THE EFFECT OF SPECIAL EXERCISES IN DEVELOPING SOME OF THE RUNNING SKILLS ON WHEELCHAIRS AND ACCURACY OF SHOOTING OF MOVEMENT FOR PLAYERS WHEELCHAIR BASKETBALL

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ABSTRACT

The wheelchair basketball game is a competitive game that features variable motor performance and requires physical characteristics, mobility capabilities, physical specifications, and high skill in using a wheelchair, as well as the ability of the players to respond quickly to the conditions of the game when performing skills, which in turn requires the development of the skills that players have in using a wheelchair and the basic skills of players in wheelchair basketball. This study has achieved objectives, including the effect of the exercises used in a positive way to develop some skills for running on a wheelchair and also shooting from the movement. The researchers used the experimental method using the same experimental group method with the test before and after the experiment, as it suits the research. The researcher chose his sample and by (9) players representing the Babil Governorate wheel basketball for the sports season 2019-2020. The researchers conducted skill tests for wheelchair and shooting, after applying the curriculum prepared by the researcher for a period of (6) weeks at the rate of (18) training units and obtaining data and statistically analyzing the most important results: There is a positive effect of special exercises in developing all the skills of running on a wheelchair and shooting from the movement of the players in wheelchair basketball. The researcher recommends several recommendations, the most important of which is the need to give the coaches' sufficient time from the training unit for skills training for running in a wheelchair and shooting when preparing the players fully and according to the degree of disability and the rates of their contribution.

Keywords: Special Exercises, Running Skills on Wheelchairs, Shooting of Movement, Wheelchair Basketball.

I. INTRODUCTION

The wheelchair basketball game is a competitive game that features a variable performance in the direction and time and requires physical characteristics, mobility capabilities, physical specifications, and high skill in using a wheelchair, as well as the ability of the players to respond quickly to the conditions of the game when performing. The recent years have witnessed a remarkable development in this game, which confirms the interest of coaches and researchers in the use and development of training methods and the preparation of training programs in a manner consistent with the reality of the situation of their teams in tactics and the technical performance of running skills on the wheelchair to raise the level of financial performance.

One of the main things to raise the level of athlete lies in the use of modern scientific training methods and approaches that contain comprehensive physical and skill exercises "the basis for raising the level in sports, including wheelchair basketball, is the comprehensive physical and skill preparation"(Ali F.B., 2006), which is focused by using correct scientific training methods that are consistent with the element to be developed, whether physical or skill, as the trainer must be careful in preparing the method appropriate to the type of sport he is training and the physical element that he develops to achieve the goal.

The performance of the wheelchair basketball game depends in particular on the performance of rapid skill movements in a wheelchair supported strongly to overcome the defensive and offensive moves of the competitor and for the whole time of the game, the duties assigned to the player during the game require a high physical effort for the arms (according to the specificity of the game) to use them in the process of moving and stopping the chair at high speeds followed by offensive duties and the high speed during which the transition from defense to offense and vice versa.(Laith M.A., 2009).

Players wheelchair basketball need physically and skillfully the need to quickly run on a wheelchair, as this means the ability to perform strong and rapid movements at the extreme or sub-maximal level and with a high degree of
sufficiency, because the game features are diversity and instability in the performance of running skills on the wheelchair, as fast and strong opponent's movements must be matched by double moves of cannons in terms of confronting deception, speed of pass, shooting and moving to fast offense and Repeat this with varying limits and proportions during play time.

And shooting in general and shooting of movement in particular needs coordination in terms of physical and skill special and this does not come only through preparing exercises that target the skill of running in a wheelchair and shooting of movement it is necessary to exert effort and invest time to master the skills, shooting of movement and increase their accuracy by developing the skills of running on a wheelchair, especially as the outcome of the match depends on the extent of mastering the shooting with its physical requirements for the game and under the accompanying conditions.

The study aims to identify some of the skills of running in a wheelchair and the accuracy of shooting skill from movement among wheelchair basketball players, and the extent of the impact of special exercises in developing them, assuming that they have desired results that increase the level and capabilities of the players and the skills under discussion, hence the importance of research in the use of special exercises and the extent of their impact in developing running skills in wheelchairs and the shooting of the movement for wheelchair basketball players.

II. MATERIAL & METHODS

The researchers used the experimental method using the one group method with the test before and after the experiment to solve the research problem. The researcher identified the research community as players of the Paralympic Subcommittee in Babil Province, wheelchair basketball and their number (12) players, for the sports season 2019 - 2020, and the researchers chose his sample from the aforementioned society by (9) players, according to the medical classification.

The researchers used the following wheelchair running skills tests:(Zafir H.O., 2007).

- Running in a wheelchair (15) of movement.
- Running in a wheelchair (30 m) of stability.
- Running in a wheelchair around a rectangle (50)m
- Zigzag wheelchair run back and forth for a distance (20)m.
- Run windingly (10) m and return straight.

The study also used the shooting from the movement test. [Ahmed A.M.(2013)] to measure the accuracy of the shooting of movement for players wheelchair basketball. The tests were conducted before the experiment for the skills of running on the wheelchair and the shooting of the movement from the players of the Paralympic Subcommittee in Babil Governorate, wheelchair basketball on Sunday, 1/12/2019 at the closed hall (Hamza Nuri) at 2 pm.

Special exercises:* The application of these exercises to the main section of the training unit is (20-30 minutes) along the period of application of the vocabulary of the subject for a period of (6) weeks, provided that (3) training units are held each week, and thus the total of the training units is (18) units, the total becomes (470) minutes.

* Giving and carrying out exercises in a scientific and graduated manner is easy to difficult and codifying the training load for them in a manner commensurate with the capabilities and the capabilities of the research sample and according to the degree and type of disability in addition to observing the scientific principles of training this sample.

* The physical exercises began to be applied on the Monday (2/12/2019) until the Friday (10/1/2020).

* The training process took place in the period of special physical preparation, which took (6) weeks.

* The researcher used the interval high-intensity training (low repetition) in the circular method, and the intensity is (%80 to %100).
After completing the training curriculum, the tests were conducted after the experiment on Saturday, 11/1/2020 at two o'clock in the afternoon and on the closest (Hamza Nuri) hall / Babil Governorate. The temporal and spatial conditions and the means and tools used themselves were taken into account.

After obtaining the data, the researcher used the (SPSS) program to extract the statistical results.

### III. RESULTS

View and analyze the results of running tests in a wheelchair and shooting of movement for players wheelchair basketball.

<table>
<thead>
<tr>
<th>Tests</th>
<th>Measurement</th>
<th>Before</th>
<th>After</th>
<th>T</th>
<th>Significance</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running in a wheelchair (15) of movement</td>
<td>sec</td>
<td>5.68</td>
<td>0.606</td>
<td>5.29</td>
<td>0.55</td>
<td>5.03</td>
</tr>
<tr>
<td>Running in a wheelchair (30 m) of stability</td>
<td>sec</td>
<td>14.104</td>
<td>1.54</td>
<td>13.54</td>
<td>1.34</td>
<td>3.156</td>
</tr>
<tr>
<td>Running in a wheelchair around a rectangle (50m)</td>
<td>sec</td>
<td>33.55</td>
<td>2.55</td>
<td>35.39</td>
<td>2.20</td>
<td>6.51</td>
</tr>
<tr>
<td>Zigzag wheelchair run back and forth for a distance (20m)</td>
<td>sec</td>
<td>25.28</td>
<td>3.32</td>
<td>27.84</td>
<td>4.44</td>
<td>2.32</td>
</tr>
<tr>
<td>Run windingly (10 m) and return straight shooting from the movement</td>
<td>sec</td>
<td>23.45</td>
<td>2.05</td>
<td>22.11</td>
<td>2.03</td>
<td>11.66</td>
</tr>
<tr>
<td></td>
<td>poi</td>
<td>8.66</td>
<td>2.12</td>
<td>10.33</td>
<td>1.73</td>
<td>5</td>
</tr>
</tbody>
</table>

Table (1) shows the mean of the arithmetic mean and the standard deviations before and after the experiment and the calculated values (t) of the experimental group for wheelchair running tests and shooting of movement in wheelchair basketball.

The mean for a wheelchair running test (15) m before the experiment was (5.68) and with a standard deviation (0.606), and the mean for the test after the test run was (5.29) and a standard deviation (0.55). to find out the differences in the effect, the researcher used a test (t) for the interconnected samples, and from it the results demonstrated the existence of a real and significant difference, because the calculated T value reached (5.03) at the level of significance (0.01), so the statistical significance is significant and in favor of the test after the experiment.

The mean of the running test in a wheelchair was (30) m from stability before the experiment (14.104) and with a standard deviation (1.54), while the mean for the test after the experiment was (13.54) and with a standard deviation (1.34) and to know the differences in the effect, the researcher used the (t) test for the correlated...
samples, and from it the results indicated the presence of a real and significant difference, because the calculated T value reached (3.156) at the level of significance (0.013) so the statistical significance is significant and in favor of the test after the experiment.

The mean for the test run in a wheelchair around a rectangle (50) m before the experiment (33.55) and with a standard deviation (2.55), while the mean for the test after the experiment was (35.39) and a standard deviation (2.20).to find out the differences in the effect, the researcher used the (t) test for the correlated samples, and from it the results proved the existence of a real and significant difference, because the calculated T value reached (6.51) at the level of significance (0.000) so the statistical significance is significant and in favor of the test after the experiment.

The mean for the Zigzag wheelchair run back and forth for a distance (20)m test before the experiment (25.28) with a standard deviation (3.32), and the mean for the test after the experiment reached (27.84) and a standard deviation (4.44).to find out the differences in the effect, the researcher used the (t) test for the correlated samples, and from it the results demonstrated the existence of a real and significant difference, because the calculated T value reached (2.32) at the level of significance (0.049), so the statistical significance is significant and in favor of the test after the experiment.

The mean for the Run windingly (10) m and return straight test before the experiment (23.45) and with a standard deviation (2.05), and the mean for the test after the experiment reached (22.11) and a standard deviation (2.03).to find out the differences in the effect, the researcher used the (t) test for the correlated samples, and from it the results proved the existence of a real and significant difference, because the calculated T value reached (11.66) at the level of significance (0.000) so the statistical significance is significant and in favor of the test after the experiment.

The mean for the test shooting from the movement before the experiment (8.66) and a standard deviation (2.12), while the mean for the test after the experiment was (10.33) and a standard deviation (1.73).to find out the differences in the effect, the researcher used the (t) test for the correlated samples, and from it the results demonstrated the existence of a real and significant difference, because the calculated T value reached (5) at the level of significance (0.001), so the statistical significance is significant and in favor of the test after the experiment.

IV. DISCUSSION

The researchers attribute the reason for the existence of moral differences in the skills of running in a wheelchair to the nature of the game of wheelchair basketball and the quality of exercises trained by players, which creates positive adaptations in the use of wheelchair skills (Training specificity creates special adaptations that result from the special effects of the training process) (Macardle, W.O. et al, 1981). This is what actually happened to players wheelchair basketball, where they were tested with these skills before starting the implementation of the training curriculum accordingly.

Also, the nature of the performance of running skills on a wheelchair requires the player physical capabilities and good speed in using the wheelchair, as the skill performance is closely related to it, mastering the skill performance of a wheelchair depends on the extent to which the performance requirements for this physical and motor ability are developed (The physical characteristics have a direct impact on the player’s skill level, especially during the match) (Kamal D. et al, 1998). In addition to that 'Physical abilities of all kinds contribute to mastering defensive and offensive skill work' (Kamal D. et al, 1998). That is, the player whenever he endures to produce the strength and speed necessary to perform the movement in fatigue conditions, the performance is effective and free from errors that may appear as a result of fatigue, which negatively affects the skillful performance.

The tool used in the performance is the wheelchair that is an integral part of the player himself in the nature of the regular performance of the basic skills during training or competition using it permanently, which develops the physical capabilities of the arms, as the "The performance of motor skills is closely related to the various aspects of physical characteristics, and the good performance of motor skills is not successful in implementation if it does not depend to a large extent on the physical characteristics required" (Raad J. B. Kamal A. Z., 1987).

The researcher attributes the reason for the existence of real moral differences in the accuracy of the performance of the shooting skill of movement in the wheelchair basketball to mastering the skill performance on the
wheelchair by developing the requirements of this performance of physical and motor capabilities, where the application of physics-skill exercises characterized by strength and speed were for short periods, which contributed to the creation of functional adaptations appropriate to skill performance, "training the physical capabilities and the player's possession of these components naturally contributes to developing these components skillfully and therefore leads to a failure in performance rates and delaying the onset of fatigue for the longest possible period of time and what we want is the continuity of maintaining these capabilities in the final game minutes". (Laith M.A. (2009).

In addition to that the special exercises followed by the researchers included specific physical exercises and codified exercises, as "Determining the temporal and spatial relationships in kinetic performance and coordination of movements is one of the complex processes of perception, and this depends on careful coordination and codified training, as it represents a great importance in kinetic performance". (Nizar T. Kamil L., 1993).

V. CONCLUSIONS

There is a positive effect of special exercises in developing all the skills of running on a wheelchair and the skill shooting of the movement for players wheelchair basketball.

REFERENCES