# Sport, Education and Disability: Wheelchair Basketball

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#### Abstract

Sport can be a link not just with social reality in general, but with the aspects and problems of the world of disability. Sport, thanks to its characteristics, has the ability to face social issues such as disability in an original way, finding new and effective solutions. The world of sports for the disabled brings with it a series of positive effects as it promotes the development of innate qualities and, on the other hand, fosters the acquisition of new and different skills, which results in an increase in self-esteem, self-confidence, and sense of identity. The integration of the disabled in the sports field refers to the concept of "inclusion", which indicates and detects a "state of membership", a condition in which all the included individuals are considered on an equality and equal opportunity level, independently of the presence of distinctive elements among them. Wheelchair basketball is an example of sports integration, making it possible to have greater inclusion as it allows collecting, in a single group, different levels of disability, and athletes with different physical potentialities, making this discipline characterized by a high degree of connectivity and cooperation.

Keywords: Sports, Disability, Inclusion, Basketball Wheelchair.

### INTRODUCTION

Sport is of great importance to millions of people around the world, it has a nearly global diffusion and is characterized by many aspects that go beyond its natural sphere, giving it complex features that can also intercept the daily life of all of us and condition the nature of our social relationships. In order to evaluate all the characteristics of this phenomenon and what revolves around it, we must consider the whole range of aspects related to the world of sport, which are stratified and differentiated according to the approaches and ways of interest related to it.

Sport can be approached in various ways, for example, in a canonical way through direct, agonistic, amateur or occasional sports practice, but also more indirectly through the media and their widespread diffusion, corresponding to an equally great and widespread interest in information; furthermore, there is also a specific dialectics linked to these events, which starts from the specialized press but that involves the simple fans too. All this is projected into a dimension that has no geographical or cultural boundaries (2).

We can say that sport was born and raised with the human being, traces of sports practice can be already found in Mesopotamian and Egyptian civilizations, but it was in ancient Greece that it assumed the characteristics of a widespread phenomenon in some aspect, just like today. At that time, in fact, the first Olympics were organized, where the most famous athletes had great popularity and were seen as true heroes. After the fall of the Roman Empire, with the advent of Christianity, there was a long period of decline in sports practice, perhaps because it was seen as an expression of paganism; so we can say that, in the following centuries, sport substantially almost disappeared from the scene. It was exclusively

limited to the aristocratic class which only practiced games and real races with a certain agonistic background (2, 3).

Only in the following centuries it turned to more organized and structured competitive activities with real regulations, but we still have to wait for the 19th century, above all in England, for the beginning of modern sport as we mean today, with the birth of disciplines such as football, rugby, tennis, destined to become extremely popular afterwards.

The latest evolutionary step has taken place in relatively recent times, when the popularity and spread of sport has amplified throughout the world, bringing its spectacularization to the highest level.

This was a progressive process of radical change that has turned an activity, originally connected and devoted to leisure, into a phenomenon that has taken on much more complex features: modern sport has definitively affirmed itself as a mass phenomenon and, as such, has inevitably assumed a very large social value that is also linked to other issues, including disability. However, the roots of the sport/disability pair are nor recent, since the inclusion of disabled people in a sports environment dates back to Stoke Mandeville Hospital's experience in the Forties of the last century, thanks in particular to Ludwig Guttmann's intuition and work; thanks to it, there has been the emergence of sports competitions for people with disabilities. This initial experience showed that, thanks to the motivations conveyed by sport in the traumatized young people, socialization became more successful, good psychological recovery was achieved and, at the same time, it was possible to optimally develop the residual skills: we are certainly faced with the first example which shows how sport can serve the world of disability (21). The success of these first experiences led to the creation of the first games for the disabled that took place at Stoke Mandeville; In this context we can find the discipline of the wheelchair basketball used from the first competitions by Guttmann himself, and included as a specialty since the early Paralympics held in Rome in 1960.

Sport, thanks to its characteristics, has the ability to permeate and "penetrate" society, and this changes its natural boundaries by turning it into a complex entity with its original perspective that, through its interaction mechanisms, can address originally social issues such as disability, and find new and effective solutions (9, 12, 13).

#### **GROUP SPORTS AND SOCIAL VALUE**

The spread of sport, the popularity and visibility it enjoys, make it a unique phenomenon that fatally ends with having precise social developments.

The dimensions of this phenomenon are such that the interest it is able to attract overlaps its primary content, in order to move to a more general social plan that makes it turn into something complex: it becomes an expressive manifestation, a lifestyle, a behavioral model, a communication vehicle, a bearer of ideologies, a popular passion.

In this way, sport affects the structure, trends and aspects of society, and can change its characteristics: in this sense, it can be considered as a social change "engine".

The interest of social sciences for sports has only recently been expressed as the sport phenomenon, given its connotation, was obviously considered marginally, perhaps unworthy of a sociological interpretation. However, in recent decades, the sports phenomenon understood as a "social phenomenon" has attracted the attention of many scholars who have stigmatized how sport is a form of social activity reflected in the educational system, observing the impact and pervasiveness of the sports phenomenon in today's society (19, 20). The benefits associated with sports are unquestionable, since sports practice not only

The benefits associated with sports are unquestionable, since sports practice not only cultivates physical well-being, but also that psychological, the emotional control the development of personality and, last but not least, the social relationships.

These aspects should be also seen from the educational point of view as sport, practiced from adolescent age, promotes emotional stability and the development of cognitive skills,

improves self-esteem, diversifies learning strategies, enhances self-control and the ability to manipulate information, develops the "problem-solving", and moreover, last but not least, represents the most important socializing element: we can say that sport reflects society and society reflects sport, and if this is true, if there is a reflection symmetry between these two entities, an important point is certainly represented by the social participation that is achieved through sport, since the latter has the immense strength and ability to shape values and convey awareness (7, 17).

This, of course, applies in any case and for any sports discipline, but it is likely that for team sports it becomes even more evident and incisive.

The sports disciplines organized in teams have specific features, because in this type of discipline there is a group of people who have to interact with each other in a coordinated and targeted way, thus representing a simplified version (but reproduced quite faithfully) of the wider sociological concept of group.

People who form part of a group and who are part of a team must act according to certain characteristics such as interaction between them and mutual influence, and must observe certain rules, such as the respect for roles. All this creates a unique, original and peculiar set, which is also achieved through the mechanism of cohesion, that is, the relationship between the various members. This latter aspect is of great importance and has a considerable impact on the collectivity of the group itself, and theoretically, even at extra-sport level.

In the light of what has been said, sport can be a link not only with social reality in general, but also with the social reality in general and with the social aspects and problems of the world of disability.

The traditional view of the concept of "disability" started from the concept that people with disabilities have difficulties performing "normal" activities, including those social ones, so it was expected to intervene on the disadvantage itself, thus inevitably putting the disabled in a socially less qualified condition (10).

On the contrary, a more modern view looks at disability from a different perspective: instead of considering it with criteria for evaluating an externally imposed label, it takes into account the potentialities in the disabled subject. From this originate a new model and a new conception that consider not so much the person's impairment, but rather the other side, represented by the residual skills and by the social restriction to which the disabled person is subjected.

In order to better understand this different approach, it should be remembered that, until recent times, disability was seen as a physical problem of the individual, thus disabled people have long been differentiated and separated from "normal" persons because they were considered "different", "sick" or simply "unlucky". This new vision, however, helps better and fully understand the phenomenon by focusing attention on the limits of the "canonical" interventions on the disabled, such as traditional rehabilitation, and at the same time, by fostering inclusion in society, a society that, however, is conceived and built for the "non-disabled". While it is true that sports practice can have a positive impact on the reshaping of the social structure, it is likely that it can do so by engaging in the social problem of disability and conveying its potentialities (6).

Sports activity, as already been pointed out, generates physical and relational benefits, and particularly in the case of disability it can generate a further effect by giving rise to a more inclusive degree of integration, measurable through the degree of active participation in this experience.

The disabled is usually faced with a series of difficulties, including both its physical autonomy and the inevitable social and affective deficiencies, but it is possible to identify individual skills that have not emerged beforehand, thanks to the sports activity, thus

promoting the development of innate abilities that would have not manifested themselves otherwise (6, 8, 10).

The validity and importance of the group concept in sports can be translated into the problem of the disabled by finding original and effective solutions, and this has already been grasped and implemented by many experiences. The integration of a disabled person in a group refers to the concept of "inclusion", which points out and emphasizes a "state of membership" and, in particular, refers to a condition in which all the individuals involved are considered on an equality and equal opportunity plan, irrespective of the presence of distinctive elements between them. In this way, inclusion is addressed to all individuals without distinguishing them in categories and without previously establishing distinctive criteria, so it is not selective but, like the term "inclusive" means, it does not provide for any distinction or discrimination. In this sense, disability is not seen as a feature related to the individual, but rather as the result of a contextual vision that considers the disabled individual.

Of course, with this approach, the very concept of "group" is enriched with a new element that amplifies its value. The inclusion of the disabled in a sports field has many positive effects because, on the one hand, it promotes the development of innate qualities and, on the other hand, it also promotes the acquisition of new and different abilities, which results in an increase in self-esteem, self-confidence and sense of identity. Sport is also based on game rules to observe, which at first sight might seem to the disabled as an obstacle; sport is also "competition", which could be a limit for the disabled subject who can see a lost game as a result of his own disability. In fact, all this does not happen thanks to the feeling of membership and to the power of cohesion that concretizes within the team and the group, which represents in itself a lifestyle with a deep social connotation (3).

The participation of the disabled in the group has a double value: on the one hand, there is the aspect related to the sports performance; on the other hand, there is the relational aspect, which is the relationship that is established with other members of the team and is based on the rules, on the game schemes, on the role and task assigned to the individual player, the tactics and strategies studied during the training and used during the game; they are all elements that stimulate solidarity, consensus and mutual support.

These aspects, and the resulting mechanism, are a clear example of full social integration, which coincides and is well combined with the concept of "adapted sport" that amplifies even more the potentialities for integration of the disabled into the world of sports. The "adapted" sport has the dual aim of rehabilitating the disabled on a physical level, but also (and above all) that of favoring its full social integration and the wheelchair basketball is an important point of reference in this regard.

#### WHEELCHAIR BASKETBALL

#### A bit of history

Wheelchair basketball was born in the United States at Corona Naval Station in California, where the first games were held and subsequently spread abroad in Canada and England. In 1949, the first National Wheel Chairs Basket Association (NWBA) competition was held, won by the Kansas City Pioneers.

Ludwig Guttman was born in Silesia from a family of Orthodox Jews and, during his youth, he made some practice at the hospital of Konigshutte, the world's first hospital for workplace accidents. He became one of the most prominent figures of neurology in Germany, and later, with the advent of Nazism, he was forced to immigrate to England, where in 1944 he was entrusted with the direction of the spinal cord injury research center at the Stoke Hospital Mandeville; there, the wounded victims who had suffered such injuries were hosted. Ludwig Guttmann believed that sport could represent an effective therapeutic and recovery resource for those paraplegic patients, both at physical and psychological level (1, 5, 15).

In 1952, the first international games for disable people were organized and, in 1955, the American Pan Am Jets team won the gold medal at Stoke Mandeville's games in the Net-Ball specialty, which was very similar to basketball, and replaced in 1958 by the wheelchair basketball. The wheelchair basketball competition included two championships dedicated to complete paraplegics and the other dedicated to incomplete paraplegics, and of course this was referred to the type of spinal cord injury. Currently, wheelchair basketball discipline is part of the specialties of the Paralympics.

In Italy, in June 2010, the FIPIC (Italian Wheelchair Basketball Federation) was created; it has more than forty sports clubs and 1,200 registered players, two major nationals of which the men team won three European championships.

#### Game rules and athletes assessment

Wheelchair Basketball is played by two teams of five players each, the aim of the game is to drive the ball in the opponent's basket and avoid that the opponent himself drives it in his team's basket. In the field of adapted sports, it is among those that have the highest degree of spectacularity, which has made it particularly popular and widespread.

Wheelchair basketball, in terms of regulations, does not show any particular difference to the traditional basketball, and is one of the few sports for the disabled which simultaneously has in the field players with different types of physical deficits. The size of the field and the height to which the baskets are placed are identical to the traditional basketball, as well as the score and the duration of the matches, and the same competitive activity is similar to the traditional basketball: the Italian national team plays in the European Championships, in the World Championships and in the Paralympics.

The really differentiating element is the use of the wheelchair that gives rise to small regulatory differences over the basketball for the non-disabled. In summary, it is not allowed to (1, 11):

- stand up from the seat of the wheelchair, it is considered a technical foul;
- move forward with the ball without dribbling after two pushes;
- lift the two rear wheels simultaneously with the ball in the hand;
- hold the opponent's wheelchair with the hands.

The wheelchair is considered an integral part of the player, and one or more safety devices can be added to it. However, all the wheelchairs must comply with the provisions of the International Wheelchair Basketball Federation (IWBF).

Before officially starting the activity, all athletes are subjected to a field evaluation by a Classification Committee. The wheelchair basketball classification consists in grouping players into categories or classes, based on the players' physical abilities to make moves in the game in question, such as pushing the wheelchair, dribbling, driving the ball in the basket, passing the ball, bouncing and the responding to the contact. The purpose of classifying a player in wheelchair basketball is to ensure that every suitable player has the same rights and opportunities for being constitutive and integral part of the team. To be suitable, a basketball player must have a permanent physical disability that reduces the functionality of the lower limbs and that does not allow him to run, rotate, or otherwise perform the same movements as a non-disabled player.

In general, we can state that the main factors that determine a player's classification are definitely the assessment of the trunk, lower limbs, upper limbs, and hand functioning. An additional factor that is of great importance for the assessment is the "volume of action", a key element of the classification. The "volume of action" can be defined as the limit to which the player can voluntarily move in any direction and return to a seated and erect position in a controlled way, without grasping the wheelchair to support or facilitate the movement. In

every class, the players can have different volumes of action and this is what determines the final classification, thus setting for each player a score that defines him.

The number of classes currently in use for the wheelchair basketball varies from one to four, and every score corresponds to a different level of physical performance that the player is able to offer. For example, the player with a score equal to one will have, among his distinct features, no active trunk rotation and greatly reduced balance both in the front and side direction; those with score equal to two have no control in the lateral movements with frontal movement and partial trunk control; those with score equal to three, however, have good trunk rotation but no control in the lateral movements. Finally, the players with a score equal to four will appear with show normal trunk movement and a general difficulty in controlling lateral movements.

It happens that in some situations players can not be identified in any class, because they have characteristics that belong to two or more classes. In this case, the classifier assigns the player half point, thus creating classes of players with points ranging from 1.5 up to 4.5.

This type of classification is defined as "playing points", and in any match the five players on the court must not exceed a total of fourteen points; it is rather allowed to reach a lower total. With this classification system and a team balance rule, the International Wheelchair Basketball Federation (IWBF) equalizes the potential of the team function, and at the same time ensures that the outcome of the game is directly related to the players' skill and athletic preparation (4).

The players 'classification system, adopted by the IWBF, was developed and proposed by the German Horst Strohkendl. This system, formally adopted in 1982 by the Nations interested in wheelchair basketball, was first used in England in an international competition of primary importance during the Paralympics of 1984. During all these years the classification system has evolved and deepened until becoming the current one, described above.

Therefore, through the practice of wheelchair basketball it is possible to optimize every athlete's residual skills as it allows expressing oneself in extraordinary, fast and imaginative game actions, virtually indistinguishable from the characteristics that can be observed in the traditional basketball.

This type of activity allows for greater inclusion, since it makes it possible to collect in a single group both different levels of disability and athletes with different physical potentialities, making this discipline characterized by a high degree of solidarity and cooperation. Wheelchair basketball represents an example of sports integration, an opportunity for the disabled to become part of a highly educational and inclusive context (12, 13, 14, 16).

#### **CONCLUSION**

Sport can really represent a turning point in society and community, not only for individuals with disabilities, but for everybody (18).

The value of sport has become today an important connection point within the society itself, a bearer of connection between the differences. Enhancing diversities and uniquenesses in sports allows connecting and including everybody in a single system that supports every subject's peculiarities and abilities. Through sport every subject can feel competent and able to be realized in his skills, thus representing also an especially important aspect in the world of disability. Sport is a source of and a driver of social inclusion, and is recognized as an excellent tool for integration. To practice a sport, at any level, it finds its satisfaction in the actual possibility that every disabled person has to experience motor activity within his own life project, just like anyone else. Sport also shows that it can represent an opportunity to show one's own abilities and skills, and discover brand new sides of people.

The element of inclusion in sport has the aim to grant the full integration of the individual, reduce disharmonies and differences caused by the presence of diversities, thus making the environment itself suitable.

The concept of inclusion starts from a reference model in which the society is seen as a human community on a human scale, and inclusion should be considered as a commitment to respecting the needs and demands of all, organizing the learning environments and the related activities, so as to allow every person to participate in the life and in the acquisition of skills in a more active, independent, and useful way possible.

Sport involves the assertion of individual identity and the expression of creativity, a real tool of adaptation and social/educational integration. The movement represents a stimulus, an incentive to cooperation and respect, develops empathy and sense of fellowship throughout the community.

Sport is a powerful educational tool that, besides ensuring natural physical benefits, helps develop socialization through coexistence and cooperation in building team play, and sees collaboration skills as an essential requirement. Collaborating, working together for the same goal where everyone gives his own contribution, is essential to feel an integral part of the community and to reach this ultimate goal, and perhaps, more importantly that sport embodies, is the fact of being part of it all, being part of society.

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