A comparison of some physical abilities between futsal and open football players

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Abstract. The aim of the research is to identify the differences in some of the physical abilities of football players in open stadiums and halls (futsal), as the researchers assume that there are significant differences in some of the physical abilities studied. The researchers used the descriptive approach using the comparative survey method to suit the nature of the problem of the study. The researchers reached the conclusion that there are statistical significance for some of the physical abilities investigated and in favor of futsal players.

Keywords. Comparison, Physical abilities, Futsal and Open football

Introduction:
It is no secret to specialists in the sports field that physical abilities is extremely important and influential in determining the quality and degree of a player’s efficiency in all aspects of the game, both skill and tactical.

Therefore, the higher the level of fitness, the better it is in facing the demands of the game of football, in addition to avoiding injuries and being more prepared for high recovery.

Because futsal is similar to open football in terms of skills and the necessity of having the same amount of physical abilities to perform those skills, in addition to its wide spread, especially in recent years, due to the small playing area and the lack of necessary supplies, it has become practiced by different age groups in the same way of football is largely opens.

Since each game has its own rules that distinguish it from other games, this is also the case in futsal and open football. Since the area in which futsal is played is smaller than open football and the number of players is less, all of this makes it imperative for the players to continue to move around the field at all times and perform their duties and not be able to take rest periods while playing.

Therefore, it is necessary to have physical abilities at a very high level to allow the player to continue performing high efficiency.

As for football in open arenas (open), it often allows its players to take rest periods during the match when the ball is far from the player’s position. This is due to the large playing field and the number of eleven players.
Thus, the differences and physical requirements between futsal and open football players become clear, and the research problem is to identify these differences and their range.

Goal: Identifying the presence or absence of differences in some of the physical abilities studied between futsal and stadium football players exposed football players.

**Hypothesis:** There are statistical differences in some physical abilities between futsal and open football players, in favor of futsal football players.

**Methods**

**Physical abilities:**
Physical abilities are the cornerstone and the first goal of development for every coach, and upon which most, if not all, other abilities depend, especially skills and tactical duties. They are “the physiological abilities and characteristics that are born with a person and develop over time and through which the player can perform his duties.” *(1-38)*

- **Transitional speed:**
  Transitional speed is one of the extremely important physical characteristics for open and futsal football players due to the nature of the game, which requires all players to "move quickly on the field and move, whether with or without the ball, “as it is covering a specific distance in the shortest possible time.” *(2-71)*

- **Explosive force:**
  It is an important characteristic for football and futsal players, as it is the primary influence in many situations, such as changing the direction of movement, starting to move in a specific direction, jumping, or scoring. It is the type of “instantaneous maximum force that comes out through maximum muscle contraction in the fastest time and for one time.” *(3-96)*

**Paper article Methodology:**
The descriptive method in comparative survey style was used to suit the nature of the study.

**Participants:**
The study community was represented by (10) futsal players of Rusafa III Education Team in Baghdad educational directorate for the season (2023-2024), and (18) open players of Baghdad educational directorate for the season (2023-2024), the total community reached (28) players. As the research sample, it consisted of (15) players as shown below in table 1, as the percentage of the research sample reached (53.57%) of the research community.

**Results and discussion**

<table>
<thead>
<tr>
<th>#No.</th>
<th>Game type</th>
<th>All players</th>
<th>Selected players</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Futsal</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Open football</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table (1)
Homogeneity of the research sample:

Table (2)

<table>
<thead>
<tr>
<th>#N o.</th>
<th>Variables</th>
<th>Measurement unit</th>
<th>mean</th>
<th>standard deviation</th>
<th>skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mass</td>
<td>Kg</td>
<td>1.74</td>
<td>0.62</td>
<td>0.16</td>
</tr>
<tr>
<td>2</td>
<td>Age</td>
<td>Month</td>
<td>1.58</td>
<td>0.41</td>
<td>0.63</td>
</tr>
<tr>
<td>3</td>
<td>Height</td>
<td>Cm</td>
<td>1.90</td>
<td>0.88</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Tests:

- **Transitional speed:**

Test name: Running (30) meters from standing. (4-93)

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 away from the first line, and the third line is the finish line, 30 meters away from the second line.

Performance: This test is used for the age group (12-18) years, where 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.

Registration: The time is recorded in seconds from the beginning of the second line until the moment of crossing the third line.

![Fig (1)](image)

- **Explosive force:**

Test name: Stand-up broad jump. (5-117)

Purpose of the test: To measure the explosive strength of the leg muscles.

Tools used: Flat, smooth ground, measuring tape.

Performance: The athlete stands behind the starting line with his feet slightly open. From this position, the player jumps in one jump and as far as possible.

Registration: Recording the distance from the starting line to the nearest trace left by the player.

![Fig (2)](image)
Statistical means:
The statistical data was processed using the ready-made software system (SPSS).

Table (3)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement unit</th>
<th>Futsal mean</th>
<th>Std.</th>
<th>Open football mean</th>
<th>Std.</th>
<th>T-test</th>
<th>Mora l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitional speed</td>
<td>Sec</td>
<td>4.52</td>
<td>0.31</td>
<td>5.82</td>
<td>0.76</td>
<td>4.64</td>
<td>Y</td>
</tr>
<tr>
<td>Explosive force</td>
<td>Meter</td>
<td>6.64</td>
<td>0.72</td>
<td>6.65</td>
<td>0.69</td>
<td>7.43</td>
<td>Y</td>
</tr>
</tbody>
</table>

Discussion:
From the table above it is clear that there are slight statistical differences in one of the physical abilities investigated (speed), which was represented by a transitional speed test, and the differences were positive in favor of futsal players. This is of course due to the nature of the game and the type of duties assigned to the player, which necessitate constant and continuous movement around the field as a result of the small playing area and the small number of players compared to open football.

While no differences were found in muscular strength between futsal and open football players, researchers attribute this to the similarity of motor and skill requirements that require strength in the two types, as from a general perspective there are no tangible differences between open and indoor football players, in addition to the ages of the players are relatively small, which prevents significant differences between them except in cases of scarcity and uniqueness.

Conclusions:
1- There are statistically significant differences in the transition speed characteristic of the study sample, in favor of futsal players at the expense of open football players.
2- There are no significant differences between futsal and open football players in the explosive power characteristic of the study sample.

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