there is homogeneity and clear equivalence in those variables, not the individuals of the research sample.

Data collection methods

Means of collecting evidence and tools used in the research

- Arab and foreign scientific sources and references.
- International Information Network (Internet).
- Tests and measurements.

- A questionnaire form to determine the most important motor abilities.
- Auxiliary staff.
- Information registration form.

Devices and tools used in the research

The researchers used the following devices and tools (a badminton court - flying feathers - an electronic calculator - an electronic watch - a tape measure - a colored adhesive tape for dividing the canned - a weight and length measuring device).

Determining the tests and measurements used in the research

The researchers distributed a questionnaire for the purpose of surveying the opinions of experts about the most important motor abilities that help in performing the skill of crushing badminton. After statistical treatment, the most important variables that received expert opinion were identified (kinetic response - agility - balance - strength distinguished by speed). After that, the researchers, after reviewing the sources, references and literature in tests and measurements, and after taking the opinions of experts, and agreeing on the tests

Experimental Experiment

On Monday (20/12/2021), the researchers conducted an exploratory experiment on a sample of (4) players who are from within the research community, in order to find out the time in implementing the tests and what difficulties the researchers may face, and to introduce the assistant work team to the meals assigned to them Prepare equipment and tools to ensure the scientific bases of the tests used in the research.

Scientific basis for the tests

The researchers extracted the scientific bases for the tests and measurements used in the research after the tests were applied in the exploratory experiments with a difference of one week.

Field Research Procedures

On Thursday (23/12/2021), the researchers conducted tests and measurements on the main research sample, which numbered (8) players in the (Martyr Wissam Oreibi) hall.

Statistical treatments

The researchers used the statistical bag ((SPSS (vR21) for statistical treatments

**Presentation, analysis and discussion of the results
Presenting and analyzing the percentages of the contribution of some motor abilities in terms of the skill of crushing beating**

Table 1: It shows the ratio of the motor abilities skill to the crushing hitting skill

Variables		R	(R) Square	degree of freedom	Values F	Sig	indication
smash hit	motor response	0.918	0.843	1-16	48.349	0.020	D
	agility	0.858	0.814	1-16	42.453	0.000	D
	balance	0.848	0.826	1-16	44.236	0.034	D
	special power fast	0.898	0.868	1-16	47.315	0.070	not significant

In order to identify the results of the percentages of

contribution of those abilities with the performance of the skill of crushing multiplication, the correlation equation was used, which through its results can express the strength of the relationship and the percentages of contribution to those variables, and it is noted through the value of (F) with a moral significance, which is an indication of the morale of the contribution ratios, and it is noted in the kinetic abilities test that these contributed with high significant percentages.

The researchers believe that the combination of these abilities constitute important and effective elements of the skill of crushing, as well as the enjoyment of accuracy of observation, good behavior and self-confidence of the players. Which is also reflected in the skill performance, "The amount of the resulting motor response speed is closely related to the efficiency of the nervous system and the nature of the technical performance of the practiced activities. (Qassem, 1979) This is clearly evident from the results of the study, while agility, balance, and strength, which are distinguished by speed, also participate in another way in performing the skill of crushing beating in different proportions.

From this point of view, the importance of these abilities in the performance of the crushing attack, you may earn points without much effort if we know that these abilities are a reflection of the physiological state produced by the speed of transmission of nerve impulses between the nervous system and the muscular system (Saddam, 2006), and on the other hand, the researchers attribute these The results achieved by the research sample were the result of the players acquiring a kind of accumulated experience due to the effect of sports training, which in one way or another affected their skill level, making them able to choose the appropriate position to hit the badminton. It was pointed out by Marwan Abdel-Majeed and mentioned that "the skill of crushing beating has speed in response, accuracy in kinetic expectation, and proper timing with the tool for the place of beating," (Marwan, 2001).

The researchers may attribute the differences in the percentage of the contribution of the studied abilities in the performance of the crushing blow skill, the most important of which are explosive force, kinetic speed, agility and balance, as appeared to us in the previous results. And that this development that happened to the physical elements as a whole had a positive impact on the accuracy of the skill by increasing the jumping distance to the top due to the explosive force, which made it easier for the player to hit the shuttlecock from above the net in the appropriate direction to earn the point, as well as the players' possession of the explosive power of the muscles of the arms and shoulders contributed to the production of additional strength for the working muscles, and on the other hand, the development of the motor speed of the players accelerated the movement of the striking arm, which gives the player the opportunity to hit the shuttlecock very quickly while jumping in order to direct the feather to the specified point as soon as possible, and this means that there is a link between the development of Special physical abilities and accuracy in skill.

It is known that every sport or activity has special physical and physical specifications, as well as the case for badminton players requires special physical specifications in terms of height and length of arms, these specifications are consistent with the nature of performance of sports skills for the game, where studies indicated that the physical characteristics, especially the height of the badminton player It is very important in playing the game and performing defense and attack skills with minimal effort. (Khalil, 2002)

This is what was referred to by "Nuri Al -Shawk " saying, "

Motor abilities are an important and decisive factor when choosing players to play sports, including badminton, and this means that what is suitable for a badminton player in terms of physical specifications is not suitable for a boxer or wrestler, so we see that the abilities Mobility is one of the basic requirements for badminton players." (Nouri, 2016).

Also, the practice exercises have an effective effect in developing the explosive power that depends on the high efficiency of the eccentric and central muscular contraction, which gives the high elastic muscles to work quickly and with an explosive reaction (Silva, 2000).

Strength development programs are also directed with the aim of developing motor speed for the purpose of achieving two duties, the first is to raise the level of static muscle strength, and the second is training to increase strength in conditions of motor speed (moving force), agility and balance (Abul-Ela, 2003).

On the other hand, we note that the work of kinetic speed and most of the practice exercises are under one energy system, which is the anaerobic system (Muhammad, 1984)), as (Muhammad Tawfiq) indicates that the kinetic speed increases through muscular strength, and this was included in the exercises practiced by the members of the research sample (Muhammad, 1998).

Conclusions

1. The motor and physical abilities contributed to the performance of the skill of overwhelming hitting with badminton in different proportions.

Recommendations

1. Putting the findings of the researchers within the reach of the different clubs and teams to benefit from them in the training process.
2. The need for the trainers to pay attention when developing training programs and to give exercises that will elevate the motor and physical abilities.
3. Conducting similar studies in sports and games that require special physical specifications and motor abilities.

References

1. Abu Ela Ahmed Abdel Fattah, Ahmed Nasr El-Din Radwan. Physical Fitness Physiology: Cairo, Arab Thought House, 2003
2. Dewold Van Dalen. Research Methods in Education and Psychology, (Translated by: Mohamed Nabil and others), Cairo, Anglo-Egyptian Library for Printing, 1985.
3. Izzat Mahmoud Kashif. Foundations of Mathematical Selection, The Egyptian Renaissance Library, Cairo, 1987.
4. Khalil Ibrahim Suleiman Al-Hadithi. The relationship between some motor abilities and the elements of physical fitness in the game of volleyball, unpublished master's thesis, College of Physical Education, University of Baghdad, 2002.
5. Marwan Abdul Majeed. The Scientific Encyclopedia of Volleyball: Al-Warraq Publishing and Distribution Corporation, Amman, 2001.
6. Muhammad Hassan Allawi, Abu Al-Ala Ahmed Abdel-Fattah: The Physiology of Sports Training: Egypt, Dar Al-Fikr Al-Arabi, 1984.
7. Muhammad Tawfiq Othman. The transfer of the effect of training between the main muscular strength aspects and its effect on the pulse rate after exertion during the recovery period: Unpublished Master's Thesis,

- University of Mosul / College of Physical Education, 1998.
8. Nouri Ibrahim Al-Shawk. An analytical study of the skills of preparation and the crushing blow and their impact on the results of matches, the Second Scientific Conference of the Faculties of Physical Education in Iraq, University of Basra, College of Physical Education, December, 2016.
 9. Qasim Hassan Hussein, Fathi Al-Mahshah Yousef. The talented athlete and characteristics in the field of training, Dar Al-Fikr for Printing and Publishing, Amman, 1999.
 10. Qusay Hazem Muhammad. The speed of the motor response and its relationship to the speed characteristic of the lower limbs of soccer goalkeepers, an unpublished master's thesis, College of Physical Education, University of Mosul, 2005.
 11. Saddam Muhammad Farid. The effect of some teaching and exercise methods on learning the skills of smash hitting and blocking in volleyball, unpublished doctoral thesis, College of Physical Education - University of Babylon, 2006.
 12. Silva Sahak Karkin. The effect of using plyometric exercises on developing the smashing skill of volleyball players, (PhD thesis, University of Baghdad / College of Physical Education, 2000.
 13. Wajih Mahjoub. Physiological and Physiological Analysis of Sports Movements, Baghdad, Higher Education Press, 1990.