

Comparing some physical abilities between indoor and outdoor football players

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Abstract

The research study aimed to identify the differences between some physical abilities between indoor and outdoor football players. The researcher assumed that there were significant differences in some physical abilities between indoor and outdoor football players. The researcher used the descriptive approach using the comparative survey method to suit the nature of the research, and the research community consisted of Maysan Futsal Club players, numbering (16) players.

As for the research problem, it confirmed that each game has its basic benefits that distinguish it from the rest of the other games, and this applies to indoor football and outdoor stadiums. Therefore, indoor football itself has a history that continues to require physical abilities that distinguish it from the requirements of football. As for the conclusions and recommendations, it has confirmed the need for action. To develop the physical qualities of both outdoor soccer players and futsal players, because of their importance in achieving achievement. She also stressed the necessity of taking the Moroccan, with Allah's help, comprehensive and balanced development in developing the physical aspects, with a focus on the specificity of each game and developing the special abilities in it. Specialists in the sports field may see it as necessary. Conducting other research that includes physical characteristics that were not addressed by the scientific researcher, with the possibility of applying this study to other samples in different games.

Keywords: football, physical fitness, motor abilities, sports, skills.

1- Definitions of research

1- 1- Introduction and the importance of the research

The elements of physical fitness are the subject of research by many scholars, researchers and specialists in the field of sports in order to bring the athlete to a physical level that he can reach in order to strengthen the technical and linear level and thus achieve good results in the type of specialized sports because the athlete's enjoyment of a high level of physical capabilities can Through it, he performs his duties in the match with perfection, as the physical equipment works to develop and improve the player's physical and motor condition to face the burdens and requirements of the training and competition process with the least effort and the ability to recover. Since the game of football has its own physical characteristics, just like any team game, the game of football Futsal is one of the most similar games in terms of its basic skills and its spread as a sophisticated game that is often played by many groups of varying ages due to its beauty and abundance, whether at the local or global level. However, the nature of the physical performance in this game may differ from the game of football. Because of the small playing field and the speed of performance in it, the game of football is also one of the sports games characterized by the abundance of whistles and physical abilities that require good preparation according to well-thought-out training curricula in which the qualities are improved during competitions in their best form. The nature of this game requires high physical capabilities on the part of the player during Practicing it in real playing situations, as the modern football game is characterized by a fast pace under different playing surfaces, which requires the high ability of the players to maintain effective performance throughout the match. Therefore, the importance of research is highlighted in comparing some physical abilities between indoor and outdoor football players.

1-2 Research problem

There is no doubt that each game has its basic benefits that distinguish it from the rest of the other games, and this applies to football for indoor and outdoor stadiums, and therefore indoor football itself has a history that continues to require physical abilities to distinguish it from the requirements of football for outdoor stadiums, due to the small size of the space , in which the player moves and its requirements are rapid change and direct

contact as a result of the proximity of the opponent, whether with or without the ball. Many outdoor football players may not be able to perform well on the futsal fields, even if they are of the highest levels, while the futsal player may face difficulty. If he moved to play in open stadiums, the problem of the research is evident in the necessity of alienation between the two samples in terms of his physical requirements by answering the following question: Are there significant differences in some physical abilities between indoor and outdoor football players among young football players?

1-3 Research objective

Identifying the differences in some physical abilities between indoor and outdoor football players among young football players in Maysan Governorate.

1-4 Research hypotheses

There are significant differences in some physical abilities between indoor and outdoor football players among young football players in Maysan Governorate.

1-5 areas of research

1-5-1 The human field: Maysan University national team players in the futsal game for the 2022-2023 academic season and Maysan Sports Club youth players.

1-5-2 Time range: for the period from 11/1/2022 to 3/23/2023.

1-5-3 Spatial area: Stadium of the College of Physical Education and Sports Sciences - University of Maysan and Maysan Football Club Stadium.

2- Theoretical studies

2-1-1 Physical abilities

Physical abilities have become an important goal that physical education seeks to achieve. Its importance has reached such an extent that some have defined it as the distance from death and as the best medicine for humans, this concept has also taken on several names in the field of sports training, including motor abilities, physiological abilities, physical elements, motor elements, physiological elements, and the concept of physical ability. In general, it is a multi-faceted concept linked to the neurological, functional, and psychological aspects. Physical abilities are defined as the physiological elements and characteristics that are born with a person and grow with the growth of situations, that growth depends on the nature of the work of the individual's style of life(1) .

2-1-2 Explosive force

The characteristic of explosive power occupies the first place among the ranking of mental abilities in most sporting activities and its importance for football and futsal players, as some situations require jumping, throwing the ball a short distance, scoring or participating, as it appears in its case jumping up to play the ball in the head and quick and sudden launches to catch the ball. And taking the vacuum in cases of rapid return to defense. These activities differ in terms of their intensity and the amount of effort that results from them. Explosive power is defined as the instantaneous ability to produce the maximum muscle contraction in the fastest time and for a single period. Explosive power is also defined as the ability to produce the maximum force in the shortest time and for one time (2).

2-1-4 Transitional speed

Speed of transition is one of the important physical characteristics for physical, skill and line performance in football and futsal. Football players must be characterized by speed of transition because the nature of the game of football requires speed in applying skills and plans, as the fast player is the one most capable of scoring (3).

2-1-5 Modern scientific foundations in the physical preparation of a football player:

Football is considered one of the sports in which the player exerts high motor activity accompanied by great physical effort. This can be seen during the performance on the field, where continuous changes occur in

intensity and volume. Similar effort is in running, scoring, and jumping. Physical preparation is considered one of the most important elements of success in performance. This is why Hashem Yasser Hassan believes that The process of developing the general and specific physical qualities of a football player aims mainly to raise the level of skills that provide the necessary physical energy. In the 2006 World Championship, several changes clearly appeared in the physical and skill aspects, especially the physical aspect. The reason for applying modern training foundations based on the results of research, studies and field achievement is It is important for the coach, during the physical preparation of the football players, to focus on the basic physical qualities, which are endurance, strength, speed, agility, flexibility, and compatibility, whether future or interconnected with each other. As a result of the large variables that I identified in the game plans, it has become necessary to prepare the unknown, violent football players, so the physical preparation stage comes. It is at the forefront in terms of importance in the training program, and the level of the team for the coming periods in the season depends on it, and it appears more prepared and superior, and this opinion is confirmed by Hassan Abu Ubaida in his book Physical Preparation for Football Players, where he believes that this physical condition of football players is one of the important foundations that determine the efficiency of skill performance. However, any plan, no matter how well it is chosen, can fail if physical capabilities are not taken into consideration. Likewise, skill performance cannot be implemented in an automated manner without the player possessing physical attributes and characteristics (4).

2-1-6 The importance of physical fitness in football

The physical aspect is considered an important aspect in the aspects of preparation for football players, and according to many specialists, physical fitness for football players is the basic rule and starting point for achieving the best levels. The physical fitness of the football player is the true criterion for the level of the player to implement the skill and linear aspects in a very high manner. The importance of physical fitness lies Especially among football players, as summarized by Taha Ismail and others, 1989 AD.

1- Physical fitness plays an important role in preparing the player from a skill standpoint. Skill includes a set of movements that are often followed by an increase in physical fitness.

2- Most coordination skills include elements of agility, balance, and speed.

3- High physical fitness leads to an increase in the technical and motor ability of players. This means that the more a player has high physical fitness, the more comfortable he will be able to execute the ballet skill. This does not mean that the physical aspect alone leads to good results, as there must be a similar level of technical performance.

4- A player who has a high degree of physical fitness can adapt to plans and tactics.

5- Compatible physical abilities, tactics, technique, volitional and moral qualities are all specific aspects of a player's level in football, and these aspects complement each other. Many studies and references have spoken about the importance of players enjoying fitness during the performance of football matches, and Ibrahim explained it and summarized it in the following discussion:

- Performing positively during the match and showing a better technical, skill and tactical level
- Reducing the feeling of physical and mental fatigue during the match
- Reaching recovery from training and malaria faster (5).

3- Research methodology and field procedures

3-1- Research methodology

The researcher used the descriptive method using the comparative survey method to suit the nature of the research.

3-2 The research community and its sample.

The research community consisted of the Maysan University futsal team players for the academic year 2022-2023, who numbered (16) players, and the Maysan Youth Football Club players, who numbered (18) players. Thus, the total community reached (34) players, while the research sample consisted of (24)) players distributed among (12) players from each game, as the proportion of the research sample reached (58.70%) of the research population.

3-3 Homogeneity of the research sample.

It is clear from the table that the values of the skewness coefficient all ranged from (1+), which indicates the absence of significant differences and the homogeneity of the research sample with the previously mentioned variables.

Table (1)
Homogeneity of the research sample

Variables	measuring unit	Arithmetic mean	standard deviation	Torsion coefficient	Loom
Bloc	kg	70	8.5	0.23	67
the age	the month	227	7.9	0.91	212
Height	centimeter	177	9	0.64	171

It is clear from the table that the values of the skewness coefficient all ranged from (± 1), which indicates null

3-4 Tools and means of collecting information

3-4-1 Tools

- Number of signs (20)
- Medicine balls
- Whistle
- stopwatch
- Measuring tape
- Electronic scale.

3-4-2 Means of collecting information

- Tests and measurement
- Questionnaire
- Arab and foreign sources

3-5 Physical tests and characteristics

3-5-1 Test the strength and speed of the legs

- Test name: Bend and extend the knees in (20) seconds from a standing position
- Purpose of the test: to measure the strength and speed of the legs
- Tools: Electronic stop watch
- Whistle

Description of performance: The tester stands with his legs open with a standard chest-width opening. Upon hearing the signal, the tester bends and extends the legs fully as quickly as possible and in a time of (20) seconds.

the conditions:

- Stopping is not allowed
- It is not allowed to support any part of the body on the ground or anything else
- The experimenter is allowed to perform two attempts after giving an appropriate rest
- The best attempt is recorded

Recording: Counts the number of repetitions within (20) seconds.

3- 5-2 Testing the maximum translational speed

- Test name: Test of running (30) meters from the jump position
- Purpose of the test: to measure maximum speed
- Tools used: a stopwatch, three parallel lines. The first line represents the starting line, the second is the speed calculation line, 10 meters from the first line, and the third line is the finish line, 30 meters from the second line.

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- Description of the test: This test is used for the age group (12-18) years. The tester stands behind the first starting line from a standing position, and at the start signal, the tester runs and tries to reach the maximum speed to the second start line and continues running at the maximum speed until he crosses the third line.
 - Recording: The time is recorded in seconds from the beginning of the second line until the moment of crossing the third line (6).

3-5-3 Testing the explosive strength of the legs

- Test name: Standstill broad jump

The aim of the test: to measure the explosive strength of the leg muscles

- Tools used: flat, non-smooth ground, measuring tape
- Test procedure: The athlete stands behind the starting line with his feet slightly open, and from this position the athlete jumps in one jump, as far as possible.
- Test conditions
- Jump with both feet
- It is allowed to swing the arms
- Recording: The distance from the starting line to the nearest trace left by the player is recorded.

3-5-4 Testing the explosive strength of the arm muscles

- Test of throwing a medicine ball weighing (3 kg) - measuring tape - chair - belt

Performance specifications: The tester sits on a chair behind the starting line. The torso is secured by a belt in the chair. He holds the medicine ball and tries to throw it as far as possible.

- Recording: (3) attempts are given to the laboratory, and the best attempt is calculated for the furthest point recorded by the laboratory (7).

3- 6 Scientific transactions for testing

3-6-1 Honesty

The apparent validity of the test was obtained by presenting a questionnaire form that includes a set of physical fitness items and testing them on a number of experts. There is no physical fitness test and its most appropriate test.

3- 6-2 Constancy

The reliability coefficient was found by testing and retesting on a sample from outside the main research sample, and finding the correlation coefficient between the two tests, as the values of the simple correlation coefficient ranged (0.03-0.01), and the tests were all smaller than the significance level (0.05), which indicated that There is a correlation between test results.

3-7 The exploratory experiment

In order to prepare and configure the devices and tools, ensure their proper operation, and avoid obstacles that may encounter the researcher, and to determine the time required to conduct the main experiment, the researcher conducted the exploratory experiment at (12) noon on Sunday, corresponding to 3/3/2023, with a sample of players from the research community, numbering (6). was excluded from the main sample and the experiment showed.

- Knowing the different times for executing the tests
- Validity of the devices and tools used
- Efficiency of the assistant work team.

3-8 Main experiment

On Wednesday and Thursday, corresponding to (6-7/3/2023), the researcher conducted the main experiment on a research sample by applying strength tests characterized by the speed of the legs, the maximum speed, the explosive power of the leg muscles, and the explosive power of the arm muscles on the open field of the Maysan Sports Club and the stadium of the College of Physical Education and Science. Sports, Maysan University, in the presence of the research sample and the assistant team.

3-9 Statistical methods

The researcher used the statistical package (SPSS) to extract the following statistical variables:

- percentage
- SMA
- standard deviation
- Torsion coefficient
- Independent samples t-test.

4- Presentation, discussion and analysis of the results

4-1 Presenting the results of the differences between outdoor football players and futsal players in the physical characteristics under research and analyzing their results.

Table (2)

Statistical parameters of tests of physical characteristics under investigation between outdoor football players and futsal players

Variables	measuring unit	Football		Futsal football		value (T)	Significance level(sig)	significant
		S	A	S	A			
Power distinguished by speed	Repetition	23.72	3.10	22.50	2.88	0.43	0.43	Insignificant
Transitional speed	second	4.12	0.33	0.45	0.45	1.41	0.179	Insignificant
The explosive power of the legs	meter	2.26	0.26	0.39	0.39	1.13	0.27	Insignificant
The explosive power of the arms	meter	3.89	0.55	0.66	0.66	-1.66	0.14	Insignificant

Significant if the value of the significance level (sig) is < (0.05).

Significant if the value of the significance level is (0.05). It is clear from Table (2) that the arithmetic mean for each of the tests of strength characterized by speed, translational speed, explosive strength of the legs, and explosive strength of the arms for outdoor football players reached, respectively, (23.72 - 4.12 - 2.26 - 3.89) and a standard deviation of respectively (10.3 - 0.33 - 0.26 - 0.55), while the arithmetic average for each of the tests was the strength characterized by speed and translational speed, the explosive strength of the legs, and the explosive strength of the arms for the players. Futsal football, respectively (22.50 - 3.85 - 2.08 - 4.39) and with a standard deviation, respectively (2.88 - 0.45 - 0.39 - 0.66). As for the values of the correlation coefficient between the tests, They reached respectively (0.79 - 1.41 - 1.13 - 1.66). The values of the correlation coefficient at the error level were (0.05), while the values at the significance level reached (0.43 - 0.179 - 0.27). - 0.14), all of which are greater than the error level (0.05), which indicates that there are no significant differences in the tests of the physical fitness elements under study between outdoor football and futsal players. The researcher attributes this to the degree of similarity between the two samples in their skill requirements, which was reflected in In turn, it is part of the physical aspect, as it is known that the game of futsal football, although it differs from the game of football in its many aspects, including the legal aspects,

such as the small area of the field and others, or from the skill aspects, such as the quality of suppressing the ball or the quality of scoring, but the game of futsal football It is a result of the game of football. For example, we find that the apparent structure of skills in the two samples is somewhat similar to the ratio of physical requirements. All the elements of physical fitness are needed by the football player and the futsal player, but in different proportions. On the other hand, the sample for futsal football players in the higher research was With the players of the University of Maysan national team, most of whom are students of the College of Physical Education and Sports Sciences, the lack of significant differences between the two research samples may be due to the university team players who are in the College of Physical Education and Sports Sciences practicing various exercises during practical lectures and the extent of benefiting from those lectures in developing physical qualities in a way. Comprehensive and balanced. The difference in physical requirements for sports in the college curriculum brought about this development, which in turn was reflected in these results, as Hanafi Mahmoud Mukhtar (1989) points out that one characteristic improves faster if the training includes exercises that work to develop other qualities at the same time, and this The absence of these differences, especially the test of the explosive power of the arm muscles, showed that the outdoor football player needs it to a greater extent than the indoor football player due to the specificity of the game. Therefore, this indicates the balance in the development of the physical characteristics of the football players under study, and the convergence of the level of those characteristics with their peers of outdoor soccer players, from the above, we find that the lack of significant differences contradicts the researcher's expectation that the research hypothesis was not fulfilled (8).

5-1 Conclusions and recommendations

5-1-1 Conclusions

- The youth football players in the Maysan Sports Club and the players of the Maysan University futsal team showed that there were no individual differences between them in the tests of physical fitness elements, except for the transitional speed, the strength characterized by speed, the explosive strength of the muscles of the legs, and the explosive strength of the muscles of the arms.

5-2 Recommendations

- Working to develop the physical qualities of both football and futsal players, because of their importance in achieving achievement.
- It is necessary for coaches to take into account comprehensive and balanced development in developing the physical aspects, with a focus on the specificity of each game and the development of special abilities in it.
- Conducting other research that includes physical characteristics that have not been addressed in scientific research, with the possibility of applying this study to other different saliva samples.

Footnotes:

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