

Determinants Of Participation In Sport And Physical Activity For Students With Disabilities According To Teachers And School-Based Practitioners Specialized In Recreational And Competitive Physical Activity

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Because youth with disabilities participate less in physical activity than young people without disabilities and that schools play an important role in adopting a healthy lifestyle, it is important to deepen our understanding of the elements that foster participation of young people with disabilities in physical activity. The objective of this research is twofold: 1) establish the determinants of participation of youth with disabilities in physical education according to practitioners and 2) document the effects of an initiation and competition program for youth with disabilities on their physical activity. The collection of data using semi-structured interviews was conducted in two phases. The first, among teachers and school-based practitioners (n = 18), aimed to understand their experiences relating to the adoption of healthy lifestyles among their students with disabilities. As for the second, practitioners (n = 12) were interviewed during organized adapted sporting events. Analysis of the interviews shows two categories of determinants, namely determinants relating to school (winning conditions of the environment, the importance of extracurricular activities, and obstacles) as well as determinants relating to the professional competence of teachers (the role of teachers, collaboration between professionals, the benefits of sport and physical activity and obstacles encountered).

Keywords: adapted physical education, youth with disability, schools, physical educators

Introduction

Physical inactivity affects the whole population, including young people. Indeed, in Canada, only 7% of young people between the ages of 10 and 16 meet the minimum daily requirements of 60 minutes of physical activity (Active Healthy Kids Canada, 2012). This trend is even more prevalent among young people with disabilities (Badia, Orgaz, Verdugo & Ullan, 2013; Buttimer and Tierney, 2005; Shikado-Thomas, Majnemer, Law & Lach, 2008). Young people with disabilities are less active than young people without disabilities (Pittet, Berchtold, Akre, Michaud & Suris, 2009; Solish, Perry & Minnes, 2010).

According to Anderson and Heyne (2010), adopting a healthy lifestyle is a greater challenge for young people with disabilities. A more sedentary lifestyle among these young people partially explains this problem (Abeysekara, Turchi & O'Neil, 2014). Similarly, a low family income hinders access to recreational activities and as a result, the adoption of a healthy lifestyle (Bedell et al., 2013). Youth with disabilities incur greater risks of developing health problems such as obesity and chronic diseases including hypertension and diabetes (Anderson & Heyne, 2010; Riley, Rimmer, Schiller & Wang, 2008; Rimmer, Rowland, Yamaki, 2007). In fact, the prevalence of overweight and obesity is two to three times higher among those with disabilities than other young people (Badia, Orgaz, Verdugo & Ullan, 2013). Leisure participation has many benefits for people with disabilities, especially in terms of well-being and social recognition (Zabriskie & al, 2005) and as a means to overcome inactivity among young people with disabilities (Dugas & Point, 2014; Stidder & Hayes, 2013). Mixed participation in leisure — which involves pairing-up people with disabilities and those without — helps people without disabilities become aware of and understand people with disabilities (Wilhite & Shank, 2009). In youth with disabilities, leisure participation also has essential benefits, such as the creation of a social network (Hassan, Dowling, McConkey, & Menke, 2012), the development of a sense of competence (King & al, 2003) and finally, it contributes to the harmonious development of these young people (King & al., 2003; Shikako-Thomas et al., 2008). Participation in leisure activities increases the well-being of people with acquired disabilities (Aidar, 2007; Graham & al., 2008). Indeed, people with disabilities who follow a physical activity program see an improvement in their psychological well-being. It is important to understand the determining factors to support participation of youth with disabilities in active leisure. This article presents the results of a study conducted with physical education and sports teachers and other school-based practitioners who work with young people with disabilities. This research aims to demonstrate the importance of schools in the participation of youth with disabilities in adapted leisure activities.

This research is part of the “Choisir de Gagner” project established by AlterGo, funded by Québec en Forme. This project aims to encourage youth with disabilities to adopt a healthy lifestyle. Research conducted since 2012 focuses on participation of these young people in physical activity (PA) and the development of tools to guide the various organizations working with these young people to encourage and support participation in PA. Data was collected as part of the project via a series of semi-structured interviews with school-based practitioners. Semi-structured interviews provide a rich understanding of the experiences of practitioners specialized in physical activity with regards to participation in sports for students with disabilities and the meaning these practitioners give to their reality (Savoie-Zajc, 2009). In addition, semi-structured interviews address perceptions and impressions, which other data collection methods fail to collect (Sirakaya-Turk et al., 2011). Two data collections took place: the first with practitioners interviewed in primary and secondary level schools and the second during adapted sporting events.

Purpose of the study

This study has two objectives. The first is to document the determinants of participation in physical education classes for youth with disabilities according to the experiences of practitioners. The second is to understand the effects of a new program composed of adapted initiation activities and competitions aimed at increasing the participation of students with disabilities in active leisure on their participation in recreational and competitive physical activity.

Review of the literature

Several factors affect participation of youth with disabilities in leisure and sports. These elements are multifactorial and form a whole to be considered when addressing the inclusion of people with disabilities in leisure. According to Longo, Badia and Orgaz (2013), personal and environmental factors may have a greater impact on youth participation than only the family environment. This can be explained by the fact that the disability is a result of interrelations between the person and their environment (societal, social environment). Thus, elements of policies and regulations affect access to leisure. In addition, the social environment can encourage, support or even hinder participation. Finally personal factors should be considered, such as age, gender, motor and social skills as well as motivation. The following section aims to identify knowledge relating to both the school and the role of physical educators through a review of the literature.

School, physical activity, and students with disabilities

Although policies and regulations affect participation in recreational and competitive physical activity (Badia & al., 2013; Shikako-Thomas et al., 2008), equipment and infrastructures play a significant role (King et al., 2006). In addition, schools play an essential role in acquiring a healthy lifestyle. They can instill good PA habits, especially in young people with disabilities (De, Small & Baur, 2008). Some authors even add that schools should become providers of physical activity by facilitating and initiating participation in sports (Dugas & Point, 2014). In addition, physical education classes allow the creation of social bonds which in turn facilitate the transition between the hospital environment and school environment (Bourgoin, 2007).

However, schools face many constraints to participation in sport and physical activity among students with disabilities, namely financial, human and educational constraints (Roult, Carbonneau, Chan, Belley-Ranger & Duquette, 2014). Despite this, these students are often limited to physical activity at school. Even fewer extracurricular activities or opportunities within the community are available to them (Dugas & Point, 2014 Roult & Carbonneau, 2013). This lack of opportunity for youth with disabilities to participate in physical activity certainly contributes to stigmatization within the school environment. In fact, these students who are denied access to conventional sports structures (sports teams, tournaments, etc.) are set apart from other children in their community (Belley-Ranger, Duquette, Carbonneau & Roult, 2016).

The types of classrooms in schools affect the integration of youth with disabilities in recreational and competitive physical activity. In Quebec, there are inclusive classrooms that integrate students with disabilities in regular classrooms, special education classes composed only of students with disabilities in regular schools, and specialized schools for youth with disabilities. Inclusive classrooms are sometimes problematic for the participation of students with disabilities. A competitive environment paired with a gap in the skills of students hinders participation in physical education (physical education) classes (Goodwin et al., 2014; Dowling et al., 2012; Svendby and Dowling, 2012; Docheff, 2011; Haycock and Smith, 2011). As such, activities in smaller groups are suggested since they reduce stigmatization (Hassan et al., 2012) and encourage participation (Belley-Ranger, Duquette, Carbonneau & Roult, 2015). Nevertheless, opportunities for inclusive activities are required for true access to inclusive leisure experiences including recreational and competitive activities for youth with disabilities to truly take part in society (Carbonneau, Cantin and St-Onge, 2015).

Nevertheless, Carbonneau and Roul (2013) state that there is also room for so-called segregated activities in this inclusive offer. Ortiz-Castillo (2012) mentions that these activities allow people with similar abilities to exchange and also encourage participation in sports (including Special Olympics and Paralympics). This author notes other benefits, namely enjoyment and the desire to pursue physical activity. These sports competitions designed for youth with disabilities stimulate physical ability and self-development (Hassan and colleagues, 2012). However, it should be noted that like with students without disabilities, competitions must be designed for people with disabilities and respect the physical abilities of these athletes. This is why the Special Olympics are increasingly successful worldwide (Harada et al., 2011). These athletes are no longer individuals with disabilities; they become full-fledged athletes (King et al., 2013; Hassan et al., 2012; Haycock and Smith, 2011). In addition to the way society views these athletes, it enhances their whole identity.

In sum, it is important to put in place mechanisms to support participation in recreational and competitive physical activity among young people, whether it is in an inclusive or segregated context. This implies that adequate resources are in place and that the person in charge has received proper training.

Teachers and students with disabilities

The presence of inclusive classes and special education classes in schools presents challenges for physical education teachers. Several difficulties arise, especially due to inadequate training on how to integrate youth with disabilities in physical education classes, possible uneasiness towards these students, and a feeling of helplessness with regard to adapting activities (Block et al., 2013; Sherlock-Shangraw, 2013; Dowling et al., 2012; Flores et al., 2012; Hassan et al., 2012; Thaver and Lim, 2012). The sense of isolation these teachers feel shows their need to exchange tips and share their experiences with colleagues (Docheff, 2011; Roul and Carbonneau, 2012). In addition, the human and financial constraints that schools face complicate participation in sports for these students. However, beyond the difficulties schools face, adapting course content represents the greatest difficulty for physical educators (Hassan et al., 2012; Svendby and Dowling, 2012; Thaver and Lim, 2012; Docheff, 2011; Haycock and Smith, 2011). This difficulty is all the more worrisome when we know that adapted support has the power to motivate youth with disabilities to participate in PA, but also helps to overcome their disabilities and encourages them to participate in individual or group PA (Brittain, 2004; Bui-Xuan & Mikulovic, 2007). Similarly, teachers can improve the social development of youth with disabilities through the quality of support offered (Bouvard, 2007). The attitude of the teacher, both through a partnership between teachers and practitioners and through an adapted educational approach, facilitates the

integration of the student in the group. The adapted educational approach includes these elements, such as the analysis of potential, skills and resources of all students. More specifically, teachers must first ensure proper understanding of the disability, adapt the learning activities to the disability, and offer moral support (Junker & Carlberg, 2011; Saebu, 2010). Bui-Xuan and Mikulovic (2011) stress the importance of considering the potential of these students rather than focusing only on their disabilities, at the risk of creating or reinforcing disabling and stigmatizing conditions.

Theoretical framework

The Human Development Model - Disability Creation Process (HDM-DCP) was chosen to lay the theoretical foundation of this research project (Fougeyrollas, 2010). This model emphasizes the interaction between the environment and human characteristics. Moreover, by adding the time variable, Fougeyrollas insists that every disabling situation is also temporary. The creation of disability is not only a matter of the person's characteristics, but the interaction between the person, their social and physical environment (Cavallo et al., 2014; Preskitt et al., 2013) at a given time. These situations can be modulated according to shifting elements. Persons within the social environment therefore have the power to reduce the negative effects on the person with a disability by acting on the physical and social environment, thus limiting the so-called disabling situation. The environment is divided into the following dimensions: micro (family, friends), meso (actors of the educational and community environment, etc.) and macro (policies, programs available, etc.). This allows us to review the disability creation process and also to otherwise consider the scope of adapting activities on a micro level (through support for parents), a meso level (through the actions of practitioners), and a macro level (through the establishment of facilitative mechanisms) for people with disabilities.

Method

To conduct this research, two data collections were conducted using semi-structured interviews. The first data collection in schools was conducted among 18 physical education teachers and other professionals (teachers, special education technicians and kinesiologists). Semi-structured interviews between September 2012 and April 2013 allowed us to learn about their experiences relating to the adoption of healthy lifestyles among their students with disabilities. The interview guide included the following topics: the expectations and needs of physical educators, the determinants of sport and physical activity relating to the student, determinants relating to school, and determinants relating to professional skills. Thus, the practitioners (n = 18) interviewed work with young

people with a range of disabilities: physical disability (amputation, excrescence and muscular dystrophy), mild to severe intellectual disability, behavioural disorders, traumatic brain injury, visual impairment and hearing impairment.

The second data collection took place during adapted sporting events organized by one of the Réseaux du sport étudiant du Québec (RSEQ)¹ of the Montérégie² administrative region. Data collection took place between October 2014 and April 2015. These events — in partnership with schools — hosted various sports activities for youth with disabilities (ball hockey, swimming, indoor soccer and volleyball). The purpose of these sporting events was to create an environment where young people with disabilities could practice a competitive sport and compete against other young people of their caliber. In addition, these activities were intended to stimulate participation in sports among young people in a sustained manner throughout the school year. The competitions were held during half-days or evenings.

As part of this research, practitioners (n = 12) who accompanied young people during these competitions were interviewed during semi-structured interviews. Seven themes were addressed during these interviews: 1) the characteristics of practitioners, 2) knowledge on the issue of APA among students with disabilities, 3) the classification of impairments of their students, 4) their needs and expectations, 5) the APA initiatives within their schools, 6) expectations regarding this type of sporting event and 7) the level of satisfaction regarding these events. These telephone interviews lasted 15 to 30 minutes. The practitioners included physical education teachers (n = 5), special educators (n = 3), teachers (n = 3, one teaches French, the other did not specify the subject taught, the third teaches special education) and a coach-lifeguard. Nearly half of the practitioners have 15 years or more of work experience and only about 15% have less than 4 years of experience. Their students have a wide variety of disabilities: mild, moderate to severe intellectual disability, autism spectrum disorder, motor impairment, visual impairment, hearing impairment and language impairment.

Data taken from closed questions was processed using SPSS software (SPSS ISM Statistic 17 version) to reveal certain levels of answer frequency. In turn, data from open questions was processed manually by two members of the research team. This analysis was broken down into topics. The researchers' codifications were then compared in order to reach a common codification. Ethically, the

¹ All regions of Québec are represented by a RSEQ with a mission to promote and develop sport and physical activity among students.

² The Montérégie is an administrative region located south of the city of Montréal.

data obtained is completely confidential. Thus, the names of practitioners and the young people they work with were changed to digital codes to maintain their anonymity. Extensive notes were taken during interviews in order to transcribe what practitioners stated in the most accurate way possible.

Results

Results obtained from the analysis of semi-structured interviews (physical education teachers in schools) consist of two very distinct themes: determinants relating to the school and determinants relating to the professional skills of teachers.

Determinants relating to school

These determinants refer to the terms and circumstances related to participation of students with disabilities in physical education classes at school as well as certain external elements related to the environment in which students with disabilities evolve at home and in their community. Determinants relating to school include 1) the conditions that foster participation in PA, 2) school and extracurricular activities, 3) motivation and beneficial effects 4) barriers and needs.

Winning conditions. Several practitioners noted the winning conditions for participation of young people with disabilities in Physical education: interest in the activity, a sense of security and a climate of acceptance.

First, different sports should be offered to students with disabilities so that they can develop an interest in a particular sport. As a practitioner (4) observed: “the starting point is uncovering an interest in that sport”. For another teacher, what is important is for the activities to meet the needs of students: “of course when we see young people who have specific needs, we try to implement things to help them get through the day” (Practitioner 9).

Next comes the sense of security. Indeed, students must feel good and their disability should not get in the way of their safety. For example, a practitioner recounted a situation with a student: “(...) he threw tantrums, he did not want to run; he could not see where he was going...” (Practitioner 6). Because racing was not safe for this young person, the practitioner suggested that the social worker accompany him to the weight room and have him ride a stationary bike while the other students raced. This young person was then able to participate in physical activity while remaining in an environment that was safe for him. Finally, the context in which the activity is performed in terms of the climate of acceptance is crucial. A teacher explained how the fear of being judged affects participation:

“...often, high school brings such fears. They don’t want to be cast aside or judged. They would rather not perform the movement or participate in the sport for fear they might be ridiculed” (Practitioner 8).

In schools visited, some students without disabilities facilitate the integration of young people with disabilities while others make it more complicated. When talking about students who are open to others with disabilities, a practitioner explained:

“With these young people, it goes really well; they have a positive attitude. They defend them at school, value them, compliment them, etc. On the other hand, there are students who have little information about this clientele and who will bully them, make bad jokes, not want to be with them and who will want to dissociate themselves...”(Practitioner 10).

Some practitioners emphasized strategies that promote integration, namely mentoring. As such, some teachers encourage pairing of students of a different age in order for the older student to help the younger one. Similarly, students with more advanced skills can be paired with a student who needs special help.

School and extra-curricular activities. Actions undertaken by teachers interviewed to promote a healthy lifestyle take place at different times: activities during lunchtime, in-class activities, activities in the evenings, extracurricular activities, and special activities. During lunchtime, some activities are open to everyone while other activities aim to integrate students with disabilities, where “true friends are paired with regular students” (Practitioner 8). In one school, all students must sign-up for at least one lunchtime activity with new sports every two months. In-class activities are varied, from powerwalking to powerchair football to electric wheelchair soccer.

For some schools, the biggest difficulty with extracurricular activities for students with disabilities is transportation. Students must take the bus from school, which means time slots after school hours are more difficult to fill. In other schools, extracurricular activities have helped lower the dropout rate. When referring to his school, composed mostly of special education students, a practitioner (10) specified that: “these kids, if it weren’t for extracurricular activities, they wouldn’t be here.” Extracurricular activities motivate students and “encourage them to move” (Practitioner 9). Regarding special activities, which are more sporadic, a wide variety of activities were mentioned, including participating in the Défi Sportif (sports challenge), Special Olympics, track and field open to all, adapted outdoor activities...A school participated in a project with the help of an adapted club. A practitioner said:

“There was a project for students with reduced mobility to try...adapted tobogganing. We did that; ice tobogganing at [name of place]. There was an adapted tobogganing club and we went...” (Practitioner 7).

The small group approach ensures better monitoring of students. In this regard, a practitioner (2) explained:

“...It is easier to follow-up with ten students and to know what they are up to and have exercises that are adapted to their level...to do it with 10 people rather than a large group of 30 people.” This more individualized approach makes it possible to work according to the needs of students.

Motivation and benefits for youth with disabilities. Practitioners interviewed during adapted sports events described what motivates them to participate in these events and the benefits for their students. The main reason these practitioners sign-up their students for these events is to increase their participation in sports and for them to feel valued.

“Hey, it’s for our students because they love to compete; it gives them a feeling of self-worth! That’s how we keep them in school, and then they can finally compete against young people of their caliber...finally we have competitions of a pretty high caliber for them!” (Practitioner 22).

Participation in sports competitions at school also affects student motivation. Indeed, their level of motivation increases, they are more interested in their physical education classes,

“They eat better, they move more” (Practitioner 24). The competitions become objectives, goals to achieve and “encourage them to prepare” (Practitioner 20).

Practitioners mentioned many benefits to participation in sport and physical activity for young people with disabilities. These are mainly psychological and relational benefits, but also positive impacts on their lifestyle and learning in general. Besides the enjoyment they feel during the competition, students feel a strong sense of pride, which increases their self-esteem. A practitioner explained:

“After [the competition,] their self-esteem and well-being is through the roof. They feel like everyone else. We can really see the pride in their eyes, especially when they have a medal around their neck...” (Practitioner 22).

They feel a sense of recognition for being part of a team, for participating in sports just like regular students. A practitioner (24) observed changes in the attitude and self-confidence of his students. He explained that some of these young people walked with their heads down at the beginning of the school year but that their postures completely changed following their participation in a sports team. In terms of interpersonal relationships, these young people seem to have a strong sense of belonging to the team: “they become closer to their teammates” (Practitioner 28). One practitioner mentioned that all students have the opportunity to experience group life, “even young people who are usually very isolated” (Practitioner 16). Another practitioner added: “They learned to talk and communicate and have team spirit” (Practitioner 12). This openness to others is driven by their sense of belonging to the team. With regards to learning, practitioners observed a significant increase in the autonomy of their students. Thus, students involved in the process become more autonomous:

“We also give them the information about the competitions; they are the ones responsible for giving it to their parents, bringing the money and having all the material required for the competitions...we’re not always with them, taking them by the hand. And the more they participate in competitions, the more autonomous they become” (Practitioner 22).

For others, young people become responsible for their material, their lunch. Participating in these events becomes a means for personal achievement, a true opportunity to grow and be more open to others.

Obstacles and needs. In terms of obstacles and needs, the teachers interviewed illustrated the difficulties related to the environment, equipment, and time allotted. In terms of the environment and equipment, some equipment is lacking and infrastructures are inadequate. For example, a practitioner (4) mentioned that: “an entry to the pool that would be fun to use to go down...in the water because for those with pervasive developmental disorders, using the ladders is not easy...” Also, the lack of facilities means that Physical education classes must be given using team teaching, which reduces motor engagement time for students: “...Waiting time is counter-productive in physical education. But it becomes more and more difficult when there are 50 students in the gym. It becomes very difficult for everyone to be in action” (Practitioner 12). This same practitioner added that this interferes with the personalized approach with students with disabilities: “...You can forget services adapted to the young person’s disability. It’s impossible to manage.” Similarly, another practitioner suggested the presence of resources for students with disabilities and for these two practitioners to work together to integrate the student with disabilities.

Determinants relating to teachers

These determinants relate to the professional skills that foster participation in sports for these students as well as the obstacles encountered. Some elements that teachers reported facilitate participation in Physical education classes for students with disabilities: 1) the role of teachers, 2) collaboration and 3) obstacles encountered.

The perceived role of teachers. The perceived role of teachers with this clientele is composed of two main elements. The first is related to transmitting knowledge and professional skills while the second, on the other hand, is related to conveying passion and values. Transmitting knowledge includes health-related content (such as nutrition and stress management) but also classroom management and evaluating learning progress. Thus, we understand that ensuring a sense of security for students improves their integration in sport and physical activity. This element was described by a practitioner (11):

“I also think that the relationship between the teacher and the student, and students in general, has a big impact. If a student doesn’t feel safe in class or doesn’t feel good...I think the integration doesn’t go well either”.

In terms of professional skills, several practitioners brought up various elements. They mentioned the importance of creativity and the ability to adapt to change and students’ disabilities in course planning. In this regard, one practitioner shared this opinion: “also being creative and ingenious. You create new activities from scratch and if you look for parts of projects and information, you build your own things” (Practitioner 7). Physical education teachers who must integrate students with disabilities in their classes must inevitably make changes to certain elements of the corpus. As such, changes must be made both in terms of the level of difficulty (adapt planning by developing alternatives to optimize the young person’s progression) and adapting the rules and equipment. This facilitates the understanding of instructions and increases the level of participation in the activity. For example, a practitioner modified a ball by adding bells for a student with a visual impairment so that he could hear it. All this adaptation requires creativity, which is motivating: “Oh! I modify, I create, ah! Yes, yes. I had to do that very early on in my career. And I get bored keeping the same activities sometimes” (Practitioner 12). However, this ability to innovate and make changes either to the course corpus or the equipment is not an easy task for everyone. A practitioner (10) stated: “...I often draw inspiration from what they do at the primary level...it’s adapting things, but then again, it’s not easy”.

Second, conveying a passion for sports often comes up in statements made by the practitioners interviewed:

“Once they’re interested, it’s about keeping that passion alive, as they say. So I’m kind of the one who makes that wheel turn, to keep developing the young person’s interest in the sport” (Practitioner 4).

According to teachers, we must convey the joys of being active, instill lifestyle habits (Practitioner 10) and teach them about healthy lifestyles. To do so, practitioners explained that the relationship they develop with students fosters participation in Physical education. Indeed, knowing the students and their disabilities allows teachers to support students and avoid preventable failure. Recognizing students’ disabilities helps teachers better understand how to support their participation. A practitioner (6) expressed this idea: “...when I understood that I had to tell him, you know, I know you can’t see well – when he understood that I knew how he was, his energy changed completely”. The trust between the teacher and the young person helps increase motivation during Physical education classes. As one practitioner (10) mentioned: “the teacher and the students become attached, we have a good relationship; I’ve been seeing them for many years and often I can motivate them, unlike someone who doesn’t know them...”

Collaboration: the key to success. The wide variety of cases — each with their own characteristics — requires collaboration between various fields of experience to support youth with disabilities in the most optimal way. Thus, in most schools, physical educators work together with healthcare professionals and other school professionals. Some health professionals contribute to rehabilitation by taking part in certain students’ muscle development plans, working directly with students during Physical education classes. Other professionals such as nurses come discuss certain topics (STI, vaccination, allergies...). Some teachers also mentioned the benefits of psychological services offered at school. Regarding school professionals, special education technicians are extremely useful in taking care of a child during an outburst or simply being aware of their needs. A teacher described a situation with a student who no longer had a technician to accompany them, which made it difficult during outbursts. Since this professional has returned, the teacher has seen the benefits: “Since she came back, it’s been going really well. She takes care of [name of student] once in a while, and it solved a problem, dear God...” (Practitioner 6). Teachers interviewed also expressed the benefits of working in collaboration with homeroom teachers: “the three teachers I have with these groups, as soon as we talk about physical activity, they’re in 100%...” (Practitioner 1). Communication between teachers at school helps coordinate interventions with students: “...last

week, during a cycle meeting, all of us teachers discussed specific points for each student” (Practitioner 6). Also, openness to collaboration between professionals in a school allows new teachers to fully integrate and get to know their students:

“...among colleagues, we ask each other many questions and there’s no problem, it’s something we really appreciate. Since I’m new, I ask other physical education teachers and I try to see with the homeroom teacher what they did in previous years, and if there were constraints with such and such a student...” (Practitioner 6).

Teachers interviewed also said that they asked other teachers about the behaviour of certain students in previous Physical education classes. Furthermore, a teacher includes other teachers in physical activity. Therefore, the teacher included also encourages their students to participate, which increase their motivation.

Obstacles and needs. In terms of training and information, teachers indicated gaps in university education relating to adapted physical education. They would like training on integrating youth with disabilities in regular Physical education classes — a phenomenon that is increasingly present in the world of education — and ideas to adapt courses: “What do we do with students who, let’s say, have a disability? Do we include them in the regular sector? Because now students with PDD or ADHD are integrated into classes, so what do we do with these students in physical education?” (Practitioner 7). Another practitioner mentioned the need for a document that explains each disability and what these students need to work on. Finally, a practitioner described feeling isolated and “being a bit alone”, which can affect information sharing. Meetings such as the ones planned by the Défi Sportif allow us to share information and good ideas (Practitioner 2). Other teachers also deplore the lack of information resources and information exchanges: “Maybe there are teachers with good ideas for those groups, I haven’t heard about it yet” (Practitioner 10). Nevertheless, for some, online informative resources are valuable. From the school board’s website, this teacher finds interesting ideas that have already been used in other schools: “we have quite an elaborate website for our school board, with many links to resources, so by looking around a bit on this website also, I think, you can find a lot of information...” (Practitioner 9).

A lack of time also seems to be a central issue among teachers. There is not enough time to plan, follow-up with students, and carry out projects. A practitioner expressed this need by stating: “How am I going to leave my ideas here, I would have to write down what I do a lot, tremendously, but I have no structure to do that; I don’t have enough time even” (Practitioner 7). Another

practitioner said: “my biggest need would be free time to plan” (Practitioner 2). Time allotted to physical education classes is a major constraint to teaching healthy lifestyles. A teacher described his reality:

“I have 50 minutes of class. 50 minutes includes 5 minutes at the beginning to change, 5 minutes at the end, which leaves me with 40. And I see them twice per five-day cycle. Sometimes the only time they have to move is in my class. So sitting down to read, I think that’s a bit unfortunate; they have to move. They already don’t have enough physical education according to me. They should have some every day; it would be easier to integrate those habits” (Practitioner 11).

Discussion

The objectives of this study are first to document the facilitating factors and constraints to offering adapted physical education based on the experience of educators and school-based practitioners specialized in physical activity. Second, this research aims to better understand their perception of the effects of an initiation to an adapted sporting event on the participation of students with disabilities in APA. With regards to participation in sports for students with disabilities, several elements from the study are consistent with the literature. Thus, the semi-structured interviews demonstrated the importance of schools, but also of the physical educator and the role of adapted sporting events in fostering participation in sports for these young people.

In this study, schools are viewed as true incubators of healthy lifestyles. Yet, many constraints hinder this objective, including a lack of time and information. However, it has been shown that extracurricular sports play an important role in acquiring healthy lifestyle habits. This study confirms what De, Small and Baur (2008) argue and shows that physical educators are committed to teaching their students to adopt an active lifestyle and try to create opportunities outside physical education classes to stimulate participation in recreational and competitive physical activity. Physical education teachers are involved on this level during school hours (classes and lunchtime activities), but also outside these periods (after classes and during extracurricular activities). However, the literature consulted shows an insufficient number of extracurricular activities available to students with disabilities (Dugas & Point, 2014; Roult & Carbonneau, 2013). In this regard, some schools attribute the lack of extracurricular activities to difficulties with school transportation. Despite this limitation, some schools still manage to implement extracurricular activities for these students and thus help prevent students from dropping out of school. Enthusiasm for extracurricular activities motivates these students to pursue

their education. Aside from the transportation constraint, schools reported additional constraints: infrastructures and time allocated to planning. Financial constraints, as emphasized by Roul and colleagues (2014), make purchasing specialized equipment to adapt infrastructures difficult and restrict teachers to team teach to counter the lack of sports facilities. Time dedicated to student motor engagement during physical education classes is significantly reduced. Another constraint expressed by practitioners interviewed is related to a lack of time dedicated to planning physical education classes. In addition, because time allotted to classes is reduced, they are considered too short. This constraint falls under the educational constraints as expressed by Roul and colleagues (2014).

The interviews helped emphasize the role of Physical education teachers in acquiring healthy lifestyles, the constraints faced, and the benefits related to the partnership between the school's team of practitioners. Thus, the statements shed light on the role that physical education teachers must play for these young people: make sure they understand the disability, continue adapting content, and promote the transfer of knowledge and passion. Junker & Carlberg (2011) argue that in order to promote an adapted educational approach that encourages participation in Physical education courses, Physical education teachers must make sure they really understand their students' disabilities and adapt the content. Teachers interviewed echoed this statement. Indeed, they argue that in terms of the professional skills required to practice the profession, educators must adapt learning activities but also course content. This is done using a sense of creativity they must possess. Other than this skill relating to ingenuity, teachers see themselves as catalysts of sports. According to the physical educators interviewed, their job is primarily to convey passion and sustain the interest of young people. This is consistent with the writings of Bui-Xuan & Mikulovic (2007) that indicate the influence of physical education teachers on motivation and participation in sports. However, these teachers face several training constraints that affect participation in sport and physical activity among these students. Indeed, teachers said that their university training does not prepare them adequately for the reality of students with disabilities. Thus, several authors state that inadequate training creates uneasiness towards these students and leads to difficulties planning content that is adapted to the needs of young people (Block & al., 2013; Sherlock-Shangraw, 2013). Teachers specified that they lack knowledge of disabilities and how to integrate these young people in regular physical education classes. In addition to these constraints, physical educators also experience a feeling of isolation. As Docheff (2011) argues, teachers feel a strong need to exchange with colleagues about their experiences as teachers as well as course planning. This corroborates with what some teachers interviewed said about feeling alone, and who also criticize the lack of educational tools. Teachers expressed a desire to develop more opportunities to share knowledge

and expertise with other teachers. However, although some feel alone, they are regularly required to work as a team with other school professionals to foster participation in Physical education and / or integration of some young people in regular classes. This is what Junker & Carlberg (2011) and Saebu (2010) state. Positive partnership experiences were described in interviews. Some teachers consider that collaboration between special education teachers or even with other teachers has the power to increase participation in Physical education, to get to know the students better, and to offer assistance during outbursts.

As has been presented, segregated sports competitions have many benefits for participants, including in terms of motivation for sports, surpassing oneself, interacting with peers, and developing autonomy. As Orzo-Castillo (2012) observed, participating in this type of event generates enjoyment and a desire to pursue the sport. This research identifies the effects of sport and physical activity during these events on the motivation for sports of these young people. Indeed, these students face a positive whirlwind of physical activity: the more they participate in these events, the more they want to keep participating. Moreover, participating in these sports events allows them to set a goal and sparks an interest in sport and physical activity. In addition to students' intensified preparation for the competition, these events allow them to surpass themselves. Students feel a strong sense of pride and their self-esteem increases. This corroborates with the writings of Hassan and colleagues (2012) that indicate the effects on the self-development of young people. Physical educators interviewed during this study stated that students feel valued not only because of their personal experience with sports but the sense of belonging to the group that they develop. This is a sense of belonging to their sports team and also to their school. During preparation and participation in these events, the sporting group facilitates exchanges between athletes. Thus, as described by Ortiz-Castillo (2012), the young people tend to communicate more with their peers. This sense of belonging becomes a catalyst for openness and interaction with others. This is especially important for people who live in social isolation. Finally, one of the benefits reported by our participants is the development of the autonomy of youth. This element, which is absent from the literature consulted, refers to some practitioners who take this opportunity to include students in the process of preparing sports activities, which empowers them. In fact, some become responsible for communication between their parents and teachers while others become responsible for their equipment. This way, in addition to the sports experience, these practitioners stimulate personal development which goes beyond the boundaries of sports. These newly-acquired skills, which resemble life skills, will be useful to them well beyond the sporting context and will affect their daily lives.

Conclusion

Overall, this study suggests that certain determinants foster participation in sport and physical activity among youth with disabilities. According to physical education teachers, there are determinants relating to the school environment, but also to professional skills. Combined, these determinants have an undeniable impact on participation in sport and physical activity for young people with disabilities. Similarly, adapted sporting events become a “springboard” to participation in sport and physical activity. In all cases, it should be noted that motivation towards physical activity increases with increasing physical activity. Thus, the positive whirlwind of physical activity makes perfect sense. It becomes essential to not only generate interest towards participation in sports, but to create experiences in the same way you would with an athlete without disabilities. Conveying a passion for sport and physical activity drives the physical educators interviewed. Future research should take a closer look at the optimal conditions for sporting events both to promote participation in sport and physical activity for students with disabilities and to promote the development of professional skills of teachers with regards to this clientele. Finally, this research brings to light the need to encourage knowledge sharing between practitioners both in terms of the nature of the disabilities and adapting course content. Also, efforts should be made to continue implementing adapted sports events to encourage participation in PA among youth with disabilities.

This research has methodological limitations. It should be noted that this sample is not a representative sample of the target population. Thus, the results cannot be applied to all youth with disabilities, practitioners, or physical educators. However, statements made about their experiences inform us about the conditions that foster increased participation in PA and the constraints faced. Finally, data collection conducted with the RSEQ was carried out within a region bordering a metropolis, which affects the results. Future research in rural and urban areas could also reinforce knowledge on this topic.

References

- Abysekara, P., Turchi, R., & O'Neil, M. (2014). Obesity and children with special healthcare needs: special considerations for a special population. *Current Opinion In Pediatrics*, 26(4), 508-515.
- Aidar, F.J. (2007). Study on the quality of life in ischaemic vascular accidents and its relation to physical activity. *Revista de neurologia*, 45 (9): 518-522.
- Anderson, L. S. & Heyne, L. A. (2010). Physical Activity for Children and Adults with Disabilities: An Issue of “Amplified” Importance, *Disability and Health Journal*, 3, 71-73.
- Badia, M., Orgaz, M.B., Verdugo, M.A., & Ullàn A.M. (2013). Patterns and determinants of leisure participation of youth and adults with developmental disabilities. *Journal of intellectual disability research*, 57 (4), 319–332.
- Bedell, G., Coster, W., Law, M., Liljenquist, K., Kao, Y.-C., Teplicky, R., et al. (2013). Community Participation, Supports, and Barriers of School-Age Children With and Without Disabilities. *Archives of Physical Medicine and Rehabilitation*, 94 (2), 315-323.
- Belley-Ranger, E., Duquette, M.M., Carbonneau, H. et Roul, R. (2016). Interactions with peers in physical and sporting activities among students with functional limitations in Quebec. *World Leisure Journal*.
- Bourgoin, T. (2007). L'EPS, entre programme et expérimentation. *Reliance*, 24(2), 76-84.
- Bouvard, P. (2007). Permettre à tous de faire et d'apprendre en EPS. *Reliance*, 24(2), 121-128
- Brittain, I. (2004). The role of schools in constructing self-perceptions of sport and physical education in relation to people with disabilities. *Sport, Education and Society*. 9, (1), 75-94.
- Buttimer, J. & Tierney, E. (2005). Patterns of leisure and participation among adolescents with a mild intellectual disability. *Journal of Intellectual Disabilities*, 9(1), 1-18.
- Bui-Xuân, G., & Mikulovic, J. (2007). Les élèves à besoins éducatifs particuliers n'ont pas besoin d'une pédagogie particulière en EPS. *Reliance*, 24(2), 98-106.

- Cavallo, S., Majnemer, A., Duffy, C. M., & Feldman, D. E. (2014). A100: predictors of involvement in leisure activities among children and youth with juvenile idiopathic arthritis. *Arthritis & Rheumatology* (Hoboken, N.J.), 66 Suppl 11, S135-S135.
- Carbonneau, H. et Roult, R. (2013). Rapport sur l'étude des facteurs facilitant l'adoption de saines habitudes de vie et la pratique d'activités physiques et sportives par les jeunes ayant une limitation fonctionnelle, *Département d'Études en loisir, culture et tourisme UQTR – Défi Sportif*, 267p.
- De, S., Small, J., & Baur, L. A. (2008). Overweight and obesity among children with developmental disabilities. *Journal of Intellectual and Developmental Disability*, 33(1), 43-47
- Docheff, D. M. (2011). Dealing with Differences: A Coachs Perspective. *JOPERD: The Journal of Physical Education, Recreation & Dance*, 82(8), 33-39.
- Dowling, F., Fitzgerald, H., & Flintoff, A. (2012). *Equity and Difference in Physical Education, Youth Sport and Health1-3h: A Narrative Approach*. *Routledge Studies in Physical Education and Youth Sport*: Routledge, Taylor & Francis Group.
- Dugas, C. et Point, M. (2014). *L'inclusion en éducation physique. Notions théoriques et applications pédagogiques*. Sainte-Foy : Presses de l'Université du Québec, 300p.
- Fougeyrollas, P. (2010). Le processus de production de handicap La funambule, le fil et la toile : transformations réciproques du sens du handicap (pp. 147-182). *Québec: Collection Sociétés, cultures et santé, Les Presses de L'Université Laval*.
- Goodwin, D. L., Johnston, K., & Causgrove Dunn, J. (2014). Thinking ethically about inclusive recreational sport: A narrative of lost dignity. *Sport, Ethics and Philosophy*, 8 (1), 16-31.
- Graham, R., Kremer, J., & Wheeler, G. (2008) Physical Exercise and psychological Well-being among People with Chronic Illness and Disability: A Grounded Approach. *Journal of Health Psychology*, 13(4), pp. 447-458.
- Harada, C. M., Siperstein, G. N., Parker, R. C., & Lenox, D. (2011). Promoting social inclusion for people with intellectual disabilities through sport: Special Olympics International, global sport initiatives and strategies. *Sport in Society*, 14 (9), 1131-1148.

- Hassan, D., Dowling, S., McConkey, R., & Menke, S. (2012). The Inclusion of People with Intellectual Disabilities in Team Sports: Lessons from the Youth Unified Sports Programme of Special Olympics, *Sport in Society*, 15, 1275-1290.
- Haydock, D., & Smith, A. (2011). Still 'more of the same for the more able?' Including young disabled people and pupils with special educational needs in extra-curricular physical education. *Sport, Education and Society*, 16 (4), 507-526.
- Institut de la Statistique du Québec. 2012. *Vivre avec une incapacité au Québec*. Publication gouvernementale, Québec, 352p.
- Junker, L. & Brogren Carlberg, E. (2011). Factors That Affect Exercise Participation among People with Physical Disabilities, *Advances in Physiotherapy*, 13, 18-25.
- King, G., Curran, C. J., & McPherson, A. (2013). A four-part ecological model of community-focused therapeutic recreation and life skills services for children and youth with disabilities. *Child: Care, Health and Development*, 39 (3), 325-336.
- King, G., Law, M., Hanna, S., King, S., Hurley, P., Rosenbaum, P., Kertoy, M., & Petrenchik, T. (2006). Predictors of the leisure and recreation participation of children with physical disabilities: A structural equation modeling analysis. *Children's Health Care*, 35, 209-234.
- Marcellini, A., De Leselec, E. & Gleyse, J. (2003). L'intégration sociale par le sport des personnes handicapées. *Revue internationale de psychosociologie*, 9(1), 59-72.
- Ortiz-Castillo, E.M. (2012). Physical activity patterns and factors influencing physical activity participation among adolescents with physical disabilities in urban communities. *ProQuest Information & Learning*. XXXX
- Pittet, I., Berchtold, A., Akrcé, C. Michaud, P-A & Suris, J. (2009). Sports practice among adolescents with chronic health conditions. *Archives of Pediatric Adolescent Medicine*, 163 (6), 565-571.
- Preskitt, J. K., Goldfarb, S. S., Mulvihill, B. A., Colburn, S., & Davis, M. M. (2013). Future plans and social/recreational activities of youth with special health care needs: The implications of parental help in completing surveys. *Disability and Health Journal*, 6 (4), 343-351.

- Riley, B.B., Rimmer, J.H., Wang, E. & Schiller, W.J. (2008). A Conceptual Framework for Improving the Accessibility of Fitness and Recreation Facilities for People with Disabilities. *Journal of Physical Activity and Health*, 5, 158-168.
- Rimmer, J.H., Rowland, J.L., & Yamaki, K. (2007). Obesity and Secondary Conditions in Adolescents with Disabilities: Addressing the Needs of an Underserved Population. *Journal of Adolescent Health*, 41 (3) 224–229.
- Roult, R., Carbonneau, H., Chan, T., Belley-Ranger, E. et Duquette, M.M. (2014). Physical activity and the development of the built environment in schools for youth with a functional disability in Quebec. *Sport Science Review*, 23(5-6), 225-240.
- Saebu, M. (2010). Physical Disability and Physical Activity: A Review of the Literature on Correlates and Associations. *European Journal of Adapted Physical Activity*, 3, 37-55.
- Savoie-Zajc, L. (2009). L'entrevue semi-dirigée. Dans B. Gauthier (Éd), *Recherche sociale. De la problématique à la collecte de données*. (pp. 337-360). Sainte-Foy : Presses de l'Université du Québec.
- Shikako-Thomas, K., Majnemer, A., Law, M., & Lach, L. (2008). Determinants of participation in leisure activities in children and youth with cerebral palsy. Systematic review. *Physical & Occupational Therapy in Pediatrics*, 28(2), 155–169.
- Sirakaya-Turk, E., Uysal, M., Hammitt, E. et Vaske, J.J. (eds.) (2011). *Research methods for leisure, recreation and tourism*. Cambridge : CAB International, 278p.
- Solish, A., Perry, A., & Minnes, P. (2010) Participation of Children with and without Disabilities in Social, Recreational and Leisure Activities. *Journal of Applied Research in Intellectual Disabilities*, 23, 226-236.
- Stidder, G. et Hayes, S. (eds.). (2013). *Equity and inclusion in physical education and sport*. New York : Routledge, 220p.
- Svendby, E. B., & Dowling, F. (2012). Negotiating the discursive spaces of inclusive education: narratives of experience from contemporary Physical Education. *Scandinavian Journal of Disability Research*, 15 (4), 361-378.
- Thayer, T., & Lim, L. (2012). Attitudes of pre-service mainstream teachers in Singapore towards people with disabilities and inclusive education. *International Journal of Inclusive Education*, 1-15.

Willhite, B., & Shank, J. (2009). In praise of sport: promoting sport participation as a mechanism of health among persons with a disability, *Disability and Health Journal*, 2, 116-27.

Zabriskie, R. B., Lundberg, N. R., & Groff, D. G. (2005). Quality of Life and identity: the benefits of a community-based therapeutic recreation and adaptive sports program, *Therapeutic Recreation Journal*, 39, 176-91.

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