EXPERIENCES IN A MULTI-SPORT PARASPORT PROGRAM: THE FEMALE ADOLESCENT PERSPECTIVE

By

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The above committee determined that the thesis is acceptable in form and content and that a satisfactory knowledge of the field covered by the thesis was demonstrated by the candidate during an oral examination. A signed copy of the Certificate of Approval is available from the School of Graduate and Postdoctoral Studies.

ABSTRACT

This phenomenological study utilized semi-structured interviewing to understand the experiences of adolescent females (N=3) in a multi-sport parasport program. The results of this study revealed several aspects of the parasport program that influenced participants' experiences, as well as some potential outcomes of participation. Some key aspects of the program that were addressed by participants included: its para-specific design, the program's coaches, and the new opportunities for sport engagement that participants were afforded. The program gave participants opportunities for physical development, social development, and changes in self-perceptions, while imparting a desire for continued sport participation. How well the participants were supported by the various aspects of the program influenced the outcomes that they achieved. These findings indicate that adolescents with disabilities' participation in an introductory multi-sport parasport program was overall positive, but there is still a need for more parasport opportunities.

Keywords: disability; parasport; adolescents; qualitative

AUTHOR'S DECLARATION

I hereby declare that this thesis consists of original work of which I have authored. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Mikaeli Cavell

STATEMENT OF CONTRIBUTIONS

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication. I have used standard referencing practices to acknowledge ideas, research techniques, or other materials that belong to others. Furthermore, I hereby certify that I am the sole source of the creative works and/or inventive knowledge described in this thesis.

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CHAPTER 1. INTRODUCTION

Introduction to Thesis

Overview of Youth Physical Activity and Sport Participation

Physical activity refers to all of an individual's activities that involve movement and energy expenditure, including hobbies, chores, active transportation, recreation, play, and sports (Tremblay et al., 2016). For children and adolescents, attaining the recommended 60 minutes of physical activity per day is associated with many benefits: the development of motor skills, prevention of obesity, improvement of anxiety and depression related symptoms, improvement in academic performance, reduction in problematic emotional externalization, and improved self-concept, among others (Carson, Chaput, Janssen, & Tremblay, 2017; Janssen & LeBlanc, 2010; Spruit, Assink, van Vugt, van der Put, & Stams, 2016). Sport participation, in particular, offers opportunities for the development of social skills through engagement with peers, and helps improve self-efficacy, in addition to promoting lifelong physical activity (Batista et al., 2019; Eime, Young, Harvey, Charity, & Payne, 2013; Kjønniksen, Anderssen, & Wold, 2009).

Physical activity levels among all children and adolescents are low; 23% of Canadian children participate in sufficient moderate to vigorous physical activity to meet the guidelines (Colley, Butler, Garriguet, Prince, & Roberts, 2019; Tremblay et al., 2016). Low levels of physical activity participation have been associated with poorer health outcomes, higher rates of obesity, hypertension, and type II diabetes among children and adolescents, conditions normally seen only among adults (Rao, Kropac, Do, Roberts, & Jayaraman, 2016). Low participation also means less opportunity for the development of the social and motor skills necessary for participation in more complex activities into adulthood. While participation rates are low amongst all children and adolescents in Canada, adolescents with physical disabilities are even less likely than

their peers with typical development to take part in physical activity due to increased barriers to participation, limiting opportunities for inclusion and skill development, and consequently physical and psychosocial outcomes (Case, Ross, & Yun, 2020; Jung, Leung, Schram, & Yun, 2018; Law et al., 2006).

Self-perceptions and Physical Activity

An individual's self-perception or self-concept describes how they view themselves across a variety of specific domains (Shavelson, Hubner, & Stanton, 1976). Physical self-perceptions, referring to a person's perception of their physical self, including physical ability and appearance, is associated with physical activity participation, alongside self-efficacy, and perceived athletic competence (Babic et al., 2014; Bandura, 1977). Self-efficacy refers to an individual's belief in their ability to complete a specific task (Bandura, 1977). These views of oneself have been shown to be bi-directionally related to physical activity; they are a key predictor of future participation, but also must be developed through quality participation (Babic et al., 2014; Bandura, 1977; McAuley & Blissmer, 2000). The development of self-efficacy, in particular, is mediated by successful experiences (Bandura, 1977). Therefore, experiencing barriers to participation that limit the amount or quality of participation can compromise an individual's self-efficacy development, and thus their likelihood of continuing to engage with an activity in the future.

Physical Activity and Sport for Adolescents with Disabilities

In Canada, roughly 22% of people aged 15 and over, and 4% of children, report having at least one disability (Statistics Canada, 2006, 2017). Four of every five people report experiencing a physical disability, which include structural, functional, perceptual,

and motor impairments that, in relationship with an individual's social and physical environment, affect movement capabilities and limit activities, contributing to decreases in physical activity and social participation (Bedell et al., 2013; Brault, 2012; Carroll et al., 2014; UN General Assembly, 2006).

The experience of a physical disability is associated with numerous barriers to sport participation including a lack of available, appropriate, and affordable programming, negative and restrictive societal attitudes towards persons with disabilities, and the physical capabilities of the participant (Jaarsma, Dijkstra, de Blécourt, Geertzen, & Dekker, 2015; Shields & Synnot, 2016). The many barriers experienced by adolescents with physical disabilities limit their participation, resulting in decreased physical activity participation compared to their peers without disabilities (Carlon, Taylor, Dodd, & Shields, 2013; Law et al., 2006). Consequently, they are less likely than their peers to take part in physical activity at the intensity associated with numerous health benefits (Jung et al., 2018). Adolescents with disabilities also participate more frequently in informal activities rather than organized, physical activities (Law et al., 2006; Schreuer, Sachs, & Rosenblum, 2014). Participation in organized leisure time activities, particularly physical activities, is associated with positive perceptions of health and life satisfaction (Badura, Geckova, Sigmundova, van Dijk, & Reijneveld, 2015; Shikako-Thomas et al., 2012). The differences in participation between adolescents with disabilities and their peers without disabilities contribute to differences in opportunities for social and motor skill development, as well as health outcomes (Rimmer, Wang, Yamaki, & Davis, 2010; Spruit et al., 2016). One third of Canadian adolescents are considered to be overweight or obese, and rates are consistently higher among adolescents with disabilities than their

peers without disabilities (Neter et al., 2011; Rao et al., 2016). This is not only a risk factor for non-communicable diseases, but also for the development of further mobility limitations and social isolation (Liou, Pi-Sunyer, & Laferrere, 2005).

The relationship between physical activity and self-efficacy or self-perceptions is important among adolescents with disabilities, as they participate in less physical activity, and experience more barriers to participation that may infringe on opportunities to experience success (Bandura, 1977). Evidence suggests that adolescents with disabilities may have decreased perceived competence in the physical domain, which can influence motivation to participate in physical activities (Fox, 2002; Schuengel et al., 2006; Stodden, 2008). Recent quantitative work by Wickman, Nordlund, and Holm (2018) indicates that the self-efficacy of youth with disabilities is comparable to their peers without disabilities when opportunities for development are available, and provides support for participation in an adapted multi-sport program as an avenue for the development of self-efficacy. However, participants' perspectives on this topic have yet to be included in the literature and insight into how parasport programs may influence self-efficacy development is limited.

The relative lack of participation among adolescents with disabilities in physical activity is cause for concern, as the numerous benefits associated with physical activity participation are equally applicable to this population (Driscoll et al., 2019; Johnson, 2009). Moreover, due to the experiences of social isolation, community exclusion, and increased prevalence of preventable conditions among persons with disabilities, the benefits of physical activity may be even greater among this population (Anderson & Heyne, 2010; Bedell et al., 2013; Rao et al., 2016). Sport participation can contribute to

physical activity levels while giving participants the opportunity to achieve additional benefits (Lankhorst et al., 2019; Ng, Rintala, Hutzler, Kokko, & Tynjälä, 2017; Ridley, Zabeen, & Lunnay, 2018). The literature supports sport as a context for promoting youth development (Fraser-Thomas, Côté, & Deakin, 2005), and this holds true in programming for adolescents with disabilities (Turnnidge, Vierimaa, & Côté, 2012). Among persons with disabilities, participation in adapted sport has been shown to improve personal identity and reduce negative feelings associated with stigmatization (Lundberg, Taniguchi, McCormick, & Tibbs, 2011; Shapiro & Martin, 2010; Taub & Greer, 2000). Youth athletes specifically, report high levels of enjoyment and low levels of shame and distress while taking part in adapted sport (Shapiro & Martin, 2010). Currently, physical activity levels are relatively low among adolescents with disability, but sport offers an avenue to increase physical activity while also contributing to physical health, reductions in stigmatization, and increased enjoyment.

Parasport

Sport opportunities for persons with disabilities exist in different modalities along a spectrum of integration (Black & Williamson, 2017). The term integration refers to individuals with and without disabilities participating in an activity together (Kiuppis, 2018). While integrated programming carries social benefits, it is not inherently better, and some individuals may prefer a congregated setting, participating only with other persons with disabilities (Kiuppis, 2018). Some youth with disabilities report experiencing incomplete participation and feeling only partially included in typical sport environments, contributing to their withdrawal from physical activity (Orr, Tamminen, Sweet, Tomasone, & Arbour-Nicitopoulos, 2018; Spencer-Cavaliere & Watkinson,

2010). These individuals may prefer a congregated sport setting over integrated activities. One such congregated sport setting is parasport, a type of adapted sport that is designed for participation by persons with physical disabilities, with rules and equipment that reduce participation barriers associated with the experience of a physical disability (Canadian Paralympic Committee, 2013). When parasport participation is available for persons with disabilities, it has the potential to improve feelings of inclusion, create higher quality participation, and promote opportunities for success among adolescents with disabilities. Research regarding the participation of persons with disabilities in parasport and other adapted sport programs have indicated numerous benefits associated with participation. A 2012 cross-sectional study indicated that adult sport participants with physical disabilities self-reported higher quality of life scores compared to those who did not participate in sports (Yazicioglu, Yavuz, Goktepe, & Tan, 2012). Similarly, Côté-Leclerc et al. (2017) compared quality of life scores among adults with activity limitations who took part in adapted sport to their peers without limitations of activity. This study demonstrated that scores were comparable between the groups, providing support for the ability of adapted sport participation to mitigate any negative effects of activity limitation on quality of life (Côté-Leclerc et al., 2017). Additionally, Côté-Leclerc et al. (2017) incorporated a qualitative inquiry into their study that explored the factors relating to adapted sport participation. The participant responses highlight the influence of parasport on psychosocial outcomes through greater opportunities for social participation, improvements in fitness, independence, and self-efficacy (Côté-Leclerc et al., 2017).

In addition to improvements in quality of life, parasport participation has been linked to higher levels of physical activity, improved self-worth, and greater self-efficacy for exercise among children and adolescents with disabilities (Te Velde et al., 2018). In a Dutch national study, self-reported sport participation levels and physical activity levels were compared with measures of quality of life, self-perception, and exercise self-efficacy (Te Velde et al., 2018). The associations between sport participation and other variables demonstrate that those who take part in sport typically report higher quality of life and perceived athletic competence compared to their peers who do not participate, and were also more likely than their peers to have high self-efficacy for exercise (Te Velde et al., 2018).

While the psychosocial benefits of parasport participation have been well studied, qualitative exploration of parasport participation has given additional context to the literature. Wickman (2015) interviewed young adults regarding their experiences in sport, both compulsory and voluntary. This study highlighted the many benefits of sport participation, but emphasized that, in order for sport experiences to be positive, participants must be appropriately included, and able to engage and challenge themselves (Wickman, 2015). Following this, Allan, Smith, Côté, Martin Ginis, and Latimer-Cheung (2018) conducted a narrative inquiry among adult parasport participants, examining their lifelong journey through sport, including both non-adapted and parasport experiences. This study presented five different storylines representing participant's relationships with sport; though each participant's experience was unique, and each narrative reflected a different journey, all participants indicated positive influences of parasport on their lives and personal development (Allan et al., 2018). More recently, Kyle (2019) completed a

mixed-methods study among adult adapted sport participants, including interviews with competitive parasport athletes on their participation in youth adapted sport. This study highlighted that participation in youth sport may not be necessary for adult physical activity to occur, but those who have the opportunity to participate may have the chance to develop motivation for long term physical activity through positive experiences, and increased awareness of the benefits (Kyle, 2019). This recent qualitative work by Wickman (2015), Allan et al. (2018), and Kyle (2019), has added much needed perspective on the experiences in parasport for persons with disabilities. Still missing from the literature is the perspective of adolescents with disabilities who are taking part in parasport at an introductory level during a crucial period of personal development.

Theoretical Framework: Physical Activity for People with a Disability Model

Research regarding the participation of persons with disabilities has largely focused on identifying the existing barriers and facilitators, and their impact (Bedell et al., 2013; Jaarsma et al., 2015; Shields & Synnot, 2016). Focus has recently shifted to prioritize reducing barriers and improving participation among this group (Agiovlasitis, Yun, Jin, McCubbin, & Motl, 2018). The Physical Activity for People with Disabilities Model provides a representation of the key relationships between physical activity behaviour, its determinants, and functioning, in the lives of people with disabilities, and can be used to understand any type of physical activity, including sport (van der Ploeg, van der Beek, van der Woude, & van Mechelen, 2004). Incorporating the International Classification of Functioning, Disability and Health (World Health Organization, 2001), with the Attitude, Social Influence, and Self-Efficacy Model (de Vries, Dijkstra, & Kuhlman, 1988), this model assists in understanding physical activity behaviours, and how they can be improved, among persons with disabilities. The personal factor labelled

intention is the central point of the model, representing how personal and environmental factors can influence an individual's intention to be physically active, while also influencing how much of that intended activity actually occurs (van der Ploeg et al., 2004). As participation in sport during youth has been linked to better physical activity behaviour in adulthood (Batista et al., 2019), intention to be active is a key outcome of adolescent sport participation.

The Physical Activity for People With Disabilities Model can be used as a framework to guide investigations (Shields & Synnot, 2016), or for interpretation of results (Bloemen et al., 2015). This model allows for interpretation of the various ways that an introductory parasport program could support or hinder an adolescent's intentions for continued sport participation, and provides a framework for understanding these specific factors. The fact that adolescents with disabilities meet greater barriers to sport participation than their peers without disabilities, and typically participate less frequently in organized and physical activities, accentuates the need to be sensitive to the unique influences on the physical activity behaviour of people with disabilities during the research process.

Gaps in the Literature

A review of the literature has revealed a gap in the understanding of the parasport experiences of adolescents with disabilities. Most research concerning sport participation of youth with disabilities has focused on the barriers and facilitators (Jaarsma et al., 2015; Shields & Synnot, 2016), or utilized quantitative methods to establish benefits of participation (Te Velde et al., 2018; Yazicioglu et al., 2012). Qualitative research has been conducted among adults with disabilities (Allan et al., 2018; Côté-Leclerc et al.,

2017; Kyle, 2019), or among adolescents with disabilities regarding integrated or modified mainstream sport contexts (Orr et al., 2018; Turnnidge et al., 2012; Wickman, 2015), and inclusion (Spencer-Cavaliere & Watkinson, 2010; Taub & Greer, 2000). The benefits of parasport participation have been demonstrated (Côté-Leclerc et al., 2017; Te Velde et al., 2018; Yazicioglu et al., 2012), as well as the benefits associated with a multi-activity adapted physical activity program (Wickman et al., 2018). There is a need for researchers to understand how participants experience the existing parasport programs, and how these programs support the potential achievement of the many benefits associated with adapted sport and physical activity in general. To our knowledge, a multisport parasport program for adolescents with disabilities has not been the focus of an investigation. Additionally, the perspectives of adolescents with disabilities on their experiences in parasport have not been included in the literature on this topic.

Research Questions

1. How did adolescents with disabilities experience an introductory parasport program?

2a. What do adolescents with disabilities identify as factors that positively affect the quality of their parasport participation?

2b. What do adolescents with disabilities identify as factors that negatively affect the quality of their parasport participation?

3. How do adolescents with physical disabilities perceive that they have changed, if at all, as a result of participating in an introductory parasport program?

Impact and Significance

Differences in sport and physical activity participation between adolescents with disabilities and their peers without disabilities, and the associated differences in physical and psychosocial outcomes, have been well documented. Sport has been identified as a context that is useful for promoting the development of youth, and this process is supported for sport environments designed for adolescents with disabilities as well. Congregated adapted sport, such as parasport programs, can be beneficial for adolescents through developments in physical health, self-perceptions, and other psychosocial outcomes. A key barrier to participation that is identified by adolescents with disabilities and their families, is a lack of appropriate and meaningful programs. Therefore, there is a need to understand the experiences of adolescents in the parasport programs that currently exist, to understand how these programs support or undermine the quality of participants' experiences, and contribute to development. This will be the first qualitative study, to our knowledge, to explore adolescents' perspectives on their experiences in an introductory, multi-sport parasport program. We anticipate the findings of this study will provide insight into the role that parasport programs can play in a child's development, and relationship with sport and physical activity and help to guide program design and delivery, and improve sport outcomes for adolescents with disabilities. This research will fill the current gap in the literature, and improve our understanding of parasport participation among adolescents with disabilities.

Purpose

The purpose of this study was to describe the perspectives of adolescents with physical disabilities on their experiences in an introductory parasport program.

Additional focus was given to understanding the factors that positively and/or negatively influenced the quality of their participation, and how participation in the program impacted them, if at all.

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CHAPTER 2. LITERATURE REVIEW

Adolescents with Disabilities

In Canada, 13% of people between the ages of 15 and 24, and 4% of children under 15, report having one or more disability (Statistics Canada, 2006a, 2017). These statistics are inclusive of a broad definition of the term disability; a survey of persons with disability in the United States, reported that 80% of persons who have a disability, report impairment of mobility, activity, or ambulation in some way, or a *physical disability* (Brault, 2012). It is recognized that the interaction between an individual's personal characteristics and their social and physical environment constrains their participation; the experience of impairment interacts with an inopportune environment to contribute to limitations in social engagement and physical activity participation among persons with disabilities (Bedell et al., 2013; Carroll et al., 2014; UN General Assembly, 2006).

There exists disparities between persons with and without disabilities in a variety of health domains; persons with disability develop non-communicable health conditions at an increased rate compared to their peers without disability (Kinne, 2004; Rimmer, Rowland, & Yamaki, 2007; Rimmer, Wang, Yamaki, & Davis, 2010). 30% of Canadian youth are considered to be overweight or obese, and rates among youth with disabilities are consistently higher than their peers without disability (Neter et al., 2011; Rao, Kropac, Do, Roberts, & Jayaraman, 2016). Among persons with disabilities, the experience of obesity is not only a risk factor for non-communicable diseases, but it also contributes to the development of mobility limitations, deconditioning, fatigue, and social isolation (Liou, Pi-Sunyer, & Laferrere, 2005). In recent decades, there has been a shift in thinking from a medical model of disability towards a social relational model (Thomas, 2004). This shift has resulted in emphasis on health promotion among persons with

disabilities rather than treatment of disease (Rimmer, 1999). Focus is now on preventing or delaying the development of adverse health conditions among persons with disabilities and encouraging equity of health outcomes by promoting equal opportunity for the autonomous development of good health (Rimmer, 1999). Due to the unique health landscape among adolescents with disabilities, targeted health promotion, such as participation in sport and physical activity, may be necessary to improve health outcomes among this population.

Physical Activity and Sport for Adolescents with Disabilities

Physical activity encompasses all of an individual's daily movement including household chores, active transportation, recreation and play, and sports participation (Tremblay et al., 2016). Childhood physical activity participation makes an important contribution to the development of social and motor skills, as well as to the protection and promotion of physical and mental health (Carson, Chaput, Janssen, & Tremblay, 2017; Janssen & LeBlanc, 2010; Penedo & Dahn, 2005). Daily physical activity has been shown to improve behavior among children and adolescents by increasing academic performance, reducing problematic externalization of emotion, and increasing self-concept (Spruit, Assink, van Vugt, van der Put, & Stams, 2016). The numerous benefits associated with physical activity participation are equally applicable for children and adolescents with disabilities, and all participants are able to experience these benefits when activities are appropriately designed (Driscoll et al., 2019; Johnson, 2009; O'Brien et al., 2016). Due to the increased prevalence of preventable conditions and experiences of exclusion and social isolation among persons with disabilities, these benefits may be even more important among this group (Anderson & Heyne, 2010). Sport participation, specifically, can contribute to overall physical activity levels and health-related fitness

(Lankhorst et al., 2019; Ridley, Zabeen, & Lunnay, 2018; Tremblay et al., 2016); it also has numerous psychosocial benefits including improvements in self-esteem, and peer socialization which contributes to positive mood affect (Eime, Young, Harvey, Charity, & Payne, 2013). Participation in sport during youth, while promoting multidimensional health benefits, also increases the likelihood that an individual continues with habitual physical activity throughout adulthood (Batista et al., 2019; Kjønniksen, Anderssen, & Wold, 2009).With participation in physical activity, and specifically sport, adolescents with disabilities may experience improvements of aerobic capacity and gross motor function, higher levels of life satisfaction, improvements in social identity, and various benefits that contribute to increased independence and autonomy (Johnson, 2009; Lankhorst et al., 2019; Taub & Greer, 2000). It is therefore important to ensure all adolescents have access to appropriate opportunities to participate.

Physical activity participation among Canadian children and adolescents is relatively low; only 23% of youth ages 12-17 are meeting the physical activity guidelines of 60 minutes of moderate-to-vigorous physical activity each day (Colley, Butler, Garriguet, Prince, & Roberts, 2019). The Canadian 24 Hour Movement Guidelines do not include specific analysis of the health benefits associated with physical activity for persons with disabilities, and do not include recommendations for this population. Some evidence suggests that specific, individualized guidelines may be necessary and appropriate for the engagement of adolescents with specific diagnoses in physical activity (Driscoll et al., 2019; Tremblay et al., 2016). Though, based on the current literature, it can be assumed that taking part in adequate physical activity and limiting sedentary time is important for the achievement of many health benefits and protection against poor

health outcomes among children and adolescents with and without physical disabilities (Carson et al., 2017).

National level data specifically focused on the participation of adolescents with disabilities in physical activity has not historically been consistently collected and reported. Countries that participate in the Active Healthy Kids Global Alliance Report Card program track and assess how well they are facilitating physical activity opportunities among youth, with letter grades assigned for each of nine indicators of physical activity (Colley, Brownrigg, & Tremblay, 2012). Recently, the Netherlands piloted a Report Card Plus, focused on assessing the quality of physical activity facilitation for youth with chronic diseases and disabilities (Burghard, De Jong, Vlieger, & Takken, 2018). This type of detailed tracking and reporting has yet to take place in Canada; data regarding the activities of Canadians with disabilities has been collected through the Participation and Activity Limitation Surveys, but only those who are 15 years of age or older are surveyed (Statistics Canada, 2006b), and no new population-wide data on this specific topic has been collected since 2006. The lack of specific information related to the participation of Canadian youth with disabilities collected in this specialized survey contributes to the paucity of information on physical activity habits among this population. While smaller scale studies indicate that youth with disabilities' sport and physical activity participation differs from their peers without disabilities (Bedell et al., 2013; Carlon, Taylor, Dodd, & Shields, 2013; Jung, Leung, Schram, & Yun, 2018; Law et al., 2006), the lack of national level data makes it difficult to fully understand the extent of the issue and how best to implement programming and improve participation among this population group.

There are differences in the patterns of leisure participation between youth with and without disabilities (Bedell et al., 2013; Law et al., 2006; Schreuer, Sachs, & Rosenblum, 2014). Children with disabilities tend to participate more frequently in informal activities (spontaneous activities requiring little structure or planning, such as talking on the phone or doing a puzzle) than formal activities (planned, structured activities including leaders and organization such as arts lessons or organized sports; Law et al., 2006). There is also a preference for social and self-enrichment activities over skill-based and physical activities, like sports, among youth with disabilities (Law et al., 2006; Schreuer et al., 2014). These patterns of participation are cause for concern, as participation in organized leisure activities is associated with better perceptions of personal health and increased life satisfaction (Badura, Geckova, Sigmundova, van Dijk, & Reijneveld, 2015), and participation in leisure time physical activities is positively correlated with both physical and psychosocial health among youth with disabilities (Shikako-Thomas et al., 2012). In a comparison between adolescents with and without disabilities, there was little difference in the identified preferred activities, but youth with disabilities participated in a narrower range of activities, indicating the presence of participation barriers or other activity limiting factors (Schreuer et al., 2014). Additionally, a survey of parents and caregivers regarding the community participation of youth with disabilities revealed that they were more likely than their peers without disabilities to have never taken part in either unstructured or organized physical activity in the community, or activities classified as getting together with other children (Bedell et al., 2013). These parents also indicated that their children participate less frequently, have less involvement in, and receive less support from the community than children without

disabilities (Bedell et al., 2013). The patterns of leisure participation highlighted by Law et al. (2006), Schreuer et al. (2014), and Bedell et al. (2013) indicate the impact of barriers on participation; these differences in participation can impact psychosocial development and social inclusion of this population. Adolescents with disabilities may participate more frequently in informal activities because these activities are less likely to be constrained by environmental or institutional barriers. Additionally, skill based and physical activities are more likely to require some kind of formal participation, at least in preliminary stages, to develop fundamental skills for participation (Stodden, 2008). It is therefore important to understand the experiences of adolescents with disabilities in inclusive, community sport programs to better understand how programs can reduce barriers and promote participation that continues long term.

More recently, a systematic review was conducted to establish an understanding of the current state of physical activity among children and adolescents with disabilities, comparing their rates of participation to those of their peers without a disability (Jung et al., 2018). This study found that there was no significant difference in light intensity physical activity between youth with and without disabilities. However, youth without disabilities participated significantly more in physical activity at a moderate to vigorous intensity, the type of physical activity that is recommended in the Canadian 24 hour movement guidelines and is associated with numerous health benefits (Carson et al., 2017; Jung et al., 2018; Tremblay et al., 2016). Additionally, Jung et al. (2018) found that the difference in moderate to vigorous physical activity between youth with disabilities and their peers without disabilities was moderated by age. The participation of youth with disabilities decreased to a lesser extent as they moved into adolescence, narrowing the

gap between them and their peers without disabilities. This finding is interesting, as gaps in motor competence between youth with disabilities and their peers typically widen as they age (Shields & Synnot, 2016). It would be expected that participation among adolescents with disabilities would drop more than their peers without disability, causing the difference in participation to either remain the same, or increase at this stage. This finding is potentially indicative of a lack of opportunity for physical activity and sport among younger children with disabilities. The specific differences in participation between youth with disabilities and their peers without disabilities, and the finding of an age effect that somewhat contradicts previous literature indicates a need for greater exploration of physical activity experiences among this group.

There are numerous pieces of national and international legislation in place that call for equal participation of persons with disabilities in activities of life, including physical activity, sport, and recreation (Canadian Heritage, 2006; UN General Assembly, 2006). The United Nations' Convention on the Rights of Persons with Disabilities (2006) was ratified by the Canadian government, indicating the nation's dedication to improving accessibility of persons with disabilities and promoting equal opportunity. The Canadian Policy on Sport for Persons with Disabilities is a framework for increasing recreational and competitive sport opportunities for persons with disabilities by working to reduce barriers and increase suitable programs (Canadian Heritage, 2006). Since these policies came into effect in Canada, focus has been on increasing opportunities for recreational and competitive sport participation and inclusion of people with disabilities in all activities (Thibault & Harvey, 2013). This move towards inclusion included organizational restructuring, with sport opportunities provided by sport specific rather

than disability specific organizations (Higgs, n.d.). This shift has been accompanied by improved performances of elite athletes with disabilities at international competitions but is thought to have increased the difficulty of entry to sport by new participants, limiting grassroots sport participation among persons with disabilities (Higgs, n.d.). Funding for sport in Canada is allocated to each province, who then fund programs based on their own needs and priorities (Hoekstra et al., 2019). Often, priority is given to elite programming, with the goal of increasing grassroots participation through increased awareness and engagement with sporting events (Thibault & Harvey, 2013). With the relatively high costs associated with adapted and accessible physical activity and sport programs (Shields & Synnot, 2016), and the limited funding that is available, it is not feasible for each province to provide the diverse introductory programming necessary for all potential participants in every community (Green, 2007). This often leaves youth with disabilities and their families with few options for high quality programs.

Access to sport programming can make a strong contribution to an individual's overall physical activity levels. Those who have sport opportunities available to them may be more likely to achieve adequate amounts of physical activity while a lack of access to sport may be associated with low physical activity levels (Martin Ginis et al., 2010; Ng, Rintala, Hutzler, Kokko, & Tynjälä, 2017). Among persons with disabilities, sport involvement makes an important contribution to the attainment of physical and social benefits associated with physical activity (Martin Ginis et al., 2010; Wilhite & Shank, 2009). Among adults with spinal cord injury, sport participation was associated with higher intensity participation for a longer duration than other methods of physical activity (Martin Ginis et al., 2010); both increased duration and intensity of physical

activity are associated with greater health benefits (Carson et al., 2017; Tremblay et al., 2016). Similarly, studies have shown sport participation to be associated with increased physical activity levels and improved health outcomes among youth with disabilities (Lankhorst et al., 2019). A 2017 study utilized a national sample of data from adolescents aged 13 and 15 to explore the associations between sport participation and physical activity levels among youth with functional limitations (Ng et al.). This study analyzed data collected in 2002 and 2010 from the Health Behaviour in School-aged Children study in Finland, which included self-reported participation in organized sport activity and weekly physical activity (Ng et al., 2017). The results of this National survey indicate that youth with functional limitations that took part in organized sports participated in significantly more physical activity than their peers who were not sport participants; individuals with epilepsy and visual impairments who did not take part in sports reported the lowest amounts of physical activity while those who did take part in organized sport reported the greatest amounts of physical activity (Ng et al., 2017). Though the subjective measurements of physical activity levels limits the understanding of the true impact of organized sport on participation, the results provide support for organized sport as an avenue to positively influence the physical activity habits of adolescents with disabilities. This highlights the value of sport programming in assisting adolescents with disabilities in achieving higher physical activity levels.

In addition to increasing physical activity, sport is often seen as an avenue to foster the psychosocial development of youth (Fraser-Thomas, Côté, & Deakin, 2005). When programs appropriately promote opportunities for development, and include positive adult-youth relationships with parents and coaches, organized sport can:

contribute to improved mental and physical health, foster personal growth and positive psychosocial development, reduce or protect against the development of harmful behaviours, and promote the development of life skills necessary for success in adulthood (Fraser-Thomas et al., 2005). Though the benefits of sport for youth development have been clearly identified in the literature, research into the role of sport for promoting development of adolescents with disabilities has not received as much attention (Martin, 2006). Turnnidge, Vierimaa, and Côté (2012) conducted interviews about the sport experiences of 8 athletes with physical disabilities who participated in a swimming program designed to promote positive development. The participants of this study identified that they were afforded opportunities to explore their capabilities, and thus felt more competent, while also developing life skills such as leadership and teamwork. Participants also formed positive relationships with coaches, and other participants, that allowed them to feel supported, and that they belonged, in ways that maybe did not occur in other contexts. The results of this study provide support for the ability of sport programs for adolescents with disabilities, that are inclusive and foster interpersonal connection, to facilitate positive development (Turnnidge et al., 2012). Sport programs can make a valuable contribution to the lives of youth with disabilities, not only as a source of physical activity, but also as a space that uniquely promotes and supports personal growth.

While data on the physical activity habits of youth with disabilities has not been consistently tracked and recorded on a population wide basis in Canada, the evidence currently found in the literature suggests that the patterns of participation in recreation activities of all types by children and adolescents with disabilities differs from their peers

without disabilities (Law et al., 2006; Schreuer et al., 2014). Youth with cerebral palsy have been shown to favour more social, and less physical activities, and spend more time sedentary than their peers without a disability (Carlon et al., 2013; Law et al., 2006). Additionally, youth with disabilities are less likely to be involved in their communities, and take part in the intensity of physical activity that contributes to the attainment of health benefits (Bedell et al., 2013; Jung et al., 2018). While the numerous benefits of physical activity participation are clear (Carson et al., 2017; Janssen & LeBlanc, 2010), the differing patterns of participation in physical activities seen between adolescents with disabilities and their peers without disability may contribute to differences in health and developmental outcomes (Jung et al., 2018). Sport programming can increase the physical activity levels of adolescents with disabilities, while also promoting positive psychosocial development (Ng et al., 2017; Turnnidge et al., 2012). Due to the differences in participation between adolescents with and without disabilities in organized and active leisure activities, and the valuable contributions sport programming can make to personal development, it is important to understand the experiences of adolescents with disabilities who have taken part in introductory sport, to understand its potential impact.

Barriers and Facilitators of Physical activity and Sport for Adolescents with Disabilities

Every individual is subject to personal and environment constraints that influence their participation in various activities. Some barriers to participation in physical activity that are reported by adolescents include a perceived lack of fun when friends are absent, low self-perception of competence, lack of autonomy, lack of social support, or lack of engaging activities available (Bélanger et al., 2011; Knowles, Niven, & Fawkner, 2011;

Martins, Marques, Sarmento, & Carreiro da Costa, 2015). These and other barriers may contribute to the low rates of participation seen among Canadian youth. These same barriers apply to adolescents with disabilities as well, though they experience even greater barriers to participation related to the experience of a disability (Shields & Synnot, 2016). The many barriers to participation faced by adolescents with disabilities contribute to them being less physically active than their peers, and consequently less likely to achieve the health benefits associated with physical activity participation (Johnson, 2009; Jung et al., 2018; Rimmer et al., 2007). A key barrier that can disproportionately impact adolescents with disabilities is the influence of socioeconomic status (Martin, 2013). The relationship between physical activity, disability, and socioeconomic status is complex and multidimensional. Adolescents with disabilities and their parents report a lack of available programming and a lack of well-trained instructors, factors that limit opportunities for affordable community programs, as well as the high cost of specialty programming as barriers to physical activity participation (Shields & Synnot, 2016). Families of youth with disabilities also face many extra costs associated with raising a child with a disability (Shields & Synnot, 2016), and parents of children with a disability are less likely than their peers to have paid work outside of the home (Burton & Phipps, 2009). The likelihood of having paid work outside the home decreases with the severity of their child's disability and with the presence of secondary conditions as well, indicating a potentially cyclical relationship between opportunities for physical activity, child's health, and family income (Burton & Phipps, 2009). Numerous factors associated with the cost of living for youth with disabilities serve to further constrain their participation in life events, and influence their health and development. It

is therefore important for quality, affordable sport and physical activity programs to be made available for families of adolescents with disabilities.

To explore a more complete understanding of the factors related to sport participation among youth with disabilities, Jaarsma, Dijkstra, de Blécourt, Geertzen, and Dekker (2015) had youth with disabilities and their parents complete a questionnaire related to their sport participation and conducted interviews with health professionals regarding the same topic. The results from each group of participants were compared to identify areas of overlap or differences (Jaarsma et al., 2015). Health professionals primarily indicated family attitudes towards physical activity as a barrier to engagement, while parents noted a lack of information and knowledge about how to involve their child as a barrier. The adolescents themselves felt that their dependency on others for their own engagement was a limiting factor (Jaarsma et al., 2015). The barriers reported by each subgroup highlight the complexity of adolescents with disabilities finding and accessing appropriate sports programming, and indicates a need to understand how programs can better connect with participants and their families.

Similarly, Shields and Synnot (2016) examined the perspectives of adolescents with disabilities, their parents, and community sport and recreation staff on barriers and facilitators of physical activity participation among adolescents with disabilities. Shields and Synnot (2016) collected information from each group of participants through focus group interviews to understand the overall picture of participation among this group, as well as the different perspectives of those involved in ensuring participation. Barriers that were indicated included lack of activities, difficulty connecting programs and families, a lack of priority placed on accommodation of disability, while facilitators included

inclusive programs, skilled instructors, and meaningful, appropriate programs (Shields & Synnot, 2016). Participants also identified specific barriers that exist for adolescents with disabilities that do not apply to their peers, such as the experience of negative social attitudes toward disability and being less physically competent than their peers (Shields & Synnot, 2016). Among youth with cerebral palsy, the lower a child's gross motor function score is, the more restricted their participation in leisure programs tends to be (Bult, Verschuren, Jongmans, Lindeman, & Ketelaar, 2011). While feelings of peer acceptance was indicated as a participation facilitator, parents of adolescents with disabilities also reported a loss of confidence surrounding physical activities when their children compare themselves to their peers with typical development (Shields & Synnot, 2016), indicating a potential benefit of congregated, adapted physical activity.

Finally, the perspectives of youth with physical disabilities on the role of their peers in the physical activity environment was explored in a qualitative study (Orr, Tamminen, Sweet, Tomasone, & Arbour-Nicitopoulos, 2018). These authors explored the concepts of need-thwarting or need-supporting by adolescent's peers, who were defined by the participants as sources of emotional and instrumental support, during sport participation (Orr et al., 2018). Many of the eight participants interviewed in this study expressed feelings of incomplete participation, and unmet psychological needs from sport that led them to withdraw in some way, and seek alternative sport opportunities that were more suitable (Orr et al., 2018). Many participants expressed having their feelings of personal competence and relatedness undermined by the way they were treated by their peers without a disability in the physical activity environment (Orr et al., 2018). This relationship between youth with disabilities and their peers can serve as a barrier to the

development of confidence and comfort in sport environments, and may lead to withdrawal or amotivation for participation, further limiting opportunities to take part in physical activity and reap the numerous benefits. It is therefore valuable to understand how congregated programs can support participants, and the long term impact of participation in those programs.

When asked to discuss desires for sport programming, adolescents with disabilities identified opportunities to experience autonomy, challenge, belongingness or socialization, and mastery as important aspects of a program (Bantjes, Swartz, Conchar, & Derman, 2015). Each of these aspects have been similarly identified as key elements of quality experiences within the Quality Parasport Participation Framework by Evans et al. (2018). The participants also expressed a desire for greater diversity in the sport activities that are available to them, as well as to have competition included in the programming. Finally, participants expressed the desire to receive coaching, and be given greater recognition for their sport participation. These desires highlight that adolescents with disabilities wish to participate in sport similarly to their peers, and emphasize the need for programming that is supportive of these participants as equal athletes.

Youth with disabilities face many barriers that directly or indirectly influence their opportunities to take part in physical activity and sport (Jaarsma et al., 2015; Shields & Synnot, 2016). These barriers can be intrapersonal, interpersonal, or environmental and impact each individual differently. Adolescents with disabilities experience barriers to a greater extent than do their peers without a disability, leading to unequal opportunities for physical activity and community participation (Shields & Synnot, 2016). Adolescents with disabilities have a desire to participate in a variety of competitive sports where they

can receive coaching and achieve mastery (Bantjes et al., 2015), but there is a lack of appropriate programs available (Jaarsma et al., 2015). Participation in programs that are integrated and not appropriately inclusive may lead to negative experiences and withdrawal (Orr et al., 2018; Shields & Synnot, 2016), and congregated programs may better support participants with disabilities. It is therefore important to understand adolescents' experiences in the congregated sport programs that do exist, and how these programs support or undermine participants' experiences in sport and overall development.

Sport/Physical Activity and Self-Perceptions among Adolescents with Disabilities

Self-perceptions are an important area for development among adolescents with physical disabilities who may have less opportunity for the development of positive views of themselves in relation to a physical activity or sport context (Fox, 2002; Schuengel et al., 2006). There have been many associations made between domains of self-identity and physical activity behavior among children and adolescents. Babic et al. (2014) conducted a systematic review of the evidence for associations between physical self-concept and physical activity among this group. This review noted that general physical self-concept, perceived fitness, and perceived competence may each be both outcomes and determinants of physical activity behavior among children and adolescents, and found evidence that activities that increase physical self-perceptions may help to increase physical activity habits (Babic et al., 2014). Self-concept is a multidimensional psychological construct that is meant to capture what people think of themselves. This personal assessment includes understanding of personal characteristics and attributes as well as evaluation of these against others. The construction of self-concept includes all

domains of self-perception including physical appearance, social acceptance, and athletic competence among others (Shavelson, Hubner, & Stanton, 1976). While some research argues that self-concept is generally lower among adolescents with disabilities than their peers (Russo et al., 2008), other studies suggest that there is not sufficient evidence to support that notion (Shields, Murdoch, Loy, Dodd, & Taylor, 2006). Babic et al. (2014) describe a bi-directional relationship between physical activity and physical self-concept among youth without disabilities, though similar investigation has not been done among youth with disabilities. Therefore, a clear understanding of any differences in self-concept formation, or its impact on physical activity, among youth with disabilities is not yet available.

An additional concept that has been heavily linked to the adoption of habits, personal motivation, and specifically habitual physical activity, is self-efficacy (Bandura, 1977; McAuley & Blissmer, 2000; Sallis et al., 1986; Strauss, Rodzilsky, Burack, & Colin, 2001). Self-efficacy refers to an individual's belief in their ability to successfully complete a specific task (Bandura, 1977). There exists a bi-directional relationship between self-efficacy and physical activity (Bandura, 1977); self-efficacy for physical activity can be developed through practicing specific activities, but a high level of self-efficacy is also a major predictor of physical activity levels (McAuley & Blissmer, 2000). This relationship is mediated by successful experiences, meaning that past physical activity only increases self-efficacy, and thus future participation, when the individual achieves goals or perceives that they adequately performed the desired task (Bandura, 1977). Self-efficacy is an important consideration for the promotion of physical activity

for all people, as building self-efficacy around physical activity increases the likelihood of participation continuing in the long term.

Though certain experiences may influence both the development of self-efficacy and other self-perceptions, self-efficacy beliefs are very context-specific and are not necessarily representative of global self-perceptions such as self-concept. As youth with disabilities are known to participate less frequently than their peers in physical activities (Bedell et al., 2013; Jung et al., 2018), and they experience multifaceted barriers to participation (Shields & Synnot, 2016), they may also be less likely to have opportunities for successful experiences in physical activity and sport. This may influence or impede their development of positive self-perceptions, and self-efficacy for sport and physical activities (Bandura, 1977). The bidirectional relationship between physical activity and self-efficacy has been extensively studied, but has not received the same attention among individuals with disabilities, and therefore the formation of self-efficacy around sport and physical activity among adolescents with physical disabilities is not yet well understood. The formation of physical self-perceptions, and self-efficacy for exercise are important predictive factors of future physical activity participation (Babic et al., 2014; Bandura, 1977), so it is important to understand how programs can support the development of self-perceptions and self-efficacy among participants with disabilities, and how this may influence long term participation.

To better understand the influence of physical disability on self-worth and perceived competence, Schuengel et al. (2006) conducted surveys among 9, 11, and 13 year old children with cerebral palsy. They utilized the scales for self-worth and perceived competence from Harter's Social Perception Profile for Children scale, with a

behavior conduct subscale replaced by the motor competence subscale (Schuengel et al., 2006). Additionally, the participants' gross motor abilities were assessed with the Gross Motor Function Measure. The results for self-worth and perceived competence were compared to a national normative sample of children of the same age. These authors found that the participants' scores were not significantly different than the standard sample for their age group on any measures other than perceived athletic competence, a measure that indicates a child's belief in their physical abilities (Schuengel et al., 2006). In middle childhood, perceived competence closely represents actual motor competence, and has an influence on how difficult children believe activities to be. Low perceived competence can contribute to withdrawal and decreased physical activity levels (Stodden, 2008). Stodden (2008) has proposed a cyclical relationship between motor skills, perceived competence, engagement in physical activity, and skill development that can influence prolonged engagement in or disengagement from physical activities; activities that improve both perceived and actual motor competence are important influences of resilience in physical activity and future participation levels. Additionally, Schuengel et al. (2006) found a domain-specific effect of gross motor function on perceived competence, indicating that better performance of a skill was linked to greater self-beliefs in competence. This study highlights the impact of motor competence on physical self-perceptions among children with disabilities, both as a consequence of a lack of motor skill development and as an avenue for strengthening of physical self-concept. The specific experiences that influenced the relatively low perceived athletic competence scores among the participants in this study are not known, but the results are promising for the improvement of children's perceived competence through participation in

activities more aligned with personal competence levels and greater opportunities for success.

To investigate how experiences can shape children's perceptions of competence, Mazzoni, Purves, Southward, Rhodes, and Temple (2009) examined the impact of a six week physical activity intervention on the self-perceptions of children with disabilities and difficulties in motor functioning. All children included in this study's sample were assessed to be in the bottom 15th percentile of the Movement Assessment Battery for Children, compared to age-dependent standardized scores, a score that indicates poor motor skills (Mazzoni et al., 2009). The children also completed three subscales of Harter's Self-Perception Profile for Children (athletic competence, social competence, and global self-worth) and an intervention specific questionnaire involving measures of self-efficacy, that had been previously pilot tested, after their first and sixth session (Mazzoni et al., 2009). The physical activity intervention involved one hour a week of indoor wall climbing for six weeks, with each child setting their own goals and progressing at their own rate to ensure an environment conducive to personal success (Mazzoni et al., 2009). In this sample, the authors noted a relatively low score of athletic competence among participants, lower even than that found by Schuengel et al. (2006). Upon analysis, there was an increase in the participants' self-efficacy towards wall-climbing but only small, statistically non-significant changes in the mean score for athletic competence, social competence, and global self-worth (Mazzoni et al., 2009). This demonstrates that successful experiences in a specific physical activity can improve the self-efficacy of youth with disabilities for that activity, but there may be a need for multiple successful experiences, through prolonged engagement for the improvement of

perceived athletic competence (Mazzoni et al., 2009). As perceived competence has been linked to physical activity behaviour, it is important to understand how sport programs can foster improvement of this particular domain of self-perception (Babic et al., 2014).

More recently, Bloemen et al. (2015) conducted a systematic review of the factors related to physical activity levels among adolescents with physical disabilities. These authors found a variety of both positive and negative factors associated with the physical activity participation of adolescents with disabilities; factors limiting participation included a lack of motor skills, poor physical condition, and awareness of difference from peers, while facilitators included learning new skills, feeling accepted as part of a group, and feeling a sense of freedom from participation (Bloemen et al., 2015). Some notable factors related to physical activity participation included the experience of limited engagement due to a lack of confidence or feeling insecure (Barnett, Dawes, & Wilmut, 2013; Verschuren, Wiart, Hermans, & Ketelaar, 2012), as well as gaining sport skill competence (Shapiro & Martin, 2010b; Van Eck et al., 2008) and self-confidence through participation (Matheri & Frantz, 2009). These key themes relate to the concept of self-efficacy, indicating the impact of successful physical activity experiences (Bloemen et al., 2015). Though the nature of the relationship between self-efficacy and physical activity is not yet well-understood among persons with disabilities, the results published by Schuengel et al. (2006) and Mazzoni et al. (2009), when compared with the findings of the Bloemen et al. (2015) systematic review, suggest the presence of bi-directionality. This indicates successful physical activity experiences as a key promotional avenue for increasing the participation of children with disabilities in physical activity.

Finally, Wickman, Nordlund, and Holm (2018) conducted a study to further explore the relationship between self-efficacy and children with disabilities, and to discover if a multi-activity adapted sport program influenced the development of self-efficacy among this group. The sample included 39 children, aged 8-14, who participated in 13 difference sport activities over 8 months and completed the Child and Youth Physical Self-Perception Profile before and after the intervention (Wickman et al., 2018). The Physical Self-Perception Profile is a survey tool validated for use among children aged 10-14, that assesses physical self-perception in 6 domains, including global self-esteem, physical self-worth, sport competence, body attractiveness, physical strength, and physical condition; the authors note that this study is the first to use this tool to assess self-efficacy among children with disabilities (Wickman et al., 2018). The results of this study showed increased scores after the intervention in four of the six domains, as well as total physical self-perception scores, no significant changes were seen in the domains of sport competence and physical condition (Wickman et al., 2018). This indicates that a multi-sport program that gives participants the opportunity to try multiple sports, each for a short time, has the potential to increase physical self-efficacy, but also that it may not necessarily increase children's perceptions of skill in specific sports. This may indicate the need for greater time spent developing sport-specific skills, but the development of self-efficacy through participation in a multi-activity introductory program may increase motivation for further engagement and practice. The most notable finding was the similarity of mean scores to past studies among children without disabilities, indicating that the children in this study have developed physical self-efficacy similar to their peers without disabilities (Wickman et al., 2018). This finding is contrary to that found by

Schuengel et al. (2006) regarding differences in perceived athletic competence, highlighting the need for further research on this topic.

In addition to changes in various domains of self-perceptions, sport can make a contribution to the formation of identity among persons with disabilities. Lundberg, Taniguchi, McCormick, and Tibbs (2011) conducted a qualitative study exploring the effects of participation in adapted sport and recreation among individuals with disability, with particular attention paid to the changes in identity that participants associated with their participation. These authors interviewed 17 adapted sport and recreation participants between the ages of 14 and 50 regarding the personal effects of their participation; responses indicate that the participants felt stigmatized in their life, which contributed to feeling abnormal, dependent, isolated, and helpless (Lundberg et al., 2011). Most importantly, the responses indicated that the adapted sport and recreation environment presented these individuals with opportunities to experience success, build relationships, and compare themselves to others in a positive way, allowing them to redefine their identity as a person with a disability (Lundberg et al., 2011). Evidence suggests that similar perception changes occur among outsiders when persons with disabilities are perceived as active individuals, contributing to reductions in stigma towards persons with disabilities as well (Gebhardt, Mora, & Schwab, 2016). Lundberg et al.'s (2011) study demonstrated how the environment impacts the experience of disability and can have a critical effect on personal identity among individuals with a disability. However, the impact of a congregated parasport environment on the sport experiences of adolescents with disabilities has not been qualitatively explored.

While Lundberg et al. (2011) qualitatively examined identity formation in adapted sport among older adolescents and adults, Shapiro and Martin (2010a) examined the athletic identity, peer relations, and affect among youth athletes with physical disabilities to determine the effects of adapted sport participation on psychosocial measures among this group. These authors utilized the Private-Public Identity Scale, the Positive and Negative Affect Schedule, and the Peer Relations Scale to determine associations between the various measures and adapted sport participation (Shapiro & Martin, 2010a). Participants reported high scores for private athletic identity, indicating they think of themselves as athletes, but low scores of public athletic identity, indicating that they do not believe others view them as athletes (Shapiro & Martin, 2010a). This finding suggests that adapted sport is a good outlet for the development of athletic identity, which can be a strong influence on quality of life (Groff, Lundberg, & Zabriskie, 2009), but participation may still be constrained by social barriers including perceptions of stigmatization. Peer relations was reflective of the athletes' perceptions of their own likability to others, amount of friends, and ease of interaction with their peers, with the authors finding a high mean score among their sample (Shapiro & Martin, 2010a). Additionally, the youth athletes in this study reported high scores for positive affect, indicating a high level of enjoyment in the sporting environment, and low scores for negative affect, indicating low levels of fear, shame, or distress in that space (Shapiro & Martin, 2010a). The scores for these two measures were associated, indicating a relationship between interaction with peers in a sporting environment and positive changes in emotional affect. In light of the recent findings by Orr et al. (2018), which indicate that youth with disabilities can have negative experiences of discomfort and exclusion in typical sport, this finding provides

support for adapted sport as an environment conducive to positive social experiences for adolescents with disabilities.

Self-efficacy and physical activity have a bi-directional relationship; higher levels of self-efficacy for exercise is predictive of greater physical activity levels, while participation in physical activity also contributes to the development of self-efficacy (Bandura, 1977). The nature of this relationship among individuals with disabilities has not long been studied and conflicting findings regarding development of self-perceptions have been reported (Schuengel et al., 2006; Wickman et al., 2018). Among adolescents with disabilities, perceptions of physical or athletic competence may be lower than their peers due to barriers to inclusion and successful experiences, and the development of self-efficacy may be important to promote future physical activity participation (Mazzoni et al., 2009; Schuengel et al., 2006). Success as a mediator of self-efficacy development from past participation is a key detail when examining this relationship among adolescents with disabilities because, due to the increased barriers to participation, successful physical activity experiences may be limited among this group. Particular attention should be paid to sport experiences, as they can additionally contribute to the development of identity surrounding disability, and the formation of an empowering athletic identity (Lundberg et al., 2011; Shapiro & Martin, 2010a).

Parasport

Typical opportunities for sport and physical activity participation among children and adolescents include physical education classes, active transportation, and extracurricular community programs (ParticipACTION, 2018). Youth with disabilities report incomplete inclusion, social isolation, and questioned competence in physical

education with their peers without disabilities (Goodwin & Watkinson, 2000; Spencer-Cavaliere & Watkinson, 2010), and can be limited in their ability to take part in active transportation or structured community programs due to issues with accessibility and attitudinal barriers (Shields & Synnot, 2016). Opportunities for sport participation among persons with disability fall along a spectrum of inclusion, from complete integration in typical sport contexts, with individual modifications made to promote participation, to congregated sport contexts designed specifically for persons with disabilities to participate with only other persons with disabilities (Black & Williamson, 2017). Various types of integrated adapted sport exist along this spectrum (Winnick & Porretta, 2016). Since participation in sport is voluntary, inclusion is not solely focused on integration, as it typically is in compulsory contexts, such as education (Kiuppis, 2018). Individual's preferences for the context of their participation, and the company they participate alongside, have an important influence on the experience of inclusion (Kiuppis, 2018). Therefore, any of the sport contexts available to persons with disabilities can be a valid option for participating in sport and experiencing inclusion. There may be social benefits associated with integrated programming, such as diverse interactions between persons with and without disabilities, which can promote feelings of inclusion within the greater social environment, as well as reduce stigmatization by those without disabilities (Gebhardt et al., 2016; Martin Ginis, Ma, Latimer-Cheung, & Rimmer, 2016). However, adolescents with disabilities may lose confidence in themselves when participating alongside their peers without disabilities, due to feeling less competent, which can lead to negative experiences and withdrawal (Goodwin & Watkinson, 2000; Orr et al., 2018; Shields & Synnot, 2016). Individuals that have these negative experiences may find

congregated opportunities more appropriate, as they may better promote feelings of belongingness (D'Eloia & Price, 2018).

Parasports are adapted sport activities that are designed, with specific rules and equipment, for participation by persons with a disability in a congregated setting; they were established to be parallel to sport of able-bodied participants (Canadian Paralympic Committee, 2013). Due to the intentional accessibility of parasport, such programs present decreased barriers to participation for persons with a disability, and can therefore lead to better inclusion, higher quality participation, and opportunities for success when available to adolescents with disabilities. Research regarding the participation of persons with disabilities in parasport and other adapted sport environments has found various benefits associated with participation.

Yazicioglu, Yavuz, Goktepe, and Tan (2012) conducted a cross-sectional study comparing 30 adults with disabilities who participated in adapted sports to 30 adults with disabilities who did not participate, on measures of quality of life and life satisfaction. These authors utilized both the World Health Organization Quality of Life Scale, a self-report measurement tool covering multiple domains of health, and the Satisfaction with Life Scale to compare between groups (Yazicioglu et al., 2012). The results of this study indicated a significantly higher score on both scales among the sport participants (Yazicioglu et al., 2012), though direct causality between sport and improved quality of life is limited by the cross-sectional design. The results of this study indicate that sport participation may influence quality of life and life satisfaction among persons with disabilities.

Expanding on this finding, Côté-Leclerc et al. (2017) compared the quality of life scores of adults with disabilities who participated in parasport to a standard population sample of persons without activity limitations to determine if participation in adapted sport mitigated any psychosocial effects associated with experiencing activity limitations. This study employed a sequential explanatory mixed-methods design, including a quantitative comparison of scores on the Ferrans and Powers Quality of Life Index between adults with and without disabilities, and a qualitative exploration of the influence of adapted sport participation on quality of life among participants with activity limitations (Côté-Leclerc et al., 2017). The results of the Quality of Life Index indicate that persons with activity limitations that participate in adapted sports have similar perceived quality of life as their peers without activity limitations (Côté-Leclerc et al., 2017); without comparison to individuals with activity limitation that do not take part in adapted sport, this result has no direct context for the impact of sport on quality of life. However, the qualitative inquiry included in this study provided information on factors that the adapted sport athletes perceived as related to their participation. These factors included improvements in self-efficacy, greater opportunity for social participation, greater physical fitness and independence, and improved perception of public image (Côté-Leclerc et al., 2017). The findings of this study indicate parasport participation as an avenue for personal growth and attainment of psychosocial benefits; the qualitative inquiry included allows for some insight into the mediating factors between participation and improvements in perceived quality of life. These findings are promising for the role of adapted sport for improving quality of life among people with activity limitations, whether this finding is also true for adolescents is not well understood.

More recently, Te Velde et al. (2018) conducted a retrospective cross-sectional study to examine the potential relationships between physical activity, self-perceptions, global self-worth, health related quality of life, and exercise self-efficacy among youth with disabilities. The sample of this study included adolescents aged 10-19 with a disability or chronic condition that limited activity; data was utilized from two previously conducted related studies (Health in Adapted Youth Sports study and Sports-2-Stay fit study; Te Velde et al., 2018). Sports participation was measured using a questionnaire with standardized questions; participation was defined as two or more times a week, a cut-off based on Dutch Guidelines for Physical Activity for Youth (Te Velde et al., 2018). Health Related Quality of Life was measured with the Disabkids Chronic Generic Measure, self-perception and global self-worth were assessed using either the Self-Perception Profile for Children or for Adolescents, and exercise self-efficacy was assessed with the Exercise Self-Efficacy scale (Te Velde et al., 2018). Upon analysis of these variables, children and adolescents who participated in sports reported higher scores of health related quality of life and perceived athletic competence than their peers who do not participate. As youth with disabilities typically report lower perceived athletic competence than their peers (Schuengel et al., 2006), increased perceptions among sport participants is a promising finding. Additionally, those who participated in sports were twice as likely to score in the top 33% of the exercise self-efficacy scale than their peers who did not participate (Te Velde et al., 2018). This study indicates potential psychosocial benefits of sport among adolescents with disabilities, and provides support for adapted sport as an avenue for creating successful experiences and development of self-efficacy in the physical domain.

Researchers have also utilized qualitative research to explore the personal experiences of athletes in adapted sport, and parasport. A study by Wickman (2015) examined the sport experiences of young adults, exploring both mandatory physical education experiences and those that occurred in voluntary sport contexts. This study included 10 individuals, aged 16-29, who were recruited from a local disability sports club, and who participated in semi-structured interviews regarding their sporting experiences. The results of these interviews indicated that adults close to the participants were typically important for facilitating their sport experiences; teachers facilitated inclusion in compulsory physical education, and parents and instructors encouraged participation in voluntary sport. Participants also described that sport provided them with opportunities to challenge themselves, which increased self-knowledge and self-confidence, though gender had an influence on how this process occurred. Some of the participants experienced exclusion in compulsory physical education, and met barriers to participating in voluntary sport that were specific to their experience of disability. This study reveals that participation in physical activity and sport can be a positive experience that helps an individual to grow, when they are appropriately included, and able to engage and challenge themselves. While this study includes experiences in both typical sport and adapted sport contexts, it highlights the importance of complete inclusion in sport, and a program being appropriately matched to the participants' desires.

Similarly, Allan, Smith, Côté, Martin Ginis, and Latimer-Cheung (2018) examined the personal perspectives of adult parasport athletes on their lifelong sporting experience, both able-bodied and parasport, including a retrospective examination of childhood sport participation. These authors interviewed 21 adult parasport participants

to establish a detailed sport experience timeline including a plotline of their time in sport and specific influential factors at key points on that journey, culminating in the presentation of five different narratives of sport participation (Allan et al., 2018). Though each narrative represents a different journey with sport participation, each participant expressed, in some way, a positive influence of parasport on their life, and personal development (Allan et al., 2018). Each participant's experience with parasport was influenced by their own experience with disability, as well as their social and physical environment; these experiences included positive influence of parasport participation on personal identity around disability, increased feelings of social acceptance, and increased general self-confidence that boosted participation in other activities of life (Allan et al., 2018). All participants expressed the need to feel equal and valued, as well as the idea that the parasport environment provided the opportunity for those feelings to be realized (Allan et al., 2018). The retrospective nature of this narrative development may have influenced the meanings that participant's assigned to past experiences. The results of this study indicate that parasport participation provides opportunities for attainment of social, emotional, and psychosocial benefits and allows for the development of personal and athletic identity among persons with disabilities. While the benefits of sport participation for all youth are clear, and there appear to be numerous benefits associated with parasport participation, the perspectives of adolescents with disabilities about their experiences in parasport have yet to be heard, and understanding of the role the parasport environment can play among this group is missing from the literature.

Finally, a mixed-methods study by Kyle (2019) focused on past participation in youth adapted sport, and its affect on adulthood physical activity. This study included

surveys of physical activity participation as well as interviews with current and former competitive parasport athletes about their participation in youth adapted sport, and how those experiences influenced their behaviours in adulthood. All participants completed the surveys, and 12 of the 50 participants took part in interviews, all of whom were previous or current competitive athletes in Paralympic sports. The results of the surveys indicated that all participants were classified as moderate to high with regards to physical activity levels. Some participants had not taken part in adapted sport during their youth, and there were no differences in current activity between the group that had taken part in youth adapted sport and those who had not. The responses that arose during the interviews, however, indicated that youth adapted sport had encouraged the participants' continued engagement in sport and physical activity participation in adulthood, as well as increasing their focus on enjoyment and health maintenance, which further influenced participation (Kyle, 2019). The findings of the interviews, indicate that youth adapted sport experiences contributed to long-term adherence to physical activity behaviours, and helped individuals to develop strong motivation for physical activity. These youth adapted sport experiences were also said to have opened up greater opportunities for social involvement and academic achievement, thus promoting greater development beyond physical activity behaviour for those who took part (Kyle, 2019). This study supports that, though participation in youth adapted sport is not necessary for adult physical activity participation, it can contribute to the formation of habits and motivation for physical activity in the long term, and it thus a valuable experience in adolescence. All participants of this study were adults with disabilities who were currently involved in physical activity and sport, and were recruited from adapted sport programs (Kyle, 2019).

This may have biased the sample to include individuals who are more active than the general population of adults with disabilities. Therefore, it is valuable to understand the perspectives of adolescents currently taking part in adapted sport.

Parasport, where available, is designed to be an inclusive and accessible source of physical activity. Participation in parasport may also serve to improve quality of life, increase exercise self-efficacy, and create opportunity for development of personal identity among persons with disability (Allan et al., 2018; Côté-Leclerc et al., 2017; Te Velde et al., 2018; Yazicioglu et al., 2012). Among adolescents with physical disabilities, participation in organized sport has been linked to increased quality of life, satisfaction with life, and perceived athletic competence which may contribute to increased physical activity participation in the future. While qualitative inquiry of adult experiences with parasport, and adult's recollections of youth adapted sport, have been included in research in recent years (Allan et al., 2018; Kyle, 2019), the meanings that adolescents themselves assign to parasport experiences and the role parasport can play in the development of their self-perceptions and their relationship with physical activity has not yet been explored.

Conclusion

Childhood participation in physical activity and sport is important for the development of social and motor skills, and physical activity habits to be carried through adolescence into adulthood, promoting and protecting health in multiple domains (Johnson, 2009; Kjønniksen et al., 2009; Spruit et al., 2016). Though the benefits to participation are equally applicable to adolescents with disabilities, patterns of participation in various recreation and physical activities are different for this group

compared to their peers (Carlon et al., 2013; Jung et al., 2018; Schreuer et al., 2014). While youth with disabilities typically develop self-esteem and self-perception comparable to their peers (Fox, 2002), they may develop these perceptions differently. There appears to be a bi-directional relationship between physical activity and self-efficacy among adolescents with disabilities (Bloemen et al., 2015; Wickman et al., 2018), though the relative lack of evidence gathered among adolescents with disabilities leaves much to be understood. Recent evidence suggests that parasport is conducive to the development of self-efficacy around exercise among adolescents with physical disabilities (Te Velde et al., 2018). Adolescents with disabilities experience numerous barriers to participation in sport and physical activity that may constrain their opportunities, and contribute to the differences in participation that have been seen (Bedell et al., 2013; Jaarsma et al., 2015). Sport is a context that can increase physical activity, and facilitate positive development for youth when individuals are able to achieve quality participation (Fraser-Thomas & Côté, 2009), but a key barrier to sport participation is a lack of appropriate and meaningful programs (Jaarsma et al., 2015). It is therefore important to explore the personal experiences of participants, to understand how the quality of their experiences are being supported or undermined by the currently available programs. This study will investigate the experiences in parasport of adolescents with physical disabilities from their own perspective, with focus on the specific factors relating to parasport that contribute positively or negatively to the quality of participation, and the role parasport plays in the development of adolescents with physical disabilities.

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CHAPTER 3. MANUSCRIPT

Abstract

Purpose: The purpose of this qualitative investigation is to describe the perspectives of adolescents with physical disabilities on (1) their experiences in an introductory parasport program, (2) the factors that positively and/or negatively influenced the quality of their participation, and (3) how participation in the program impacted them, if at all.

Methods: Adolescents were recruited from a community children's centres' introductory parasport program to take part in a single interview session (N=3). Semi-structured interviews were audio-recorded, transcribed, and analyzed using Nvivo qualitative analysis software. This study was grounded in phenomenology in order to gain an understanding of participants' lived experiences of this particular multi-sport program.

Results: (1) Participants each described an overall positive and a uniquely enjoyable sport experience in the parasport program. (2) Participants described several ways the program influenced the quality of their experience, which could be grouped into four main themes: *para-specificity*, *coaches matter*, *new engagement*, and *failure to launch.* (3) They also explained the opportunities for development presented by the program, which could be grouped into four main themes: *physical development*, *social development*, *self-perceptions*, and *next steps*.

Conclusions: The findings of this study suggest that participation in an introductory, multi-sport program was beneficial and enjoyable for female, adolescent participants, but the personal enjoyment and development experienced by each participants was influenced by their own perception of the physical and social environment, and the program's activities.

Introduction

Physical activity participation is associated with decreased risk of obesity and improved mental health, as well as improved motor skill performance and academic performance in all children (Carson, Chaput, Janssen, & Tremblay, 2017; Janssen & LeBlanc, 2010; Spruit, Assink, van Vugt, van der Put, & Stams, 2016). To achieve these benefits, it is recommended that children achieve 60 minutes of moderate to vigorous physical activity each day (Tremblay et al., 2016). Currently, only 23% of Canadian children are meeting these physical activity guidelines (Colley, Butler, Garriguet, Prince, & Roberts, 2019), and children with disabilities, representing 4% of Canadian youth (Statistics Canada, 2006), are even less likely to take part in health promoting physical activity than their peers (Case, Ross, & Yun, 2020; Jung, Leung, Schram, & Yun, 2018). Individuals with disabilities experience social isolation, obesity, and non-communicable diseases at an increased rate to their peers without disability (Liou, Pi-Sunyer, & Laferrere, 2005; Rao, Kropac, Do, Roberts, & Jayaraman, 2016; Rimmer, Rowland, & Yamaki, 2007). The relative lack of physical activity participation seen among youth with disabilities is cause for concern; due to existing disparities, achieving the physical, cognitive, emotional, and social benefits of physical activity may be of even greater importance for persons with disabilities (Anderson & Heyne, 2010)

Participation in sport can make a contribution towards an adolescent's recommended 60 minutes of daily physical activity; however there are numerous additional benefits associated with sport participation beyond the benefits to physical health (Eime, Young, Harvey, Charity, & Payne, 2013; Lankhorst et al., 2019; Ridley, Zabeen, & Lunnay, 2018; Tremblay et al., 2016). Organized leisure activities are

associated with improved perceptions of personal health and increased life satisfaction, and sport activities provide adolescents with opportunities for development of self-perceptions and social skills (Badura, Geckova, Sigmundova, van Dijk, & Reijneveld, 2015; Eime et al., 2013). Additionally, youth sport participation is linked to improved physical activity behaviour in adulthood (Batista et al., 2019; Kjønniksen, Anderssen, & Wold, 2009; Murphy, Rowe, & Woods, 2016). Participation in organized sport may contribute to positive psychosocial development as well as long term health outcomes among adolescents with disabilities.

Population level data has not been historically collected regarding sport participation rates of persons with disabilities, so a clear picture of physical activity and sport participation is not available. However, research indicates that adolescents with disabilities encounter many barriers that influence their participation and may not be able to freely take part in sport; they also have typically been shown to participate less frequently in organized sport activities than their peers without disabilities (Jaarsma, Dijkstra, de Blécourt, Geertzen, & Dekker, 2015; Law et al., 2006; Verschuren, Wiart, Hermans, & Ketelaar, 2012; Wright, Roberts, Bowman, & Crettenden, 2018). Recent studies have shown that children with disabilities report inadequate inclusion in typical sport environments and a subsequent withdrawal from physical activity associated with these experiences, making the quality of sport participation just as important as the amount (Orr, Tamminen, Sweet, Tomasone, & Arbour-Nicitopoulos, 2018; Spencer-Cavaliere & Watkinson, 2010).

Adapted sport refers to activities that are designed or modified for participation by persons with disabilities. (Winnick & Porretta, 2016). These sport environments are

designed to adapt to the needs of all potential participants which may provide increased opportunities for diverse interactions (Martin Ginis, Ma, Latimer-Cheung, & Rimmer, 2016). Parasport is a type of sport that is designed specifically for the participation of persons with physical disabilities, with rules and equipment that promote complete participation (Canadian Paralympic Committee, 2013). In sport, due to its voluntary nature, inclusion does not solely refer to integration; it is instead influenced by each individual's choice to participate in the context, and alongside whom, they prefer (Kiuppis, 2018). Therefore, sport inclusion exists on a spectrum that ranges from integrated sport with modifications made to assist individual's participation, to congregated sport solely for persons with disabilities (Black & Williamson, 2017). All sport environments along this spectrum are equally valid. While there can be social benefits associated with each type of integrated sport, research suggests that adolescents can potentially lose confidence in themselves when they participate in programs alongside peers without disabilities (Goodwin & Watkinson, 2000). For those individuals, separate sport activities for persons with disabilities could be more appropriate, as these environments may more readily promote feelings of belongingness (D'Eloia & Price, 2018). Therefore, congregated sport, or parasport programs, may offer a unique environment for sport participation that carries its own psychosocial benefits, in addition to the benefits of physical activity and organized sport.

While typical sport environments may not always be conducive to complete participation and inclusion, adapted sport has been shown to reduce negative feelings of stigmatization, and increase feelings of enjoyment among adolescents with disabilities (Lundberg, Taniguchi, McCormick, & Tibbs, 2011; Shapiro & Martin, 2010; Taub &

Greer, 2000). Individuals with disabilities who take part in sport also report higher quality of life than those who do not take part in sports (Yazicioglu, Yavuz, Goktepe, & Tan, 2012), while adults who experience activity limitations and take part in sports report quality of life comparable to their peers without activity limitations (Côté-Leclerc et al., 2017). Additionally, adapted sport participation is associated with increased physical activity levels, improved self-worth, and greater exercise self-efficacy (Te Velde et al., 2018), leading to greater attainment of the health benefits associated with physical activity both currently and in the future. When individuals are able to access adapted sport programming, it can contribute to their psychosocial well-being as well as physical activity behaviour (Côté-Leclerc et al., 2017; Te Velde et al., 2018; Yazicioglu et al., 2012); however, not everyone is able to access adapted sport programming.

One of the key barriers to sport participation that is described by adolescents with disabilities, and their families, is a lack of affordable, meaningful, *and appropriate* programs available in their communities (Jaarsma et al., 2015; Shields & Synnot, 2016). What makes a program appropriate or meaningful is subjective, and determined by each potential participant. Therefore, to understand and improve the quality of program offerings, it is crucial to first understand how such programs are experienced by the persons with disabilities who are taking part. Wickman (2015) conducted a qualitative exploration of voluntary and compulsory sport experiences through semi-structured interviews with 10 young adults with disabilities. This study found that support from others (e.g. sport attendants, family, etc.) was typically necessary for facilitating sport participation. Supporting participants' autonomy by allowing them to choose the activities and contexts that they were engaged in was also important for ensuring

enjoyment and continued sport participation. Additionally, improvements in how participants viewed themselves occurred when they were completely included in a sport environment and were able to take part in skill development. In contrast, when environments were not designed for persons with disabilities or adequately adaptive, participation was incomplete and participants experienced discrimination (Wickman, 2015).

More recently, Allan, Smith, Côté, Martin Ginis, and Latimer-Cheung (2018) conducted a narrative inquiry exploring adult parasport athlete's history of sport participation. This study presented narratives of various pathways of development taken by the parasport athletes included in the sample up to the time of their interviews. These narratives were indicative of how each individual's understanding of disability, and perspective of sport participation, could influence their own pathway through sport. It was also found that each individual's understanding of sport participation greatly influenced their concept of quality participation, and what was necessary for creating quality experiences. This study demonstrates the subjective nature of quality experiences, and the need to understand the perspectives of individuals who have taken part in parasport in order to fully understand parasport participation. While the individual perspectives presented by Wickman (2015) and Allan et al. (2018) provide valuable context to the literature on sport for persons with disabilities, more context is needed within the area of early experiences in parasport; there is a gap in the literature regarding the perspectives of youth with disabilities (Jones, 2007). Sport can be a valuable context for facilitating adolescent development when quality participation is achieved (Fraser-Thomas & Côté, 2009). Quality participation is determined by each individual's

perception that their various participation needs are being met through program experiences (Evans et al., 2018). Therefore, understanding how adolescents with disabilities make sense of their early parasport experiences is valuable for understanding and informing introductory parasport program quality.

With this study we aimed to increase the understanding of introductory parasport by giving voice to adolescents with disabilities' perspectives on a multisport community program. Three research questions guided this study:

1) How did adolescents with disabilities experience an introductory parasport program?

2) What do adolescents with disabilities identify as factors that positively or negatively affect the quality of their parasport participation?

3) How do adolescents with physical disabilities perceive that they have changed, if at all, as a result of participating in an introductory parasport program?

Methods

Methodological Framework

The philosophical assumptions that a researcher brings to qualitative research undoubtedly influence the research process and interpretation of the resulting data (Creswell & Poth, 2017). This study was built upon ontological relativism and an epistemological assumption of social constructivism; the beliefs that reality is subjective and dependent on each individual's experience, and the idea that knowledge is socially constructed and subjectively determined (Creswell & Poth, 2017). These assumptions guided this phenomenological study focused on the quality of experiences and the

meanings that the involved individuals attributed to the specific phenomenon (Pietkiewicz & Smith, 2014).

Recruitment/Participants

This study was approved by the Research Ethics Board at Ontario Tech University in Oshawa, Ontario (Appendix A). Initially, children aged 8-12, who had previously participated in an introductory parasport program with a community children's centre in the Durham Region, were invited to participate in an interview session through a social media campaign. This strategy did not yield significant return, and recruitment letters were sent to each eligible participants by the community children's centre on behalf of the primary author (Appendix B and Appendix C). Due to a lack of response, the age of recruitment was increased to include adolescents ages 8-18. Direct recruitment was also incorporated at this time, and program staff began giving recruitment materials directly to eligible participants who were currently enrolled in the parasport program on behalf of the primary author. A total of three (N=3) participants took part in interview sessions, all female. All participants signed assent forms (Appendix D), and each had a parent sign an informed consent form (Appendix E) before the study began.

Parasport program description

The introductory parasport program, from which participants were recruited, is an eight week, multi-sport program where adolescents participate for one hour per week in a variety of sports. In the original iteration of the program, there was a new parasport introduced each week. In 2019, the program changed the curriculum to focus on sitting volleyball, boccia, and adaptive baseball for the 8 weeks, based on their funding. One participant of this study participated in the original program, taking part in 6 different

sports, while 2 participants took part in the new program with the majority of sessions focused on sitting volleyball. Each session included a warm-up, sport specific drills, and cooperative gameplay focused on the sport of each week.

Study Design

This study took a qualitative approach, specifically utilizing interpretive phenomenology. Semi-structured interviewing was used by the primary author to gain insight into the participants' perspectives of their own participation in an introductory parasport program. Included in the interview sessions were participant driven drawings, which allowed for a more collaborative formation of data, and assisted in breaking down any power imbalances that can occur as a natural part of a standard interview (Horstman & Bradding, 2002; Kvale & Brinkman, 2009). Additionally, a short, child-friendly member-checking process was included during each interview (Simpson & Quigley, 2016). Interview sessions lasted between 35-65 minutes and each session was audio-recorded. Particular attention was given to the participants thoughts on what they enjoyed or didn't enjoy about the program, and how taking part in the program has influenced them as a whole. Parents were welcomed into the interview session but instructed to allow their child to express their experiences in their own words as much as possible. Parents were able to make additions or comments in the interview when they felt that there was an important area of discussion that their child had not addressed on their own.

Procedure

After parental consent and participant assent were provided, parents were given a voluntary Demographic Information Form (Appendix F) to complete. This form was included to provide the researcher with contextual information that would assist in the

interpretation of each participant's comments. As the focus of this study was on participants' parasport experiences rather than each individual's experiences with disability within the greater social environment, diagnosis or related information regarding disability was not requested, and was only gathered during interviews when voluntarily addressed by the interviewee. Once forms were complete, and the participant and their parent had the opportunity to ask any clarifying questions, the audio-recorders were turned on and the interview session began.

By utilizing a semi-structured interview technique, the interviewer was able to probe participants based on their responses to the questions (see Table 1), and facilitate a deeper discussion of the topics that were brought up by the interviewee (Creswell & Poth, 2017). Throughout each interview, the interviewer took notes to capture any nuanced details that may not be picked up by the audio-recording and may assist in the thematic analysis process. Additionally, the interviewer noted key concepts that were the focus of the interviewee's responses. At the completion of the interview guide, before the audio-recorders were turned off, some of these notes were presented back to the interviewee in an adapted form of child-focused member checking (Simpson & Quigley, 2016). Each of these notes was rewritten beginning with the word "I" to capture the child's own perspective as initially interpreted by the interviewer. These I-Poems were then checked over by the participant for concepts they wished to correct, change, or remove prior to the end of the interview. All participants agreed with the notes presented by the interviewer, and no changes were made.

Table 1

Semi-Structured Interview Guide

Interview Questions

1. Can you tell me a little bit about yourself?
    a. Can you tell me about the kinds of activities you usually like to do?
2. Now think back to when you were in the parasport program. Can you tell me about what it was like there? Could you walk me through a usual day at parasport program?

Now, would you like to draw me a picture of you at the parasport program? Whatever you think shows your time there the best.

3. What did you draw? Can you explain it to me please?
4. Tell me a bit about what the parasport program was like.
5. Tell me about the other people that were at parasport
6. Tell me about the Abilities Centre
7. Can you tell me a bit about how you felt about yourself at parasport?
8. How do you think doing the parasport program changed you?
9. How did the parasport program compare to other activities (e.g. Gym class, swimming lessons) that you have participated in?
10. Do you think you would like to do sports in the future?
    a. Why/why not?

If yes: Can you please draw a picture of what that might look like?

If no: Can you please draw a picture of the activities you would like to do when you're older?

11. Could you explain to me what you have drawn?
12. If you were in control of the Intro to Parasport Program, is there anything that you would do differently?

After each interview, the audio-recording was transcribed verbatim, and the interviewer continued to take notes on emerging areas of focus. Due to the inductive nature of qualitative research, it is important to collect and analyze data simultaneously, to allow for topics addressed in earlier interviews to be included in later interview

sessions (Creswell & Poth, 2017). Therefore, after each interview, the primary author read and listened to the interviews several times to become intimately familiar with the data and began the theme-identification process and creation of a coding framework.

After all interviews were complete, and the primary author was familiar with the data from each transcript, the focus of analysis shifted from single interviews to the entire collection of notes to identify the emerging themes (Creswell & Poth, 2017). These were then labeled with a concise phrase. The research team collaborated to discuss the framework to establish agreement regarding the themes included. The final coding framework was entered into NVivo 12 Pro, and the three transcripts were uploaded for analysis. The primary author coded each transcript using the coding framework (Appendix G) in NVivo. Next, a third person who was not involved in the development of the coding framework, and not intimately familiar with the study, was taught the final coding framework within NVivo. The primary author assisted this individual in the coding of one transcript to ensure that the process for coding was understood, and then the individual coded one entire transcript on their own. A coding comparison was run to potentially detect any bias in the coding of data by the primary author. Inter-rater reliability was calculated between primary author and the third party rater. This process resulted in a kappa score of 0.84 (97% agreement) for the higher order nodes, representing each of the key themes.

Results

Three athletes who had previously participated in the introductory parasport program took part in an interview session about their experiences. All three participants were female. Recruitment for this study aimed for a more representative sample of the

participants of the program of focus, but response from the eligible individuals was less than expected. One participant had taken part in the program only once, while two had participated in at least two eight-week sessions of the program, and were currently enrolled at the times of their interviews. More detailed demographic information is included in Table 2.

Table 2

Participant Demographic Information

Participant	Age	Program Participation Date
1	11	2018
2	15	Spring 2019, Fall 2019
3	15	Spring 2019, Fall 2019, Spring 2020

Participant's Descriptions of the Introductory Parasport Program

When participants were asked about the introductory parasport program, they identified a number of program details that influenced their experience in some way. These programmatic aspects encompassed what can be described as *First Involvement Needs* and were split into four main subthemes: *Para-specificity*, *Coaches Matter*, *New Engagement*, and *Failure to Launch.* A summary of the participant's perspectives on the program is included in Table 3.

Table 3

Participant Descriptions of the Introductory Parasport Program

First Involvement Needs
Para-specificity • Sports/activities • Para-athletes
Coaches Matter • Expertise • Positive Relationship
New Engagement • New Opportunities • New Success
Failure to Launch • Unfulfilled • Discontinuation

First Involvement Needs

When asked about overall experiences, the participants discussed feeling "*happy*" or "*really, really good*" during their time spent in the parasport program. In addition to the key sub-themes that arose around programmatic aspects that were important influences on the quality of their experience, the participants offered ways in which they felt that the program could potentially be improved to better suit their own personal needs.

> *"Researcher: Is there anything that you would do differently than how they taught you.*
> *Participant: Nope*
> *Researcher: no? Not a single thing,*
> *Participant: except for maybe better explanation of how to do it*
> *Researcher: Better explanation.*
> *Participant: Yes, because they made it sound so easy, but it's not easy"*

> *"I'd say probably like have like maybe two groups like one group where uh people can play that are like special needs or handicapped or and are in the parasport program and then I'd have people like coaches well not really coaches but like volunteers or helpers, like helping out there and*

then I'd have like another group where uh you have like people who are like first time being there maybe and like maybe like learning and stuff"

Para-Specificity. The first main sub-theme that arose was the intentional design of the program to be tailored to individuals with disabilities, or the *para-specificity* of the program. The participants described the importance of taking part in a program that was designed to be inclusive and adaptive, and included activities that promote success for youth with disabilities.

"Yes, and the sit down volleyball because I'm really good at volleyball, it's just it's easier when you're sitting down, because you go like that [miming scooting on floor]"

"And so all different disabilities could come play and learn how to play"

Participants also described the experience of being in a group environment with other persons with disabilities and how that contributed to their experiences in the program.

"When I'm in the parasport environment I feel really, really good. It's nice because you're there with people who, uh… with challenges just like you and this way you bond a little better with them because you guys go through, like the people you're with sometimes they go through the same things that you do and just talking about your experiences can be really helpful."

"I like competitive, like to be like I guess, to be with participants that like are good players I guess."

"I would, I like to play like with people that like know how to play and stuff. That like I don't really like to play with people that don't really know how to play even though they like, they may be just like learning how to play and stuff."

Coaches Matter. With regards to the importance of coaches, the participants addressed the various roles that the coaches could play and how the quality of the coaches influenced their experiences by adequately filling the various roles or not.

Participants discussed the positive relationships that they developed with the coaches, and the role that the adults within the program played in providing social support.

> *"Participant: One of them, they played it because they were disabled too, so they would play. Yeah. Oh I know what! It was. It was tennis, but it was wheelchair tennis*
> *Researcher: oh you played wheelchair tennis one week.*
> *Participant: and that was that was the instructor whose legs were disabled"*

> *"The [centre] staff are really nice. And for the most part, they're very helpful and when you need them, they're always there, they're constantly watching us and making sure that we're playing fair and we're getting along with each other. They're really great to talk to. I guess they're the kind of like our secondary coaches where they're always teaching us how new tactics and they're really supportive. They're always saying like positive things and giving positive feedback and um and construction, constructive criticism, how to improve ourselves better or what things you could do differently and they're always really interested in learning about you like as as as peers and I guess students or players."*

Participants also differentiated between the coaches that were present at the program and implied a decreased value of the coaches who demonstrated a lack of parasport knowledge and expertise.

> *"Participant: Maybe they can learn how to play too if they haven't played before.*
> *Researcher: Do you mean like*
> *Participant: If that makes any sense*
> *Researcher: they could learn like in the group or they can learn sitting volleyball before they come to be coaches?*
> *Participant: Like before they come so they know what they're, so then they can like help the other people"*

> *"They were like a second instructor but they didn't know what to play."*

> *"Because you don't want the coach to be confused about what they're doing"*

New Engagement. Participants discussed the new forms of engagement in sport that they had the opportunity to experience as part of the program including novel activities, greater access to the sport, and freedom to be independent.

> *"Because when I had cancer um I have to use a wheelchair and I couldn't use the wheelchair, somebody had to push me and I just wanted to try doing it alone and it worked out really well"*

> *"Researcher: Okay, do you play volleyball like outside of here?*
> *Participant: No, I do not.*
> *[Later]*
> *Participant: When I when I first like came here and stuff I had to I guess get used to like sitting volleyball rather than like standing volleyball like where you're standing.*
> *Researcher: How you feel about like that difference between them?*
> *Participant: I still like standing better but"*

Participants also mentioned increased experiences of success within this particular program environment that they may not have necessarily experienced during prior experiences within other sport environments.

> *"And it's funny actually, because at the start, I didn't like sitting volleyball, any type of volleyball, to be honest. I hated it. And one day I just walked into the [program location]. I was taking one of the courses for for children between 13 and 19 that allow them to engage in sports and volleyball just happened to be one of them on one of the days. And I remember my [guest parasport coach] was there and I didn't like it. But he said to me, "you're actually really good at it. Your spikes are really good your, your coordination is really good and you have a really strong power". And I thought wow, that's really neat and, and after a while I got used to it, the game sitting volleyball and then took a course, an eight week course that was just dedicated to the sport sitting volleyball and eventually I loved it. And now I love it to the point where it's my favorite sport now."*

Failure to Launch. The participants also discussed the limits of this one program to meet all of their needs. Participants alluded to a lack of fulfillment from their

participation in this particular program as they have either progressed beyond this introductory level or it is not specific to their interests.

> *"Participant: For baseball, I don't really like cause I've like done it before and I'm not really that good*
> *Researcher: So you don't enjoy it?*
> *Participant: No and then for boccia it's kind of boring, I find"*

> *"I don't find it like as fun and stuff. I find it kind of boring but also like easy I guess"*

> *"I'm a a participant who played before and so this is my second time and so I'd rather do like, since I have like, more experience I rather do like, uh, like games, uh practice games and stuff"*

Participants also discussed ways in which their participation in parasport has been discontinued or is restricted to solely this one introductory program, whether by their own comfort or a lack of availability of more programming.

> *"Researcher: Do you do any new activities, did you any of the things you learned there?*
> *Participant: Uh, Nope,*
> *[Later]*
> *Researcher: So you wish you had wheelchair basketball and volleyball at your school?*
> *Participant: Yeah.*
> *Researcher: You'd try out for those for sure?*
> *Participant: yes, and I'd make them because I'm the best."*

> *"Um, I think I would stick to the same circumstances. As much as I want to consider myself an open minded person, I feel comfortable doing it in parasports. And I don't think it's the same when you're when you're playing with. Like for me, because I'm a little slower than typical kids. I feel like that would that would pull me back in some aspects. And, um, but when you're in parasports, I think everybody is on the same page or level, and I just feel like if even if there were a sitting volleyball team at my school, I don't know if I feel comfortable trying out for it, or if I'd even want to try out for it because I just prefer to do at the [program location] with parasports."*

Impact of Participation in Introductory Parasport Program on Participants

Participants reported several benefits and opportunities for growth that were associated with participation in the introductory parasport program. These areas of growth were summarized with the single theme *Personal Growth* which encompasses the four subthemes of *Physical Development*, *Social Development, Self-Perceptions*, and *Next Steps.* The structure of this theme can be found in Table 4.

Table 4

Impact of Participation in Introductory Parasport Program

Personal Growth
Physical Development • Skills • Health/Fitness
Social Development • Comfort Socializing • Exposure
Self-Perceptions • Confidence • Less Self-conscious • Disability Identity
Next Steps • Open-mindedness • Continued Sport Participation • Future Sport Aspirations

Personal Growth

Participants were asked if they had experienced change that they associated with their participation in the program and they addressed the various ways in which the program led them to changed or grow.

> *"It's just really improved different things like my mind and body and health too like the physical aspects and the mental aspects"*

> *"I try harder."*

"Because I've played it before and I've learned uh learned on how to do things like when I was first like in first in the program and so now I'm experienced"

"It also improves how I think in school and like when it comes to my work ethic allows me to be more focused because I've been doing exercise"

Physical Development. The first sub-theme that was identified among participant's expressions of personal growth was the concept of *physical development*. Participants discussed changes in skill and capabilities related to performing sport activities as well as physical improvements beyond sport specific movements.

"It was pretty hard but I got used to it"

"I've learned how to better my coordination, my cooperation with the game and my peers, I've learned how to move quickly on the ground and I've also improved my strength in the game as well"

"Participant: Because I'm good at serving and I like to serve
Researcher: Why do you like to serve?
Participant: I practiced and practiced to get better"

"I know, I got amazing"

"It's also allowed me to improve on my athletic athleticism and allowed me to be more athletic and fit"

Social Development. In addition to the physical progress that participants identified as an area of growth, they discussed increased exposure to new people and different opportunities for social interaction.

"Researcher: Were they your friends while you were there?
Participant: Mhmm!
Researcher: Yeah?
Participant: And then I don't know their names now"

"We introduced ourselves to a bunch of other, uh, other participants"

"For the most part, I get along with everybody, and and everybody, most people are really nice and willing to get to know one another."

Participants also discussed perceived improvements in social skills including increased comfort with socializing, actual increase in social circle, and improved abilities for needs expression.

> *"Ever since the parasport program, I feel like I've really learned to be more comfortable around people"*
>
> *"I'm able to uh in difficult situations, uh think more clearly and express my needs a little better too, a little bit"*
>
> *"And I guess the other thing is is that even with my friends at school, I learned to bond a little better with them because of the because of parasports."*

***Self-perceptions*.** The researchers also identified perceived changes in the participants' self-perceptions that occurred throughout their time in the program. Participants spoke with confidence about the many competencies they developed or demonstrated during their time in the program.

> *"But I've gotten a lot better at increasing my odds of getting over the net. And that's, that's one thing that I'm proud of"*
>
> *"Like I practiced and I'm a good player*

It was also mentioned that participants felt more comfortable, and less self-conscious after taking part in the parasport program and finding some success.

> *"Before she went to the parasport program she wasn't playing any sports at school. She was…self-conscious about it, about her arm and her leg and after being in the parasport program she did great and enjoyed it and it wasn't any issue. After that she was happy to try things." –Participant's mother*

Next Steps. In addition to areas where growth had occurred, participants spoke about future aspirations in sport that were reflective of intention to continue with

parasport activities, or sport and physical activity in general. These aspirations were seen as a result of a generally positive sport experience as a participant in this introductory parasport program.

> *"Uh my sport future is playing hockey, or, or, or, or, or wheelchair basketball. And I'm gonna be a professional"*
>
> *"I think I want to stick with sitting volleyball for a long time."*

Participants also spoke about an openness to trying other, new activities beyond those that they were introduced to during their time in the parasport program.

> *"I might I might pick up another sport in the future or I might stick to the same one I just don't know yet."*

Participant Drawings

As part of the interview process, participants were asked to draw two pictures. The first picture was a retrospective drawing to represent their time in the community children centre's parasport program, while the second picture was aspirational to represent their anticipated future. One participant chose not to participate in the picture drawing process.

Retrospective Drawings

Shown in figure 1, one participant drew her retrospective picture of wheelchair basketball gameplay. The picture involves herself in possession of the basketball, with an anonymous opposing player trailing behind her and she moves towards the basket.

Figure 1

Participant's Retrospective Drawing of Wheelchair Basketball Gameplay

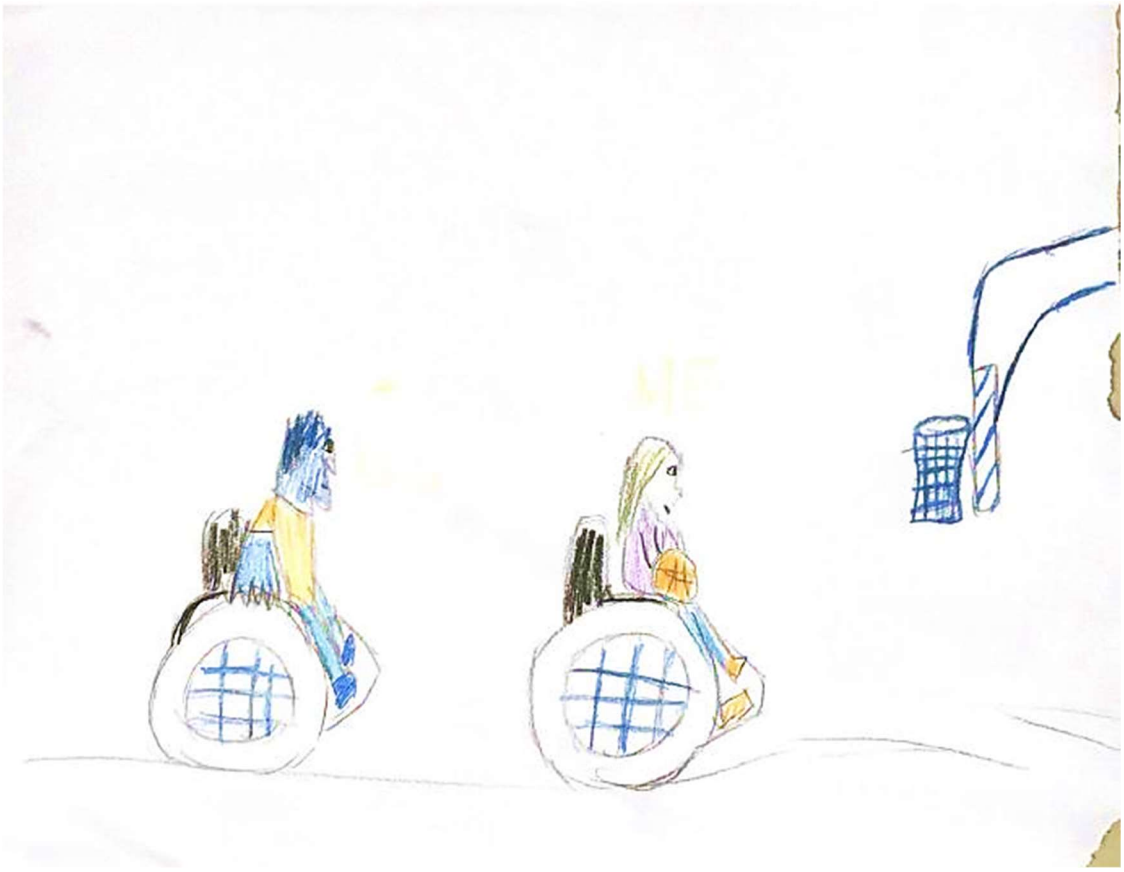


Figure 2

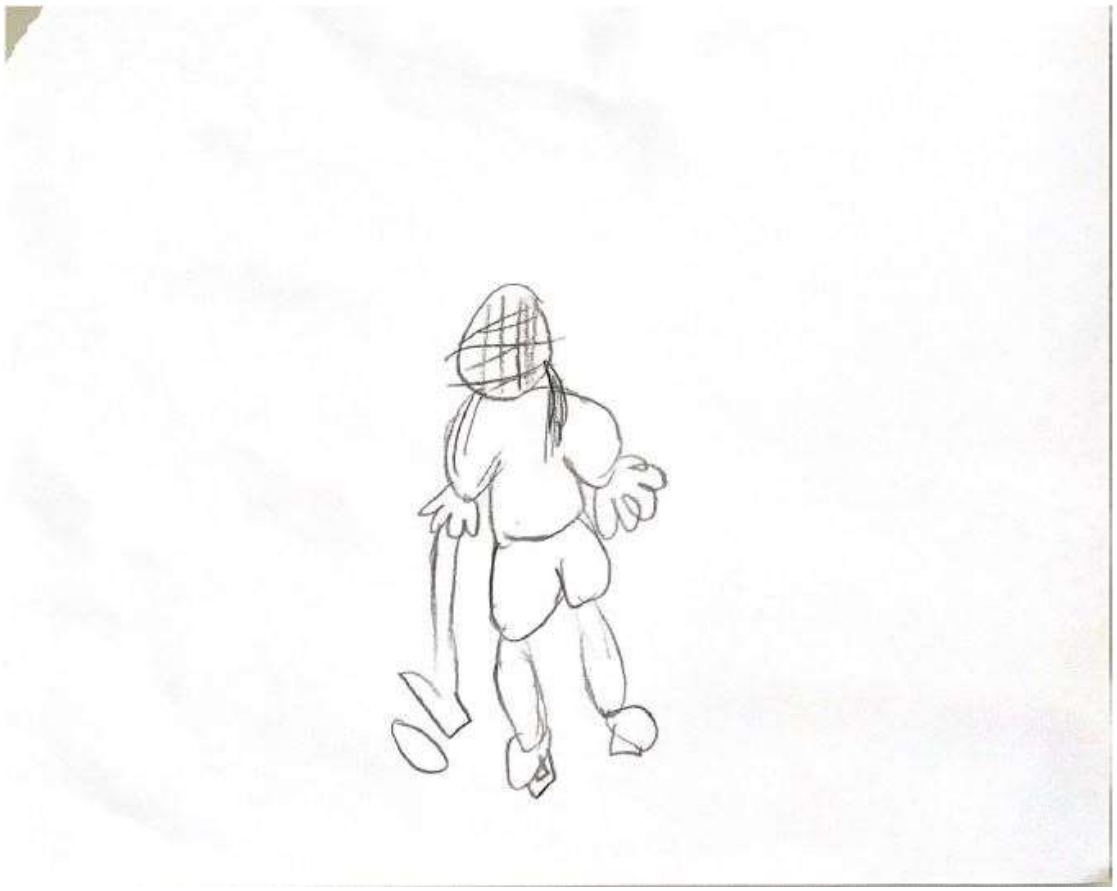
Participant's Retrospective Drawing of Sitting Volleyball Gameplay

In Figure 2 is another participant's retrospective drawing of a sitting volleyball game including herself as the server with 5 teammates on her side of the net, and 5 individuals on the opposing side including one individual using a wheelchair.

Aspirational Drawings

Figure 3

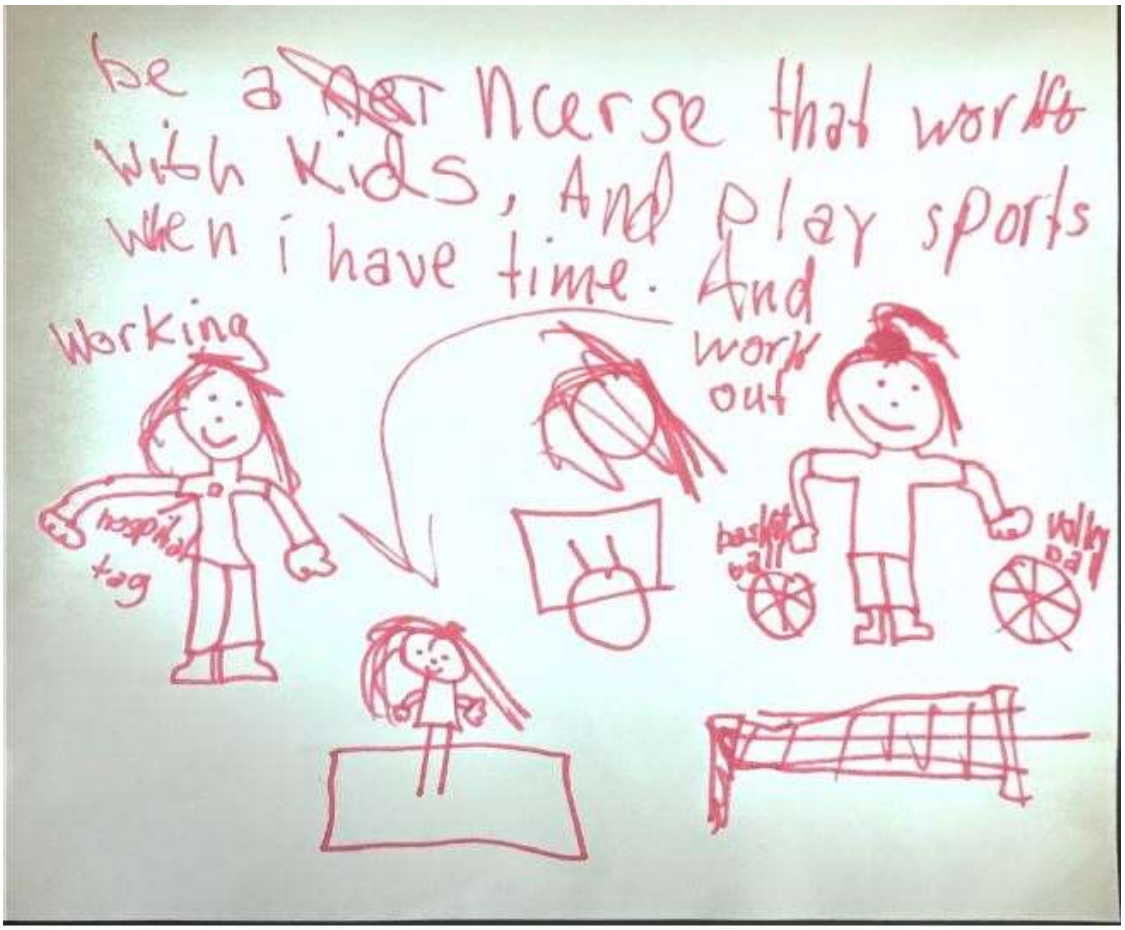
Participant's Aspirational Drawing of Hockey



For her aspirational picture, seen in Figure 3, one participant drew herself dressed in full hockey equipment, holding a stick with a puck in front of her.

Figure 4

Participant's Aspirational Drawing of Herself Working, Working out, and Taking Part in Sports



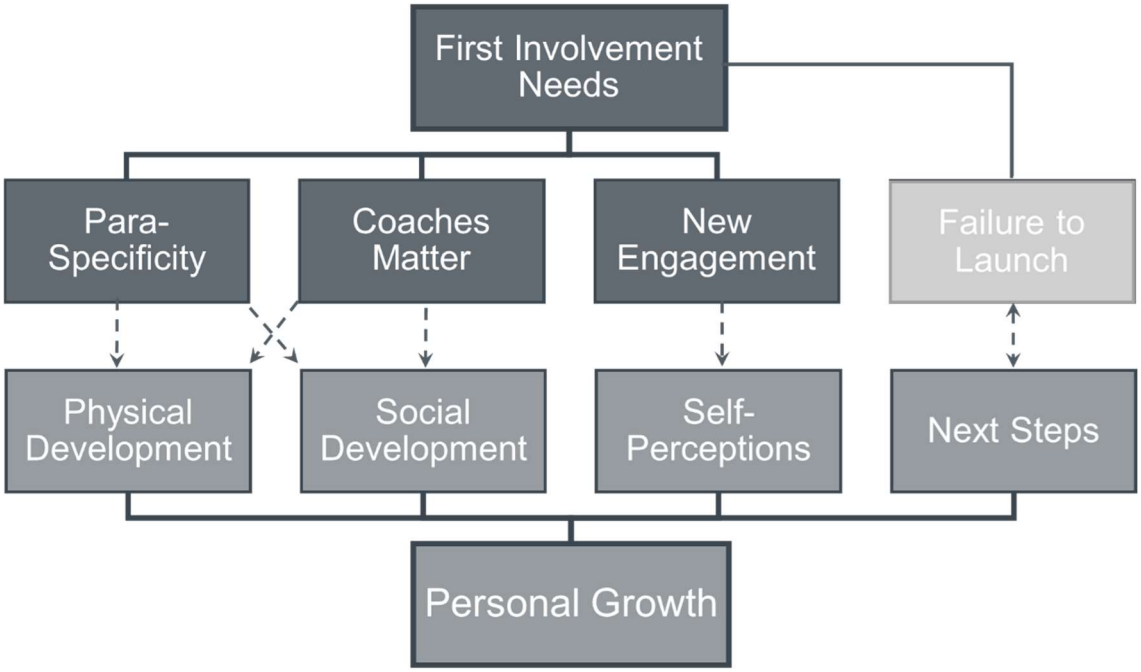
In Figure 4, another participant drew her aspirational picture of the mix of activities that she plans to have included in her life. This drawing included herself drawn in three different locations: working in a hospital as a nurse, playing basketball and volleyball, and at a gym working out.

Discussion

The purpose of this study was to describe, from the perspective of adolescent participants, (1) experiences in an introductory parasport program, (2) the factors that positively and/or negatively influenced the quality of their participation in that program, and (3) how participation in the program has impacted them, if at all. The key themes and sub-themes, and the relationships between them, which arose from the participants' responses regarding these three areas of inquiry are represented in Figure 5.

Figure 5

Proposed Relationships between Sub-Themes



As demonstrated in Figure 5, there is a mirroring present between the subthemes of each of the two major themes. Included within the overarching theme of *First involvement needs* are aspects of the program experience that participants felt influenced the quality of their participation and overall experiences in the program. Relatedly, the

subthemes included within *personal growth* refer to the outcomes in personal development that participants felt had occurred as a result of their participation. The participants described the quality of various program aspects, highlighting their perceptions of how well the program met their needs. These assessments were entangled with expressions of the various opportunities for development and the realized growth that was achieved throughout their time in the program. The quality of the program, as perceived by each participant, may have had a strong influence on their achievement of various developmental outcomes. The perceived fulfillment of each of these *first involvement needs* may have contributed to some extent to the attainment of the various *personal growth* outcomes. A similar conceptual model of program influences on participant outcomes was presented by Turnnidge, Vierimaa, and Côté (2012) in a study of youth athletes with disabilities' experiences in a swimming program. Turnnidge et al. (2012) found connections between the various outcomes that athletes attributed to their sport participation and the contextual factors that influenced those outcomes. The findings of this present study (e.g. the importance of peer interactions and coach encouragement for promoting feelings of belongingness and improving social skills) appear to parallel the connections presented by Turnnidge et al. (2012). Indicated within Figure 5 are the proposed relationships between the extent to which the participants of this present study's *first involvement needs* were met, and the *personal growth* they experienced.

Participation in a program that was intentionally designed for adolescents with disabilities may have decreased barriers and improved accessibility, which could increase opportunities for engagement and skill development, contributing to physical

development (Shields & Synnot, 2016). The support given by coaches, and the presence of other participants with disabilities contributed to opportunities for social interaction and feelings of belongingness, which could help encourage positive social health and social skill development (Côté, 2002; Eime et al., 2013). The subtheme of *new engagement* reflects new opportunities that were afforded to the participants by the availability of the specific parasport program which may have encouraged new experiences of success and independence. These experiences may have contributed to the development of confidence and improved self-perceptions within this sport context (Bandura, 1977). Finally, participants' lack of progression to the next step along the developmental pathway of parasport after first taking part in this parasport program was identified as a shortcoming. The fulfillment that participants did derive from the program increased their desire for continued sport participation (Kyle, 2019), and inspired future sport aspirations in a variety of settings, clearly depicted in participants' aspirational drawings (figure 3 and 4), though there appears to be lack of local programs available to support these aspirations.

Overarching Themes: First Involvement Needs and Personal Growth

In 2019, Canadian Sport for Life published the Long Term Development in Sport and Physical Activity model (Higgs, Way, Harber, Jurbala, & Balyi, 2019), meant to be more broadly inclusive than the previous Long Term Athlete Development model (Balyi, Way, Norris, Cardinal, & Higgs, 2005). New stages, Awareness and First Involvement, are incorporated along the entire developmental pathway to acknowledge the diverse timelines along which individuals may enter and progress with sport and physical activity. The stage of First Involvement refers to individuals' first experiences with

sports. The priorities of this stage are positive experiences and continued engagement in sport (Higgs et al., 2019).

The participants in this study identified factors, representing different aspects of the social environment, physical environment, and sport activities within the parasport program, which influenced the quality of their participation. Within the Quality Parasport Participation Framework (Evans et al., 2018), there are 6 elements that contribute to quality experiences: autonomy, belongingness, challenge, engagement, mastery, and meaning. When a participant feels that one or more of these elements is being met during sport participation, it can contribute to feelings of satisfaction or enjoyment, and their subjective assessment of participation quality (Evans et al., 2018). When quality participation is achieved, it can result in sustained sport participation and greater motivation, therefore the extent to which participants perceive that their participation needs were met by a sport program may influence their long-term sport participation (Evans et al., 2018). The extent to which these needs were met may have impacted the participants' views of the experience and thus their engagement and intention to continue (Evans et al., 2018). This program serves as a first involvement opportunity in parasport for these participants, therefore the factors that impacted that experience can be referred to as *First Involvement Needs*.

An appropriately designed sport environment as a context that can positively influence development is heavily supported by the literature on positive youth development (Fraser-Thomas & Côté, 2009; Fraser-Thomas, Côté, & Deakin, 2005). Adolescents with disabilities are equally able to experience positive development through sport, when the program is appropriately designed and supported (Turnnidge et al., 2012).

The participants' descriptions of the program and the personal outcomes that they associated with their participation indicate several opportunities for *personal growth* made available by taking part in the program. These opportunities reflect some of the positive influences of sport programs on youth development that have been previously seen in the literature.

First Involvement Needs: Para-specificity

The study participants referred to several aspects of the program that were designed specifically for the complete accessibility of youth with disabilities and the promotion of success for all group participants. They felt that these elements normalized their experiences with disability, and promoted comfort and success, and therefore influenced their overall program experience. One of the key programmatic aspects that was discussed was interaction with other persons with disabilities. One participant clearly distinguished between the comfort she felt in the parasport environment and a lack of comfort in another sport environment where she participates alongside peers without disabilities. Inclusion in sport is represented by a spectrum of opportunities, from separate participation for persons with disabilities to complete integration in modified sport environments designed for all participants (Black & Williamson, 2017). Literature suggests that youth with disabilities can enjoy integrative programming, but they may also experience a loss of confidence in sport programs where they participate alongside peers without disabilities (Goodwin & Watkinson, 2000); the experiences described by this participant are consistent with this literature. Inclusive environments are meant to make every participant feel welcome and involved, without limitations (D'Eloia & Price, 2018). When this is not accomplished, these environments may compromise experiences

of belongingness; programs and spaces that are specifically designed for adolescents to participate alongside other adolescents with disabilities may better promote feelings of inclusion and belonging for some (D'Eloia & Price, 2018; Shields & Synnot, 2016). Belongingness has been established as one of six key aspects included in the Quality Parasport Participation Framework (Evans et al., 2018). A group where adolescents can participate in sport alongside peers with disabilities, feel included, and that they belong, may create greater opportunities for a quality experience in sport that can contribute to satisfaction and enjoyment (D'Eloia & Price, 2018; Evans et al., 2018). This perspective was demonstrated by one participant's pathway before and after parasport. She described a lack of previous sport participation followed by a positive, successful parasport experience and an intention to continue with parasport in the future. She made specific mention to the increased comfort she felt participating alongside other adolescents with disabilities compared to a lack of comfort in other sport contexts; this program allowed her to achieve belongingness better than other experiences, and the *para-specific* nature of the program was an important contributor to the quality of her personal experience.

While the design of the program created a positive social environment, it also resulted in a group of participants with diverse skill levels, which did not always contribute positively to participant experiences. One participant discussed at length the disparity in skill that she perceived among the program participants, and how this detracted from her engagement and enjoyment in the program during certain activities. This participant described herself as a more advanced para-athlete than some of the other participants, and found that when activities had to be designed to include everyone in the group, the pace and complexity fell below the level of skill and competition that she

found enjoyable. Within the Quality Parasport Participation Framework, challenge is one of six elements that contribute to subjective quality experiences (Evans et al., 2018). Within this framework, experiencing challenge is defined as participants feeling "their sport activities require their best effort and may appropriately push them beyond their comfort zone-while also not generating frustration" (Evans et al., 2018, p. 86). This participant described some activities as easy, and assessed that some of her fellow participants were in a beginning stage of learning parasport skills. Based on the Evans et al. (2018) definition of challenge, these descriptions indicate that the disparity of skill between program participants undermined this participant's need to experience challenge. Within a program that has diverse skill levels, participants who are repeat participants and have developed competence beyond the level of their peers may not feel like the activities being conducted are challenging enough, therefore compromising their experience of challenge and potentially the overall quality of their experiences.

The skill diversity that was described by this participant may also be the by-product of another subtheme identified in this study: *failure to launch,* which addressed the need for participants to remain in this one program due to a lack of programs available to move into as they develop competencies. The progress that a participant is able to attain in a program is constrained by its goals and anticipated outcomes, and programs must be designed to promote development of all eligible participants. Therefore, in a program meant to accommodate a diverse set of participants, those who have achieved the developmental goals of the program may find it necessary to move onto a more advanced program if they desire further skill development. This finding highlights the need for a variety of programming that is able to better meet the needs of

individuals at various levels of skill and competition. While the participants in this study found the program enjoyable, the context of this introductory program was not perfectly matched to all, and a more advanced program may have been more suitable for some. More parasport programming is necessary to ensure that the diverse needs and desires of participants are met. Programs are able to best promote development of participants when the level of instruction and goals of a program are well suited to the participants' personal skill levels.

Personal Growth: Physical Development

Participants discussed improvements in physical condition associated with their engagement in the parasport program including: perceived improvements in strength, fitness, and overall health. This finding is consistent with the existing literature on sport, as participation is associated with improved measures of health-related fitness, and sport has been called upon as a way to promote health among persons with disabilities (Lankhorst et al., 2019; Wilhite & Shank, 2009). Adapted sport participation has also been shown to improve overall physical activity levels among adolescents with disabilities, which could facilitate the achievement of physical health outcomes (Ng, Rintala, Hutzler, Kokko, & Tynjälä, 2017). However, the participants in this study participated in a parasport program once weekly, and only one participant mentioned current sport participation in addition to their time in parasport. Lankhorst et al. (2019) found that participating twice weekly in sports was associated with improvements in aerobic fitness and strength among adolescents with disabilities. While the participants in this study discussed subjective assessments of improvements in strength and fitness, the nature of these reports makes direct comparison with the quantitative values within the

Lankhorst et al. (2019) study impractical. Sport has the potential to increase physical activity levels, and promote other physical health outcomes (Lankhorst et al., 2019; Ng et al., 2017; Wilhite & Shank, 2009). This is important for adolescents with disabilities, as the increased risk for developing secondary health conditions among persons with disabilities may be improved by attaining these health benefits (Anderson & Heyne, 2010). While sport participation can contribute to physical activity levels, one session per week is not sufficient to achieve the recommended 60 minutes of daily activity unless supplemented with other activities (Ridley et al., 2018). It is important that participants develop sport skills and physical fitness that can be used in a variety of contexts in order to have the ability to take part in diverse physical activities throughout the week, in addition to parasport programming. An enjoyable context for physical activity may then be used to encourage the attainment of health benefits among this group through lifelong physical activity participation.

Personal Growth: Social Development

When an individual perceives that their psychological needs are being supported by the activities that they participate in, it can support their overall experience of well-being (Deci & Ryan, 2008). Described within Self-Determination Theory are the three basic psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 2008). The locus of an individual's motivation for participation impacts their performance and overall outcomes related to well-being; the type of motivation that guides their participation is ultimately determined by the extent to which that activity supports their three basic psychological needs (Deci & Ryan, 2008). The participants discussed the social support that they received from the program staff, and mentioned

opportunities for interactions with other peers within and beyond sporting activities. By providing participants with opportunities to establish personal relationships and be involved in a group, the program was supporting their needs for relatedness. These interactions may promote intrinsic motivation which can help to encourage persistent engagement (Deci & Ryan, 2008). These findings are in line with the findings of Bantjes, Swartz, Conchar, and Derman (2015), wherein athletes with disabilities identified meeting new people and making friends as a key incentive for taking part in sport. The social opportunities provided by a group sport program may help to fulfill an individual's need for relatedness, and motivate them to engage in sport.

Each participant spoke about participating alongside other group participants, but the importance of peers in the sport environment was different for each participant. One participant found having a social circle with other adolescents important for feeling comfortable, while the other participants acknowledged other program participants solely as a source of competition and as an external comparison for their own competence. These findings align with the different understandings of belongingness in sport, previously introduced by Douglas and Carless (2006). Individuals' experience of belongingness is related to their view of sport participation. Individuals who participate for competition and winning (performance narrative), experience belongingness through competence and peer comparisons (Douglas & Carless, 2006). Individuals who participate to access further positive experiences (discovery narrative), or to connect with others through sport (relational narrative), experience belongingness through the establishment of positive interpersonal relationships in the sport environment (Douglas & Carless, 2006). Participants were all able to experience belongingness in this sport

context, though that need was met through different interactions with peers for each individual. The variety of interpersonal connections that were made available to the participants through the parasport program helped contribute to feelings of belongingness and experiences of relatedness which may have enhanced the quality of their experiences, promoted a desire for continued engagement, and stimulated the development of social competence and confidence (Deci & Ryan, 2008; Douglas & Carless, 2006; Evans et al., 2018).

First Involvement Needs: Coaches Matter

When the participants discussed the instructors, there was a clear distinction drawn between the types of instructors that they perceived. Guest instructors, who were typically parasport coaches or para-athletes, were seen as the expert in the room and were identified as the "coach". In contrast, the permanent program staff from the community children's centre, were identified as "secondary instructors" or "helpers". This distinction appeared to be based on the level of expertise the individuals were demonstrating. Participants expressed that, at times, the level of expertise some coaches displayed was lacking and did not contribute to skill development and learning, which led to participant frustration. Previous literature has identified that adolescent parasport participants want to receive coaching that contributes to the development of skills, and helps them to achieve mastery (Bantjes et al., 2015). The adolescents interviewed by Bantjes et al. (2015) identified that the presence of individuals who could assist them, and promote their personal progress, contributed to their enjoyment and engagement. The findings of this present study are in line with the work by Bantjes et al. (2015); adolescents want to

receive coaching within parasport programs, but the coaches present must be able to actively contribute to participants' development.

The presence of high quality coaches, who possess sufficient expertise has been listed as a key facilitator of activity participation among children with disabilities (Shields & Synnot, 2016). High quality or effective coaching includes possession of sufficient knowledge about sport skill and strategy, and how to teach these to participants, as well as interpersonal and intrapersonal skills (Côté & Gilbert, 2009). The specific expectations of a coach differ by the anticipated outcomes of the program, for example: participation versus performance oriented programs (Côté & Gilbert, 2009). Effective coaches are generally expected to improve participants' sport competence, as well as their confidence, character, and connections to others, which can impact their existence within the greater social environment (Côté & Gilbert, 2009). The participants in the present study described the value of instructors with regards to their role in providing social support but also, at times, a reduced value due to a perceived lack of parasport specific skills. While it has been identified that adolescent sport participants desire coaching that helps them to develop their own skills (Bantjes et al., 2015), until now there has been a gap in the literature demonstrating that adolescent parasport participants in an introductory setting value their coach's abilities to perform sport specific skills, or have para-sport specific procedural knowledge (Nash & Collins, 2006). The participants in this present study identified their desire for coaches to have the abilities to perform the sport specific skills necessary for sitting volleyball, wheelchair basketball, boccia, and other parasports involved in the program. They also described the importance of instructors' sport abilities for their own skill development. Due to the

descriptions of program instructors as ineffective or unhelpful at times, participants' full potential for some of the positive outcomes associated with sport participation may not have been achieved (Côté & Gilbert, 2009). This finding indicates a need for effective and knowledgeable coaches to be present in all levels of parasport programming to best ensure engagement, development, and long-term participation by the para-athletes.

Role models are an important part of the learning and socialization process; individuals' attitudes and patterns of behaviours are learned by observing others (Bandura, 1986). Watching demonstrations of observable skills can also assist individuals' learning, and these vicarious experiences can contribute to individual's self-efficacy for the activity being performed (Bandura, 1977). The more closely an individual resembles their chosen role model, the more likely they are to see their own potential to take part in the particular activity their role model is demonstrating (Bandura, 1986; Wold & Anderssen, 1992). Adolescent girls are particularly concerned with the similarities between themselves and their role models (Ronkainen, Ryba, & Selänne, 2019). Organized sport participation can provide adolescents with opportunities to encounter sporting role models (Anderson, Wozencroft, & Bedini, 2008); among adolescent girls taking part in parasport, role models have been shown to assist participants in viewing themselves as athletes and encourage participation in sport (Anderson, 2009). One participant in the present study specifically recalled a guest coach who had a disability, and the participant seemingly identified with this individual. No specific description of this coach's gender or appearance was given, so the degree of similarity between the participant and coach was unclear; the opportunity for an adolescent girl with a disability to interact with an athlete with a disability who embodies

her potential, and advocates for the importance and enjoyment of sport, may encourage her continued participation (Anderson et al., 2008). The participant who identified the importance of the coach with a disability had acquired her disability in childhood. Therefore, the presence of an instructor who is a high level athlete with a disability, may have allowed her to normalize the idea of returning to sport, and see her potential as an athlete with a disability (Kerstin, Gabriele, & Richard, 2006). The presence of coaches within a parasport program who closely resemble the para-athletes they are interacting with, may boost participants' athletic identities and encourage sustained participation in sport (Anderson et al., 2008).

The importance of relatability is also supported by recent literature on the topic of coaching athletes with disabilities. In a study by Allan (2018) it was noted that athletes found their coaches more credible when they possessed knowledge about disability sport by having personal experience with the sport, or had a disability themselves. Within the study by Allan (2018), it was noted that in recreational sport participation, sport specific knowledge and experience was typically not deemed as important as interpersonal and intrapersonal skills for facilitating positive introductory parasport experiences. Within performance contexts, professionalism was more important for a coach to possess in order to be effective. The evaluation of instructors' abilities based on their knowledge of sport by the adolescent girls within this study was unexpected given the findings presented by Allan (2018). Due to the recreational nature of this parasport program, sport specific knowledge would not be expected to be as important to the participants as an instructors' interpersonal or intrapersonal skills (Allan, 2018). However, the participants of the present study identified that their instructor's lack of knowledge disrupted their

learning experiences. This perceived disruption may explain the increased attention that was paid to instructor's sport specific knowledge. While interpersonal and intrapersonal skills may be more important in recreational contexts, instructors' sport specific knowledge is still very valuable for the overall experience of the participants. With the importance of personal experiences for establishing coach credibility, and the value of role models in sport, it may be valuable to encourage parasport athletes to take up positions in coaching and youth athlete mentorship (Allan, 2018; Anderson, Bedini, & Moreland, 2005; Anderson et al., 2008). The presence of these role models may improve participants feelings of belongingness and support their need for relatedness, which could increase their intrinsic motivation for sport, and influence long term commitment (Deci & Ryan, 2008). Role models do not need to be elite Paralympians; female role models who encourage participation, and demonstrate belief in the athletes, can have a profound effect on adolescent girls' sport experiences (Anderson et al., 2005). This may increase the likelihood of adolescents being exposed to a parasport athlete role model, and increase the number of available instructors. The inclusion of coaches who are personally knowledgeable about disability sport may improve participant experiences with skill development in introductory parasport programming.

Participants suggested that they would prefer for their coaches to learn how to perform the sport skills before the start of the program to better facilitate learning experiences. It was further explained that some of the coaches took part in program activities alongside participants to learn how to perform the various skills themselves (e.g. boccia). Coaches of athletes with disabilities have identified that professional development opportunities specific to parasport are limited, so the acquisition of

knowledge can be difficult to accomplish through methods other than experiential learning (McMaster, Culver, & Werthner, 2012). While experiential learning has been identified as a necessary source of coach development, this research has been typically conducted among coaches. The participants of this study indicated that the necessity for coaches to be learning skills, while they were expected to be teaching them to the participants, caused a disruption in participants' learning. Greater availability of quality training for coaches on parasport, and disability specific knowledge, may improve the parasport developmental system and the quality of participant experiences. This should be a priority of organizations involved in the provision of sport experiences for persons with disabilities. Increased sources of instructor development may need to be made available in the area of disability sport to ensure quality instruction is consistently available at all levels.

First Involvement Needs: New Engagement

Participants discussed how this parasport program offered experiences that were not available to them in other contexts. Adolescents with disabilities experience numerous participation barriers, including a lack of accessible and appropriate sport programs (Jaarsma et al., 2015; Murphy & Carbone, 2008). The availability of this particular parasport program in their area may, in itself, decrease some of these barriers to sport participation. Each participant described their engagement in this parasport program, and how it differed from other experiences they have had. One participant discussed a preference for standing volleyball but acknowledged that she did not take part in any volleyball programs aside from her time spent playing sitting volleyball within the parasport program. This may reflect an assessment of the parasport program as more

accessible or more appropriate than other available sport programs (Shields & Synnot, 2016). Some youth rely on support from their parents to participate in sport, which can be a potential barrier for adolescents with disabilities (Jaarsma, Dijkstra, Geertzen, & Dekker, 2014; Martins, Marques, Sarmento, & Carreiro da Costa, 2015). Parent's perceptions of their children's sport abilities have a strong influence on the children's overall sport participation (Fredricks & Eccles, 2005). While children without disabilities typically perceive their athletic competence similarly to their parents (McCullagh, Matzkanin, Shaw, & Maldonado, 1993), parents of children with disabilities evaluate the athletic competence of their children lower than how their children view themselves (Dunn, Shields, Taylor, & Dodd, 2009). Therefore, parents of children with disabilities may limit their children's participation to programming that they themselves feel is appropriate, which may not necessarily reflect the children's own desires. Another participant discussed a past dislike for volleyball that was changed by her experiences with sitting volleyball in the parasport program. She also discussed how she found the level of competition in the parasport program preferable to the intense competition she often encountered in her other sport experiences. This finding is supported by previous literature where adolescents question their competence in some sport environments where they participate alongside peers without disabilities (Goodwin & Watkinson, 2000). Additionally, adapted sport participation has been found to provide an opportunity for forming a social network and allows participants to feel a sense of normalcy (Lundberg et al., 2011). The third participant experienced an acquired disability, and the new engagement that the parasport program offered her was an increase in perceived independence which may have allowed her to explore various movements to find comfort

and success with her disability. The experience of independence contributes to support of an individual's autonomy, which is an important part of quality experiences in sport and parasport specifically (Deci & Ryan, 2008; Evans et al., 2018). Though each participant's experience was unique, they each spoke about a way in which the very presence, or structure, of this program opened up their participation, and alleviated a limitation, or barrier, that they had been experiencing in other contexts.

Personal Growth: Self-Perceptions

Participants described sport skills that they developed during their time in the parasport program. These descriptions reflected participants' perceptions of their physical ability, a concept that has been linked to sport commitment, or continued engagement (Martin, 2006). They also discussed feelings of pride at having achieved some mastery of skills through prolonged, effortful engagement. These results align with previous qualitative work in the area of disability sport. Wickman (2015) found that confronting one's limitations and capabilities was an important experience within sport participation, which impacted the development of individuals' self-perceptions. Additionally, the participants within Wickman's study indicated that participation in sport led them to develop their perceptions of self by giving them opportunities to meet and overcome challenges. The themes of understanding one's abilities and overcoming challenges were similarly addressed by the participants of this present study. Each individual discussed instances of difficulty with task performance in comparison to peers, both within the parasport program and in other sport environments. Participants also described successful experiences and personal improvements. The diverse sport experiences described by the participants of this study may have contributed to the development of self-worth, as

identified by Wickman (2015), making the inclusion of challenging activities and opportunity for exploration and success an important part of program design. To promote positive development of self-perceptions, programs should include appropriate experiences of challenge and difficulty that allow participants to explore the full spectrum of their own capabilities.

The participants also discussed plans for future sport participation (e.g. participant's aspirational drawing in figure 4), including an openness to participate in sport in different contexts. This openness to greater participation indicates personal beliefs in their abilities to take part in sport, or self-efficacy for sport (Bandura, 1977). When individuals have higher self-efficacy for a task, they are more likely to begin or continue with that task (Bandura, 1977); the fact that these participants plan to take part in parasport activities in the future appears to indicate the presence of self-efficacy for those activities. The sport aspirations that participants described centered on activities that were new to them, introduced through the parasport program. This makes it likely that some development of self-efficacy for those particular tasks occurred through successful experiences within the program (Bandura, 1977). The existing literature in the area of adapted sport and self-efficacy supports this finding (Te Velde et al., 2018; Wickman, Nordlund, & Holm, 2018). The cross-sectional study by Te Velde et al. (2018) indicates that youth who take part in adapted sport report higher levels of self-efficacy for exercise, which may indicate that sport participation is conducive to the development of self-efficacy. The participants in the Wickman et al. (2018) study took part in a multisport parasport program and showed increases in 4/6 domains of self-efficacy. This work by Wickman et al. (2018) supports that changes in self-efficacy could have

occurred for the participants of this present study during their time in the parasport program. Due to the qualitative nature of this present study, it is not possible to directly compare with the results of Te Velde et al. (2018) and Wickman et al. (2018), but future research should be conducted to better understand how introductory adapted sport programs influence adolescents' physical self-efficacy beliefs and future sport participation.

First Involvement Needs: Failure to Launch

Participants discussed their current participation as well as their proposed future participation, and these descriptions made it clear that this one program was limited in its ability to meet the needs of every individual that takes part. Some participants appear to have developed skills beyond the scope of the introductory level program but may be unaware of a more suitable option, or there are no further programs available. One participant expressed aspirations for future parasport participation but reported zero current participation in any parasport activities, which may again be indicative of a lack of awareness of where to find programs. The existing literature on barriers to sport participation supports this finding; a lack of awareness of programs and a lack of appropriate programs available are both frequently cited barriers among adolescents with disabilities (Jaarsma et al., 2015; Wright et al., 2018). Since these participants have found a program to participate in, the key barrier that is limiting continued participation is likely the appropriateness of the available options. The preferences for participation and the aspirations within sport that were expressed by participants did not match their descriptions of current participation. One participant who identified a desire to compete in wheelchair basketball at a professional level had not taken part in the sport since her

time in the parasport program nearly two years earlier. This mismatch may indicate a gap in program availability that disrupts the developmental pathway in parasport. There may be a lack of appropriate programs in the area of developmental participation, which has been identified as contexts beyond introductory levels where competition and skill development are the focus (Allan, 2018). Increasing access and engagement in sport for adolescents and all persons with disabilities is an identified priority within the funding of sport in Canada, but the sport opportunities that are available to persons with disabilities differ based on the identified priorities of each province or municipality (Hoekstra et al., 2019). At least two participants indicated a desire for competition and a focus on improving skills, indicating their desire for a developmental program; increased parasport programming for adolescents may need to be made a priority in this area.

Personal Growth: Next Steps

Sport participation in youth is related to adult physical activity behaviors (Batista et al., 2019; Kjønniksen et al., 2009; Murphy et al., 2016), making a desire and intention to continue being active an important outcome related to the health of persons with disabilities. Participants expressed a desire to continue with sports, including sports they were introduced to in the parasport program and other sport activities. Additionally, participants referred to different reasons that they felt they wanted to stay engaged in sports, from performance goals to health and fitness concerns. These findings are in line with recent work in the area of adapted sport. A study by Kyle (2019) conducted surveys and interviews with individuals from adapted sport programs who were currently involved in physical activity and sport. Surveys revealed that there was little difference in current physical activity levels between individuals who had taken part in youth sport,

and those that had not; all individuals were moderately to highly physically active (Kyle, 2019). The interviews with current, or former, competitive parasport athletes revealed that youth sport experiences contributed to long term adherence to physical activity behaviours, and helped individuals to develop strong motivation for physical activity. (Kyle, 2019). These youth adapted sport experiences were also said to have opened up greater opportunities for social involvement and academic achievement, thus promoting greater development beyond physical activity behaviour for those who took part (Kyle, 2019). The reasons that participants of this present study gave for their desire to continue with sports, and their future aspirations in sport and physical activity closely resemble the benefits of youth adapted sport described by Kyle (2019). While participation in sport during youth may not be necessary for future physical activity behaviour, the participants of both this present study and Kyle (2019) indicate that adapted sport participation may contribute to future beneficial behaviours and opportunities as well as continued physical activity participation.

Retrospective Drawings

The inclusion of the drawings as a source of data allowed the participant's perspectives to be included without any restriction from the researcher's perspective. This put the children's experiences at the forefront. Both participants that took part in the drawing exercise during their interviews drew themselves involved in gameplay of the sport that they identified as their favourite from the program for their retrospective drawing. This may indicate that the competitive gameplay alongside other participants was the most salient aspect of the program for these participants. Previous literature has noted that, within the majority of parasport contexts, participation and development are

prioritized over winning, and adaptation to each individuals' ability is used to promote feelings of inclusion (Spencer-Cavaliere, Thai, & Kingsley, 2017). While winning is not necessary for sports to be fun, youth participants of able-bodied sport identify "trying hard" and "competing" as crucial aspects for making sport fun (Visek et al., 2019). While, promoting inclusion in parasport can be important for ensuring comfort and enjoyment for participants, the participants in this study have drawn attention to the fact that there is a desire for competition in parasport programs as well. It is important for parasport programs to find ways to meet participants' diverse needs for development, inclusion, and competition.

One participant drew herself and one other anonymous individual taking part in a game of wheelchair basketball (Figure 1). In the drawing the other participant is chasing her demonstrating her feelings of competence in comparison with other program attendees. She labeled the other individual drawn as "I don't know", which may show that she did not form lasting friendships with the other participants, but their inclusion in the drawing indicates that she saw value in having other individuals in the group, if only to allow for competition. This may be reflective of the experience of belongingness as informed by a performance narrative as discussed earlier (Douglas & Carless, 2006).

The other participant that took part in the drawings, chose to depict herself as the server in a volleyball game (Figure 2). She drew 10 other individuals on the court including one individual using a wheelchair. Typically in sitting volleyball, wheelchair use is not allowed, so this participant may have been drawing individuals based on those she has participated in the parasport program alongside. The inclusion of the individual in a wheelchair may indicate a lack of experience with the specific sport of siting volleyball

outside of program context, and therefore an incomplete understanding of the rules, or it may indicate the inclusion of all individuals that she has experienced within the program. Again, the inclusion of other participants in the drawing indicates some value given to the other participants in the program, even if they are not specifically identified as friends.

Aspirational Drawings

The inclusion of sport participation in aspirational drawings was interpreted as an intention to continue with sport, an important outcome of childhood sport participation. Both participants included sport participation in their drawings of the future. One participant drew herself in full hockey equipment (Figure 3). This participant discussed a lapse in hockey participation during early childhood due to illness, and had not returned to the sport after acquiring a disability. Her desire to return to original sport habits may indicate a renewed comfort with her acquired disability, and improvements in her self-efficacy for sport (Bandura, 1977). The other participant drew a picture with three settings, and included a caption to describe the scene (Figure 4). She drew herself working as a nurse, working out, and playing both basketball and volleyball. This clearly represented her intention to continue with sport and physical activity in the future.

Strengths and Limitations

As with all research, there are strengths and limitations to this study. First, to the best of our knowledge, no other qualitative research has been done with adolescent participants regarding introductory parasport programming; therefore, this study fills a gap in the literature, and provides valuable perspective for future research and program design in the area of youth parasport. Additionally, the inclusion of only female adolescent participants allowed for focus on the female perspective while giving voice to

adolescent para-athletes (Harcourt & Einarsdottir, 2011). Girls participate less than their male counterparts in physical activity, and their activity levels further decrease during adolescence (Colley et al., 2011). Women with disabilities are also underrepresented in sport at the Paralympic level (Houghton, Pieper, & Smith, 2017). Therefore, the perspective of adolescent females on their own sport participation is valuable for understanding key influences on sport experiences and continued participation.

We also acknowledge several limitations to the study. The small sample included in this study did not allow for data saturation to be reached. There is a relative lack of introductory parasport programs in the area, and thus a small pool of eligible participants, which did not allow for recruitment to continue to saturation. While the participants provided in-depth looks at their personal perspectives on participation and give valuable insight to the experiences of adolescent female para-athletes, further research is needed to determine if adolescent males feel similarly. This will allow for a clearer understanding of how different subgroups of para-athletes experience programs, and inform understanding of various types of programming. Additionally, two participants were currently enrolled in the program at the time of their interview and may have spoken about current experiences more frequently than those from when they first began the program. These participants' responses regarding growth may have differed due to an absence of post-program reflection time that the third participant was able to partake in. Despite these limitations, this study makes a strong contribution to the literature on early parasport experiences by accessing the perspectives of female adolescents on their introductions to parasport.

Future Research

This study identified several areas of research worthy of further investigation. First, the literature indicates that there is a need for more professional development opportunities in parasport (McMaster et al., 2012). The findings of this study support this literature by emphasizing the use of experiential learning experiences among introductory parasport coaches. This present study adds perspective to the importance of coach development by highlighting the effect that coaching ability can have on participants' learning experiences. The importance of different coach development opportunities, and the impact of coach expertise on quality of participant experiences should be investigated. As well, participants emphasized a desire for competition within the parasport program. Adolescent sport participants derive fun from trying hard and competing (Visek et al., 2019), but adapted sport programs are usually designed to promote participation and development over competition (Spencer-Cavaliere et al., 2017). The impact of programs that include competition on participant enjoyment and long-term participation outcomes should be investigated. Additionally, coaches who have personal experience in disability sport are seen as more credible by the para-athletes they coach (Allan, 2018). At the same time, individuals are more likely to believe that they can perform a task when they have seen a role model who closely resembles themselves performing the same task (Bandura, 1986; Wold & Anderssen, 1992). Therefore, the impact of coaches, with disabilities similar to those experienced by their participants, on para-athletes' self-efficacy for sport should be investigated. Lastly, the results of this study add perspective on introductory parasport programming and can help inform the conveyance of high-quality first-involvement experiences.

Conclusions

The purpose of this study was to understand adolescents' perspectives on their first-involvement experiences in a parasport program. Results indicated that participants viewed the program as an enjoyable sport experience where they could interact with others, and develop and practice sports skills. Secondary purposes included understanding participants' perspectives of the factors that influenced the quality of their participation, and how the program impacted their own development. The results indicated 3 main factors that affected perceptions of quality: the para-specificity of the program, the coaches involved, and the new types of participation and engagement afforded to participants. The information shared about coaches revealed participants' desire for more experienced coaches. While greater development opportunities for coaches may improve the situation, it is not currently feasible to limit coaching positions to only those who are sufficiently qualified or experienced; it is important for youth community sport programs to have coaches present to promote positive sport experiences, and the number of qualified individuals may not be sufficient to cover all programs. Participants also revealed a lack of progression onto other parasport programs after their introduction, or a *failure to launch*, which indicated potential barriers to developmental sport participation, which could influence overall sport experiences. With regards to personal development, participants identified four areas of growth associated with participation in the parasport program: physical and social development, improvements in self-perceptions, and intentions to continue in sport. The findings of this study suggest that participation in an introductory parasport program was a mostly beneficial experience for participants, but the level of personal enjoyment and development experienced by each individual was influenced by their perceptions of the

physical and social environment, as well as the activities included in the program. Additional research is needed to further examine first-involvement parasport experiences, in order to understand best practices.

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CHAPTER 4. THESIS CONCLUSIONS

Overview

The percentage of Canadian youth that are meeting the movement guidelines is very low, only 23% achieve 60 minutes of moderate to vigorous activity each day (Colley, Butler, Garriguet, Prince, & Roberts, 2019). Adolescents with disabilities participate even less frequently in physical activity than their peers without disabilities (Jung, Leung, Schram, & Yun, 2018), roughly 19% of youth with disabilities meet the recommendations (Case, Ross, & Yun, 2020). Participation in organized leisure activities is associated with more positive views of personal health and life satisfaction (Badura, Geckova, Sigmundova, van Dijk, & Reijneveld, 2015), and adolescents with disabilities participate less frequently in organized leisure activities than informal, spontaneous activities (Law et al., 2006; Schreuer, Sachs, & Rosenblum, 2014). Sport is a part of life that every person has the right to participate in (UN General Assembly, 2006); it makes an important contribution to socialization, while also contributing to physical and mental health (Eime, Young, Harvey, Charity, & Payne, 2013; Lankhorst et al., 2019).

However, not all sport environments are equal. Sport opportunities for youth with disabilities exist on a spectrum from entirely integrated, mainstream sport activities with modifications to promote equal participation, to congregated sport opportunities for individuals with disabilities to participate alongside other individuals with disabilities only (Black & Williamson, 2017). Integrated opportunities, whether they be entirely integrated play, reverse integrated play, or parallel play, have the benefit of social integration, and may help to reduce experiences of stigmatization among persons with disability (Gebhardt, Mora, & Schwab, 2016; Lundberg, Taniguchi, McCormick, & Tibbs, 2011). However, research suggests that some adolescents with disabilities may

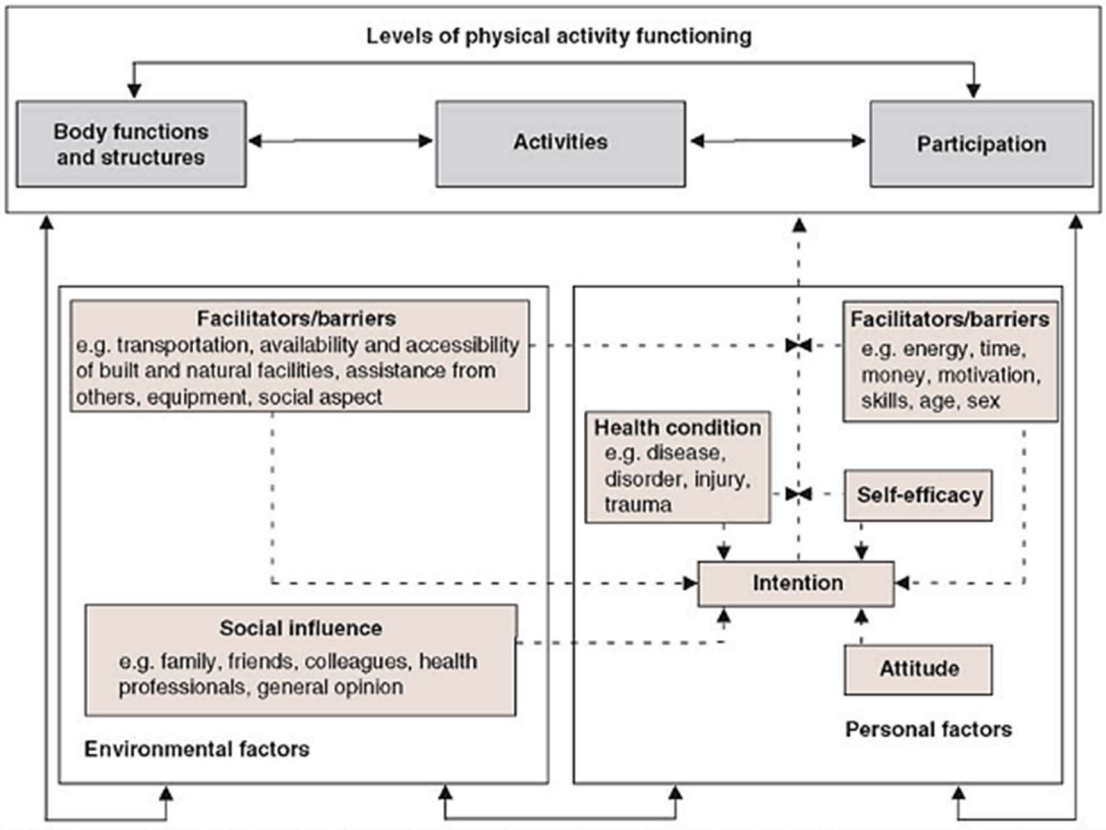
lose confidence when participating alongside, and comparing their skills with, their peers without disabilities in sport (Goodwin & Watkinson, 2000; Shields & Synnot, 2016); congregated environments may better contribute to feelings of belongingness (D'Eloia & Price, 2018). Therefore, the provision of parasport opportunities is valuable. It is important for children to have positive early experiences in sport, to engage them in a lifelong desire for participation, and to ensure they have developed the sport skills to continue with sport into adulthood, whether it be at the competitive or recreational level (Higgs, Way, Harber, Jurbala, & Balyi, 2019). The primary purpose of this study was to describe adolescent's perspectives of an introductory parasport program, the factors that influenced the quality of their participation in that program, and how the program may have contributed to personal development. Within the manuscript, the participants' descriptions of the program, and how various factors influenced their experiences and personal outcomes are presented.

The Physical Activity for People with Disabilities Model represents the potential relationships between physical activity behaviour, its determinants, and functioning, in the lives of people with disabilities (van der Ploeg, van der Beek, van der Woude, & van Mechelen, 2004). It was conceptualized to assist in understanding physical activity behaviours and how they can be improved among persons with disabilities; the model can be applied to any type of physical activity, including sport (van der Ploeg et al., 2004). Represented in Figure 6, there are a number of personal and environmental factors that influence an individual's intention to participate in sport, as well as further influencing the realization of that intention. The participants of this study identified specific examples of each of these factors at work in their own lives, impacting their past, present, and

future sport participation. This model provides a framework for understanding how various factors can influence sport participation of adolescents with disabilities.

Figure 6

The Physical Activity for People with a Disability model



Note. Reprinted from "Physical activity for people with a disability: a conceptual model" by H. P. van der Ploeg, A. J. van der Beek, L. H. V. van der Woude, and W. van Mechelen, 2004, *Sports Medicine, 34*(10), 639-649. Copyright [2004] Adis Data Information BV.

Another lens that can be utilized in understanding participant experiences is the Quality Parasport Participation Framework (Evans et al., 2018). This framework describes 6 elements that contribute to quality parasport experiences (autonomy, belongingness, challenge, engagement, mastery, meaning), as well as 25 conditions across the sport activity, and physical and social environment that support quality

experiences. The achievement of quality participation is important, as it influences motivation for participation and can promote sustained engagement in sport (Deci & Ryan, 2008; Evans et al., 2018). What is identified as a quality experience can vary by individual, over time, and by the way each of the 6 key elements are satisfied. Understanding the elements of a quality experience, and the conditions that can support those experiences is valuable for making sense of individual parasport participant's experiences.

When the participants in this study were asked about their involvement in the introductory parasport program, they identified specific aspects of the program that influenced their overall experiences. First, the fact that the program was *para-specific*, and included only adolescents with disabilities, had a strong influence on participants' comfort within the program. Through the social support given by the others involved in the program, and group interactions during cooperative and competitive play, all participants had their needs for belongingness and relatedness supported (Deci & Ryan, 2008; Evans et al., 2018). As represented in Figure 6, this type of social support can encourage an individual to continue participating. An issue that was addressed by one participant was the diverse skill levels of the various members included in the program. This was most likely the result of the program's broadly inclusive eligibility criteria and group separation by age rather than competence. This participant identified herself as a more advanced athlete than her fellow participants, and taking part in activities meant to accommodate the diverse needs of each participant limited her opportunities to experience challenge. Overall, participation in a congregated adapted sport context was

positive socially, but more programs are necessary to ensure each individual is able to find an appropriate parasport program.

Participants also described the influence that the program's coaches had on their experience. Coaches were identified as sources of encouragement and motivation, but were also important for helping participants to achieve mastery of their sport skills. Within participants' discussion of the program coaches, it became clear that they distinguished between the community children's centre staff who were present in the program every week, and guest coaches who were only present for a single week, or a single sport. This distinction appeared to be due to the amount of sport specific knowledge and skill that the coaches demonstrated. The fact that athletes within an introductory level program assigned greater value to coaches who demonstrated increased knowledge specific to parasport emphasizes the importance of qualified coaching at all levels of sport. It may not be necessary for all coaches to have experience playing and coaching competitive parasport before coaching at the introductory level. However, the participants identified that coaches' familiarity with parasport skills, rules, and strategy, as well as their capability to proficiently perform the fundamental sport skills that they were teaching, was important for their learning. This finding highlighted the importance of coach expertise, and emphasized the importance of professional development specifically related to parasport. Organizations involved in the provision of adapted sport and parasport programs should ensure that coaches are given adequate development opportunities specific to coaching parasport activities and athletes with disabilities.

Finally, participants described how the opportunities and experiences that they encountered within the program compared to other activities they have taken part in. The

different opportunities afforded by the program contributed to improved overall sport participation, and new levels of success being achieved. The program served to reduce general accessibility barriers, and increase the participants' options for sport participation, which in itself improved sport engagement. The social environment of the program, and the inclusiveness and adaptability, supported participants' autonomy and reduced limitations on participation. Participants' descriptions of how this program differed from other experiences they have had, highlighted the importance of intentionally inclusive spaces; opportunities for individuals to freely explore movements, find their own definitions of success, and experience feelings of mastery led to overall positive experiences. This area of participant discussion also emphasized the impact that a program of this type could have on the overall sport participation of adolescents with disabilities and supported the need for this type of programming to remain available to interested participants. Both availability and social environment are included within the area of environmental facilitators or barriers within Figure 6. These can facilitate an individual's intention to participate, but also influence how much of that intention actually occurs. The availability of a program that offered an additional option for sport participation, and involved an inclusive and supportive social environment helped to facilitate these participants' sport participation.

While describing their parasport experience, the participants referred to skills that they developed during the program, as well as other areas of personal growth. Many of these personal outcomes appeared to be closely related to the previously addressed program factors. First, participants developed physically during their sport participation, both through enhanced health and fitness, and improvements in sport specific skills. Sport

has been called upon as a method for health promotion among persons with disabilities (Wilhite & Shank, 2009), and these participants emphasized that the physical health benefits of sport are recognized, even by adolescent participants. This finding supports that this program also contributes to perceptions of health, in addition to improving participants' proficiency in sport skills. This is positive because individuals who enjoy sport, and are aware of its health implications, may have a more positive attitude towards participating, which could increase their desire to continue (Deci & Ryan, 2008; Martin, 2006; van der Ploeg et al., 2004).

Participants also described the social benefits of the program. These included increased exposure to peers with disabilities, formation of positive adult-youth relationships, and increased comfort in various social situations, both within parasport and in other contexts. Socialization is a key facilitator of sport participation among adolescents with disabilities (Bantjes, Swartz, Conchar, & Derman, 2015); the fact that participants were able to establish personal relationships, and achieve relatedness within this program, may increase their motivation to continue participating in parasport. Through various opportunities for peer socialization, coach encouragement, and competition with other participants, this program was able to meet each of the participants' needs for relatedness, belongingness, and meaning (Deci & Ryan, 2008; Evans et al., 2018). This program allowed participants to have quality experiences and achieve social benefits; parasport programs of this type are valuable sport program offerings, in addition to integrated programming.

In addition to development in the physical and social domains, participants demonstrated positive self-perceptions related to their sport participation. Participants

described the improvements in sport performance that occurred during the program, and identified the positive feelings associated with achieving this mastery of skills. Participants also expressed confidence in their abilities, and pride at the improvements in skill performance that they achieved throughout the program. Mastery is one of the 6 experiential elements of the Quality Parasport Participation Framework (Evans et al., 2018), therefore it is valuable that this program offers participants opportunities to achieve and demonstrate skill mastery. Participants also identified a desire to continue taking part in parasport activities in the future, with one participant even setting a goal of professional participation. Since participants expressed plans to take part in sport activities in the future that they had not taken part in before the parasport program, it appears that they developed some self-efficacy for those tasks while in the program. This finding further supports the literature on the connections between adapted sport participation and self-efficacy (Wickman, Nordlund, & Holm, 2018), suggesting that a short term multisport program may potentially support the development of self-efficacy for sport.

Participants' discussion of future sport included the intention to continue with current activities, openness to try new activities, and specific aspirations for greater participation. This appears to indicate the presence of self-efficacy for sport. Participants also identified various reasons for wanting to continue with sport in the future, including for the promotion of health. There is an association between youth sport participation and adult physical activity behaviours (Batista et al., 2019), so opportunities for youth to be engaged in sport in a way that supports their self-efficacy, and motivation to continue, can have long-lasting benefits. As demonstrated in Figure 6, the intention to take part in

sport plays a critical role in the participation that is realized. Therefore, the desire to engage in sport in the future is an important outcome of youth participation, and indicates a likelihood that these participants will remain physically active into adulthood.

While participants demonstrated the desire to continue with sport, and parasport in particular, there was also a clear discrepancy between current participation and participants' preferences. One participant reported that she had ceased all participation in parasport activities, but stated a desire for both sitting volleyball and wheelchair basketball to be made available for her to try out for at her school, indicating a disconnect between her desired and realized participation. Another participant continuously revisited the lack of challenge that she experienced in the program due to her relatively superior skill level. Both of these participants may have benefitted from participation in a more competitive, sport specific program, after the initial multi-sport program. Whether this did not occur because of a lack of program availability, a lack of awareness of programs that do exist, or other personal factors, was not made clear by participants. As demonstrated in the Physical Activity for People with Disabilities model (Figure 6), factors can influence an individual's intention to participate, but also constrain the realization of those intentions (van der Ploeg et al., 2004). There was a clear barrier limiting the continued development in parasport of these participants, despite their intentions. Previous work has identified that the activities youth with disabilities participate in represents a narrow subset of their actual preferred activities (Schreuer et al., 2014); this is an area that is worthy of investigation to establish accurate and consistent tracking of adapted sport program availability, and actualized participation of local youth.

Recommendations

Recommendations for Future Research

This study has highlighted several avenues for research that should be investigated in the future. Firstly, parasport opportunities are not as abundant as other sport activities in Canada, and thus adolescents with disabilities may have limited opportunities to have successful experiences parasport. A multi-sport program is a feasible way for participants to try out various parasport activities, without the high cost of equipment, to find an activity they enjoy and would like to continue with. Therefore, it would be valuable to investigate how these programs impact participants' development of self-efficacy for sport, and long term sport engagement. In addition, the physical activity and sport participation of Canadian youth with disabilities has not been consistently tracked; a clear understanding of program availability, and participation rates and types, would assist in identifying the gaps in program provisions, and is worthy of investigation. This information could also be used in the creation of more nuanced models of participation among persons with disabilities that take into account the need for sport and physical activity opportunities along the entire spectrum of integration and how individuals' needs may change over time.

Secondly, it was clear from the participants' descriptions that there were few adults with disabilities present in the program, but one participant appeared to identify with the one adult parasport athlete, with a visible disability, that she interacted with. Literature suggests that athletes find coaches with personal experience more credible, and individuals are more likely to believe that they themselves can perform a task when they have previously seen a role model who resembles them perform that task (Allan, 2018;

Bandura, 1986; Wold & Anderssen, 1992). Therefore, the impact of having coaches present who have disabilities themselves, and experience in parasport, on introductory para-athletes' self-efficacy should be investigated. Additionally, the literature has identified a lack of professional development opportunities for coaches related to parasport (McMaster, Culver, & Werthner, 2012). The impact of different coach development opportunities on participant outcomes warrants further investigation to understand best practices for parasport coach development.

Finally, further investigation is necessary regarding the level of competition available in introductory parasport. Competition is an aspect of sport programs that adolescents enjoy (Visek et al., 2019), but adapted sport programming typically focuses on participation and development opportunities rather than competition (Spencer-Cavaliere et al., 2017). The participants of this present study acknowledged that they enjoyed the game-play and competition within the program, and it was often identified as their favourite aspect of the program. Therefore, the impact of in-program competition on participant enjoyment, and how well programs can integrate competition without compromising equal participation and developmental outcomes should be investigated.

Practical Recommendations

This study has also produced some recommendations for parasport programming that should be given attention by organizations providing adapted sport programs. First, organizations should ensure that coaches are able, and encouraged, to engage in professional development related specifically to parasport activities. This may ensure the overall quality of instruction and improve experiences for participants. This can also serve to increase the confidence of coaches who may have had little exposure to parasport

in the past, and may not be entirely comfortable with how to respectfully communicate with, and coach, individuals with disabilities. It may also be beneficial for organization to encourage former, or current, parasport athletes to engage in the coaching and mentoring of younger athletes. This can increase the number of qualified coaches available to community programs, give youth athletes sporting role models, and help build a stronger local parasport community.

Additionally, it is clear from the experiences of the participants in this study that congregated sport opportunities have value. While integration carries many benefits, and should be pursued, congregated adolescent parasport should remain a part of regular sport programming, to ensure that it is available for those who prefer it. The participants of this study did not find that there was a clear pathway for development within parasport available to them. There is a need for more programs, and an increased awareness of the programs that do exist, to facilitate this development. A way that organizations can further support their participants is by ensuring information about additional programs that do exist is made available to participants and their families, to help facilitate connections to further sport opportunities.

Methodological Recommendations

Drawings have been used in research as a way to respect youth participants as autonomous individuals, though this process more commonly uses drawings as sources of data, to be analyzed with coding frameworks (Merriman & Guerin, 2006). The drawings can help researchers meet youth at their level of understanding, and ensure that they are given the full opportunity to communicate their thoughts without the constraints of the adult perspective that can sometimes limit the directions of interviews (Merriman &

Guerin, 2006). In this present study, drawings were included to give the participants an additional method for expression during interview sessions, and allow them to drive discussion. Two of the three participants chose to take part in the drawing process. The drawings were beneficial to the interview process, as it increased participant comfort and brought additional information to light that was not directly brought forth by the questions in the interview guide. The majority of this new information arose when participants were asked to explain the drawing and then were probed about the elements included, rather than from examining the drawings themselves. Though the drawings were a helpful addition to the interview process, one drawback was that the construction of the pictures took a significant amount of time, which made interviews longer, and potentially more tiring for participants. This should be considered when creating a guide for a semi-structured interview that will include drawing. Based on experiences with this study, researchers using drawings during interviews as a way to assist participant expression and break down communication barriers between adults and youth, should embed the prompt for drawings into the interview guide as a starting point for exploration on a new topic. Time to draw pictures should then be placed early on in the discussion of specific topics. This way it can serve as an ice breaker to build comfort between the interviewer and the interviewee, and give a starting point for discussion on key topics to be explored in the interview session.

Conclusions

This is the first study to our knowledge to qualitatively investigate adolescent participants' perspectives of an introductory, multi-sport parasport program. Therefore, this research has filled a gap in the literature, adding to our understanding of 1)

introductory, multi-sport parasport programs, and 2) the perspective of female adolescents with disabilities on introductory parasport. Multi-sport programs may be a beneficial format for first-involvement of youth with disabilities, as it allows the opportunity to experiment with multiple activities over a short period of time with minimal financial burden related to the use of specialized equipment. The findings of this study suggest that participation in an introductory, multi-sport parasport program was a beneficial and enjoyable experience for female, adolescent participants. Researchers should continue to investigate first-involvement parasport experiences in order to understand best practices, and improve program offerings.

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APPENDICES

Appendix A: Letter of Approval from the University of Ontario Institute of Technology Research Ethics Board

Date:	*September 13, 2019*
To:	*Meghann Lloyd*
From:	*Ruth Milman, REB Chair*
File # & Title:	*15461 - Experiences in Introductory Parasport among Children with Physical Disabilities*
Status:	***APPROVED***
Current Expiry:	***September 01, 2020***

Notwithstanding this approval, you are required to obtain/submit, to UOIT's Research Ethics Board, any relevant approvals/permissions required, prior to commencement of this project.

The University of Ontario, Institute of Technology (UOIT) Research Ethics Board (REB) has reviewed and approved the research study named above to ensure compliance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2 2014), the UOIT Research Ethics Policy and Procedures and associated regulations. As the Principal Investigator (PI), you are required to adhere to the research protocol described in the REB application as last reviewed and approved by the REB. In addition, you are responsible for obtaining any further approvals that might be required to complete your project.

Thank you for submitting the Grandview Children's Centre approval letter. Your study is now fully approved and you may proceed with all aspects. We wish you success in this and all of your research endeavours!

Under the Tri-Council Policy Statement 2, the PI is responsible for complying with the continuing research ethics reviews requirements listed below:

Renewal Request Form: All approved projects are subject to an annual renewal process. Projects must be renewed or closed by the expiry date indicated above ("Current Expiry"). Projects not renewed 30 days post expiry date will be automatically suspended by the REB; projects not renewed 60 days post expiry date will be automatically closed by the REB. Once your file has been formally closed, a new submission will be required to open a new file.

Change Request Form: If the research plan, methods, and/or recruitment methods should change, please submit a change request application to the REB for review and approval prior to implementing the changes.

Adverse or Unexpected Events Form: Events must be reported to the REB within 72 hours after the event occurred with an indication of how these events affect (in the view of the Principal Investigator) the safety of the participants and the continuation of the protocol (i.e. un-anticipated or un-mitigated physical, social or psychological harm to a participant).

Research Project Completion Form: This form must be completed when the research study is concluded.

Always quote your REB file number (**15461**) on future correspondence. We wish you success with your study.

Sincerely,

Dr. Ruth Milman
REB Chair
ruth.milman@uoit.ca

Emma Markoff
Research Ethics Assistant
researchethics@uoit.ca

Appendix B: Recruitment Letter

Dear Parents/Guardians,

My name is Mikaeli Cavell and I am a Graduate Student at Ontario Tech University. We would like to invite you and your child to participate in a research project titled: *Experiences in Introductory Parasport of among Children with Physical Disabilities.*

Your child will participate in an interview about their experiences in the Intro to Parasport program from Grandview Children's Centre. The interview will last approximately 60-90 minutes, and involve the opportunity for children to draw pictures of their experience as part of the interview.

Programs like Intro to Parasport are not widely available in every community, and programs that are available are not always high-quality and affordable. This means that many kids who could enjoy and benefit from similar programs don't get the opportunity. Also, the voices of participants in this type of program are not often heard by those who design and run the program, making it difficult to ensure participants are thriving and getting the most out of their time there. The purpose of this study is to explore children's thoughts on their time in parasport, and understand their experiences from their own perspective. The goal of this is to help inform future decisions for program design, and make programs similar to Intro to Parasport as great as possible.

To participate in this study, we will ask you and your child to set up an interview time either at the University, or at another comfortable, appropriately private location of your choosing. Your child will be compensated for their time with a gift card to Sport Chek in the amount of $15.

Participation in this study is completely voluntary. You may withdraw your child from the study at any time by telling the researchers, and you are not required to provide a reason for doing so.

Please see the included flyer for more information.

If you have any questions about this study, please contact Mikaeli Cavell at 905-721-8668, ext. 5988 or Mikaeli.cavell@uoit. This study has been approved on September 13th, 2019 by the Ontario Tech University Research Ethics Board (REB# 15461) which is a committee of the university whose goal is to ensure the protection of the rights and welfare of people participating in research. The Board's work is not intended to replace a parent/guardian or child's judgement about what decisions and choices are best for you. If you have any questions about your child's rights as a research participant, you may contact the Ontario Tech University Research Ethics board at 2000 Simcoe St. N., Oshawa, ON, L1H 7K4, 905-721-8668, ext. 3693 or researchethics@uoit.ca.

Thank you,

Mikaeli Cavell

Ontario Tech University
Mikaeli.cavell@uoit.ca
905-721-8668, ext. 5988

Appendix C: Original Recruitment Poster

Appendix D: Participant Assent Form

Informed Assent for: Children's experiences in Introductory Parasport

Investigators:

Mikaeli Cavell, BHSc 905-721-8668 ext. 5988
Mikaeli.cavell@uoit.ca

Meghann Lloyd, PhD 905-721-8668 ext. 5988
meghann.lloyd@uoit.ca

Important things to know:

- It is your choice if you want to take part in the research study
- No one will be upset if you say no to being in the study
- If you say yes now, you can say no later
- You can ask questions at any time

Why am I being asked to do this project?

We want you to do this project because you did the intro to parasport program with Grandview. We want to find out more about what that parasport program is like for kids like you.

Why are we doing this project?

We are doing a project about the intro to parasport program. We want to get your opinion about what the parasport program was like for you. A research study is a way to learn more about people and their lives.

What if I have questions?

You can ask questions at any time if something does not make sense, or you want to know more. If you have questions after today that you do not think of while you are here, you can have your parents call me (905-721-8668 ext.5988) or send me an e-mail (Mikaeli.cavell@uoit.ca).

If I am in the study, what will I be asked to do?

If you want to be part of this study, you will be asked to do an interview up to an hour and a half long. I will record my questions and your answers. I will also ask you to draw some pictures of yourself. We will not tell anyone that you were in the study. Nobody has to know that you did the project, if you do not want them to.

Will the study help me?

If you do the project, it may not help you. You will receive a gift card to Sport Chek for $15, as a way for me to say thank you for sharing.

Do I have to be in this study?

You do not have to if you do not want to. It is up to you. If you decide that you do not want to be in this study after it starts, that is okay. Nobody will be upset. All you have to do is tell us that you want to stop. We are also talking to your parents/guardians about the study. You should talk to them about it too.

What if I have questions?

Before you say yes or no to being in this study, we will answer any questions you have. If you join the study, you can ask questions at any time. Just tell the researcher that you have a question.

If you have questions after today please feel free to have your parent contact Mikaeli Cavell at any time.

If you decide that you **want** to help with this project, please write your name. If you decide that you **do not** want to do that project, all you have to do is tell me. If you have started the project, and you want to stop, tell me or have your parents let me know by email or phone after today.

I, _____ (write your name) would like to be in the research study.

_____ Date of assent

_____ Name of person who obtained assent

_____ Signature of person who obtained assent

_____ Date

Appendix E: Parent/Guardian Consent Form

Informed Consent for: Experiences in Introductory Parasport among Children with Physical Disabilities

Principal Investigator (PI): Mehgann Lloyd, PhD (office) 905-721-8668 ext. 5308

meghann.lloyd@uoit.ca

Student Research Lead: Mikaeli Cavell, BHSc 905-721-8668 ext. 5988 (lab)
mikaeli.cavell@uoit.ca

Affiliation: Ontario Tech University Faculty of Health Sciences

You and your child are invited to participate in a research study entitled Experiences in Introductory Parasport among Children with Physical Disabilities. Please read the information about the study presented in this form. This form includes the details on the study's procedures, risks, and benefits that you should know before you decide if you would like your child to take part. You should take as much time as you need to make your decision. You should ask the Principal Investigator (PI) or research team to explain anything that you do not understand and make sure that all of your questions have been answered before signing the consent form. Before you make your decision, feel free to talk about this study with anyone you wish, including your friends and family. Participation in this study is voluntary.

This study has been reviewed Ontario Tech University Research Ethics Board [REB #: 15461] and originally approved on September 13th, 2019. Please read this consent form carefully, and feel free to ask the Researcher any questions that you might have about the study. If you have any questions about your rights as a participant in this study, please contact the Research Ethics Office at 905 721 8668 ext. 3693 or researchethics@uoit.ca.

Purpose:
Participation in physical activity and sport in childhood is important for physical, social, and mental health. Evidence suggests that parasport has many short and long term benefits, but the personal perspectives of children who potentially have the most to gain from taking part in a parasport program, have not been explored. The purpose of this proposed study is to develop an in-depth understanding of the experiences of children with physical disabilities in an introductory parasport program. Additional focus will be placed on understanding the perspectives of children with physical disabilities on the specific factors that positively or negatively influence their participation in parasport and how experiences in parasport can impact the personal development of a child with a physical disability. You have been invited to participate in this study because your child has taken part in an introductory parasport program at Grandview Children's Centre, and provide valuable insight into the quality of that experience.

Procedure:
Your child will be interviewed during a single visit with the interview lasting approximately 60-90 minutes. Questions will be centered on each participant's experiences in the intro to parasport program from Grandview Children's Centre. Interviews will take place either in the Ontario Tech University Motor Behaviour and Physical Activity Lab located at 202 Simcoe St. N.,
Oshawa or at a comfortable, appropriately private location of the participant's choosing. Interviews will involve questions about the participant's parasport experiences, and include the children drawing pictures of their experience as part of the interview process. Interviews will be audio recorded to later be accurately transcribed. These transcriptions will be the main form of data used in analysis, alongside the drawings constructed during the interview sessions. This interview data will give detailed reflection on parasport experiences, and introduce the child perspective into the literature on this topic.

Potential Benefits:
You and your child may not benefit directly from participating in this study. This study may help us to understand the meaning of early experiences in parasport, and some of the key factors that children perceive as influences on their participation. This may help to inform better programming of this type in the future.

Potential Risk or Discomforts:
As the focus of this study is on past experiences, there is a chance that strong memories or feelings may be recalled during the interview process. This may cause emotional or psychological discomfort. Participants are free to end, or pause, the interview session at any time, without any reason needed. Participants may also choose to not answer any questions they do not want to answer.

Use and Storage of Data:
The interview will be audio recorded and transcribed word for word. Interview audio-recordings and transcriptions will be stored on Ontario Tech University's private google drive, accessible only by Mikaeli Cavell and Meghann Lloyd. Any hard copy documents (ex. Consent and assent forms) will be stored in filing cabinets in the Motor Behaviour and Physical Activity Lab at 202 Simcoe St. N., Oshawa. All information will be securely stored throughout the duration of the study, and will be securely destroyed after 5 years following publication. All information collected during this study, including participant personal information, will be kept confidential and will not be shared with anyone outside the study unless required by law. You will not be named in any reports, publications, or presentations that may come from this study.

Confidentiality:
During the interview process, children's perspectives on their participation in the intro to parasport program will be the main focus. This may involve sharing of personal information. This information can help us truly understand the meanings that participants assign to their time in parasport. To protect participant's right to confidentiality, all personally identifying information will be removed from quotes included in any published work, and all participants will be given pseudonyms to identify them during

each stage of data analysis after the initial interview is complete. Due to the specific focus of this study, and the relatively small number of potential participants, please know that there is a risk that your child may still be identifiable in a published document, even when personally identifying information has been removed.
All data collected will be stored in secure physical location or on a secure online server, and only necessary personal information will be collected. All information will only be accessed by the primary research team. Additionally, in the circumstance that multiple interviews are scheduled on the same day, they will be scheduled with a minimum of an hour between sessions to ensure participants do not interact in the hallway. Throughout the research process, privacy shall be respected. No information about participant identity will be shared or published without your permission, unless required by law. Confidentiality will be provided to the fullest extent possible by law, professional practice, and ethical codes of conduct. Please note that confidentiality cannot be guaranteed while data are in transit over the Internet.

Voluntary Participation:
Participation in this study is voluntary and your child may partake in only those aspects of the study in which they and you feel comfortable. You and your child may also decide not to be in this study, or be in the study now, and then change your minds later. You may leave the study at any time without affecting your access to services or programs. You will be given information that is relevant to your decision to withdraw from participation. Participants may refuse to answer any question that they do not want to answer, or not answer an interview question by saying, 'pass'. Participation in this study has no impact on you or your child's participation in any programs at Grandview Children's Centre now or in the future.

Right to Withdraw:
If you withdraw from the research project at any time, any data that you have contributed will be removed from the study and you do not need to offer any reason for making this request. Additionally, the decision to withdraw will have no effect on compensation that your child is to receive for taking part in the study. The information that is shared will be held in strict confidence and discussed only with the research team.
You will be given information that is relevant to your decision to continue or withdraw from participation.

Conflict of Interest:
Researchers have an interest in completing this study. Their interests should not influence your decision for your child to participate. No members of the research team have any conflicts of interest that may influence the completion of this study.

Compensation:
Participants will not be directly compensated for expenses associated with their participation but will receive a gift card for Sport Chek in the amount of $15 as token of appreciation. Respectfully, as there is an option available for location of the interview, participants and their parents will not receive reimbursement for any travel expenses.

Debriefing and Dissemination of Results:
Upon completion of data analysis, a report of the findings will be written for publication. We will notify you via email or phone of the completion of this report and send a copy to you to read.

Participant Concerns and Reporting:
Please read this consent form carefully and feel free to ask the researcher any questions that you may have about the study. If you have any questions regarding your rights as a participant, complaints or adverse events, please contact the Research Ethics office at 905.721.8668 x. 3693 or at researchethics@uoit.ca. If you have any questions concerning the research study or experience any discomfort related to the study, please contact the researcher Mikaeli Cavell at 905-721-8668 ext. 5988/ mikaeli.cavell@uoit.ca, or the Faculty supervisor of this project Dr. Meghann Lloyd at 905-721-8668 ext. 5308/meghann.lloyd@uoit.ca.
By signing this form you do not give up any of your legal rights against the investigators, sponsor or involved institutions for compensation, nor does this form relieve the investigators, sponsor or involved institutions of their legal and professional responsibilities.

1. I have read the consent form and understand the study being described;
2. I have had an opportunity to ask questions and my questions have been answered. I am free to ask questions about the study in the future;
3. I freely consent for my child to participate in the research study, understanding that I may discontinue participation at any time without penalty. A copy of this Consent Form has been made available to me.

_____
(Name of Participant)

_____ _____
(Name of Parent/Guardian) (Date)

_____ _____
(Signature of Parent/Guardian) (Signature of Researcher)

☐ **I consent** for the researchers to include my child's drawings in any published documents or reports that result from this study.

Appendix F: Demographic Information Form

Demographic Information Form

This form includes questions about your child that will help to describe the information we learn through this study and identify factors that may relate to your child's experiences. Please feel free to ask questions if you would like further clarification. All questionnaires are optional.

1. Participant #: _____
2. Birth Date: _____ (day, month, and year)
3. Sex: F / M
4. When did your child participate in the Intro to Parasport program?

   _____

   _____

   _____

5. In the last two years (24 months), what other recreation/sport programs and activities has your child participated in? Does your child currently participate in any recreation/sport programs?

   _____

   _____

   _____

   _____

Appendix G: NVivo Coding Framework

Name	Description
Current Sport Participation	Mention of Current activities that participant is taking part in
Failure to Launch	Lack of progression of participants' parasport participation
Discontinuation	Participants ceasing to take part in parasport activities
Unfulfilled	Ways in which current parasport participation failed to meet participants needs
Feelings at Program	Descriptions of how participants feel/felt while attending parasport program
First Involvement Needs	Participant's descriptions of program aspects and how they affect experiences
Coaches or Instructors	Descriptions of program instructors
Instructor Expertise	Discussion of instructor's capabilities
Participant-coach Relationship	Social support provided by participant's relationship with coaches
New Engagement	Ways in which program differed from other activities participant had taken part in
New Opportunities	Increased options for participation
New Success	Successful experiences had within parasport program
Para-Specificity	Ways in which parasport program was designed or adapted for persons with disabilities
Para-athletes	Discussion of other program participants
Sports or Activities	Program activities designed for persons with disabilities
Personal Growth	Outcomes of participants' parasport participation
Next Steps	Discussion of future participation

Name	Description
Continued sport participation	Engagement in sport participation after parasport program
Future Sport Aspirations	Goals for sport participation
Open-mindedness	An openness to participation in future activities
Physical Development	Participants physical improvements
Health or Fitness	Improvements in perceptions of physical health or fitness
Skills	Participants improvements in sport skills
Self-perceptions	Changes in participants assessments and descriptions of self
Confidence	Participants descriptions of personal performance spoken with confidence
Social Development	Improvements in social skills
Comfort Socializing	Increased comfort interacting with others in various settings
Exposure	Increased social interactions
Program Improvements	Participants' suggestions for how to improve the program.