Wheelchair Tennis – an Opportunity for Social Integration of the People with Disabilities

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Abstract

The aim of this paper is to present the Romanian experiences in wheelchair tennis area, as a sport branch with a big potential for social integration of disabled people. We emphasize some methodological aspects, but also the solutions for the training process, which can contribute to the improvement of specialists’ training level. The effects of the training process are presented on different personality levels (motor, physical, social and psychological). Even at national level, we still need to make some important steps, as there are good premises to extend the number of participants and improve their results in the international competitions.

Keywords: tennis; disabled people; wheelchair tennis; social integration.

1. Introduction

Wheelchair tennis appeared rather late (1976) compared to tennis (1874), but it soon managed to become integrated into the international landscape of amateur and professional tennis. In just 8 months from the onset of the first federation of wheelchair tennis, in the U.S., over 500 players have enrolled as members.

Currently, it is estimated that there are 15,000 players in over 70 countries on all continents. As a consequence, the International Tennis Federation decided in 1988, to include wheelchair tennis in its development and competition programs.
In Romania, wheelchair tennis was introduced by the Motivation Foundation, who organized several events and demonstration activities between 1996-1998. The Foundation's main purpose consists in the reintegration of disabled people in society and in sport. In time, it succeeded in organizing more social activities for wheelchair athletes. These actions highlight a number of tennis camps attended by many athletes with various physical disabilities. The Foundation is also concerned with the manufacture of sports adapted wheelchairs, necessary for competitions in various adapted sports branches.

The formative value of wheelchair tennis has attracted the attention of specialists in sport, and of psychopedagogues, who were concerned with identifying the benefits of practicing this branch of adapted sport, and also to improve the methodology of athlete’s preparation. The experience as member in the interdisciplinary team that studied the effects of practicing wheelchair tennis on wheelchair athletes, and the experience as coach of these athletes, led to the completion of this paper where we emphasize the main accumulated expertise in the field that can be the basis of an effective training process.

2. The issues

2.1. Aim

The aim of this paper is to present the international and the Romanian experiences in wheelchair tennis area, as a sport branch with a big potential for social integration of people with disabilities. In order to sustain this aspect we realised a bibliographic study on the main scientific contributions about this topic and on the most important features of the adapted sports training in wheelchair tennis.

2.2. Wheelchair tennis in Romania

The first major tournament in Romania took place in 2007 when the Cruyff SilverFund Cup (ITF) was held in Bragadiru, an event attended by 20 tennis players in wheelchair. The event was followed by the Vodafone Cup, with the support of Vodafone Romania, and in 2008, by the first ITF Futures Series tournament, organized on the National Tennis Center – Romanian Tennis Federation courts. It was the first international tournament attended by tennis players from Moldova, Greece, Turkey and Bulgaria. At this ITF tournament, our tennis player Crina Tugui received wild card for the Beijing Olympics, becoming the first tennis women from Romania participating in the Paralympic Games, in wheelchair tennis. In 2010, it is worth mentioning the involvement of the Licinium Foundation in the adapted tennis. The Foundation organized a tennis camp for 20 days, on Black Sea coast.

In 2011, in the National Games - Bucharest, a tennis competition was also organized, besides wheelchair basketball and athletics, with 8 players enlisted. In 2012, in April, 12 tennis players participated at the first edition of the National Tennis Championship. The competition had only single and double men games, with 12 players in singles and 6 pairs for doubles. In April 2013, the National Championship was held again, this time with the support of the Romanian Tennis Federation and of the Romanian Paralympic Committee. After the National Championship in 2013, a national ranking was set up for the first time.

In the international ranking, of 610 athletes, 4 tennis players are from Romania, at number 308, 338, 430, and 445. In 2014, Romanian players will participate in several ITF tournaments, trying to get the first good results.

2.2. Wheelchair tennis contribution to the social development of the disabled players

It is obvious that adapted tennis is not well developed in Romania. The number of people who practice it and who are willing to participate in various competitions is relatively low. To attract more people with mobility disabilities, the tennis courts and competitions can use several scientific arguments, targeting the good effects of this sport on the development of people with disabilities.

The positive influence of participation in adapted sports activity, in general, and in adapted tennis practice in particular, was reflected in numerous literature. (Sable, 1995; Davis, 2002; Roux, 2012) Adapted tennis works to improve the inclusion and well-being of persons with disabilities in at least two ways — by changing what communities think and feel about persons with disabilities and by changing what persons with disabilities think and
feel about themselves. The first is necessary to reduce the stigma and discrimination associated with disability. The second empowers persons with disabilities so that they may recognize their own potential and advocate for changes in society to enable them to fully realize it. (Kasser, 2005) Sport changes the person with a disability in an equally profound way. For some, it marks their first experience of human agency — that is, it enables them to make choices and take risks on their own. For others, the gradual acquisition of skills and accomplishments builds the self-confidence needed to take on other life challenges such as pursuing education or employment. Sport also provides opportunities for persons with disabilities to develop social skills, forge friendships outside their families, exercise responsibility, and take on leadership roles. (Stănescu et al., 2008)

Wheelchair athletes are generally in a better mood, have greater mastery, and a higher degree of self-efficacy when performing tasks in a wheelchair compared to their inactive counterparts. It was concluded that wheelchair mobile individuals participating in tennis may be more confident about performing tennis skills and general wheelchair mobility tasks than are wheelchair mobile nonparticipants. Participation in wheelchair tennis significantly improves adolescents' perceptions of general and physical competence. (Campbell, 1995; Greenwood, et al., 1990).

Muraki, Tsunawake, Hiramatsu, and Yamasaki (2000) examined the influence of quadriplegia versus paraplegia, activity level, and type of sport on mental health. The most active participants, who practiced three or more times per week, scored lowest on depression, state and trait anxiety, tension, anger, fatigue, and confusion and scored highest on vigour independent from type of impairment or sport. The activities in which athletes participated included wheelchair basketball, wheelchair racing, and wheelchair tennis, among others.

That is, as people observe themselves interacting with a variety of people (e.g., parents, teachers, peers) in multiple life contexts (e.g., home, school, work, leisure), they subsequently develop their own private reactions (thoughts, feelings) to the other people, places, and events which comprise these environments. These private reactions may help to explain why experiences, such as inclusive sports experiences, are sometimes perceived as positive or desirable, and sometimes not. They may also help to explain how participants act in ways to protect desired self-perceptions, or adapt to a new status when threatened, and how self-development is enhanced through purposeful behaviours in sport. (Spyer, 1998; Kennedy, 1980).

In 2008, Stănescu et al. showed that people with disabilities expressed a positive sense of self, describing themselves in sports context as communicative, friendly, optimistic, tolerant and confident. They are focused more on their physical disability and consequently, most of them hope to obtain more strength, during the practicing of physical exercise. The awareness and confidence that persons with disabilities gain through sport are often the impetus for engaging in advocacy work, as the communication, leadership and teamwork skills they develop are easily transferred into this new arena.

So, we considered that the social relationship is very important for the disabled people and the sport offers a valuable environment to maintain or to create new relations.

2.3. Training methodology

Socialization and training are the two elements that we find in campuses promoted by different foundations and organizations which support wheelchair sports. To ensure an optimal level of satisfaction of tennis adapted players, specialists were concerned about the setting of some particular features of the sports training that allows players to participate in an efficient learning process. Gaining satisfaction from practicing tennis, athletes will continue to train, and therefore benefit from the positive effects of practicing this branch of adapted sport. (Stănescu, 2005)

Therefore, it is recommended that coaches should emphasize the training from wheelchair tennis based on the following characteristics:

Methodology to learn the basic hits: In training sessions to learn tennis shots, the methodological steps described in System 24 (Stănescu, 2005) applies with all existing variables and in wheelchair tennis (complexity of the motion, place in court, mode of transmission of the ball, and mode of action). The only problems in this case are related to the control of length for preparation of the racquet and twist of torso due to mobility elements of hand and arm mobility.
Strengthening and improving basic hits. All basic shots in tennis are included in wheelchair tennis, namely the right shot, backhand, service, volley, smash, half-volley, and lob. Also, the efficiency factors of the game of tennis are treated identically and in the adapted sport: effect (lift, slice, topspin), length, direction (long line, cross, interior, exterior, median), height and strength. The majority of biomechanical principles apply equally to wheelchair tennis.

Correction of the technique. Most corrective techniques used in tennis are applied by coaches who teach tennis to wheelchair athletes. For example, keeping the elbow near the trunk during the right shot, and pronation performing during service.

Timing. Just like in tennis, the wheelchair tennis puts emphasis on the player positioning behind the ball and at an optimal distance for the execution of all shots. With no possibility of making small steps for fine positioning, the wheelchair players must perform improvised shots to take them out of difficult situations (eg, when the ball comes directly into the body). Wheelchair players will always have an advantage if they manage to move using both hands to get into an ideal position.

Strategy of the game. The principles of the game tactics are for single and doubles. The same principles apply to wheelchair tennis. It is true that tactics is poorer in this case, because of physical limitations of the players. For example, it is not possible to play service - volley. The game tactics developed tremendously in the last period, the mostly due to the players who push their limits forward.

Moving towards the ball. Wheelchair tennis is played 100 % only with the upper body, without any possibility of using the lower body. Even if some players are able to move, in the lower segments the regulation stipulates that a player loses the point if the feet come in contact with the ground. Therefore, moving toward the ball, the shots, and the racquet preparation occur only with hands and arms. It is important to note that the preparation of the racquet occurs only after the ball has touched the ground a second time. While in tennis, at the return service, the players move along the bisector of the angle created by the adversary, the actual motion in wheelchair is more like an intersection with the ball. Because in wheelchair tennis there are two touches of the ground, the players often hit the ball from outside the field or from behind the baseline.

Replacement. Compared to tennis, where the replacement is done on the shortest path, linear, in wheelchair tennis the retreat is circular, because this allows the chair to maintain a certain speed of movement which is necessary for the motion toward the next ball. If the path would be straight, the motion toward the next ball would be made after a stop and a change of direction, which would result in loss of speed and time.

Biomechanics of shots. Torsion and rotation, essential elements in creating force in tennis, are generated using hands to push the wheelchair forward, while the torso is twisting so as to create the same energy accumulation in the upper body muscles as in tennis, by concentric and eccentric contraction. Balance, a very important element in tennis, becomes a significant factor in wheelchair tennis. Upper body balance determines the ability to return to the original position of the trunk after hitting the ball, to keep the torso straight during the shot, to swing the torso to generate force in service, and to bend the torso to get to the ball.

3. Conclusions

Wheelchair tennis is an adapted sport branch having a high sanogenetic and socialization potential for people with mobility disabilities. Although internationally, there is a considerable number of participants and organized competitions at the highest level, in Romania this branch of adapted sport is just beginning. Support for the development of the sport comes mainly from the NGOs and in recent years, from FRT. 2014 marks the first Romanian participation in the significant sports arenas dedicated to adapted tennis competitions.

The low number of participants in the competitions in wheelchair, compared with those for other adapted sports branches (adapted basketball, for example) is the consequence of the fact that the promotion was done in a timid way, without wide involvement of the sport authorities.

On the other hand, the specialist training does not include specific characteristics of sports training for wheelchair tennis. Of course, the organization of training courses for the coaches who want to get involved in training athletes with locomotor disabilities would be welcome to create favourable conditions for the development of this sport branch. The training methodology for this category of players requires dedication and mastery in teaching. Backed by scientific arguments that could convince athletes to practice this branch of sport can bring benefits in terms of quality of life, wheelchair tennis becomes a valuable educational environment for people with disabilities.
References


