

Sport for Autism

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Abstract

Sport covers several important functions, supports behaviors related to community and sociability, promotes health and psycho-physical well-being by strengthening and increasing continuously its inclusive value. These aspects are extremely important in the life and development process of every subject and, in particular, they are important for people with special needs such as autism, thus it can be a valuable resource. For a person with autism, motor activity represents an important opportunity for the development of functional skills as it supports those areas that are most affected by the disorder; in this case, we speak of the communication, social interaction, emotional and educational area. Through sport we can redefine those that, by definition, are described as deficits or limitations of persons with autism, channeling them towards a path that is useful and constructive for their health and well-being state. Different types of sports lead specifically to significant support and aid for the different aspects of this disorder, contributing at the same time to enhancing the residual skills of these subjects. Playing sport means having the freedom to migrate into a "free zone", that is, a chance to be screened in a dimension of autonomy where everyone has value for his own peculiarities and is enriched with others' qualities.

Keywords: *Autism; Sports; Well-being; Inclusion; Integration.*

Introduction

Sports activities are essential for the proper development of the individual because, thanks to the discovery and exploration of his body, environment, movement and playful activity, he has the opportunity to acquire many skills in the various evolutionary areas, learn better about himself and others, his own potentialities and limits, the social and emotional rules that regulate interpersonal relationships.

Through sport it is possible to improve the balance between body and mind by focusing on the maintenance and development of skills and qualities. Sport, therefore, allows stimulating and strengthening one's own resources that, in the long run, can become tools of strength and adaptation, able to consolidate one's own self-efficacy.

Education through movement and sport can offer a tangible opportunity to early acquire, in an inclusive context, the basic assumptions of sharing, built by people in their mutual interaction and used as a daily resource for interpreting the meanings of the social and cultural life.

Through motor activity, it is possible to acquire skills that can be spent in everyday life, effective ways for developing emotional self-regulation and healthy lifestyles, such as body care, the purposeful use of movement and the management of anxiety and stress.

So new perspective on the world of sport and sport activities gains a role of great importance in the society, not only as a tool used to achieve physical well-being but, above all, as a medium of participation, interaction between generations, growth of individuals, collective cohesion, participation and inclusion among the different shades of society.

Sport covers different and important functions, supports behaviors related to community and sociability, promotes health and psychophysical well-being by strengthening and continually increasing its integrative value. All of these aspects are extremely important in the life and evolution of every subject and, in particular, in subjects with special educational needs such as autism, can represent a valuable resource.

Indeed, during their lifetime, autistic people find themselves faced with many difficulties in their personal, social and emotional autonomy. Physical activity acts on individual abilities, promoting the development of innate abilities and also the acquisition of new and different skills; through sport, it is possible to get involved and experience, learn to know about and control one's own body, develop the sense of self-awareness, motivation and confidence, contributing to the social integration of people with disabilities. The educational and social value of the movement is therefore recognized and promoted, and it leads to consider as a sport a variety of useful and meaningful motor practices for autism and its evolution. Physical activity has a formative and inclusive value for everyone, at any age and in any condition.

The world of Autism and the importance of Sport

Physical activity and sport are understood as fundamental and functional tools for physical and health status, which mean "staying well" and "living well". Through sport and physical activity we can develop and strengthen the skills, abilities and potentialities. It is therefore worth exploring how sport can strengthen and support individuals with autism spectrum diagnosis, by linking to them and producing beneficial effects that can stimulate them towards an evolutionary beneficial and effective dimension.

For a person with autism, motor activity represents an important opportunity for the development of functional skills by supporting the areas that are most affected by the disorder; we speak in this case and more specifically, of the area of communication, social interaction, emotion and education, these areas of greater implication that characterize and define this type of disorder. Educating through play, movement, sports and group activities provides the subject with autism a solid opportunity to acquire early the fundamental assumptions of the basic social rules, of behaviors that are more appropriate in different contexts and, finally, of the primary and secondary intersubjective, in inclusive contexts. For secondary intersubjectivity, we mean the ability of every child to enter in direct expressive and emotional relationship with a reference figure or a caregiver, and subsequently, to develop the ability to develop relationships with each other by sharing interests for a third thing or person.

The term autism, from the Greek word *autos* meaning "oneself", was coined by Bleuler at the beginning of the twentieth century to describe a particular form of schizophrenia characterized by a total detachment from reality and a complete application to the inner world.

The term autism was then adopted by Kanner in 1943 to indicate a specific syndrome observed by him in eleven children; before then the concept of autism was linked mainly to a symptomatic secondary or peculiar aspect of schizophrenia, mainly related to the adult patient. This type of distinction was extremely important, both because the symptoms reported by autistic subjects differed dramatically from those of schizophrenia, and because, in this way, a clear identity for this condition which appeared immediately really complex and acute was developed. Kanner was the first to outline a specific clinical situation, identifying the specific characteristics related to behaviors that showed a desire for extreme loneliness, difficulties in speaking and interacting, problems in showing emotions while maintaining a normal physical development.

Autism is a developmental disorder of the brain functions. The symptoms of autism are

usually diagnosed and manifested around the first three years of age, and persist for a lifetime. Subjects with typical autism show different types of symptoms such as impaired communication skills, difficulty in social interactions with reduced sharing and a difficulty in motor behavior with repetitive and limited movements and stereotypes. Although there is no effective and defined cure, appropriate treatment can promote a relatively normal development and reduce unwanted behaviors. The severity of autism is very variable; the most severe cases are characterized by extremely unusual mechanical, repetitive, and aggressive behaviors. This mode can persist over time and become pretty hard to change, resulting in difficulties in designing and implementing intervention programs.

The milder forms are similar to personality disorders associated with learning disabilities. The most obvious feature of autism is the social interaction disturb. For example, children with autism may fail to respond if called by name and avoid eye contact, often have difficulties in understanding people's emotions and in interpreting facial expressions, don't use direct eye contact towards other subject, manifesting often incongruous behaviors to the situation or context. They appear unaware of others' feelings and of the negative impact of their behavior, thus with a total absence of empathy. Many children with autism engage in repetitive and stereotyped motor activities like swinging from side to side, or in demonstrations of self aggression; develop the language belatedly, speak with flat and monotone voice and of a limited number of topics, with little regard for the interests of the people with whom they are communicating.

With regard to the clinical situation of these subjects, sport can realistically contribute to cure limiting and deficitary aspects of this type of disorder, supporting the development and evolution of different motor skills. Motor and sports activities support motor, social and communicative aspects.

The practice of sports activities for individuals diagnosed with autism spectrum disorder may represent an important contribution to their well-being and their health status, encouraging and promoting healthier lifestyles; thus it becomes significant to create a space able to represent a set of effective and rewarding experiences as a support for physical development. Through sport we can redefine those that, by definition, are described as deficits or limitations of persons with autism, channeling them towards a constructive and useful path for their health and well-being state.

Sport and activities related to it have a high educational value, are beneficial for physical and motor growth, develop communication skills, and promote socialization and inclusion.

These aspects of physical and sports activities are mirrored by the characteristics and peculiarities of individuals with autism spectrum disorder, as described in the Statistic and Diagnostic Manual of Mental Disorders (see, for example, communicative, socio-emotional and motor deficits).

Let us consider now, in particular, the action and the beneficial effect that sport can have on every aspect that characterizes the syndrome of autism, like on the motor, social and communicative aspects.

As for motor aspects, these subjects often manifest rigidity and behavioral stereotypies, impaired spatial orientation and poor coordination. The preparation for the gesture and sports activity disciplines measures and contains this type of behavior, improving movement. It contains rigidities and stereotypies, lowers levels of anxiety, emotional condition typical of subjects diagnosed with autism spectrum disorders, and increases attention. In this regard, according to an article published by the "Autism Research Institute", one of the most effective treatments for people with autism spectrum disorder is the physical exercise. In fact,

studies show that vigorous and energetic exercises are associated with a reduction in stereotypic behaviors, hyperactivity, aggression and self-injury. Strenuous exercises carried out for about 20 minutes or a long aerobic work carried out for three or four times a week, have a positive effect on the behaviors of these subjects.

As we have seen, people with diagnosis of autism spectrum disorder have difficulties in social interaction, reciprocity and sharing. Through physical activity and movement, these individuals can learn and deepen their own qualities and skills. This educational aspect of sport allows better understanding their characteristics and skills, and gains a better understanding of their role and duties, by acquiring greater confidence in their abilities. This makes it possible to increase one's own self-efficacy; the awareness of being able to dominate specific activities, situations or aspects of their own psychological and/or social functioning. In other words, it is the perception that we have of ourselves, of recognizing what we can do, feel, express, be or become something. Greater safety and independence emphasize what an individual believes he is able to do.

In this way, these individuals have the opportunity to improve their quality of life, avoiding isolation and encouraging social inclusion. Inclusion through sport is crucial, not only because it gives the possibility to confront one's own educational process and allows also preserving one's own characteristics by developing a solid relational network in diversity. Inclusion invokes the concept of belonging that is equivalent to a state of interpersonal fairness and equality, and in doing so, it is intuitively extended to all individuals and ignores any kind of difference or diversity between individuals themselves. This means that it does not exclude, but conversely, it expects and tends to build up a context within which there can be diversities that, inevitably, are present in every social sample taken into consideration. The inclusive nature of sport is a central place for the development of the potentialities and for planning life for all these subjects. Sport is a powerful educational and inclusive tool capable of breaking down the diversity by supporting the abilities of everyone, enhancing resources already possessed. Motor activities become an important junction point for achieving an optimal level of personal, relational and social independence. The acquisition of functional abilities, used to acquire greater independence, favors the fullest possible development of various skills compromised in the disturbance.

Many subjects with autism spectrum disorders show deficits in the linguistic, communicative and relational areas have difficulties in having normal reciprocity in conversation and reduced sharing. These deficiencies can occur with different levels of impairment.

Physical activity has proven to be an excellent means for expressing and communicating the characteristics of everybody, using various communicative and relational channels. For these subjects, body and movement can be used as an alternative, or even substitutive, interactive and communicative channel to the verbal one, if there is a considerable impairment in verbal communication. Communication, in fact, occurs through the verbal (written and oral) and non-verbal (gestures, movements, proxemics, posture, eye contact) channels, these two levels intersect and enrich each other and constitute indispensable relational elements.

Sport allows favoring and supporting relational and communicative aspects, aspects that, as we have seen before, show themselves as deficiencies in subjects with autism spectrum disorders. Communication is a dynamic process of mutual sharing and participation, sharing of goals, thoughts and moods. Being able to communicate only to a small extent, to grow above all in an autonomous perspective, can greatly enrich the quality of relationships and interactions by favoring integration. So sport becomes a key to autonomy and, consequently, to the growth of self-esteem and self-awareness in establishing interpersonal relationships that can be used in different contexts of life.

Scientific evidence in support of Sport

So far, we have stressed how physical activity and sport practice are crucial for people with autism spectrum disorder, for their relational and community life. The benefits that physical activity and sports can bring to subjects with autism spectrum disorders pour into different behavioral, social and communicative aspects. There is a wide range of benefits for those who practice sport regularly that have great impact on the development of their lives and development.

At this stage, it is necessary to deepen some types of sport that can lead, in particular, to considerable aid and support for the different aspects of this disorder, while simultaneously contributing to the valorization of the residual skills of these subjects. In this case, we speak of practicing activities such as racing, horseback riding, karate and swimming, which represent an important resource under different perspectives. Thanks to the practice of this type of activity related to basic training involving exercises like stretching, cardiovascular resistance, flexibility, breath and balance, every subject is given the opportunity to learn about and recognize himself through his own body, understand his own abilities, find his own autonomy and identify new behavioral modes leading him towards alternative and functional relational approaches. The motor setting provided for in the practice of these activities, when performing the exercises, entails a series of positive elements that have an impact on their way of doing things, acting and interacting:

- Minimizing problematic behaviors thanks to greater attention;
- Supporting and developing independent behaviors;
- Increasing personal motivation in achieving a goal;
- Strengthening one's own self-esteem.

Practicing Karate, for example, through Kata training consisting of a predetermined set of rapid and explosive movements, generates a significant improvement in communicative and stereotyped aspects in subjects with autism spectrum disorders, increasing their ability to adapt to the community and improving relationships with their caregivers. The particular communicative modes and stereotyped behaviors are both elements that characterize, and at the same time, limit the development and existence of these subjects. Communication is, on the one hand, a crucial element in establishing and linking relationships with the outside world, so the deficits linked to it entail limits in the ability to achieve optimal integration and social inclusion; On the other hand, the stereotypies, which are generally described as rigid, repetitive, strong, and inflexible movements, hinder appropriate and purposeful behavior by limiting personal and social autonomy and independence. Therefore, the practice of this type of training results in a significant improvement in these behavioral modes and, consequently, in a better and more effective adaptation and integration of these subjects in social, family and school contexts.

Subjects with autism spectrum disorder diagnosis also have difficulties in the social and relational contexts, and through contact with water, the swimming and natatory techniques practice it is possible to develop socialization and integration processes. The relationship with an element with which a subject is not in contact, such as water, is a relational and emotional activator in itself able to trigger highly adequate and efficient social mechanisms. Swimming facilitates the ability to acquire autonomy in moving through water by stimulating the will of the subject to explore the surrounding environment with greater security and autonomy, thus building explorative and social skills of great importance.

In this regard, Multisystemic Water Therapy is a therapy for subjects with autism spectrum disorder that uses the stimulating properties of a natural element like water within a structured environment, represented in this case by a pool, organized in stages and ruled by a

methodology that uses cognitive, behavioral, relational and sensory-motor techniques. The goal is to use natatory techniques as a means to achieve therapeutic goals, and then implement a process of socialization and integration with the peer group. The fear or joy of being in the water that the child experiences are used as emotional and relational activators, which can give start to a primordial call for support and care, thus creating an important basis for social inclusion.

For the autistic subject, practicing a sports activity is therefore a unique opportunity, an element that can connect and bring his personal world closer to the knowledge of his own body, abilities and, last but not least, the community in which he lives, in order to achieve greater inclusion.

Subjects with autism spectrum disorder show, as we have seen, stereotyped and repetitive behavioral characteristics, cognitive and attentive difficulties, and poor adaptive social skills; the practice of physical activity allows them to improve these aspects and peculiarities by enriching and optimizing their quality of life, aiming at greater social integration. The extinction of the behavioral characteristics of the autistic subject allows him to focus more on his own potentialities, on what he feels he is able to do, contributing to a more active participation in his life and in the community life.

The fundamental aspect that sports brings within the varied and acute autistic world is to enhance every subject by leading him to a path of knowledge and autonomy, creating unusual opportunities to develop the skills necessary to practice a whole range of activities and to feel an integral part of society. Sport is a bridge leading to inclusion by fulfilling, through its values, the commitment to respect the needs of all by properly organizing learning environments and

its related activities, so that everyone can participate in sports and community life by acquiring skills in the most active, independent and useful way possible.

Practicing sports means having the freedom to migrate into a "free zone", that is to say, having the opportunity to be projected into a dimension of autonomy where everybody can show himself by simply confronting with others. On the other hand, joining a certain context does not necessarily mean adhering fully to it, but it means finding a meeting point between the autistic and non-autistic world, where everyone has value for his own peculiarities and enriches himself with others' qualities.

Conclusions

At this point, once examined the aspects of the relationship between sports and autism, we can consider physical and sports activity as a real opportunity for improvement for these subjects in different perspectives. Sport can be an element that leads to mitigate some of the difficulties, which can be communicational, social and relational, with which these people coexist. The connection between sports and autism is particularly important, because the practice of sport in itself allows gaining more knowledge and awareness of one's own skills by supporting autonomy. Through our body movement, our mind and all the elements connected to it can also have great benefits.

In this regard it is important to consider two elements that are closely related to the world of autism: the first corresponds to the diagnostic characteristics that generally describe the deficitary aspects of autistic subjects, the other refers to the personal characteristics that every subject carries holds within himself, which make him unique and special. In every autistic person we always find an intersection between these two elements, the diagnostic and the personal one. The practice of sports activities allows both these aspects to be considered and supported simultaneously, representing a real opportunity to improve the general deficit

criteria and, at the same time, enhance personal characteristics by turning them into usable resources in different contexts of life.

Sport seems to really represent the means through which it is possible to explore new territories by taking various opportunities, through a journey of discovery, knowledge and awareness. Sports activities represent a special place, a learning context where behaviors and relationships acquire great importance and value.

Motor activity, therefore, if carried out in such a way as to consider the needs and peculiarities of every single individual, can offer effective tools for social integration, management of emotions, knowledge and valorization of one's own abilities, and can consequently become a precious opportunity for growth and inclusion.

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