

A bioecological perspective of human development on autonomy of an athlete with intellectual disability

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A BIOECOLOGICAL PERSPECTIVE OF HUMAN DEVELOPMENT ON AUTONOMY OF AN ATHLETE WITH INTELLECTUAL DISABILITY

KEYWORDS: personal autonomy, psychology, sports, intellectual disability, bioecological perspective, human development.

ABSTRACT: This study's aim was to investigate elements that foster autonomy in the life of a swimming athlete with intellectual disability, under the perspective of the bioecological theory of human development. A qualitative case study was used to describe the contexts in which the athlete was present and participating. The roles of the representative of the family responsible of the athlete's education and of the coach that contributed and/or interfered in the autonomy of this athlete were analyzed. One male athlete with intellectual disability attending a Special Olympics 24 years old, as well as his mother and swimming coach were interviewed. A semi-structured interview was used. The descriptive and interpretative analysis was based upon the process-person-context-time model. Results show that dispositions, resources and demands observed in proximal processes in the microsystem of the home/family environment and the sport environment reflect specificities that demand a contextualized approach of the *modus operandi* of the athlete. It was possible to observe that attributes were developmentally instigative, and positive personal characteristics have been combined influencing autonomous behavior. Results also showed that activities in the home/family environment as well as in the sport environment have an important effect on autonomy. Apparently, personal beliefs prevail in actions adopted by mother and coach, reflecting their important role in the change of the athlete's behavior. Therefore, proximal processes are of fundamental importance in any interpersonal relationship. The adopted bioecological perspective allows considering sport as a favorable environment for human development.

According to Harris (2003) and Jolly et al. (2009), autonomy is the ability of a person to be an agent for what he or she wants and judges adequate, once if this choice be backed up with opinions and decisions based on experiences, knowledge, preferences, beliefs and values. This statement has echoes in the literature referring to the person with intellectual disability (Mill, Mayes and McConnell, 2009; Wilson, Clegg and Hardy, 2008; Wullink et al., 2009).

Many times, people that live with an individual with intellectual disability put on a paternalistic attitude that, according to Rogers and Ballantyne (2008), is justifiable from an ethics perspective, because of the vulnerable characteristics. Van Hooren, Widdershoven, van den Borne and Curfs (2002) claim that people believe they are helping when inducing a person with disability to accept a suggestion or even decide for them. However, for Kimball (2007) this deviates the discussion and reflection about relevant information that can help the person to make a choice, legitimating his/her decision and leading to perception of autonomy. The person's vulnerability and the lack of conducts that favor their development and their social participation may result in a "disaster", from a contextual point of view (Peek and Stough, 2010).

Though autonomy is considered a behavior of personal nature, it is directly linked to values of each society and, therefore, is an ideal to reach (Yanay, 1994). Since 2001 the active participation of people with some cognitive function deficit or

disability has been the main goal of World Health Organization (WHO) in updating the International Classification of Functioning, Disability and Health (Di Nubila and Buchalla, 2008). The new model values task achievement (tasks or actions, even with limitations) and participation (involvement in daily life situations, even with restrictions). It aims above all to evaluate the ability and performance for a good quality of life, encouraging the productive insertion of the person in a social context, instead of considering this person able or unable.

National and international guidelines influence planning and action policies and initiate the dissemination of ideas to community bases involving family and school, among others, with the goal of assuring, no matter how old or in which context, the right to enjoy the determined social-historical moment. Currently in Brazil the National Human Right Program (PNDH-3) (Brasil, 2010), the Convention about Rights of the Person with Disability (Brasil, 2011) and the Brazilian Law of Inclusion of the Person with Disability (Statute of the Person with Disability) (Brasil, 2015) establish the guidelines to full right of participation, especially for minority groups, concerning autonomy and citizenship.

Before a complex and multifaceted phenomenon, Brandão (2007), García Bengoechea (2002), Krebs (2006), Krebs et al. (2011) and Tudge, Mokrova, Hatfield and Karnik (2009), scholars of sports psychology, point to the relevance of the Bioecological Theory of Human Development proposed by Bronfenbrenner

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"Artículo invitado con revisión por pares"

(2001, 2005) to explore the effect of environment in interactive and dynamic processes of human development.

This theory sees human development as a function of the person-context interaction, over time, with special attention to proximal processes that occur in interpersonal relations. According to Bronfenbrenner (2001, 2005), the process-person-context-time model is considered the essence of this theory. By embracing the Bioecological Theory of Human Development, it is assumed that the investigation will involve evaluation and simultaneous analysis of these four elements.

Studies in sports psychology based on Bronfenbrenner's Bioecological Theory of Human Development have discussed different topics; e.g. sports participation (Krebs et al., 2011; Stefanello, 2005), social engagement in recreational games (Tolocka, Faria and De Marco, 2011), parental behavior (Holt, Tamminen, Black and Fox, 2009; Nakashima, Nascimento Junior and Vieira, 2012), sports talent development (Krebs, 2009a), importance of proximal processes (Krebs, 2009b), and the influence of personal and contextual factors in sports practice (Copetti and Krebs, 2004; Krebs, 2010; Stefanello, 2003, Strachan, Coté and Deakin, 2009). Although rare, studies about people with intellectual disability emphasize the importance and the challenge of embracing Bronfenbrenner's Bioecological Theory of Human Development in an inclusive education context (Butera, 2005; Krebs, 2006; Sontag, 1996).

Studies about the perception of autonomy explore different aspects; for example, the athlete's self-perception and the autonomy perception he/she can assign to the coach's intervention (Aibar et al., 2015; Adie, Duda and Ntoumanis, 2008; Álvarez, Balaguer, Castillo and Duda, 2009; Solberg and Halvari, 2009). A study conducted by Siperstein, Kersch and Bardon (2007) had established a relation between autonomy and leadership skills of athletes with intellectual disability. Moltó and Bruna (2017) claim that sport practice has an impact on autonomy of people with intellectual disability.

Although studies explore autonomy-related themes, not many of them focus on reciprocal influence identified in personal interrelations. Another point of relevance is to guarantee that people with intellectual disability may speak and be listened to, confronting their opinion with those that interact with them on a daily basis, including sports practice. A theme that enable researchers to understand the effects of interactive and dynamic processes on human development foster new ideas related to sport psychology.

Therefore, this article's aim is to investigate elements, most importantly the context and roles of those that foster autonomy in the life of a swimming athlete with intellectual disability, based on the Bioecological Theory of Human Development.

Methods

This is a qualitative case report with the aim of describing the contexts in which the athlete is present and participating, as well as the roles of the representative of the family responsible of the athlete's education and of the coach that contributed and/or interfered in the autonomy of this athlete.

Bronfenbrenner did not establish a pattern or a research design but, assert that new ideas were welcome to increase knowledge throughout a process called "developmental science" (Bronfenbrenner and Evans, 2000). The evolution in research led Bronfenbrenner (2001) to add new research proposals, among them the observation of increased complexity of proximal

processes over time, the participation in activities with people engaged in welfare and the parental feelings perception, that lead them to instigate the development of their children.

This study proposes to apply the process-person-context-time model as base to observe and comprehend human development, especially concerning the autonomy perception of the athlete with intellectual disability. The approach used fundamentally was to give voice to the person with intellectual disability, still considering vulnerability factors (Rogers and Ballantyne, 2008). Therefore, from the perception the subject has of himself and others, is possible to speculate over the influence on the proximal processes that occur in relationships present in the family/home and sports environments and observe how context can influence changes over lifetime.

Participants

The criteria for inclusion was to have intellectual disability acknowledged by the institution of origin; to be 18 years or older, to have participated at least once in a competition in a location different from the training site; and to be able to verbally express himself in an understandable manner.

The sample was intentional, consisted of a male athlete (*A*), his mother (*M*) and his coach (*C*). *A* is 24 years old, has practiced swimming since 2006 and attended the Special Olympics World Summer Games in Greece, held in 2011. In addition to swimming, he also practices cycling, plays keyboard and drums and sings, and works at a Non-Governmental Organization created by his mother where he interacts with other children with disabilities.

A was diagnosed with agnosia, mixed specific developmental disorders and epilepsy. *A* is the middle child of three siblings, and has visual and cognitive limitations. Despite all these limitations, *A* can use the computer, practice sports, ride a bicycle and perform many other daily activities. *A* has always lived with his parents in a condominium, where some other relatives also reside.

M dedicated full time to *A*'s education until he was 16 years old, when she hired his personal trainer at the time to accompany *A* in his daily activities. *M* was reluctant to let *A* go to the 2011 Special Olympics World Summer Games, because *M* and *A* had never been apart. Now she reckons that his participation in this competition enabled his and hers overcoming the situation of being separated.

C has graduated from university in 2004 and is currently a swimming coach at a Sports and Motor Adapted Activities Program (Peama), in the city of Jundiaí (Sao Paulo state, Brazil). The program she works for has students with disability and was her first experience in this area. When the athlete starts training within this program, he must undergo physical and psychological evaluations, and observations are made on a class-basis. If she observes difficulty in comprehension from the athlete, she makes changes in the way she explains the task.

Instrument

For the study's plan a semi structured interview was elaborated, with contents adapted to each of the participants (*A*, *M* or *C*), but had the same basic topics: biography, the meaning of autonomy, freedom to make choices, the importance of being autonomous, the meaning of being an athlete, the freedom to act with autonomy, how autonomy is perceived at home and at the training setting, and factors that influence in a positive or negative way in autonomous behaviors, prospecting the benefits resulting

from the interpersonal relationship. All statements were taken by the main author, registered in an audio recorder for later transcription and analysis. This study was approved by the Ethics and Research Committee of the São Judas Tadeu University, protocol n. 84/2010.

Procedure

The Term of Free and Informed Consent (TFIC) for the athlete was in accord to the guidelines for people with intellectual disabilities: accessible language with simple and understandable terms (Araújo, Zoboli and Massad, 2010). The TFIC was read and signed by the athlete and endorsed by his mother. *M* and *C* also signed a TFIC.

The statements of *A*, *M* and *C* were taken individually and interviews lasted approximately 30 minutes each. The statements were transcribed after being audio recorded taking in consideration the guidelines established by Manzini (2012).

Data analysis

The data obtained from the interview, regarding perceived autonomy was analyzed according to the bioecological model of human development of Bronfenbrenner (1979; 1992; 2001). The proximal processes (that represent direct and reciprocal influence), personal attributes (that reflect personal perception and of others to reach a goal), context parameters (related to events that occur at family and sport context) and time dimensions (living experiences with impact in specific moment of life) as from the process-person-context-time model.

Results

Several interesting aspects emerged from the interviews. The meaning – and consequently the perception – of autonomy appears to be directly correlated to use and comprehension of the word. It was observed that, for the athlete, the meaning of autonomy is seen as an ability to do, reflect on, share concerns and argue. An example of this perception are choices made concerning the sport and deciding when and where to spend money. At work some choices are made with the help of the personal trainer, but when the athlete recognizes that he has the ability to deal with the situation on his own, he takes it upon to perform the task, such as deciding to take part in the event that would select athletes to compete in the Special Olympics Summer Games, in Greece.

A shops by himself, and invests the money of his grandfather's retirement so he can guarantee his financial future. *A* also reckons his participation in the Special Olympics Summer Games in Athens as the most important overcoming travel experience he had to endure.

In the mother's speech, she recognizes the athlete's ability to be responsible, to be dedicated at work, to argue and that he also wishes to be independent. She acknowledges a lot of autonomy development to the personal trainer that has been with *A* since he was 16 years old. She recalls that, when *A* got into the team for the Special Olympics Summer Games she was apprehensive and reluctant to let him go because they had never been apart. She also was grateful for this experience, because it led her son to find a job. However, she is still apprehensive because *A* tends to speak his mind to anyone without giving it a second thought.

The coach observed that *A*'s social networking, confidence, respect for others, independence and freedom of choice have all

improved since they started working together. She recall's it becomes clear when *A* is by himself, as he demonstrates a good self-care when traveling for competitions and he can also accomplish some tasks without any help. She also believes that swimming instigates independence, for the act of swimming as well as the possibilities it can generate, such as traveling to competitions. She relates autonomy to the ability of the athletes to perform the exercises by themselves (comprehend and execute), and to do what they want without help, despite needing some advice sometimes.

Discussion

Bronfenbrenner (2001) states that, in the bioecological theory of human development perspective, the person in development is an element of the process-person-context-time model as well as a result of the interaction between all four elements of this model. In the first scenario, personal characteristics and their influence on shape, strength, content and direction of proximal processes are analyzed. In the latter, the effects of the influence between the four elements is observed, setting the person in a moment of the individual's life.

According to Bronfenbrenner (1992), there could be a false assumption that personal characteristics are responsible for development itself and that the environment is secondary, although one could not change without the other. The author states that the ability of a person to modify the environment will only come through if it is allowed for that person to engage in self-guided actions considering the combination of biological characteristics and environment. That way it is possible to understand that autonomy development emerges from both personal characteristics and environment (Bronfenbrenner, 1992).

Focusing on the proximal processes allows the shape, strength, content and direction to be observed. From the athlete's perspective, they are stated as willing to do, initiative, intention, challenge and choice. From the mother's perspective, they are learned to do, incentive, protection and acknowledgement. From the coach's perspective, they are knowing how to do, appreciation, awareness, opportunity and responsibility. Some of these actions may be identified as interdependent, such as challenge-incentive-responsibility, choice-acknowledgement-opportunity, though reflecting reciprocal influence, pertinent to proximal processes.

One important aspect is the autonomy development attributed to a third person, the coach, from the mother's perspective. Bronfenbrenner (2001) affirms that a third party, with affective bond, is essential for development, especially when stimulating progressive and complex activities.

To use intellectual disability as a basis for understanding a person has become incongruent. Although the definition characterizes intellectual disability as a limitation of the intellectual functioning and adaptive behavior – expressed as conceptual, social and practical abilities originated before the age of 18 –, there are many more elements to be considered and it is so indicated to use a more multidimensional perspective (AAIDD, 2010).

From the athlete's perspective, it is possible to observe mentions to some difficulties, but he can also explain how he adapts to develop abilities that involve cognitive processes or personal abilities. Vallerand (2001) states that autonomy is

exercised before specific situations, reflecting a situational motivation, filled with pleasure, joy and personal achievement. Therefore, it is common that people that live with the athlete acknowledge that the promotion of his autonomy might bring benefits such as personal satisfaction. According to Poletto and Koller (1999), personal characteristics and intellectual capability contribute to let the person face problematic situations as challenges to be overcome.

Bekker and van Assen (2006) consider autonomy as a psychological condition expected in early adulthood and focus on autonomy because of a separation for a more independent life, and being able to deal with new situations. It is important that adequate and sufficient social abilities are promoted so the person can learn how to deal with the coming adulthood (Pereira, Dutra-Thomé and Koller, 2016).

Autonomy is also a tool for the person to be a socially active citizen, and that is essential for fighting against victimization, very common in minorities (AAIDD, 2010). Appreciation of the person's potential favors its insertion into context. In the sports

environment, the coach has a relevant role in the development of social skills through team work, of discipline and helps to promote the autonomy of his athletes (Marques, Sousa, Cruz and Koller, 2016).

The respect for dignity, individual autonomy and freedom of choice is one of the main principles of the Convention about Rights of the Person with Disability (Brasil, 2011). Even if it can be stated that it is possible to give opportunity to the person with intellectual disability to exercise his/her autonomy, little is known about the processes that lead people with intellectual disability to a full autonomy.

Therefore, the opinion of athletes with intellectual disability that take place in sports programs in Brazil, and the opinion of their coaches and family representative, is particularly important to identify processes that promote autonomy. The results show the need to improve the sports programs and the consolidation of adapted physical education in Brazil and, in particular, sport psychology, especially when athletes with intellectual disabilities are concerned.

UNA PERSPECTIVA BIOECOLÓGICA DEL DESARROLLO HUMANO SOBRE LA AUTONOMÍA DE ATLETAS CON DISCAPACIDAD INTELECTUAL

PALABRAS CLAVE: autonomía personal, psicología, deportes, discapacidad intelectual, perspectiva bioecológica, desarrollo humano.

RESUMEN: El objetivo de ese estudio fue investigar los elementos que favorecen la autonomía en la vida de deportistas de natación con discapacidad intelectual, desde la perspectiva de la teoría bioecológica del desarrollo humano. Se utilizó un estudio de caso cualitativo para comprender los contextos en los que el deportista estuvo presente y participando. Se analizaron los papeles del representante de la familia responsable de la educación del deportista y del entrenador que contribuyeron y / o interfirieron en su autonomía. Un nadador, de sexo masculino, con discapacidad intelectual que participaba en el programa Special Olympics Brasil, con 24 años de edad, así como su madre y el entrenador de natación fueron entrevistados. Se utilizó una entrevista semiestructurada. El análisis descriptivo se basó en el modelo proceso-persona-contexto-tiempo. Los resultados mostraron que las disposiciones, recursos y demandas observados en los procesos proximales en el microsistema del ambiente morada/familia y en el ambiente deportivo reflejaron especificidades que demandaron un abordaje contextualizado del modus operandi del atleta. Los resultados también mostraron que las actividades en el entorno morada/familia, así como en el entorno deportivo, tienen un efecto importante en la autonomía. Fue posible observar que los atributos fueron desarrollándose de manera muy especial y las características personales positivas combinadas influenciaron el comportamiento autónomo. Aparentemente, las creencias personales prevalecen en las acciones adoptadas por la madre y el entrenador, lo que refleja su importante papel en el cambio del comportamiento del atleta. Por lo tanto, los procesos proximales son de importancia fundamental en cualquier relación interpersonal. La perspectiva bioecológica adoptada permite considerar el deporte como un entorno favorable para el desarrollo humano.

UMA PERSPECTIVA BIOECOLÓGICA DO DESENVOLVIMENTO HUMANO SOBRE A AUTONOMIA DE ATLETAS COM DEFICIÊNCIA INTELECTUAL

PALAVRAS CHAVE: autonomia pessoa, psicologia, esportes, deficiência intelectual, perspectiva bioecológica, desenvolvimento humano.

RESUMO: O objetivo deste estudo foi investigar os elementos que favorecem a autonomia na vida de atletas de natação com deficiência intelectual, sob a perspectiva da teoria bioecológica do desenvolvimento humano. Foi utilizado um estudo de caso qualitativo para descrever os contextos nos quais o atleta está presente e participando. Foram analisados os papéis do representante da família responsável pela educação do atleta e do treinador que contribuíram e/ou interferiram na autonomia do atleta. Um atleta, do sexo masculino, com deficiência intelectual que participa do programa Special Olympics, com 24 anos de idade, bem como a sua mãe e o treinador de natação foram entrevistados. Utilizou-se uma entrevista semiestructurada. A análise descritiva baseou-se no modelo processo-pessoa-contexto-tempo. Os resultados mostraram que disposições, recursos e demandas observados nos processos proximais no microsistema do ambiente lar/família e no ambiente esporte refletiram especificidades que demandam uma abordagem contextualizada do modus operandi do atleta. Foi possível observar que os atributos foram desenvolvimentalmente instigantes, e as características pessoais positivas combinadas influenciaram o comportamento autónomo. Aparentemente, as crenças pessoais prevaleceram em ações adotadas pela mãe e pelo treinador, refletindo um importante papel na mudança de comportamento do atleta. Assim sendo, os processos proximais são de fundamental importância na relação interpessoal. A perspectiva bioecológica adotada permite considerar o esporte como um ambiente favorável para o desenvolvimento humano.

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