

The Importance of Physical Activities and the Teacher-Student Relationship for the Autistic Student Development

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Abstract: The present work deals with the performance and commitment related to the binomial Sport and ASD (Autism Spectrum Disorder) from the view concerning the difficulties of the person who lives with this type of disability and the implications arising from its insertion in the social sphere, considering the school as the ideal place to evaluate its pedagogical activities. The Universal Declaration of Human Rights, in the year 1948 in its article 1, serves to demonstrate the ideal of life and way of action, by stating that “all men are born free and equal in dignitie and rights. According to Federal Constitution of 1988, in its article 5, “all are equal before the law”, supported by the legality of the concepts, the Law of Guidelines and Bases of National Education, promulgated on December 20, 1996 and supported by the National Curriculum Parameters — NCP — of Physical Education, which bring a proposal of democratization, humanization and diversification of pedagogical practice.

It is understood that sports practices recommended and taught by qualified professionals, will provide people with moments of energy, leisure and ability to relate, which will gradually build the individual with ASD (Autism Spectrum Disorder) physical, cognitive and psychic maturation.

Key words: ASD, physical education, sports practices, inclusive special education

1. Introduction

The World Conference on Education for All, in 1990, in Jomtien, Thailand, promoted by the World Bank, United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Children’s Fund (UNICEF) and the United Nations Development Program (UNDP), focused on meeting basic learning needs, in which educators from different countries of the world participated, and on that occasion the World Declaration on Education for All was approved.

According to Mendes (2003), this ideal stimulated consensus in concentrating efforts for countless deprived students without rights of access, entry, permanence and success in primary school (World Declaration on Education for All, 1990). In 1994, under the auspices of the government of Spain and UNESCO, the World Conference on Special Educational Needs was held focusing on access and quality to these people, producing the Salamanca Declaration, considered the most important worldwide landmark in inclusive education philosophy’s dissemination.

As of this event, inclusive theories and practices gain ground in many countries, including Brazil. The

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document proposes that children and young people with special educational needs should have access to regular schools, which they must adapt, as these schools are the most capable means of combating discriminatory attitudes, building an inclusive society and achieving education for all (Salamanca Declaration, pp. 8-9).

In Davis' words (1985, p. 162), "education, a right, not a privilege." In this context, inclusive education begins to take shape as an integral and essential part of this process.

Law No. 12.764, which instituted the National Policy for the Protection of the Rights of People with Autistic Spectrum Disorder, enacted in December 2012, means that autistic people are officially considered people with disabilities and they must have the right to all countries politics, including education.

The autistic individual, today named or classified as Autism Spectrum Disorder (ASD), has a disturbed body scheme, not because of a failure in its construction, but because an "other" (mother and substitutes) is absent, or rather, this lack of another one who does not understand its spectrum, did not make the contours of this body, which did not generate desire, an image that, in order to be generated, will need someone to realize that there is a subject there and not a "thing", an object, in Levin's thought (2005).

Only in this way ASD people will be able to look themselves in these images, of someone's desire, thus granting the possibility of building a greater understanding of their body and their functioning. ASD people must be stimulated and through Physical Education professional's intervention will be able to consider the real ASD students characteristics and needs. Based on observations, Schwartzman et.al (2012) states that it is important to carry out a study that verifies motor development in ASD children, through their learning as well seeking new teaching strategies.

In Brazil, autism's official diagnosis is organized by the ICD-10 (International Classification of Diseases), 10th (tenth) edition; however, it is important to note that autism's diagnoses and other spectrum disorders are obtained by child's history and clinical observation.

In addition to ICD-10, other manuals sought to organize diseases understanding, the DSM or better, Manual of Classification of Mental Illness of the American Psychiatric Association which is already in its 5th (fifth) edition, it highlights autism as Autistic Spectrum Disorders (ASD) nowadays.

1.1 A Brief History of Physical Education

Physical Education was officially included in the school in the 19th century, in the year 1851, under Couto Ferraz Reformation goal, named by Empire Minister of Business which established Primary and Secondary Education Regulation, in Court municipality on 17 February 1854, according to Darido (2003). However, this concern about physical exercises inclusion in Europe dates back to the 18th century, influenced by Johann Cristoph Friederick Guts Muths, a german gentleman considered "Modern Pedagogical Gymnastics' Father", among others like Jean Jacques Rousseau and Pestalozzi.

Thus, it is important to evoke Brazilian Physical Education's identity, through its characteristics before Brazil's discovery and Iberian Colonization, such as:

- 1) Brazil first inhabitants' physical activities were similar, why not say the same as those of Prehistory, since our indigenous people were very skilled in practicing archery, swimming, fighting, hunting, fishing, riding, canoeing and racing in order to survive;
- 2) the game of shuttlecock stands out as one of the contributions of our indigenous people to the national sports universe;
- 3) Due to the first black Africans arrival as slaves, still in the 16th century, a dance called "capoeira", which

mixed rituals and struggles, was introduced on Brazilian soil;

- 4) Colonial Brazil exposed the condition of an exploration colony or rather, the economy was destined to supply raw material for the Metropolis in which culture was not allowed, whether in the form of graphic material or reproduction. In 1747, Marquis of Pombal, Sebastião José de Carvalho e Melo, destroyed the first printing plant that tried to settle, as well as forbidding creation schools in Brazil. Then, in 1759, he expelled the Jesuit mission that had as function, the religious and cultural indoctrination of the indigenous people which Brazilian Education history officially began.

Due to Portuguese Royal Family arrival in 1808 in Brazil, a process of cultural and educational development began with elitist and/or classist tendencies where the creation of the first Brazilian college, the “Ginásio Brasileiro”, currently Colégio Pedro II, culminated with the inclusion of German and Swedish gymnastics in their curricula.

In 1879, Rui Barbosa drew up opinions based on Leôncio de Carvalho Education Reform, known as Decree 7,247 that advocated the primary and secondary education reform in the Court and higher education throughout the Empire. One of these opinions was a small treatise on Physical Education. However, Rui Barbosa received much criticism for considering his ideals related to foreign ideas.

According to Darido (2003), in 1882, this reform by Rui Barbosa recommended that gymnastics be mandatory for both sexes and offered to the Normal Schools. And the author continues that these laws were partially implemented in Rio de Janeiro, at the time, Republic capital and in military schools.

Due to the advent of the Proclamation of the Republic, in 1889, football was imported from England and began its climbing in the 1930s, and it became the most practiced sport, surpassing rowing. From this, other sports were introduced, such as swimming, basketball, tennis, and in the late 19th century the first gym in Brazil was created. Citizenship as a guiding axis, according to the National Curriculum Parameters (PCNs) means the understanding of Physical Education in schools as responsible for training students who are able to participate in bodily activities adopting attitudes of mutual respect, dignity and solidarity; knowing values, respecting and enjoying the body culture plurality manifestations, recognizing themselves as an environment integral element, adopting healthy habits and relating them to the effects on their own health and improvements in collective health, among other objectives.

The principle of inclusion is highlighted by Physical Education aimed at all students, without any form of discrimination. Thus, this articulation between learning to do, knowing why you are doing it and its relationship of doing it, make procedural dimensions, conceptual and attitudinal axis in contents respectively, in Darido’s thought (2003).

Regarding to Adapted Physical Education, it dates back to the 1950s, defined by the American for Health, Physical Education, Recreation and Dance (AAHRPED), as a diversified developmental activities, games and rhythms program suited to students with disabilities interests, abilities and limitations, with restricted participation in certain sports activities. In order to improve its pedagogical practice concerning people with disabilities, in the sense that time’s gone by, Physical Education has evolved, respecting individual differences, providing a harmonious and holistic development to every human being.

1.2 Justification

The interest in the subject of Physical Education and Autism was due to my job as a Psychologist, since 1990, in Special Education, at the Municipal Secretariat of Duque de Caxias-Rio de Janeiro, Brazil. During my contacts with ASD children and adolescents, I’ve observed how helpful they were, presented a significant interaction through sports activities, since several attended appropriate schools, more and more being stimulated by Physical Education

teachers and their inclusive projects within and outside school environment.

In order to analyze and to research a work carried out by Physical Education as an adjunct to ASD people development, I realized how it was necessary to elaborate more studies on this theme in view of concerning for studies on this theme, this clientele physical, psychological, moral and social development as well as the reintegration into society emphasizing systematic monitoring in this gradual process.

According to Darido (2011), many teachers are unaware of the benefits offered by Physical Education, as well as its importance in educational terms because they also have difficulties in dealing with issues related to authority and limits, using the discipline mentioned as a prize or punishment. As examples, the discourse of good or bad behavior on the part of the students, will imply in Physical Education as a prize or its suppression, respectively.

Autism is a complex and comprehensive neurodevelopmental disorder characterized by a deficit in social interaction, communication and restricted and stereotyped behaviors presence, according to Riesgo (2013). These deficits can be alleviated with regular physical activity.

Memari et al. (2013) made it clear that regular physical activity benefits can provide are diverse, such as stereotypes reduction, improving social and motor issues in addition to being an important tool for quality of life of this clientele improvement.

1.3 Goals

General:

Use sport as a socializing agent and educator, valuing sport as a supporting tool for the development of individuals with ASD.

Specific:

- To know the effects produced by the Sport practices, in the relations between School, Family and ASD people;
- Assist the ASD insertion, respecting their socio-cultural context, extinguishing any form of stigmatization.

2. Literature Review

To conduct this study, several search strategies were used, including theoretical articles indexed to the Virtual Health Library (VHL) including MEDLINE, LILACS, COCHRANE and SciElo, books, theses, national and international public documents, or rather a literature review.

After identifying a total of 101 articles from SciElo on Autism and Physical Activities, including 29 on Relational Psychomotricity and Autism, 10 from PSYCINFO, 24 results from MEDLINE/PUBMED, with 18 results from Autism and Physical Education, 3 articles from BIREME concerning the education of students with ASD, 2 theses and 10 dissertations on Autism and Inclusive Physical Education from BDTD, 2 concerning the Autistic Body, Body Scheme and Psychomotricity, in addition to 3 books, a selection was made by reading the titles and abstracts of the works, assisting the filter of 3 articles from BIREME, 25 results from SciElo, 01 thesis, 03 dissertations from BDTD, totaling 32 works in the composition of the study corpus.

As inclusion criteria, studies carried out in public schools, research reports or practical experiences in school environments, teachers and students ASD diagnosed interactions, teachers conception about the inclusion of these students, experience in schooling and changes were selected occurred at school in the face of inclusion, students with ASD autobiographies, corporeality in ASD, etc.... As for those of exclusion, these concern ADHD, other syndromes, non-formal learning environments, Mind Theory, ASD student relatives stress under the age of 7 (seven)

years.

3. Methodology

The Methodology is based on a qualitative descriptive approach, because according to the proposed objectives, it is based on an investigation that, through a questionnaire to be completed by some Physical Education professionals involved in the work of inserting individuals with ASD in schools and by assistance addressed to them in order to provide necessary information for the deepening of the issues to be investigated. The research will aim at the study of social, economic, educational relationships between individuals or groups, without interfering in the results found.

According to Minayo (2012), “The research if carried out in health services, or any other institution, it is necessary to describe the reason why this option was made, and this must be consistent with the study purposes.” For this reason, the interest in investigating subjects participating in inclusion process through sport, who in its turn, lives experiences and specializations. The questionnaire consisted of 10 (ten) questions about inclusion, personal opinions, expectations aiming at a survey focused on the theme about the importance of Physical Education for people ASD, their social insertion, and especially in inclusive education.

As purpose of instrument is a relevant information construction for this reality, seeking reflections on what has already been accomplished, as well as future applications in many other schools.

3.1 Participants

10 (ten) Physical Education teachers were selected from 4 (four) public schools, in this case 2 municipalities in Duque de Caxias and 2 municipalities in the city of Rio de Janeiro, since both have 2 teachers, one in the afternoon shift and another in the morning shift. The other 2 teachers are located in a foundation to support educational and sports activities in the municipality of Duque de Caxias, located in the state of Rio de Janeiro, this municipal foundation, which has long been contributing to the instruction and development of cultural activities, sports, in addition to the provision of professional courses spread across various centers of the municipality.

3.2 Measures and Procedures

The interviews were carried out during classes breaks, without compromising the pedagogical activities by means of a previous appointment. Teachers answered questions related to students with ASD, included in the selected school, evaluating how students knowledge construction is taking place through different ways in which they relate to what is experienced in the school, valuing each progress from their development and learning possibilities.

To guarantee the privacy of the participants, they will be designated by the letter “T”, of teacher, and a corresponding number. The work was made possible by means of a Free and Informed Consent Term (ICF), which contained explanations about the interview. The first 5 (five) questions were addressed to the teacher profiles without identifying them. The interviews carried out were annotated and recorded in order to guarantee reliability of the records when analyzing them.

- a) Identification of the interviewees: name (omitted after interviewing), position, training and time in the position;
- b) School where they work;
- c) Experiences with students ASD students;

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d) Training courses;

e) Series with which it operates;

Other 5 (five) questions have mentioned facilities and difficulties for physical activities, which activities they like most, how is the inclusion in regular classes, specialized services support, observed progress and expectations.

Table 1

Teacher	School	ASD students experiences	Qualifications and Training	Levels which it works
T1	A	Yes	No	All grades of Elementary School I
T2	A	Yes	Yes, in a course offered at a clinic.	All grades of Elementary School II
T3	B	Yes	No	3rd and 4th levels schooling
T4	B	Yes	No	6th and 7th levels schooling
T5	C	Yes	Yes, at Municipal Secretariat of Duque de Caxias	Same situation as T1
T6	C	Yes	Yes, same occasion as my colleague T5	Same situation as T2
T7	D	Yes	Yes, same as colleagues T5 and T6	8th and 9th levels schooling
T8	D	Yes	Yes, same as my colleague T5 and T6	Same as T1
T9	E	Yes	Yes, same as my colleague T5 and T6	Students from public schools in the municipality of Duque de Caxias
T10	E	Yes	Yes, same as my colleagues T5, T6 and T9	Same as my colleague T9

Source: Researcher's Interview Notebook

Table 2

Facilities and Difficulties	Activities they like most	Inclusion process	Support from specialized service	Observation of progress
I work in all elementary school classes, but I only have one student with ASD in the 3rd level of schooling. He has a light degree and I can handle him very well. He's great at running; interact with classmates. difficulty is his limits because He loves physical Education classes (T1).	My student enjoys racing a lot. In the classroom, the class teacher has already noticed a difference.	Very promising. I believe in potential of each one.	Although resistance in Duque de Caxias still exists, we, teachers, students' parents, other professionals in inclusion field, are uniting and strengthening for inclusion ideals.	According to the reports, he has been developing and participating in several other activities.
I have students with ASD in each school level and 2 are non-verbal, from the 6th level. But with your body it conveys your desires. They do like football; He is agile and scorer! In the 7th year, he says he wants basketball; the 8th year student also likes football. They are Aspergerians. The 9th level student speaks and reads well. I think this student is very smart. I read a lot about it. The difficulties are exactly the same as those of my	My ASD students are very fond of games like basketball, football They pay attention to what is said, taught, although I need more time to explain them.	The student who does not verbalize, I can signal and demonstrate more patience about the rules.	The school with them was different and much better! We need to improve, as it is not yet ideal, but we are moving on.	We are united for the purpose of expanding Special Inclusive Education; we can do a little bit each day; Students are developing and wanting to express themselves orally despite sketching difficulties. Through pictures and word games, they appear.

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colleague T1 (T2).				
(T3) My autistic students are very active. Each class has one, and I have a good interaction with them. They like to help collecting material, in addition to jump rope. A difficulty is when I start explaining game rules; I have a little more tact with them.	They are very receptive, they like to be attended to your needs. How they like a ball! They want to play inside what they already know; the regulations are to be desired.	The whole school seeks to learn every day from them. There is a complete interest in the paradigm shift.	I get a lot of feedback from both Specialized Education Service classes and some health professionals involved in Rehabilitation.	They are still moving forward and seeking to participate more in requests.
(T4) I have 2 autistic students. One in each class. Hard to know that there are autistic girls. I read that the incidence is higher in males; they are very calm, but one still has stereotypes. The other is more talkative and does not disengage from a doll she brings from home. But, they love activities like skipping rope and hopscotch. They can follow it well. It's just difficult to finish the class!	Rope, hopscotch	I'm really enjoying what has been accomplished. I know there is a need to train more, however, we are mobilizing because the results are coming.	I know there is a need of training more, however, we are mobilizing because the results are coming.	For me, he is happy, because I am persistent and I am demanding even more investments and attention from social and educational spheres. I like to meet with the class teachers and share what we have already accomplished. Thus, we thought of several alternatives to stimulate even more.
(T5) I have 2 autistic students. They are in the 4th level of schooling. Both interact with each other. They are great in football! They like touches; I don't feel any difficulties.	Ball	We are looking for what is best for their development.	Thank Goodness I am really meeting people with same ideals, so I won't give up!	Students participate more in other activities. Those responsible have already noticed and are very satisfied.
(T6) I have 2 autistic students. Both are in the 8th year of schooling. Both interact with each other too, which one does, the other wants too. They're great at volleyball! Really awesome! They just don't like touches; I have difficulties in contact with them.	Ball	I still see obstacles, but there is goodwill too.	I do believe in the change so expected by every Education professional	I still find obstacles, but I won't give up! They are beginning to socialize; expressing autonomy as well.
(T7) I have an autistic student in each class. The 8th year is very quiet, echolalic, while the 9th year is more uninhibited, participant; both like activities like judo. I think difficult a total interaction.	Ground activities, such as rolling, judo, jumping with the aid of light obstacles, such as pins, rolled mats, etc All these hurtless things!	School is for everyone! Let's be firm on Special Education purpose! I am always getting help!	I dream to and I realize it because I have found company and strength!	Physical activities are helping to interact in class and in family.
(T8) I work with many classes, but I only have 1	Gymnastics itself as abdominal exercises,	Process is consolidating in my point of view. Let's	I love being with them and helping with what I	I can only say that physical activities are

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autistic student in the 1st level. He is very cute! He speaks English, he reads alone and he knows ground gymnastics! The mother is looking for support to train him better. At school he makes bearings, tall with the greatest ease! Difficulties? I do not have them.	bearings, rhythmic movements	go ahead!	can with focus and hope.	helping in the context of interaction, through rules and instructions.
(T9) I have 3 moderate autistic students and love dancing! I teach dance lessons at this foundation, and tennis lessons at the Sports Center in Duque de Caxias.	Tennis balls, with rackets, activities with music.	I remain firm in my focus! I love autists and I intend to stimulate them a lot, because I believe in the potential that exists in them!	I have received support from families and the school as well.	I am happy to know that they are producing, participating and interacting more; our work cannot stop
(T10) I also work at the institution of colleague T9 with the same activities. I am working only with an autistic student; at first I felt difficulties, but now I am learning new techniques and management every day.	Also rackets, shuttlecocks, balls, music for their physical activities. We usually do a stretch to relax and to avoid pain.	I believe Autism strenght! They can learn! I see in every child a hope in our education!	I'm a professional learning more and more from them. I am fulfilling myself as well as receiving support from families and several other professionals who believe in their success.	Our work is reaping benefits and it is magnificent these good news about Special Inclusive Education development.

Source: Researcher's Interview Notebook

Analysing answers, they corroborate with what it was recommended in this study, which is the importance of practicing sports and/or physical activities for the Autism Spectrum Disorder (ASD) students development. These activities can contribute to a harmonious biopsychosocial development for them in different age groups. Such conditions indicate the need for how these students are being stimulated, their characteristics and their interests.

The condition of being autistic, with a body that exists under the peculiar disorder characteristics involving deficiencies in social interaction and in verbal and non-verbal communications, it reports the fact that the student with ASD body, requires education as a process that values what he has, not what is deficient. Non-verbal communication in ASD is a process where a individual expresses himself through non-word order means, however, it can be through body language.

According to Camargo and Bosa apud Fiorini (2017), increasingly there are autistic children enrolled in regular schools indicating that the struggle for inclusion has gained strength over years making necessary an essential knowledge based on specificities and children with ASD development, so that the construction of pedagogical actions enable the potential of the skills they have.

Student with ASD body appears in the educational scenery to provide oportunities for recognizing their knowledge through their "indecisive bodies", their expressions and their experiences enabling new perspectives on their development. Educational practices directed the body value, ASD students spontaneity and creativity in exploring their own body as a place of expression where the word does not say.

In Figueira's thought (2002), a body where educatosr provide bodily expression freedom despite of mistakes, these children do not feel fearful, because these mistakes sound like they are learning, because it is through these mistakes that children organize and reorganize their mental structures. According to reports by a teacher ("T2"), he

has “Aspergerian” students in the class, as they relate to the condition that involves a qualitative social commitment, absence of significant language, cognitive delays and presence of restricted interests and behaviors, however, without language delay, according to Fernandes and Orrico (2012).

The authors add that accessibility for TEA issue, refers to the communicational area, and when they are exposed early to clinical and pedagogical interventions that replace verbal language with alternative communication patterns, people with ASD can benefit and have their optimized social inclusion.

As for other teachers, they positioned themselves positively, even in face of interaction difficulties, applying techniques that were attractive to arouse their students interests. Instead of sticking, they sought out new ideas, respecting individual differences. Freire thought of a school changings, and na inclusive practice construction gives us deep questions about how to do it (Marques, 2009).

The educator’s big problem is not discussing what education can or cannot do, but to discuss where it can, how it can, with whom it can, when it can; it is to recognize limits that our practice imposes. It means realizing your work is not individual, it is social and it takes place in the practice of each one of us as a learning process part. (Freire, 2001a, p. 98).

Thus, we can encourage innovations offers aimed at empowering these very special people, extinguishing stigmas, extolling and believing in their potentiality.

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