



Article

Experiences of female adolescents in a multi-sport parasport program

Mikaeli Cavell¹, Nick Wattie² and Meghann Lloyd^{2*}

Received: 12th September 2022; Accepted: 23rd May 2025; Published: 28th October 2026

Abstract: A key barrier influencing disparities in sport participation for adolescents that experience disability is a lack of available meaningful and appropriate programmes. What makes a programme meaningful or appropriate for an individual is determined by that person's unique views and experiences in sport. Therefore, it is critical to explore sport experiences from participants' own perspectives. The purpose of this exploratory study was to describe the perspectives of participants on (1) their experiences in an introductory parasport programme, (2) the factors that influenced their engagement in the programme, and (3) how participating impacted them. Three adolescent girls who had previously participated in an introductory parasport programme took part in semi-structured interviews; inductive thematic analysis was used to explore the meaning of adolescents' parasport experiences. Results indicated that participants' experiences were influenced by the para-specific design of the programme, the coaches present, novel opportunities afforded by the programme, and difficulty progressing onto further parasport development. High-quality experiences supported physical and social development, improvements in self-perceptions, and continued sport aspirations. This exploratory study found that engagement in the parasport programme was enjoyable, with opportunities to socialise and develop sport skills, with their personal development and enjoyment being closely tied to perceptions of the physical and social environment, as well as programme activities.

Keywords: quality participation; recreation; disability; girls

Introduction

Engaging in sport is a right afforded to every person (UN General Assembly, 2006). Sport participation includes opportunities for social, physical, and mental health benefits (Lankhorst et al., 2019), and access to sport programming can make a strong contribution to a person's overall physical activity levels (Martin Ginis et al., 2010). Engagement in sport during youth is also linked to improved physical activity behaviour in adulthood (Batista et al., 2019; Kjønniksen et al., 2009; Murphy et al., 2016); however, adolescents experiencing disabilities participate less frequently in organised leisure activities, such as sport, than they do in informal, spontaneous activities (Schreuer et al., 2014).

A barrier to sport engagement that adolescents experiencing disabilities often encounter is a lack of affordable, meaningful, and appropriate programmes available within their communities (Jaarsma et al., 2015; Shields & Synnot, 2016). While the factors that make a programme meaningful or appropriate are unique to each individual, being included and able to engage and feel challenged are important contributors to positive sport experiences (Wickman, 2015). Experiences of inclusion are in turn influenced by individual preferences

for the context of their participation, and the company they participate alongside (Kiuppis, 2018). Due to this subjectivity, it is not ideal to prioritise one type of programming over another, but rather ensure options for engagement along an entire spectrum of inclusion are available (Black & Williamson, 2017; Kiuppis, 2018). Complete integration, on one end of the spectrum, can promote social benefits such as a reduction in the stigmatisation of disability among able-bodied participants (Lundberg et al., 2011). However, some adolescents who experience disabilities report experiencing incomplete participation and feeling only partially included in typical sport environments, contributing to their withdrawal from physical activity (Orr et al., 2018; Spencer-Cavaliere & Watkinson, 2010). Therefore, congregated sport settings, such as parasport, may better support feelings of belongingness and inclusion for some and should remain available to fulfil that preference (D'Eloia & Price, 2018). Parasport is designed to be accessible for persons who experience physical disabilities, representing a congregated environment. When available, engagement in parasport has been shown to contribute to quality of life, increased exercise self-efficacy, and opportunities for the development of personal identity (Allan et al., 2018; Côté-Leclerc et al., 2017; Te Velde et al., 2018; Yazicioglu et al., 2012).

To understand sport experiences and guide future delivery while respecting the autonomy of participants, it is important to understand how programming is experienced by the athletes. Thus, personal experiences of persons with disabilities has been a focus of recent research. Turnnidge et al.'s (2012) study of participants' experiences in a competitive swimming programme for youth with physical disabilities reported programme outcomes including redefined capabilities, an affirmed sense of self, strengthened social connection, and enhanced acceptance. This study outlines the important outcomes available to youth who experience disability when they are engaged in a high-quality programme. The current Long-Term Development in Sport and Physical Activity model incorporates a First Involvement stage along the entire developmental pathway towards being active for life (Higgs et al., 2019). This model emphasizes the importance of engaging in positive introductory sport experiences to encourage movement into this type of competitive sport context, and to support lifelong engagement in sport and physical activity. Previous work has not yet focused on experiences in introductory parasport programming. Therefore, the primary purpose of this study was to describe the perspectives of female adolescents with disabilities perspectives of an existing introductory parasport programme, the factors that influenced their experience in the programme, and how the programme may have impacted them.

Materials and Methods

Participants and Sampling

After obtaining university research ethics board approval, participants from a local introductory parasport programme were recruited via social media, mail-outs, and flyers. All participants that had engaged in the programme for a complete eight-week cycle were eligible to participate in the study; therefore, all participants also experienced a physical disability. There were no exclusion criteria beyond this eligibility. Three female participants, aged 11, 15, and 15 years, were interviewed within several weeks of completing the programme. While recruitment intended for a larger and more representative sample, the inclusion of three female adolescents brings an important perspective to this topic, as women have been underrepresented in parasport competition and related sport science literature (Dehghansai et al., 2017; Houghton et al., 2017).

Introductory Parasport Program

The programme occurred once per week for eight weeks. Each week consisted of an hour-long session involving a dynamic warm-up, drills to work on sport-specific skills and competencies, and cooperative and competitive game play. The curriculum evolved over time: Participant 1 took part in a programme including six different sports (wheelchair basketball, wheelchair tennis, boccia, sitting volleyball, sledge hockey, and goalball), while Participants 2 and 3 took part in a programme that rotated through three sports (sitting volleyball, boccia, and adapted baseball). The programme allowed for up to 16 individuals with disabilities to be enrolled. Two staff from the community children's centre were consistently responsible for programme delivery, with guest coaches attending to support and offer expertise on specific sports. The introductory parasport programme was designed to be inclusive of adolescents who experience a variety of disabilities; it was not an inclusion programme where participants with and without disabilities participate together. While there was diversity in the type of disability the participants lived with, they all experienced a disability. The sessions were hosted in the fieldhouse of a local community centre, using a standard basketball court space.

Data Collection

Interview locations were chosen by participants and their families; interviews took place in a university lab, a participant's home, and the parasport programme's location. Before each interview, participants and their parents signed informed assent and consent forms, respectively. Parents also completed a demographic information form including age, programme participation dates, and other current and past sport participation to triangulate information included in participants' verbal answers and add context. Participants were welcome to have a parent remain throughout the interview; Participants 1 and 2 were each joined by their mother. Parents were asked to allow their child to express their experiences in their own words as much as possible but could make additions when necessary; these contributions were included in the final transcript.

Interviews

Semi-structured interviews were conducted by the first author to gain insight into participants' perspectives of the introductory parasport programme. Questions focused on participants' interactions and experiences in the programme, their feelings about different aspects, and how the programme impacted them; due to the semi-structured nature of the interviews the researcher was able to probe for further clarification or expansion based on participant responses. The interview guide was used in all interviews, resulting in personal descriptions of feelings regarding activities, people involved in the program, and factors that positively and negatively affected their experiences.

The interview session included a child-friendly member reflection called "I-poems" (Simpson & Quigley, 2016). At the completion of the interview guide, notes were presented back to the interviewee in an adapted form of child-focused member checking (Simpson & Quigley, 2016). Each note was rewritten beginning with the word "I" to summarise the participant's experience as initially interpreted by the interviewer (e.g., I am a good teammate; I feel comfortable at parasport; I have supportive coaches). Participants then reviewed these initial assessments and were invited to add, remove, or change anything. This process confirmed that the interviewer's interpretations were appropriate and accurate for the participant. The interviewer also took notes regarding details not captured by audio-recording and personal perceptions to provide context during analysis. Data were collected and analysed simultaneously to generate themes, thoughts, and descriptions (Creswell & Poth, 2017; Simpson & Quigley, 2016). Interview sessions lasted 35, 41, and 65 minutes.

Data Analysis

Analysis was guided by Creswell and Creswell's (2017) five steps of qualitative data analysis, with the first author's interview notes providing context for transcript review. First, audio-recordings were transcribed verbatim, with the interviewer continuing to take notes on initial perceptions, and final transcripts were read through several times. Next, the first author inductively created codes by categorising key messages from each interview. After recruitment ceased, coded transcripts were reviewed, and emerging themes were organised across all interviews. The descriptions of the 6 experiential elements supporting quality parasport experiences found in Evans et al.'s (2018) Quality Parasport Participation Framework (autonomy, belongingness, challenge, engagement, mastery, and meaning) helped frame the understanding of participants experiences in the parasport program and supported inferences of how program factors related to the impact of engaging in the program. Consultation with the research team occurred throughout the theme creation process. As part of the final step, the themes were described and ordered by the first author and the research team collaborated to establish the final inclusion and labelling of themes and their theorised relationships.

Researcher Role

The social context and position of the researcher are important to communicate as they impact the qualitative research from beginning to end (Creswell & Poth, 2017). This study was situated within social constructivism, leading the researcher to rely on the participants' views of the situation (Creswell & Poth, 2017). The study is built upon ontological relativism and epistemological subjectivism: the beliefs that reality is context-dependent and meanings are socially constructed (Ravenek & Rudman, 2013).

During this project, the first author was appointed as a coach in the programme. This improved familiarity but meant two participants knew the interviewer as a coach prior to their interview. While participants and parents were encouraged to speak freely, the existing coach-athlete relationship may have influenced the shared information. However, this relationship also helped establish rapport, facilitating collaborative data formation.

Study Rigour

To ensure the interview guide elicited appropriate responses, it was checked for authenticity by piloting questions with adults with a sport background and with a child who part of the study sample was not. The constructivist paradigm influenced the techniques used to ensure study rigour. First, author reflexivity was employed through bracketing personal biases, journaling, and maintaining an audit trail (Zitomer & Goodwin, 2014). Secondly, the research team provided ongoing support during data collection and analysis. Finally, the first author's personal experiences and relationship to the programme were transparently disclosed.

This study's situation within the constructivist paradigm influenced the techniques used to ensure study rigour. First, author reflexivity was employed throughout the research process through bracketing personal biases prior to each interview, personal journaling, and an audit trail of the interpretation of data and creation of themes (Zitomer & Goodwin, 2014). Secondly, the research team provided ongoing support throughout data collection and analysis, and final theme construction occurred in collaboration with the research team. Finally, the first author's personal experiences related to the topic were transparently disclosed and their influence on the study acknowledged, as well as her relationship to the participants and program of focus.

Results

First involvement needs

The overarching theme *First Involvement Needs* involves participants' descriptions of how various programme aspects influenced their experiences in the programme. These descriptions are categorised into the four subthemes of *para-specificity*, *coaches matter*, *new engagement*, and *failure to launch*. While much of the participants' descriptions were positive, including feeling “happy” or “really, really good”, they also offered suggestions to improve the programme through better instruction for activities and restructuring of the programme to place participants in a group with other adolescents with similar skill levels and goals for participation. The outcomes described by participants included physical and social development, changes in their self-perceptions, and intentions to continue in sport are described in the theme of *Personal Growth*.

Para-specificity

The intent of this introductory parasport programme, through design, attitude, and activities, was to support complete involvement by adolescents experiencing disability. Participant 1 discussed the activities she was introduced to in the programme and demonstrated a preference for parasport over previous activities by saying ‘the sit-down volleyball because I’m really good at volleyball, it’s just easier when you’re sitting down.’ Participant 2 highlighted the social benefits of engaging in a sport space intentionally designed for adolescents with disabilities,

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 and just talking about your experiences can be really helpful (P2).

While the congregated sport environment was found to be socially beneficial, the diversity of previous experience and familiarity with parasport appears to have had an impact on competition. Participant 3 highlighted how participating alongside peers where there was disparity in parasport skill was not always enjoyable by saying ‘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 learning how to play and stuff.’

Coaches Matter

The role of coaches was discussed by the participants. When asked about the coaches, Participant 2 said:

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.

This issue of coach skill was emphasised by Participant 3 when she recommended coaches should ‘learn how to play too if they haven’t played before’, clarifying that they should learn ‘before they come so they know they’re, so then they can like help other people.’ Only one participant discussed a coach who experienced a disability during her interview, and she appeared to align herself with that coach’s experience, saying ‘one of them, they played it because they were disabled too.’

New Engagement

Each participant experienced a new form of engagement during their time in the programme. For Participant 1, her time in the programme reframed her experience of using a wheelchair:

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.

Participant 2 changed her perspective on sport, and went from hating volleyball to describing it as her favourite sport, by playing sitting volleyball in the program where she was comfortable and supported. Participant 3 also described volleyball as her favourite sport but said she would prefer to play stand-up. However, she acknowledged that she did not engage in volleyball outside of the program at all. This potentially indicates an increased access to her favourite sport due to this parasport program, though the barrier to participating in her preferred activity was not entirely removed.

Failure to Launch

While this programme offered increased opportunity for positive sport experiences, there was a gap between what participants described wanting to do, and what they were actually taking part in. Even though Participant 1 identified wheelchair basketball as her favourite sport and described Paralympic aspirations, she had not participated in the sport since finishing her cycle of the programme. Participant 2, on the other hand, expressed some apprehension towards leaving the programme and participating in a different sport context.

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 [it with] parasports (P2).

Having seemingly progressed past the goals of the programme, Participant 3 was often left unfulfilled by the programme activities: 'I'm 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 1 and 3 expressed a desire for further competitive participation but having not moved on to that type of programme indicates a potential gap in programming in this particular area.

Personal Growth

As summarised by Participant 2, "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 2 also felt that these benefits extended outside of the programme: 'It also improves how I think in school and like when it comes to my work ethics, allows me to be more focused because I've been doing exercise.'

Participating in a group was addressed in each interview, though the importance of peers and the social role that those peers fulfilled differed between participants. Participant 2 found social benefits of engaging alongside peers with similar experiences of disability and said, 'ever since the parasport programme I feel like I've really learned to be more comfortable around people.' Participant 1 and Participant 3 spoke about meeting new people and interacting with peers but did not identify opportunities for socialisation and building relationships. They instead highlighted how group participation allowed them to engage in competition.

Though their descriptions indicated that the programme was not always challenging, each participant shared the competencies that they developed and the opportunities they were given to demonstrate mastery during their time in the programme. Participant 2 spoke with confidence about her increased competency by saying, '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.' Participant 1's mother interjected at the close of her interview to add that her daughter's behaviour changed during her time in the programme, attributing the changes to a reduction in self-consciousness around an acquired motor difference

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.

When discussing the future, Participant 1 said, 'my sport future is playing hockey [or] wheelchair basketball, and I'm going to be a professional,' and Participant 2 said, 'I might pick up another sport in the future or I might stick to the same one, I just don't know yet.' Participant 3 referred to finding time for volleyball, basketball, and working out while pursuing her career aspirations. These aspirations and intentions reflect a relatively successful introductory sport experience. These three participants all expressed a desire to continue participating, so long as opportunities to engage are available..

Discussion

This study explored the experiences of female adolescents that experience disability in an introductory parasport programme, the factors that influenced their engagement in the programme, and how taking part in the programme impacted them. Participants described their engagement in various aspects of the programme, and how the programme did and did not meet their personal needs.

Para-specificity

While there are broad social benefits associated with integrated or inclusive programming, when such environments do not allow every participant to be welcomed and involved without limitations, feelings of belongingness can be compromised (D'Eloia & Price, 2018). Sport spaces that are intentionally designed for adolescents with disabilities to fully participate may better promote feelings of inclusion and belongingness for some (D'Eloia & Price, 2018; Shields & Synnot, 2016). The intent of this introductory parasport programme, was to support involvement by adolescents experiencing disability. Participating in sport alongside peers promotes inclusion and feelings of belongingness; it may enhance sport experiences, thus improving satisfaction and enjoyment (Evans et al., 2018).

The element of challenge, which is defined by Evans et al. (2018) as participants feeling 'their sport activities require their best effort and may appropriately push them beyond their comfort zone while also not generating frustration' (p. 86), can be an important contributor to quality experiences, as highlighted by Participant 3. The importance of challenge should perhaps not be underestimated since it might be inextricably linked to an underlying essential feature of sport: uncertainty. Citing work on the 'anthropology of acting', G llich et al. (2020) suggest that:

Only uncertainty of processes and results of actions can invigorate persistent incitement, interest, attention, and engagement in an activity....sports competitions are able to ensure persistent uncertainty of the processes and results even at increasing levels of mastery and performance. It is this paradox that many athletes particularly love: Investing extensive time and effort to

increase the certainty of one's performance to then purposefully seek out situations that jeopardize the certainty of their performance—competitions.
(p.4)

Without the uncertainty inherent to appropriate challenge and competition (whether in informal play or organised competitions), sport can be undermined. While it is critical that all participants are given opportunities to take part, experience belongingness, and improve their skills, efforts to ensure all individuals are being appropriately challenged are important as well.

Coaches Matter

High-quality coaching is a key facilitator of activity participation among youth experiencing disabilities and was clearly identified by the participants in this study (Shields & Synnot, 2016). High-quality coaching requires knowledge of sport skills and strategy, ability to teach these skills to participants, as well as interpersonal and intrapersonal skills (Côté & Gilbert, 2009). While the specific expectations of coaches differ by the type of programme, effective coaches are typically expected to improve participants' competence, confidence, character, and connection to others (Côté & Gilbert, 2009). The programme coaches' value with regards to social support was made clear by participants. While the coaches' contribution to the social environment was acknowledged, the value of coaches who were perceived to be lacking parasport skills was questioned at times, distinguishable by the different labels used. Experienced parasport coaches or para-athletes who were guest coaching were discussed as the leader and given the label "coach". In contrast, the consistent programme coaches were identified as "secondary coaches" or "helpers". These distinct labels accompanied participants' descriptions of some coaches lacking sufficient sport skills to teach participants, which led to frustration. Participants felt that their own skill development was undermined when coaches struggled to perform skills, potentially limiting their experience of mastery (Côté & Gilbert, 2009; Evans et al., 2018). Though previous literature notes that adolescent sport participants desire coaching to develop their skills (Bantjes et al., 2015), until now there has been a gap in the literature demonstrating introductory adolescent parasport participants' desire for their coaches to sufficiently perform sport-specific skills or possess parasport-specific procedural knowledge (Nash & Collins, 2006). This further highlights the need for effective, knowledgeable coaches in all levels of parasport programming to promote development and long-term participation.

It has been previously identified by coaches of para-athletes that professional development opportunities specific to parasport are limited, and it is therefore difficult to acquire knowledge through methods other than experiential learning (McMaster et al., 2012). The necessity for coaches to be simultaneously learning and teaching sport skills was seen to be disruptive, making it clear that sufficient professional development opportunities for parasport are critical, not only for the preparedness of coaches, but for the enjoyment and development of parasport athletes. Coach development should be a priority of organisations involved in providing parasport and may ultimately improve programme delivery and the quality of participants' experiences.

Roles models are also important for learning attitudes and patterns of behaviours through socialisation, and watching others perform observable skills can contribute to self-efficacy through vicarious experience (Bandura, 1986). Particularly among teenaged girls, the level of similarity between an individual and their chosen role model influences the likelihood for them to see their own potential to take part in the activity their role model is demonstrating (Bandura, 1986; Ronkainen et al., 2019; Wold & Anderssen, 1992). Participating in organised sport can increase adolescents' opportunities to encounter role models (Anderson et al., 2008); among adolescent girls taking part in parasport, the

presence of such role models has been shown to assist participants in viewing themselves as athletes, and encouraging sport participation (Anderson, 2009). It has also been noted that athletes find their coaches more credible when they possess knowledge about disability sport by having personal experience in parasport, or experience a disability themselves (Allan et al., 2020). Coaches who act as role models for the para-athletes may normalise sport participation, demonstrate individuals' potential as athletes, boost participants' athletic identities, and encourage sustained participation in sport (Anderson et al., 2008; Kerstin et al., 2006).

Allan et al. (2020) also identified that coaches possessing sport-specific knowledge and skills was more frequently emphasised within a high-performance context than in recreational sport participation. Therefore, it was somewhat unexpected for the interview participants to emphasise their coaches' knowledge of sport, and personal skill performance in this introductory programme. There may be a threshold of skill that is necessary to ensure coach credibility and participant engagement. Given the value of coaches' personal experiences for establishing credibility, and the value of role models in sport, parasport athletes should be supported and encouraged to take up positions in coaching and youth athlete mentorship (Allan et al., 2020; Anderson et al., 2005; Anderson et al., 2008). Role models need not be only 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). Athletes becoming coaches may increase adolescents' likelihood of encountering a parasport role model and increase the availability of credible coaches, which could impact experiences in introductory parasport.

New Engagement

A common barrier to participation that is described by adolescents who experience disability is a lack of accessible and appropriate programmes (Jaarsma et al., 2015; Murphy & Carbone, 2008). Participant 2 changed her perspective on sport and went from hating volleyball to describing it as her favourite sport by playing sitting volleyball in the programme where she was comfortable and supported. She described the attitude towards competition in the parasport programme as less intense than her other activities and added that she felt more comfortable within the group. This reframe helped her to regain feelings of independence and led her to confidently return to her previous levels of sport participation. Feeling independent can support an individual's autonomy, which supports quality experiences in sport, and parasport specifically (Evans et al., 2018). These factors led her to prefer participating in this programme to other spaces she was accessing. For Participant 3, this introductory programme may not have alleviated a barrier to access; rather, it presented an alternative option for engaging in sport. She described volleyball as her favourite sport but shared a preference for stand-up. However, she acknowledged that she did not engage in volleyball outside of the programme at all, and it was her only current outlet to partake in her favourite sport emphasising the need for more parasport opportunities.

Failure to Launch

Single programmes are, of course, not able to meet every individual's needs, but these participants each expressed difficulty progressing in the developmental pathway of parasport. While a desire to remain in the programme may speak to comfort, sustained sport engagement may not be possible if a participant can no longer be served by the programme and is unprepared to move on. The consequences of individuals remaining in a singular programme when it is no longer well-suited were highlighted by the descriptions of skill

disparity between the participants of this programme; again, emphasizing the need for parasport programs to be able to scale up as athletes gain skill and confidence.

Personal Growth

Among adolescent participants, meeting new people and making friends is a key incentive for adapted sport participation (Bantjes et al., 2015). Opportunities for peer comparisons and competition can support feelings of belongingness for those that adopt what is known as a performance narrative of sport participation (Douglas & Carless, 2006). In contrast, Participant 2 described taking part in positive relationships with others, a strategy for achieving belongingness among those who have adopted a relational narrative of sport participation (Douglas & Carless, 2006). Importantly, recent research suggests that youths' participation does not fall into one single narrative (Güllich et al., 2020). It is therefore valuable that participants had access to a variety of interpersonal connections, which provided multiple ways for their belongingness and relatedness needs to be supported.

According to Wickman (2015), meeting and overcoming challenges during sport participation allows individuals to confront both their limitations and capabilities, contributing to the development of self-perceptions. In this regard, sport participation is the means, not the end (Güllich et al., 2020). Youth sport participation is related to adult physical activity behaviour (Batista et al., 2019; Kjønneksen et al., 2009), making intention to continue an important outcome of youth engagement. Continued engagement is also identified as one of the key outcomes of first-involvement sport experiences within developmental models (Higgs et al., 2019).

Strengths and Limitations

This study adds to the growing body of literature regarding quality of experiences in parasport by exploring perspectives of adolescent participants at the introductory level. Additionally, women are underrepresented at the Paralympic level (Houghton et al., 2017), and girls participate less than their male counterparts in physical activity in all populations, with the gap further increasing during adolescence (Colley et al., 2011). Underrepresentation is also evident in the sport science literature. For example, of the 21 studies included in a systematic review on the development of athletes with disabilities, 12 contained no female athletes (or did not indicate gender), and females comprised only 26% of the combined samples across the remaining 9 studies (15% across all 21 studies; Dehghansai et al., 2017). Therefore, the inclusion of only female participants gave important attention to the adolescent, female perspective. We also acknowledge the limitations of the study. Firstly, the small sample may not have allowed for full data saturation to be reached. There is a limited amount of introductory parasport programmes in the area, and thus a small initial pool of participants, which did not allow recruitment to continue to saturation. While the participants provided in-depth views of their own experiences, there is not a comparative sample of participants who do not identify as female to allow for understanding how different subgroups experience programming. It is possible that the participants had different experiences in the programme due to the evolution from six sports to three sports, but as the specific activities were not a direct focus of the interviews, we do not feel it would significantly impact the experiences they discussed. Additionally, as previously described, two participants were currently enrolled at the time of their interviews, and had met the interviewer in the role of coach. Therefore, their responses may have been influenced both by their current participation and their relationship to the interviewer. Despite these limitations, this exploratory study contributes to the literature on early parasport

experiences by accessing the perspectives of female adolescents on their introductions to parasport within the existing programming.

Conclusions

The participants of this study viewed the parasport programme as an enjoyable experience where they could socialise and develop sport skills. There were three key aspects of the programme that participants felt influenced the quality of their experiences: the para-specificity of the programme, the coaches involved, and the novel types of engagement afforded to them. Participants also revealed a lack of progression onto other parasport participation after the introductory programme, referred to as a "failure to launch," which may indicate potential barriers in the parasport development pathway. With regards to development, participants revealed four areas of personal growth: physical and social development, improvements in self-perceptions, and intentions to continue with sport. With the small sample size, this study could be considered an exploratory study; however, the findings suggest that participation in an introductory parasport programme was mostly positive for participants, but the level of enjoyment and development experienced by each individual was closely tied to their perceptions of the physical and social environment, as well as the programme activities. Additional research is needed to further examine first-involvement parasport experiences in order to understand best practices.

Perspectives

It is well known that more professional development opportunities are needed in parasport (McMaster et al., 2012). This exploratory study emphasised the current reliance on experiential learning among introductory parasport coaches and highlighted the impact that coach skill can have on participants' learning experiences. Therefore, the impact of coach expertise on the quality of participant experiences and the role professional development opportunities play in high-quality coaching should be investigated. Additionally, adolescent sport participants derive fun from trying hard and competing (Vissek et al., 2019), but adapted sport programmes are often intended to promote participation and development over competition (Spencer-Cavaliere et al., 2017). The design of programming that supports both participation and competition should be investigated. Finally, coaches with personal experience in parasport are seen as more credible by the para-athletes that they coach (Allan et al., 2020). At the same time, individuals are more likely to believe in their own ability to perform a task when they have seen a role model who resembles themselves performing that task (Bandura, 1986; Wold & Anderssen, 1992). Therefore, the impact of coaches who have similar experiences to the participants on para-athletes' self-efficacy for sport should be investigated.

Author affiliations:

¹ Abilities Centre; mcavell@abilitiescentre.org

² Ontario Tech University; nick.wattie@ontariotechu.ca

* Correspondence: megahn.lloyd@ontariotechu.ca; Tel.: +1-905-721-8668 x5308

Author Contributions: Conceptualization, M.C. and M.L.; Methodology, M.C. and M.L.; Formal Analysis, M.C.; Writing-Original Draft Preparation, M.C.; Writing-Review & Editing, M.C. N.W. and M.L.

Funding: There is no funding to report for this study

Availability of data and materials: The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical reasons.

Acknowledgments: We would like to thank the participants who participated in this study.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Allan, V., Smith, B., Côté, J., Martin Ginis, K. A., & Latimer-Cheung, A. E. (2018). Narratives of participation among individuals with physical disabilities: A lifecourse analysis of athletes' experiences and development in parasport. *Psychology of Sport and Exercise*, 37, 170-178. <https://doi.org/10.1016/j.psychsport.2017.10.004>
- Allan, V., Evans, M.B., Latimer-Cheung, A.E., and Côté, J. (2020). From the Athletes' Perspective: A Social-Relational Understanding of How Coaches Shape the Disability Sport Experience. *Journal of Applied Sport Psychology*, 32(6), 546-564. <https://doi.org/10.1080/10413200.2019.1587551>
- Anderson, D. 2009. Adolescent girls' involvement in disability sport: Implications for identity development." *Journal of Sport and Social Issues*, 33(4), 427-449. <https://doi.org/10.1177/0193723509350608>
- Anderson, D. M., Bedini, L.A., & Moreland, L. (2005). Getting all girls into the game: Physically active recreation for girls with disabilities. *Journal of Park & Recreation Administration*, 23(4), 78-103.
- Anderson, D. M., Wozencroft, A., and Bedini, L.A., (2008). Adolescent girls' involvement in disability sport: A comparison of social support mechanisms. *Journal of Leisure Research*, 40(2), 183-207. <https://doi.org/10.1080/00222216.2008.11950137>
- Bantjes, J., Swartz, L., Conchar, L., & Derman, W. (2015). Developing programmes to promote participation in sport among adolescents with disabilities: Perceptions expressed by a group of South African adolescents with cerebral palsy. *International Journal of Disability, Development & Education*, 62(3), 288-302. <https://doi.org/10.1080/1034912X.2015.1020924>
- Batista, M. B., Possamai Romanzini, C.L., Lopes Barbosa, C.C., Blasquez Shigaki, G., Romanzini, M., & Ronque. E.R. (2019). Participation in sports in childhood and adolescence and physical activity in adulthood: A systematic review. *Journal of Sports Sciences*, 37(19), 2253-2262. <https://doi.org/10.1080/02640414.2019.1627696>
- Black, K., and Williamson, D. (2017). Designing inclusive physical activities and games. In A. C. Roibás and E. Stamatakis (Eds.), *Design for sport*, (pp. 229-264). Routledge.
- Case, L., Ross, S., & Yun, J. (2020). Physical activity guideline compliance among a national sample of children with various developmental disabilities. *Disability and Health Journal*, 13(2), 100881. <https://doi.org/10.1016/j.dhjo.2019.100881>
- Colley, R. C., Garrigué, D., Janssen, I., Craig, C. L., Clarke J., & Tremblay, M. S. (2011). Physical activity of Canadian children and youth: Accelerometer results from the 2007 to 2009 Canadian health measures survey. *Health Reports*, 22(1), 15-23.
- Côté, J., and Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching*, 4(3), 307-323. <https://doi.org/10.1260/174795409789623892>
- Côté-Leclerc, F., Gabrielle, B. D., Bolduc, P., Gelinas-Lafreniere, A., Santerre, C., Desrosiers, J., & Levasseur, M. (2017). How does playing adapted sports affect quality of life of people with mobility limitations? Results from a mixed-method sequential explanatory study. *Health and Quality of Life Outcomes*, 15(1), 22. [10.1186/s12955-017-0597-9](https://doi.org/10.1186/s12955-017-0597-9)
- Creswell, J. W., & Creswell. J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- D'Eloia, M. H., & Price, P. (2018). Sense of belonging: Is inclusion the answer? *Sport in Society*, 21(1), 91-105. <https://doi.org/10.1080/17430437.2016.1225819>
- Dehghansai, N., Lemez, S., Wattie, N., & Baker, J. (2017). A systematic review of influences on development of athletes with disabilities. *Adapted Physical Activity Quarterly*, 34(1), 72-90. <https://doi.org/10.1123/APAQ.2016-0030>
- Douglas, K., and Carless, D. (2006). Performance, discovery, and relational narratives among women professional tournament golfers. *Women in Sport & Physical Activity Journal*, 15(2), 14-27. [10.1123/wspaj.15.2.14](https://doi.org/10.1123/wspaj.15.2.14)
- Evans, M. B., Shirazipour, C.H., Allan, V., Zanhour, M., Sweet, S.N., Martin Ginis, K.A. & Latimer-Cheung, A.E. (2018). Integrating insights from the parasport community to

- understand optimal Experiences: The Quality Parasport Participation Framework. *Psychology of Sport and Exercise*, 37, 79-90.
<https://doi.org/10.1016/j.psychsport.2018.04.009>
- Fraser-Thomas, J. L., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. *Physical Education and Sport Pedagogy*, 10(1), 19-40. <https://doi.org/10.1080/1740898042000334890>
- Goodwin, D., & Watkinson, J. (2000). Inclusive physical education from the perspective of students with physical disabilities. *Adapted Physical Activity Quarterly*, 17(2), 144-60. <https://doi.org/10.1123/apaq.17.2.144>
- Güllich, A., Faß, L., Gies, C., & Wald, V. (2020). On the empirical substantiation of the definition of “Deliberate Practice (Ericsson et al., 1993) and “Deliberate Play”(Côté et al., 2007) in youth athletes. *Journal of Expertise*, 3(1), 1-19.
- Higgs, C., Way, R., Harber, V., Jurbala, P., & Balyi, I. (2019). *Long term development in sport and physical activity 3.o*. Sport for Life.
- Houghton, E. J., Pieper, L.J., & Smith, M. (2017). *Women in the 2016 Olympic and Paralympic Games: An Analysis of Participation, Leadership, and Media Coverage*. East Meadow, NY: Women's Sport Foundation.
- Jaarsma, E. A., Dijkstra, P.U., de Blécourt, A.C.E., Geertzen, J.H.B., & Dekker, R. (2015). Barriers and facilitators of sports in children with physical disabilities: A mixed-method study. *Disability and Rehabilitation*, 37(18), 1617-1625.
<https://doi.org/10.3109/09638288.2011.634943>
- Jung, J., Leung, W., Schram, B.M., & Yun, J. (2018). Meta-analysis of physical activity levels in youth with and without disabilities. *Adapted Physical Activity Quarterly*, 35(4), 381-402. <https://doi.org/10.1123/apaq.2017-0123>
- Kerstin, W., Gabriele, K., & Richard, L. (2006). What promotes physical activity after spinal cord injury? An interview study from a patient perspective. *Disability and Rehabilitation* 28(8), 481-488. <https://doi.org/10.1080/09638280500211932>
- Kiuppis, F. (2018). Inclusion in sport: Disability and participation. *Sport in Society*, 21(1), 4-21. <https://doi.org/10.1080/17430437.2016.1225882>
- Kjønniksen, L., Anderssen, N., & Wold, B. (2009). Organized youth sport as a predictor of physical activity in adulthood. *Scandinavian Journal of Medicine & Science in Sports*, 19(5), 646-654. <https://doi.org/10.1111/j.1600-0838.2008.00850.x>
- Lankhorst, K., Takken, T., Zwinkels, M., Velde, S.T., Backx, F., Verschuren, O., & Wittink, H. (2019). Sports participation, physical activity, and health-related fitness in youth with chronic diseases or physical disabilities: The health in adapted youth sports study. *Journal of Strength and Conditioning Research*, 35(8), 2327-2337.
<https://doi.org/10.1519/JSC.0000000000003098>
- Lundberg, N.R., Taniguchi, S., McCormick, B.P., & Tibbs, S. (2011). Identity negotiating: Redefining stigmatized identities through adaptive sports and recreation participation among individuals with a disability. *Journal of Leisure Research*, 43(2), 205-25.
<http://dx.doi.org/10.1080/00222216.2011.11950233>.
- Martin Ginis, K. A., Arbour-Nicitopoulos, K. P., Latimer, A. E., Buchholz, A. C., Bray, S. R., Craven, B. C., Hayes, K. C., Hicks, A. L., McColl, M. A., Potter, P. J., Smith, K., & Wolfe, D. L. (2010). Leisure time physical activity in a population based sample of people with spinal cord injury part II: Activity types, intensities, and durations. *Archives of Physical Medicine and Rehabilitation*, 91(5), 729-733.
<https://doi.org/10.1016/j.apmr.2009.12.028>
- McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical disability: A look at their learning experiences. *Qualitative Research in Sport, Exercise and Health*, 4(2), 226-243. <https://doi.org/10.1080/2159676X.2012.686060>
- Murphy, M. H., Rowe, D. A., & Woods, C. B. (2016). Sports participation in youth as a predictor of physical activity: A 5-year longitudinal study. *Journal of Physical Activity & Health*, 13(7), 704-711. <https://doi.org/10.1123/jpah.2015-0526>
- Murphy, N. A., & Carbone, P. S. (2008). Promoting the participation of children with disabilities in sports, recreation, and physical activities. *Pediatrics*, 121(5), 1057- 1061.
<https://doi.org/10.1123/jpah.2015-0526>

- Nash, C., and Collins, D. (2006). Tacit knowledge in expert coaching: Science or art? *Quest*, 58(4), 465-477. <https://doi.org/10.1080/00336297.2006.10491894>
- Orr, K., Tamminen, K. A., Sweet, S. N., Tomasone, J. R., & Arbour-Nicitopoulos, K. P. (2018). "I've had bad experiences with team sport": Sport participation, peer need-thwarting, and need-supporting behaviors among youth identifying with physical disability. *Adapted Physical Activity Quarterly*, 35(1), 35-56. <https://doi.org/10.1123/apaq.2017-0028>
- Ravenek, M.J., & Laliberte Rudman, D. (2013). Bridging conceptions of quality in moments of qualitative research. *International Journal of Qualitative Methods*, 12(1), 436-456. <https://doi.org/10.1177/160940691301200122>
- Ronkainen, N.J., Ryba, T.V., & Selänne, H. (2019). "She is where I'd want to be in my career": Youth athletes' role models and their implications for career and identity construction. *Psychology of Sport and Exercise*, 45, 101562. <https://doi.org/10.1016/j.psych.2019.02.014>
- Schreuer, N., Sachs, D., & Rosenblum, S. (2014). Participation in leisure activities: Differences between children with and without physical disabilities. *Research in Developmental Disabilities*, 35(1), 223-233. <https://doi.org/10.1016/j.ridd.2013.10.001>
- Shields, N. & Synnot, A. (2016). Perceived barriers and facilitators to participation in physical activity for children with disability: A qualitative study. *BMC Pediatrics*, 16, 9. <https://doi.org/10.1007/s42399-020-00363-4>
- Simpson, A. & Quigley, C.F. (2016). Member checking process with adolescent students: Not just reading a transcript. *The Qualitative Report*, 21(2), 376-392. <https://doi.org/10.46743/2160-3715/2016.2386>
- Spencer-Cavaliere, N., Thai, J., & Kingsley, B. (2017). A part of and apart from sport: Practitioners' experiences coaching in segregated youth sport. *Social Inclusion*, 5(2), 120-129. <https://doi.org/10.17645/si.v5i2.889>
- Spencer-Cavaliere, N., & Watkinson, E. J. (2010). Inclusion understood from the perspectives of children with disability. *Adapted Physical Activity Quarterly*, 27(4), 275-293. <https://doi.org/10.1123/apaq.27.4.275>
- Te Velde, S. J., Lankhorst, K., Zwinkels, M., Verschuren, O., Takken, T., de Groot, J., & Wittink. (2018). Associations of sport participation with self-perception, exercise 19 self-efficacy and quality of life among children and adolescents with a physical disability or chronic disease: A cross-sectional study. *Sports Medicine*, 4(1), 38. <https://doi.org/10.1186/s40798-018-0152-1>
- Turnnidge, J., Vierimaa, M., & Côté, J. (2012). An in-depth investigation of a model sport program for athletes with a physical disability. *Psychology*, 3(12), 1131-1141. <http://doi.org/10.4236/psych.2012.312A167>
- UN General Assembly. (2006). *Convention on the Rights of Persons with Disabilities (CRPD)*. United Nations
- Wickman, K. (2015). Experiences and perceptions of young adults with physical disabilities on sports. *Social Inclusion*, 3(3), 39-50. <https://doi.org/10.17645/si.v3i3.158>
- Wilhite, B. & Shank, J. (2009). In praise of sport: Promoting sport participation as a mechanism of health among persons with a disability. *Disability and Health Journal*, 2(3), 116-127. <https://doi.org/10.1016/j.dhjo.2009.01.002>
- Wold, B. & Anderssen, N. (1992). Health promotion aspects of family and peer influences on sport participation. *International Journal of Sport Psychology*, 23(4), 343-359.
- Yazicioglu, K., Yavuz, F., Goktepe, A. S., & Tan, A. K. (2012). Influence of adapted sports on quality of life and life satisfaction in sport participants and non-sport participants with physical disabilities. *Disability and Health Journal*, 5(4), 249- 253. <https://doi.org/10.1016/j.dhjo.2012.05.003>
- Zitomer, M.R., & Goodwin, D. (2014). Gauging the quality of qualitative research in adapted physical activity. *Adapted Physical Activity Quarterly*, 31(3), 193-218. <https://doi.org/10.1123/apaq.2013-0084>

