Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 9, Issue, 12, pp.62947-62950, December, 2017

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

EVALUATION OF COMPETITION PERFORMANCES OF WHEELCHAIR BASKETBALL NATIONAL TEAM PLAYERS WHO HAVE JOINED RIO OLYMPICS, ACCORDING TO CLASSIFICATION POINTS

***Özdemir ATAR**

İstanbul Gelisim University, Vocational School, Sports Management, Türkiye

ARTICLE INFO

Article History:
Received 19th September, 2017
Received in revised form
26th October, 2017
Accepted 19th November, 2017
Published online 27th December, 2017

Key words:
Olympic,
Basketball,
Classification point,
Performance

ABSTRACT

This study was conducted in order to evaluate competition performances according to the classification points of the wheelchair basketball national team players who have joined The Rio Olympics. The universe of the study consisted of wheelchair basketball national teams who have joined The 2016 Rio Olympics. The total points of the athletes taking part in the study, the total points they missed, 2-point shots they scored, and 2-point shots they missed were assessed. The obtained data were recorded in the SPSS package program. In the analysis of the data, it was determined that nonparametric distribution was observed according to normal distribution. Pearson correlation analysis and regression analysis were used as statistical process. At the end of this study, it was seen that there is a difference between the classification points and competition performances. In conclusion, we think that the significant difference between the classification point and the other parameters is due to the increase in the mobility of the athlete and correspondingly, increase in the contribution of the athlete to the competition as the classification point increases.

Citation: Özdemir ATAR, 2017. "Evaluation of competition performances of wheelchair basketball national team players who have joined Rio Olympics, according to classification points", *International Journal of Current Research*, 9, (12), 62947-62950.

INTRODUCTION

Today, physically handicapped individuals actively play sports in many branches both in team sports and in individual sports. Among these branches, wheelchair basketball is the most popular one (Yalçın, 2015).Under the leadership of soldiers who have become disabled after the World War II, an increase in individual and team competition sports for disabled women, men and children at various levels around the world has been observed. The first international wheelchair tournament was held in the late 1940s (Başar, 2003).Wheelchair basketball is characterized by maneuvers and high intensity activities, such as rolling the wheels, rebounding, passing, shooting overhead (Woude, 2010). Wheelchair basketball players use the same field and hoop measurements, however upper extremity functional skills are also very important in terms of sports-specific skills, as they provide in-field mobility with upper extremity unlike normal basketball players. Today, disabled individuals have adopted an inactive lifestyle, mostly at home and with less social participation, because of their physical characteristics, environmental and architectural barriers or sociocultural structure. For this reason, they become extremely open to the risks created by the inactive lifestyle. (Heather *et al*., 2003).Another important factor for disabled people is that they can block inactivity-related risks with a wheelchair by doing regular sports (Nyland *et al*., 1977).

***Corresponding author:* Özdemir ATAR**
İstanbul Gelisim University, Vocational School, Sports Management, Türkiye

Recognition of self skills and learning being self-sufficient are only through rehabilitation and education. Sports in handicapped rehabilitation can be used to gain confidence, balance, muscle control, freedom and coordination in movements (Ergün, 2011). The inclusion of disabled people in sport is an important tool for holistic rehabilitation and social integration (Haep, 1995). Rehabilitation sport helps to achieve psycho-social goals of rehabilitation by encouraging positive developments in motor, psychological, medical and social areas in individual (Konar, 2004).In this respect, the energy expenditure of individuals in their daily lives is reduced and, consequently, they get tired less quickly (Moreno *et al*., 2012 and Washburn and Figoni, 1998). The weakness of the muscles around the shoulder and the effect of gravitation lead to an increase in thoracic kyphosis due to the forward movement of the wheelchair and the posture in the sitting position (Spriger *et al*., 2004). Increased use of the upper extremity in wheelchair users increases the burden on the extremity. For this reason, muscle strength, endurance and explosive power of the upper extremity are of great importance (Koç *et al*., 2006).Therefore, the players who play in the wheelchair basketball team have classification systems. Based on the sitting balance and upper body motility, the functional level of the athlete, not the education level or ability, is assessed depending on the physical disability in classification system. The final classification system consists of 4 classes, including half ones. Points are given to the athletes according to the classification level (Darilgen and Yıldırım, 2008).

According to Skillen, the physical participation level of the athlete in practice also affects the ability to practice sports, although, the ability of dribbling, passing, and shooting in wheelchair basketball is essentially the same with normal basketball (Vanlandewijck *et al*., 1999). In addition, devices such as prosthetics, armchair, wheelchair, etc., which individuals are mobilized in daily life, increase their use skills and enable them to become more independent in daily life (Di Russo *et al*., 2010 and Cooper *et al*., 1999). When disabled people who do or do not play sports are compared, the ones who play sports are found to be more independent in daily life in terms of mobility than those who do not play sports (Wilhite and Shank, 2009). The aim of this study was to evaluate the competition performances according to the classifications of the players in wheelchair basketball national team who joined The Rio Olympics.

MATERIALS AND METHODS

Selection of Teams: It consists of competition data of the athletes who joined the 2016 paralympics. It includes the total points of the teams, the total points missed, the 2-point shots they scored and the 2-point shots they missed.

Statistical Analysis: The obtained data were recorded in the SPSS package program. In the analysis of the data, it was determined that nonparametric distribution was observed according to normal distribution. Pearson correlation analysis and regression analysis were used as statistical process.

RESULTS

In This Section, The Findings Obtained From The Study Are Given. According to Table 1, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Turkey Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.75± 1.22, 43.58±48.74, 20.08±22.36, 17.08±14.81, 15.50±12.24, respectively. According to Table 2, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Spain Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.71±1.01, 41.33±45.57, 21.67±20.96, 18.33±19.97, 17.83 ±16.67, respectively. According to Table 3, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Germany Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.63±1.25, 37.83±44.87, 19.58±21.87, 13.42±15.27, 14.50±14.90, respectively. According to Table 4, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Argentina Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.57±1.20, 9.09±11.67,20.73 ±27.02, 8.18±9.93, 12.91±12.60, respectively. According to Table 5, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Brazil Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.83±1.39, 46.00±48.99, 18.33 ±18.19, 14.83±16.12, 16.58±15.04, respectively. According to Table 5, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Japan Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.59±1.20, 9.27±11.56, 20.63 ±27.08, 8.27±9.86, 12.91±12.59, respectively.

DISCUSSION

In this study, which was carried out towas to evaluate the competition performances according to the classifications of the players in wheel chair basket ball national team who joined The Rio Olympics, it was seen that there were differences between classification point and competition performance. Total points scored, total missed points, scored 2-point shots and missed 2-point shots of the athlete were assessed. In this study, which was carried out towas to evaluate the competition performances according to the classifications of the players in wheel chair basket ball national team who joined The Rio Olympics, it was seen that there were differences between classification point and competition performance. Total points scored, total missed points, scored 2-point shots and missed 2-point shots of the athlete were assessed. When the points of Turkey Basket ball Wheel chair National Team players were assessed, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Turkey Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.75±1.22, 43.58± 48.74, 20.08±22.36, 17.08±14.81, 15.50±12.24, respectively. When the points of Spain Basket ball Wheel chair National Team players were assessed, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Spain Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.71± 1.01, 41.33±45.57, 21.67±20.96, 18.33±19.97, 17.83±16.67, respectively.

When the points of Germany Basket ball Wheel chair National Team players were assessed, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Germany Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.63±1.25, 37.83±44.87, 19.58±21.87, 13.42±15.27, 14.50 ±14.90, respectively. When the points of Argentina Basket ball Wheel chair National Team players were assessed, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Argentina Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.57±1.20, 9.09±11.67, 20.73 ±27.02, 8.18±9.93, 12.91±12.60, respectively. When the points of Brazil Basket ball Wheel chair National Team players were assessed, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Brazil Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.83±1.39, 46.00±48.99, 18.33 ±18.19, 14.83±16.12, 16.58±15.04, respectively. When the points of Japan Basket ball Wheel chair National Team players were assessed, classification points, total scored points, total missed points, scored 2-point shots and missed 2-point shots of Japan Basket ball Wheel chair National Team players who joined the Rio Olympics were found as 2.59±1.20, 9.27±11.56, 20.63±27.08, 8.27±9.86, 12.91±12.59, respectively. When the findings obtained at the end of this study were compared with other studies conducted in this area, studies about the classification points were found, however there were no studies conducted to evaluate the competition performances according to the classification points. When the classification points of countries included in the study, were evaluated, classification points of Turkey, Spain, Germany, Argentina, Brazil and Japan were found as 2.75±1.22, 2.71±1.01, 2.63±1.25, 2.59± 1.20, 2.83±1.39 and 2.59±1.20, respectively.

Table 1. Competition Data of Turkey Basketball Team Who Joined Rio Olympics

Country		n	min	max	X±Sd
	Classification Point	12	1.00	4.50	2.75±1.22
	Total Point	12	1.00	171.00	43.58±48.74
Turkey	Missed Total Point	12	1.00	82.00	20.08±22.36
	Scored 2-point Shots	12	1.00	42.00	17.08±14.81
	Missed 2-point Shots	12	1.00	39.00	15.50±12.24

Table 2. Competition Data of Spain Basket ball Team Who Joined Rio Olympics

Country		N	min	max	X±Sd
	Classification Point	12	1.00	4.50	2.71±1.01
	Total Point	12	2.00	147.00	41.33±45.57
Spain	Missed Total Point	12	1.00	65.00	21.67±20.96
	Scored 2-point Shots	12	1.00	67.00	18.33±19.97
	Missed 2-point Shots	12	1.00	49.00	17.83±16.67

Table 3. Competition Data of Germany Basketball Team Who Joined Rio Olympics

Country		N	min	max	X±Sd
	Classification Point	12	1.00	4.50	2.63±1.25
	Total Point	12	1.00	117.00	37.83±44.87
Germany	Missed Total Point	12	1.00	57.00	19.58±21.87
	Scored 2-point Shots	12	1.00	42.00	13.42±15.27
	Missed 2-point Shots	12	1.00	40.00	14.50±14.90

Table 4. Competition Data of Argentina Basketball Team Who Joined Rio Olympics

Country		n	min	max	X±Sd
	Classification Point	11	1.00	4.50	2.57±1.20
	Total Point	11	1.00	38.0	9.09±11.67
Argentina	Missed Total Point	11	2.00	84.0	20.73±27.02
	Scored 2-point Shots	11	1.00	30.00	8.18±9.93
	Missed 2-point Shots	11	2.00	46.00	12.91±12.60

Table 5. Competition Data of Brazil Basketball Team Who Joined Rio Olympics

Country		n	min	max	X±Sd
	Classification Point	12	1.00	4.50	2.83±1.39
	Total Point	12	4.00	135.0	46.00±48.99
Brazil	Missed Total Point	12	4.00	54.0	18.33±18.19
	Scored 2-point Shots	12	1.00	45.00	14.83±16.12
	Missed 2-point Shots	12	1.00	44.00	16.58±15.04

Table 6. Competition Data of Japan Basketball Team Who Joined Rio Olympics

Country		n	min	max	X±Sd
	Classification Point	11	1.00	4.50	2.59±1.20
	Total Point	11	1.00	38.00	9.27±11.56
	Missed Total Point	11	1.00	84.00	20.63±27.08
Japan	Scored 2-point Shots	11	1.00	30.00	8.27±9.86
	Missed 2-point Shots	11	2.00	46.00	12.91±12.59

When the classification points of Basket ball Wheel chair National Team Players who joined Rio Olympics were examined, it was determined that the country with the highest classification point was Brazil and the country with the lowest point was Argentina. According to the obtained data, it was found that the total point average of Brazil, which had a classification point of 2.83±1.39, was 46.00±48.99; the total point average of Turkey, which had a classification point of 2.75±1.22, was 43.58±48.74; the total point average of Spain, which had a classification point of 2.71±1.01, was 41.33 ± 45.57; the total point average of Germany, which had a classification point of 2.63±1.25, was 37.83±44.87; the total point average of Japan, which had a classification point of 2.59 ±1.20, was 9.27±11.56; the total point average of Argentina, which had a classification point of 2.57±1.20, was 9.09±11.67. Molik *et al.* (2008) have reported that athletes with higher classification points were more successful in spore-specific skills. When the findings were evaluated, it was determined that the average total point of the country with the highest classification point was higher. We think that the reason for the

fact that the total point average is higher than the classification point (Ergün, 2011), is that they have controlled body movements in the vertical and sagittal planes, and that the body stabilization is good in activities such as shooting, passing and rebounding. There was a significant relationship found between the classification points of the teams joining the Rio Olympics and the total points missed. The t test results for the significance of the regression coefficient indicated that the classification point affected the total points missed and explained 20% of the total variance. We think that this result was caused by the fact that the athletes with high classification points were higher in mobility than those with lower classification points and correspondingly that the attempts made to the hoop were higher.

There was a significant relationship found between the classification points of the teams joining the Rio Olympics and the total points scored. We think that this result was due to the fact that the athletes with high classification points had a good upper body stabilization in activities such as shooting, passing-taking pass and rebounding, while at the same time they could reach the ball with two hands in at least one direction without support from the wheelchair and could attempt to the hoop. In conclusion, we think that the significant difference between the classification point and the other parameters is due to the increase in the mobility of the athlete and correspondingly, increase in the contribution of the athlete to the competition as the classification point increases.

REFERENCES

Başar S. Tekerlekli Sandalye ve Basketbol Takımı Sporcularında İzokinetik Egzersiz Eğitiminin Anaerobik Güç Üzerine Etkisi, Bilim Uzmanlığı Tezi, Ankara, 2003.

Cooper, R.A.,Quatrano, L.A., Axelson, P.W., Harlan, W., Stineman, M., Franklin, B., Krause, J.S., Bach, J., Chambers, H., Chao, E.Y., Alexander, M., Painter, P. 1999. J Rehabil Res Dev, 36 (2),142-54

Darilgen, A., Yıldırım, N. 2008. Tekerlekli Sandalye Basketbol Oyuncularında Fiziksel Uygunluğun Değerlendirilmesi. Fizyoterapi Rehabilitasyon, 19(2),64-73

DiRusso, F.,Bultrini, A., Brunelli, S., Delussu, A.S., Polidori, L., Taddei, F. ve diğerleri, 2010 Benefits of sports participation for executive function in disable dathletes. *J Neurotrauma*, 27 (12), 2309-231

Ergün, N. 2011. Bedensel Engellilerde Sportif Aktiviteler Ve Klasifikasyon, Internatıonal Physıcal Educatıon And Sports Congress For Dısabled Persons, Prof. Dr. Nevin Ergun Sayfa 42 Konya

Ergün, N. 2011. Bedensel Engellilerde Sportif Aktiviteler Ve Klasifikasyon, Internatıonal Physıcal Educatıon And Sports Congress Sayfa 42 Konya

Haep, H. 1995. Gesells chaftliche Rehabilitation durch Sport.“, In: Zeitschrift: No Limits!, Offizieller Organ des Deutschen Behinderten-Sportverbandes (Hrsg.), Forum, Behinderten sport, Verlag Behinderten-Sport GmbH, 2/1995, Duisburg, 30-32)

Heather, D.F.,Jeffrey, J.B., Alan, P.A. 2003. Shoulderpain: a comparison of wheel chair athletes and non athletes wheel chair users. *MedSci Sports Exerc,* 35 (12),1958–1961.

Koç, H., Kaya, M., Sarıtaş, N., Çoksevim, B. 2006. Futbolcularda ve tenisçilerde bazı fiziksel ve fizyolojik parametrelerin karşılaştırılması. *Journal of Health Sciences,* 15(3), 161-167

Konar, N. 2004. “Rehabilitasyon ve Engelliler Sporu”, Gazeatem Almanya Türk Engelliler Merkezi e.V. Yayınları, (6) 37-38., Önel Verlag, Köln.

Molik, B.,Kosmol, A., Laskin, J. J., Morgulec-Adamowicz, N., Skucas, K., Dabrowska, A., Gajewski, J., Ergun, N., 2010. Wheel chair Basket ball Skill Tests: Differences Between Athletes’ Functional Classification Level.

Moreno, M.A., Zamuner, A.R., Paris, J.V., Teodori, R.M., Barros, R.M. (2012) Effects of wheel chair sports on respiratory muscle strength and thoracicmobility of individuals with spinalcord injury. Am J Phys Med Rehabil, 91 (6), 470-477

Nyland, J.,Robinson, K., Knapp, E., Borsky, T. 1977. Should errotat ortorque and wheel chair dependence differences of national wheel chair basket ball association players. *Arch Phys Med Rehabil,* 78, 358-363

Spriger, B. A., Marin, R., Cyhan, T., Roberts, H., Gill, N.W. 2004. Normative values for the unipedalstance test with eye sopen and closed. *J Geriatr Phys Ther,* 30,1-0)

Vanlandewijck, Y.C., Daly, D.J., Theisen, D.M. 1999. Field test evaluation of aerobic, anaerobic, and, wheel chair basket ball skill performance. *Int J Sports Med,* 20,548–554

Washburn, R., Figoni, S. 1998. Physical activity and chronic cardiovascular disease prevention in spinal cordinjury: a comprehensive literaturereview. *Top Spinal Cord Injury Rehabilitation,* 3, 16-32.

Wilhite, B., Shank, J. 2009. Inpraise of sport: promotingsportparticipation as a mechanism of health among persons with a disability. Disabil Health J, 2 (3), 116-127

Woude V.D. 2010. Rehabilitation: Mobility, Exerciseand Sports. IOS Press

Yalçın A.İ, Farklı Klasifikasyon Puanlarına Sahip Tekerlekli Sandalye Basketbol Oyuncularında Üst Ekstremite Fiziksel Uygunluk Parametreleri İle Spora Özgü Beceriler Arasındaki İlişkinin İncelenmesi Hacettepe Üniversitesi Sağlık Bilimleri Enstitüsü. Yüksek Lisans Tezi Ankara 2015.

****