

**Looking Back to Move Forward: A Retrospective Look at Lived Experience to Inform  
Future Physical Literacy Practice**

By © Jennifer M. Cowan A Thesis

submitted to the School of Graduate Studies in partial fulfilment

of the requirements for the degree of

Master of Science in Kinesiology

Memorial University of Newfoundland

April 2024

St. John's, Newfoundland and Labrador

### **Abstract**

Physical inactivity among adolescents and young adults experiencing intellectual disabilities (ID) has been a long-standing issue. Physical literacy (PL) is one framework community leaders, researchers, and practitioners have pursued to improve physical activity (PA) participation and engagement for all. Diverse perspectives are needed to develop a comprehensive understanding of best practices in PL, including the views of individuals who experience disabilities. This research explores the subjective perception of the PL journeys of individuals who experience ID. The primary research question is, “How does the transition from adolescence to adulthood impact the PL journey of individuals experiencing ID?” This question was addressed via semi-structured interviews with five young adults aged 20-26 diagnosed with ID. Components of this study were supported by the COM-B model of behaviour change as the theoretical framework and interpretive phenomenological analysis (IPA) as the methodology. Subsequent analysis of interview transcripts revealed that individuals who experience ID understand their PL journey in the transition to adulthood to be the product of a) the past dictates the present and future, b) a team-based approach and c) exploring opportunities everywhere. Results indicate that individuals experience a range of barriers to participation and that transitioning to adulthood is a vulnerable time in one’s PL journey that requires additional support. However, participants illustrate a sense of resilience and responsibility in pursuing PL that has facilitated their growth until now and into adulthood.

*Keywords:* physical literacy, intellectual disability, transition to adulthood, COM-B

### **General Summary**

The transition from high school to adulthood is a challenging time full of changes for all young adults. One of these changes is often the level or nature of one's engagement in physical activity, which can affect one's physical literacy (PL). Individuals experiencing disability can offer valuable insight into the lived experience of their PL journeys. Therefore, this research aimed to gain insight into how to build better opportunities for PL and healthy active living for individuals experiencing ID from their perspective. Results suggest that with adequate support, individuals experiencing ID can have positive, progressive, and transformative journeys in PL as they transition into adulthood.

### **Acknowledgements**

First, I must thank all the individuals and their families who participated in this study. I am incredibly grateful to you all for trusting me with your stories and allowing me to share them with others.

I also need to thank my supervisor, Dr. Kyle Pushkarenko, for introducing me to physical literacy, believing in my idea for this research project and lending your time and knowledge to help make it all come to life. To my critical companions, Beth and Nick, thank you for reading every transcript and providing your insight, support and encouragement over the last 2 years. I cannot wait to see what you all accomplish in the future.

To my committee members, Dr. Jeff Crane, Dr. Stephanie Field, and Dr. Chantelle Zimmer, I am so grateful to you for challenging my opinions and perspective; this project is better because of your contributions.

I am incredibly grateful to you, Mom, for your love and support on my educational journey. I am not here without you and Dad. To my friends and family in Ontario, especially Peter, Katie and Arlo, thank you for always being a text away. To Colin, thank you for always believing in me even when I did not believe in myself. And finally, to my friends and family in Newfoundland, thank you for making St. John's feel like home.

**List of Appendices**

Appendix A: Parallels Between The COM-B Model of Behaviour Change and Physical Literacy

Appendix B: Ethics Approval

Appendix C: Study Recruitment Poster

Appendix D: Information Sheet and Informed Consent Form (Parents/Guardians)

Appendix E: Information Sheet and Assent Form (Participants)

Appendix F: Semi-Structured Interview Guide

Appendix G: Reflective Journal Entry Sample

Appendix H: Sample of Chart Guiding Interview Data Analysis

## Contents

Abstract .....	ii
General Summary .....	iii
Acknowledgements.....	iv
List of Appendices .....	v
Chapter One: Introduction .....	1
Study Purpose, Objectives, and Research Question.....	3
Theoretical Framework: The COM-B Model of Behaviour Change .....	4
Chapter Two: Literature Review .....	8
Physical Activity and Its Impact on Individual Quality of Life.....	8
Perspectives on Studying PA Across the Lifespan .....	10
Physical Literacy Definitions, Development, and Its Implications.....	11
<i>Definition and Conceptualization of Physical Literacy</i> .....	11
<i>Understanding of Physical Literacy as an Inclusive Concept</i> .....	13
<i>Perspectives on Studying Physical Literacy</i> .....	15
Physical Literacy as a Lifelong Journey .....	16
<i>Understanding the Physical Literacy Journey</i> .....	16
<i>The Study of Physical Literacy as a Journey</i> .....	17
<i>Potential Barriers and Facilitators to Physical Literacy Development During the Transition to Adulthood</i> .....	20
Chapter Three: Methods and Methodology .....	26

Researcher Positionality and Bias .....	27
Recruitment and Ethical Considerations .....	28
Participants .....	29
Data Collection.....	30
Data Analysis .....	31
Research Quality and Rigour .....	33
Chapter Four: Results .....	35
The Past Dictates the Present and Future .....	35
A Team-Based Approach .....	39
Exploring Opportunities Everywhere.....	43
Chapter Five: Discussion and Conclusion .....	46
The Past Dictates the Present and Future .....	46
A Team-based Approach.....	49
Exploring Opportunities Everywhere.....	51
Conclusion.....	53
Strengths and Limitations.....	54
Future Research Directions and Implications for Practice.....	56
References.....	59
Appendix A.....	75

Appendix B ..... 76

Appendix C ..... 77

Appendix D ..... 78

Appendix E ..... 85

Appendix F ..... 88

Appendix G ..... 89

Appendix H ..... 90



## **Looking Back to Move Forward: A Retrospective Look at Lived Experience to Inform Future Physical Literacy Practice**

Individuals experiencing intellectual disabilities<sup>1</sup> (ID) are shown to have an increased risk of detrimental health conditions such as diabetes, cardiovascular disease, and obesity (Krahn & Fox, 2014). This disease incidence is understood to be due, in part, to a complex combination of environmental factors, personal health behaviours and insufficient support of these individuals to pursue healthy, active lives (Krahn & Fox, 2014).

Physical inactivity is one of the most prevalent and modifiable risk factors for disease and mortality prevention (Eime et al., 2015; Gill et al., 2013; Guinhouya, 2012). While determining global inactivity rates is challenging, individuals experiencing disabilities are estimated to be 16-62% less likely than the general population to meet physical activity (PA) guidelines (Ginis et al., 2021). Within Canada, adults who experience ID, in particular, are understood to be at risk of missing national activity goals, such as the Canadian 24-Hour Movement Guideline recommendation of 150 minutes of moderate to vigorous PA (MVPA) every week (Ross et al., 2020). There is a broad range of findings on the capacity of individuals experiencing ID to meet MVPA goals, with some researchers finding as little as 9% (n=3159) (Dairo et al., 2016) to 40% (n=1618) (Hsieh et al., 2017) and even as high as 73% (n=15) (Coats et al., 2023) of individuals achieved 150 minutes of MVPA per week. These studies indicated a variety of factors, including ID severity, older age, gender, living in a supervised residence, and lack of community engagement, were associated with a lower level of PA (Coats et al., 2023; Dairo et al., 2016; Hsieh et al., 2017). Since physical inactivity is prevalent among adults experiencing ID, comprehensive strategies must be explored to help individuals engage in physical pursuits over their lifetime.

<sup>1</sup> The terminology “individuals experiencing disabilities” was chosen for use throughout the report as it recognizes that disability is informed by one’s bodily capabilities, individual cultural context as well as social constructions of disability (Peers et al., 2014). I respectfully acknowledge that others may prefer alternatives such as identity-first language (i.e., disabled individual).

To promote PA engagement for all, many educational, sporting, and recreational organizations are currently exploring physical literacy (PL) based approaches (Pushkarenko, Causgrove Dunn & Wohlers, 2021). PL is “the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engaging in physical activities for life” (Whitehead, 2019, p. 8). The holistic conceptualization of PL is based on monism, the understanding that the body and mind are an indivisible whole, and multiple dimensions of human nature are individually valuable but highly interdependent (Whitehead, 2010). PL-focused practice also allows for an expansive view of what it means to be active, as it includes both traditional contexts, such as sports and recreational pursuits, and even those related to activities of daily living and employment (Whitehead, 2010). Overall, PL is best described as an individual journey that is inherently unique to each and every individual and occurs over the entire lifespan (Whitehead, 2019).

PL researchers and practitioners emphasize the importance of establishing a promising start to PL development in childhood, with many schools, community programs and research studies explicitly addressing this time in one’s journey (Carl et al., 2022; Whitehead, 2019). While much evidence supports this approach, it would be incorrect to assume that this is the only time in an individual’s PL journey that requires nurture and attention (Whitehead, 2019). Upon entering young adulthood, Whitehead (2019) states that individuals should take responsibility for PL development, building upon and refining their capacities from childhood and youth. However, longitudinal evidence suggests that this is potentially a time of disruption in one’s PL journey, with studies finding up to a 24% decrease in PA participation between adolescence and young adulthood in the general population, with adverse health consequences, such as increased incidence of obesity occurring in five years (Corder et al., 2019; Gordon-Larsen et al., 2004;

Gordon-Larsen, Nelson & Popkin, 2004; Kwan et al., 2012). A systemic review conducted by Silva et al. (2022), including over 30,000 adolescents and young adults, revealed that these trends might be explained by barriers such as perception of time for PA, lack of motivation and lack of accessible contexts for physical pursuits.

Identifying the determinants of one's PL journey allows practitioners, educators, and individuals on their PL journey to develop strategies to overcome roadblocks while encouraging facilitative factors. Identifying potential barriers and facilitators may also assist in ensuring a smooth transition across various changes in the lifespan, whether it be changes in one's physical abilities, the opportunities offered to them, or individual challenges. The transition to young adulthood, often marked by high school graduation, can cause significant changes in areas including daytime activity, personal responsibilities, and relationships with others (Young-Southward, Cooper & Philo, 2017). For individuals experiencing ID in particular, a clear picture of the impact of the transition from high school and entrance into young adulthood on personal health and well-being is currently lacking (Young-Southward, Cooper & Philo, 2017). Although it is essential to develop an understanding of the PL journeys of individuals experiencing ID beyond the context of education, this transitional phase remains relatively unexplored (Kwan et al., 2020; Whitehead, 2013).

### **Study Purpose, Objectives, and Research Question**

The PL journey has many transformations throughout an individual's life. Empirical evidence suggests that the transition from the school system in adolescence to young adulthood may present a range of challenges for every individual, regardless of ability (Corder et al., 2019; Gordon-Larsen et al., 2004; Gordon-Larsen, Nelson & Popkin, 2004; Kwan et al., 2012; Whitehead, 2019). It is also a highly individualized experience, yet literature often lacks the

incorporation of the voice of individuals experiencing disabilities, especially those who have graduated (Pushkarenko, Causgrove Dunn & Wohlers, 2021; Young-Southward, Cooper & Philo, 2017). These perspectives have inherent value, and their emphasis in this study will provide practitioners with an authentic understanding to inform the potential design and delivery of PL programming for young adults with ID. This research aims to explore the PL experiences of young adults experiencing ID and the impact of these lived experiences on PL development.

Overall, this project aims to:

- (a) Honour the value of the subjective experience of individuals experiencing ID
- (b) Explore the PL journeys of individuals experiencing ID in young adulthood

The primary research question in this study is: How does the transition from adolescence to adulthood impact the physical literacy journey of individuals experiencing intellectual disabilities?

### **Theoretical Framework: The COM-B Model of Behaviour Change**

Numerous psychological models, such as Self-Determination Theory (SDT), Ecological Dynamics and the Theory of Reasoned Action/Planned Behaviour, are used to study behaviour as it pertains to PA (Cairney et al., 2019; Chen, 2015; O'Sullivan et al., 2020; Rudd et al., 2020; Willmott et al., 2021). For PL specifically, the various understandings of the concept have led to discourse surrounding which theoretical framework is most appropriate (O'Sullivan et al., 2020).

Both SDT and Ecological Dynamics Theory were heavily considered during the development of this study due to their prior application within the body of research analyzing PL (Cairney et al., 2019; Chen, 2015; O'Sullivan et al., 2020; Rudd et al., 2020). Much like PL, SDT highlights the essential role of motivation for behaviour (Cairney et al., 2019). The primary emphasis of SDT research is the spectrum between the autonomous (self-determined) or

controlled (not self-determined) motivation an individual has for a given behaviour and the factors that impact it, such as perceived competence, relatedness and autonomy (Cairney et al., 2019). There is relatively less consideration given to the additional PL aspects, such as actual physical competence, knowledge and understanding and interaction with the environment, which are also integral to the PL journey (Whitehead, 2010). Interaction with one's environment can be particularly significant for individuals experiencing disability, given the limitations imposed on their participation in PA contexts. Ecological Dynamics Theory is a theoretical model that highlights the relationship between an individual and their environment (O'Sullivan et al., 2020; Rudd et al., 2020). Proponents of ecological dynamics as a means of conceptualizing PL primarily position it as the degree to which an individual and their environment "(mis)fit" across contexts over time (O'Sullivan et al., 2020; Rudd et al., 2020). However, this appears dismissive of Whitehead's (2010) original conceptualization of PL as, in part, a product of innate movement potential that each human being possesses. Furthermore, while conclusions regarding motivational climates across contexts can be drawn from the application of ecological dynamics as a conceptual framework, it lacks explicit consideration for motivation as an entry point to PL, which is key to the concept (O'Sullivan et al., 2020; Rudd et al., 2020; Whitehead, 2010).

The alternative conceptual framework chosen for this project is the COM-B model of behaviour change. The COM-B model postulates that behaviour is a result of co-occurring capabilities (C), opportunities (O) and motivations (M) (McDermott et al., 2022; Willmott et al., 2021). These domains are understood as necessary for an individual to perform a target behaviour (B), such as the activities that help foster the development of PL (McDermott et al., 2022; Whitehead, 2010; Willmott et al., 2021). The COM-B model of behaviour change was primarily selected due to how these domains are echoed in PL's primary and secondary components. Appendix A is provided to communicate these relationships as applicable to this

study. Identifying and emphasizing the interactions between these domains of the mind, body, individual and their environment adhere to the monist and phenomenological philosophical underpinnings of PL (Whitehead, 2010; Willmott et al., 2021). There are also distinct similarities between Whitehead's conceptualization of motivation in PL and the understanding of motivation in the COM-B model. It is understood that PL is promoted through experiences that are meaningful to an individual, which leads to a desire to be involved in PA (Whitehead, 2013). This desire leads to participation, ultimately acting reciprocally to increase the other domains of PL (such as physical competence) (Whitehead, 2010). Motivation is also central to the COM-B system, with capability and opportunity understood as influences on the relationship between motivation and behaviour rather than facilitative of behaviour independently (West & Michie, 2020). Overall, both the COM-B framework and PL highlight the individual-level and environmental factors that influence behaviour while understanding that these factors primarily facilitate this influence due to their impact on an individual's motivation to move.

COM-B has also previously been applied to research exploring PL programming (Behan, 2020; Lane et al., 2021; Lane et al., 2022). In the studies conducted by Lane et al. (2021, 2022), the framework was applied to design the PLAYshop program, a PL-informed intervention for young children (as delivered by parents). Through literature review and communication with parents and other professionals, the research team behind PLAYshop identified factors influencing a parent's ability to perform behaviours associated with the intervention (Lane et al., 2021). Researchers subsequently organized factors according to the COM-B model. Then, they identified behaviour change techniques necessary for the intervention to overcome said factors, as informed by the Behaviour Change Wheel (Lane et al., 2021). Considering the intention of this research, to provide practitioners with an authentic understanding of lived experience to

inform the potential design and delivery of PL programming, the COM-B framework offers a framework to translate PL research into PL practice.

## **Chapter Two: Literature Review**

This literature review summarizes the PL journey and those changes that may occur when an individual experiencing ID graduates from high school. More specifically, the conceptualization, study, and inclusiveness of PL will be outlined, as well as those factors that may impact the progression of one's PL journey as they transition into adulthood.

### **Physical Activity and Its Impact on Individual Quality of Life**

Much research demonstrates that routine PA prevents all-cause mortality and is a crucial determinant of lifelong health and wellness (Eime et al., 2015; Guinhouya, 2012). PA has also been shown to contribute to individual quality of life (QoL) across various models and understandings of the concept (Gill et al., 2013). Most models indicate that one's QoL is determined by an interdependent sense of psychological, physical and social well-being as defined by each and every individual (QoL) (Gill et al., 2013). The integrative QoL model illustrated by Gill and colleagues (2013) suggests that the physical, social, emotional, spiritual and cognitive domains contribute to QoL. While they presented corroboration from stakeholders to support the enhancement of all domains of QoL through PA, survey results indicate that the social, emotional, and physical domains are where individuals find significant value and thus were cited as primary motivators of PA engagement (Gill et al., 2013).

Much of the research on PA points to its benefits to physical health. A narrative review by Warburton et al. (2006) indicates that PA can decrease the risk of developing chronic diseases such as diabetes, cancer, bone disease, metabolic syndrome, and hypertension, as well as reduce the risk of death from these conditions when used as a treatment intervention. They present evidence that indicates this is likely a result of PA's positive impact on factors such as body composition, cholesterol ratios, insulin sensitivity, blood pressure, cardiac function, and chronic



inflammation (Warburton et al., 2006). More personal physical health benefits, such as gaining the ability to do certain activities or having more energy to do activities one enjoys, are also important physical health improvements due to exercise (Gill et al., 2013).

In addition to improving physical health, PA can influence an individual's psychosocial well-being. The implications of positive PA experiences include improved self-esteem and self-efficacy, reduced incidence of depression and anxiety, and mitigation of the effect of acute psychological stressors (Faulkner & Taylor, 2005; Petruzzello et al., 1991; Teychenne et al., 2008). Reduction of anxiety and stress through PA has also been shown to correlate with increased cooperation, indicating that the psychological benefits of PA in an individual can ultimately result in prosocial behaviour with others (Di Bartolomeo & Papa, 2019). Additional prosocial behaviours linked to PA participation are trust and trustworthiness, reciprocity, and empathy (Di Bartolomeo & Papa, 2019). Ultimately, these prosocial behaviours can lead to more positive social interactions, fostering improved peer relationships, feelings of belonging, and the development of social capital (Biddle & Asare, 2011; Walseth, 2006).

Improvement and maintenance of one's QoL through the various domains of the integrated model are cited as sources of motivation for individuals to pursue physical activities (Gill et al., 2013). If motivation in this context is understood as a drive or willingness to be active, then all individuals should be motivated to participate in PA when they become aware of said benefits (Gill et al., 2013; Whitehead, 2010;). Yet only 53% of Canadian adults reported reaching Health Canada's benchmark of 150 minutes of PA per week (Statistics Canada, 2022). Moreover, specific populations, such as individuals with disabilities, are 16-62% less physically active on average than people without disabilities (Ginis et al., 2021). Consequently, they may be particularly susceptible to chronic disease and all-cause mortality and exempt from the physical,

social, and psychological benefits of movement. Improving the rates of PA could prove to be a way to enhance QoL across the lifespan for all Canadians.

### **Perspectives on Studying PA Across the Lifespan**

Researchers who study movement proficiency, PA and health behaviours have applied various models and theories to conceptualize and understand PA participation across the life course. Some models of lifelong engagement emphasize the impact of one's perception of competence and perceived ability to complete a task on an individual's motivation to maintain engagement (Stodden et al., 2008). They assert that as one's ability to gauge motor competence accurately develops, PA can become less enjoyable if competency remains low (Weiss & Amorose, 2005). Other researchers argue that these perspectives only communicate a partial understanding of lifelong engagement and assert that continued engagement is mediated through actual motor competence (Stodden et al., 2008). For instance, Clark & Metcalfe (2002) designed The Mountain of Motor Development to illustrate changes in motor development and movement across the life course and how individual and environmental factors can impact progression or regression on the mountain. Another model, Gallehue's Triangulated Hourglass, conceptualizes the individual as an hourglass that fills with sand, where factors in the environment and hereditary factors "fill" the individual's hourglass to facilitate progression through developmental motor stages from infancy to adolescence (Goodway et al., 2020). Upon reaching late teens/early adulthood, the hourglass is theorized to flip over when lifestyle and hereditary filters impact the rate at which an individual's previously established motor development deteriorates (Goodway et al., 2020).

Researchers have developed a variety of perspectives on the perceived importance of the different social, emotional, physical and environmental factors that contribute to individual

movement capabilities and, ultimately, a lifelong desire to participate in physical pursuits. These models emphasize the importance of motor development and physical competency as the drivers of participation over the lifespan. However, this may limit the ability of individuals experiencing disabilities to be included in these models if they are not utilized correctly. Alternative perspectives, such as Whitehead's conceptualization of PL, theorize equal significance and constant convergence between the affective, physical and cognitive factors that moderate long-term PA engagement (Cairney et al., 2019; Whitehead, 2010). For individuals who cannot follow a typical path of development, it provides a holistic and inclusive perspective on movement that has gained attention in recreation, public health, sport and physical education (PE) across the globe in recent years (Pushkarenko, Causgrove Dunn & Wohlers, 2021).

### **Physical Literacy Definitions, Development, and Its Implications**

#### ***Definition and Conceptualization of Physical Literacy***

PL is the journey one takes with movement throughout one's life and presents a way to understand the evolution of PA as an individual moves through the lifespan (Whitehead, 2010). Whitehead's conceptualization is primarily informed by the philosophical underpinnings of monism, existentialism and phenomenology (Pot et al., 2018; Whitehead, 2010). Respectively, there is inherent significance to one's humanness that is a result of multiple, indivisible dimensions of being, and this affects and is affected by interactions with one's environment and informed by individual perception (Pot et al., 2018; Whitehead, 2010; Whitehead et al., 2018). PL respects each and every individual as a holistic being, rejecting the dualistic perspective of separation of body and mind, wherein the body is not simply an object but an indivisible part of one's embodied dimension (Cairney et al., 2019; Pot et al., 2018; Whitehead, 2010). Each and every individual's embodiment is unique to them, and so, too, is their PL journey (Pot et al.,

2018; Whitehead, 2010). In contrast to elitist approaches conflating embodied potential with high performance, PL is achievable by all throughout the lifespan, and progression is determined by what is significant to the individual rather than normative expectations of achievement (Whitehead, 2010). Individuals achieve this potential through constant and continuous interaction across environments (i.e., physical, social, emotional, and cultural) in which various situations and interactions with individuals create their PL journeys (Pot et al., 2018; Whitehead, 2010).

PL is often characterized in the literature through the attributes of motivation and confidence (affective domain), physical competence (physical domain) and knowledge and understanding (cognitive domain) (Corbin, 2016; Whitehead, 2010). In this context, motivation refers to one's eagerness to be physically active, continue a familiar activity, try new activities, and improve overall physical competence (Whitehead, 2010). It materializes in the purposeful actions one takes to pursue regular participation (Whitehead, 2010). In the PL journey, confidence is seen when an individual feels secure in knowing that the PA experience will be positive and rewarding, as well as in their physical abilities (Whitehead, 2010). Physical competence refers to capabilities that help an individual thrive across contexts, including PE, work, sports, and activities of daily living (Whitehead, 2010). The final domain is characterized by one's knowledge and understanding of how movements are achieved and the value of PA on one's health and well-being (Whitehead, 2010). These PL characteristics are in constant flux and act reciprocally to influence each other throughout one's PL journey as an individual gathers PA experiences and travels across environments (Cairney et al., 2019; Whitehead, 2010). Directionally, the three core characteristics of PL are motivation and confidence, physical competence, and interaction with the environment, all of which impact the three characteristics

of knowledge and understanding, self-expression and communication with others, and sense of self and self-confidence (Whitehead, 2010). For example, an individual experiencing disability may have individualized communication needs that impact their ability to receive instruction in PA environments. Without a means to facilitate this communication, their knowledge and understanding of their chosen PA (i.e., rules of a game) could be negatively impacted.

PL, when applied correctly, has the potential to be a primary determinant of health and QoL through its positive encouragement of PA (Cairney et al., 2019; Whitehead, 2010). Some advantages to this highlighted in the literature are the promotion of participation and engagement in PA, self-confidence, intellectual development, promotion of self-esteem and nurturing of motivation (Cairney et al., 2019; Durden-Myers et al., 2018). Primarily, these are achieved by participating in various appropriately challenging movement activities that give individuals, regardless of variation in abilities, the opportunity to reach their full potential (Durden-Myers et al., 2018). Capitalizing on individual potentials, such as that promoted by PL via individual embodiment, can positively impact one's QoL (Whitehead, 2010).

### ***Understanding of Physical Literacy as an Inclusive Concept***

There is still some significant discourse surrounding the conceptual keystones of PL and its practical application. A primary concern is how PL is conceptualized, as inconsistencies remain in how institutions, researchers, and the public have come to understand it. This complexity can create confusion for practitioners aiming to apply the concept (Corbin, 2016). Even those who agree on a conceptualization will differ in their determination of the concept's most valuable characteristics (Cairney et al., 2019; Edwards et al., 2017). For instance, some groups study and apply PL by promoting physical competence through FMS proficiency (Almond, 2013; Cairney et al., 2019; Edwards et al., 2017). However, criticism of this approach

is evident due to its rejection of the holistic conceptualization of PL put initially forth by Whitehead (2010) (Almond, 2013; Cairney et al., 2019; Pushkarenko, Causgrove Dunn & Wohlers, 2021). Furthermore, FMS are often developed during early and middle childhood (Clark & Metcalfe, 2002). Therefore, FMS-focused approaches may not be most appropriate for analysis of later stages of the PL journey and exclusive of individuals experiencing disabilities whose capacity to develop a repertoire of FMS may be limited or follow a non-normative trajectory (Goodwin, 2016).

Another source of criticism of PL is due to its philosophical underpinnings. Goodwin (2016) postulates that Whitehead's conceptualization over-emphasizes individual responsibility, which negates the socio-environmental hurdles related to PA faced by individuals experiencing disabilities. She asserts that PA environments perpetuate normative standards that make them inherently inaccessible or exclusive and that taking responsibility for one's journey is more difficult for this population (Goodwin, 2016). Indeed, findings indicate that overemphasis on normative motor development, standards of skill and rigid expectations of the individual leaves them with PL experiences that are traumatic and unfriendly, perpetuated by practitioners that have a narrow understanding of the PL journey and how to operationalize this in practice (Pushkarenko, Causgrove Dunn & Goodwin, 2021). Some, however, feel that the theory of PL is inherently inclusive but that these issues arise when the philosophical principles that emphasize inclusivity are forgotten when PL is operationalized (Pushkarenko, Causgrove Dunn & Goodwin, 2021).

While there are still some disputes regarding the understanding of PL in the literature, progress towards conceptual understanding, holistic application of the concept, and study of inclusive practice make it a powerful means for facilitating positive experiences for individuals

who experience disabilities (Pushkarenko, Causgrove Dunn & Wohlers, 2021). Current trends indicate that the scope of inclusive PL research is widening, and comprehensive inquiry into how to build inclusive PL programming is necessary.

### *Perspectives on Studying Physical Literacy*

The growing interest in PL since Margaret Whitehead provided a modern definition in 2001 has prompted a variety of perspectives on the topic. Edwards et al. (2017) theorized that researchers often find themselves between the “poles” of ‘idealistic,’ philosophically oriented, and ‘pragmatic,’ practice-oriented approaches. The nuances of the various definitions and subsequent application of the concept can also be captured through the Physical Literacy Ladder of Abstraction conceptualized by Young, O’Conner and Alfrey (2020). In this ladder, as adapted from Sartori’s (1970) ‘ladder of abstraction,’ PL is divided into low, medium, and high levels. The lowest level refers to ‘pure’ adherence to a root definition (as defined in 2001) while moving up the ladder into medium and high levels of abstraction indicates an increasing range of cases to which the concept is applied and a dilution of the critical components and philosophical underpinnings that ground the root definition (Young et al., 2020). The ‘root’ definition of PL is relatively unpopular in the literature, with some finding it overly complex and too rigid for practical use (Young et al., 2020). Medium levels of abstraction are much more prevalent in research (Young et al., 2020). With less adherence to the philosophical roots of the concept, researchers are more able to adapt PL to different contexts and populations and isolate or perhaps prioritize certain aspects of it as they see fit (Young et al., 2020). Finally, high levels of abstraction highlight the development of at least one or two domains of PL (Young et al., 2020). At the highest level on the ‘ladder,’ PL may be conceptualized as an end goal, where individuals have ‘become physically literate’ as measurable through FMS (Young et al., 2020).

It is suggested that researchers in the field of PL not only be familiar with the various conceptualizations of PL but acknowledge the level of abstraction they choose to adopt and apply it consistently across a given study (Young et al., 2020). Such acknowledgement may help researchers avoid prevalent pitfalls such as using theory informed by Whitehead's 'low' (philosophically oriented) definition in combination with methods and methodology indicative of a high level of abstraction (Young et al., 2020).

### **Physical Literacy as a Lifelong Journey**

#### ***Understanding the Physical Literacy Journey***

All individuals have the capacity to develop PL throughout their lives; however, inadequate quality or quantity of PA experiences can slow down or stagnate an individual's PL journey (Whitehead, 2010). Much of the research focus on the journey is concentrated in childhood, and while this is the most critical time that helps foster long-term PL development, it is also essential to develop an understanding of PL as a lifelong disposition (Carl et al., 2022; Taplin, 2019).

PL, concerning avenues being explored in research, is rapidly evolving to include a variety of contexts and populations. However, one area that seems to remain elusive is the journey beyond adolescence, with empirical studies including adults being scarce relative to those including children (Carl et al., 2022). Yet, there seems to be increased effort to explore the PL journey in various stages of adulthood, such as young adulthood (Gandrieau et al., 2023; Kwan et al., 2019). It is acknowledged that young adults specifically are an underrepresented population in the literature, despite young adulthood being considered a critical period during one's PL journey due to it being the last time it is a part of compulsory education, after which only the most active individuals tend to maintain engagement (Gandrieau et al., 2023).



Margaret Whitehead (2013) also identified young adulthood (approximately 18/19-30 years old) as a critical stage in the PL journey. Significant influencers of PL at this stage are individual motivation, movement competence, self-confidence and self-esteem. It is theorized that the individual becomes personally responsible for establishing, maintaining, and furthering PL at this time (Whitehead, 2013). To accomplish this, an individual should have a repository of quality experiences facilitated by supportive significant others that enable the development of movement skills, self-confidence, and self-esteem (Whitehead, 2013). Additionally, the impact of public policies, media messages and access to activity settings were theorized to be essential for PL development at this stage (Whitehead, 2013). Unfortunately, for individuals experiencing disabilities, including ID, health during the transition to adulthood has been reported as poor, especially when compared to young adults without disabilities, indicating there may be a disruption of PL progress (Young-Southward, Cooper & Philo, 2017).

### ***The Study of Physical Literacy as a Journey***

With comparatively little research addressing the PL journey beyond childhood currently published, there is a new interest among some PL researchers to expand the understanding of the journey across the lifespan. Some postulate that current conceptualizations of PL, primarily based on developmental models and the study of children and youth, may be harder to apply to individuals as they age, where movement and activity can become more constrained by mobility and/or lifestyle (Petrusevski et al., 2022). Such developmental conceptualizations have informed other areas of PL research, such as the development and validation of measurement tools (Gandrieau et al., 2023). Gandrieau et al. (2023) sought to develop a new assessment tool, as they felt that as one's PL journey evolves throughout the life course, so too should the way it is explored in the literature. Gandrieu et al. (2023) assert that researchers need to develop

assessment tools tailored to this population to understand and ultimately develop strategies to support this life transition. Kwan et al. (2019, 2020) and Wang et al. (2020) were the only other studies discovered to explore the PL journey of neurotypical students in the time following high school, specifically first-year university students. Kwan et al. (2019) conducted an 11-week intervention (PLUS Program) designed to facilitate PL development through novel PA activities. They found that novel movement skill sessions once a week were particularly impactful for participant motivation, confidence, knowledge and understanding over the intervention (Kwan et al., 2019). The subsequent study examined the difference between students enrolled in a 12-week PLUS (Physical Literacy for University Students) program and the control group (who did not attend any program), hypothesizing that participation in PLUS would minimize the declines in PA typically seen following secondary school (Kwan et al., 2020). The researchers measured self-reported PA, musculoskeletal fitness, and cardiorespiratory fitness in addition to a single measure of PL as an aggregate score of each domain. Findings suggested that PLUS program participants maintained pre-transition PA levels and increased aerobic fitness while control group members did not. The program also had a small-moderate positive effect on students' PL (Kwan et al., 2020). Although the mechanism of these effects is unclear, this illustrates that consistent participation in PL-informed programming may be impactful for this life stage (Kwan et al., 2020). Wang et al. (2020) analyzed the autonomy, relatedness and competence (Basic Psychological Needs) satisfaction and self-reported PL of 594 university students enrolled in compulsory PE classes. They discovered a reciprocal relationship between psychological needs satisfaction and PL over time. They suggested that strategies targeting essential psychological needs satisfaction are useful for practitioners trying to foster PL in this population (Wang et al., 2020).

While the intervention effects seen in Kwan et al. (2019, 2020) and Wang et al. (2020) are promising for future PL development, no follow-ups were conducted. Overall, very few studies speak to the long-term journey of PL, especially for individuals experiencing disabilities. Many capture the journey as a snapshot of an individual's life or limited intervention period. Those who do employ longitudinal perspectives suggest that it persists as an area that needs growth in the future (St. John et al., 2020). For instance, St. John et al. (2020) conducted a 2-year longitudinal study, examining trajectories of perceived enjoyment of PE, perceived adequacy towards PA, motor proficiency and cardiorespiratory fitness in children with developmental coordination disorder between grade 4 and grade 6. They found time-related relationships, such as the protective effect of perceived adequacy on enjoyment over time when actual capacity is consistently low. The longitudinal study illuminated how PL's physical, affective and cognitive domains can have dynamic relationships over time, especially as one ages (St. John et al., 2020).

Longitudinal research can be complex due to complications such as the time and funding necessary to collect data at multiple time points and the retention of study participants over a long-term period. Another approach emerging to examine the longitudinal journey of PL is retrospective research. Although it is in its infancy with regard to PL, it has been argued that retrospective or “life-history” analysis may be appropriate when applied to the PL journey (Farias et al., 2020; McKay et al., 2022; Taplin, 2019). When Farias et al. (2020) interviewed students on their experiences in PE, they spoke of how pedagogical practices like facilitating cooperation, team building, and movement competence helped them develop an enduring sense of PL that has enabled them to continue to pursue further development as they age. Their experiences in quality programming in childhood and adolescence were cited as facilitative of further development. McKay et al. (2022) also surveyed undergraduate students (18-25 years

old) to explore correlations between early sport specialization and current PL and sport participation. Primary findings suggest no differences in PL across levels of sport specialization (McKay et al., 2022). However, measures of PL and PA were correlated, indicating that PL may help facilitate PA participation in young adults (McKay et al., 2022). In their Chapter penned for *Physical Literacy Across the World* (Whitehead, 2019), Taplin (2019) analyzed the concept of PL as a journey and suggested the life history approach due to its ability to uncover the unique lived experience of an individual and the significant events and significant others that have impacted development. The stories of adults (aged 49, 33 and 45) explored in this chapter illustrate how the journey of PL is ongoing and requires positive experiences across various environments and a continuous commitment to a physically active lifestyle (Taplin, 2019). Here, the retrospective nature of these studies brought to light how prior experiences can inform and shape current PL journeys.

### ***Potential Barriers and Facilitators to Physical Literacy Development During the Transition to Adulthood***

As one travels through their PL journey, they encounter numerous changes, setbacks, etc., that can ultimately impact their path. Considering each individual's motivation, confidence, physical competence, knowledge and understanding, we must also identify the factors that facilitate or hinder ongoing PL development to create strategies to overcome them. While the information presented in this section may indicate some barriers and facilitators to the PL journeys of some young adults experiencing disabilities, PL is a highly individualized journey, and what is considered facilitative for some may not be for others (Whitehead, 2010). Furthermore, analysis of the barriers and facilitators of PL journeys of individuals experiencing disabilities after childhood is relatively unexplored, and therefore, much of the information presented in the following section will focus on research that examines potential barriers and

facilitators to the motivation, physical competence, confidence, and knowledge and understanding as separate domains rather than PL holistically (Gandrieau et al., 2023).

For many, the transition from adolescence to young adulthood is characterized by personal challenges. These occur across all domains of life and often include gaining employment, accessing post-secondary education, managing one's mental health, and navigating personal choices with increased autonomy (Young-Southward, Cooper & Philo, 2017). This stage is also related to greater responsibility for health-related choices, and decisions regarding behaviours such as nutrition and PA become increasingly self-regulated as individuals age. In addition to increased autonomy over personal health, lifestyle changes due to the transition from high school can add a layer of difficulty. Individuals may move from high school to post-secondary institutions, the workplace, and outside their parents' homes. For some, PL development may stagnate or slow as they navigate the challenges of translating previously developed motivation, confidence, knowledge, and FMS to new contexts.

For individuals experiencing ID, the transition to adulthood is also marked by *aging out* of various services, and service provision after childhood specifically has been shown to have its inadequacies (Viola & Arno, 2012). 'Aging out' refers to individuals becoming too old to continue with the programming and amenities accessed during childhood (Pallisera et al., 2014). These amenities can range from school to recreational facilities, extracurricular activities, or healthcare providers such as doctors or psychologists. Parents and their children with ID identified alterations in physical health, mental health, routine, boredom, social and institutional support, independence and developing identity as an adult during this time were all areas of concern (Young-Southward, Cooper & Philo, 2017). This decrease in support could impact PL development overall. Significant others like parents, coaches, teachers, and practitioners are

essential to facilitating PL development for all. However, the loss of services may be particularly impactful for those experiencing disabilities who are less autonomous in their journey (Whitehead, 2010). While there may be excitement for taking the initiative for one's PL journey, without proper support, an individual may lack the knowledge and understanding to facilitate the journey independently and experience PL stagnation and a more sedentary lifestyle.

A primary source of daytime activity for many individuals experiencing disabilities is school; consequently, this departure can be very challenging (Pallisera et al., 2014). Following their education, young adults with ID expressed issues accessing inclusive and engaging services to replace the learning, growth and social opportunities found throughout their compulsory education (Pallisera et al., 2014). The transition of leaving the school system for other community-based opportunities changes the day-to-day lives of individuals experiencing disabilities, presenting a potential source of anxiety (Young-Southward, Cooper & Philo, 2017). Changes that could contribute to changes in PL development could include where they would go during the day, social relationships and social networks, new physical environments, or costs associated with participation (Young-Southward, Cooper & Philo, 2017).

Developing quality service provision for young adults with ID is integral to the ease of their transition to adulthood and their long-term success and well-being. Regarding PL development, youth with ID are estimated to obtain about 50% of their PA participation from PE classes (Kapsal et al., 2019). Furthermore, lack of daytime opportunities, such as that lost in the transition to adulthood via the exit of the education system, is a predictive factor in the reduction in PA engagement (Finlayson et al., 2009). The decline in service provision caused by aging out of the educational system may impact the PL development of individuals experiencing ID. Therefore, service providers and practitioners must be aware of the determinants of PL

development specific to this period to develop programming and support that facilitates ongoing motivation, confidence, physical competence, knowledge and understanding.

While study of determinants and trajectory of the PL journeys of young adults is currently lacking, there is some research on the impact of the transition from high school on PA in individuals experiencing ID. In their focus group interviews and surveys with parents, and supplemental interviews with recently graduated young adults with ID, Roth et al. (2007) discovered that success in transition was largely attributed to the active engagement and strength of the participant's community. This community was understood to include parents, coaches, support professionals, peers and community programming. However, this social support was understood to be greatly reduced following graduation, and structured opportunities for participants to gain exposure to PA were lacking following high school (Roth et al., 2007). In their surveys and interviews with young adults with ID and their parents and support professionals, Hsieh et al. (2015) also discovered that regardless of adulthood stage, community was a predictive factor in PA participation. Those participants who lived in family or foster homes (in contrast to group homes or community-based housing) and were less engaged in their community were more likely to have insufficient PA participation.

Much of the research sought to understand the parental role in PA participation in young adults experiencing ID. Nichols et al. (2019) sought to understand parent's perspectives on the barriers and facilitators to their adult children (aged 22-27), through observing children engaging in activity and conducting semi-structured interviews with parents. They discovered that parental behavior, behaviour associated with ID and access and opportunities were both facilitators or barriers to participation depending on their presentation. For instance, those participants who lived in larger cities felt that programs were readily available, while those who lived rurally felt

programming could be hard to find since they lived outside the city. Instead of qualitative interviews, Bishop et al. (2022) surveyed parents of young adults (aged 18-28) with autism using the Determinants of Physical Activity and Eating Behaviours for Young Adults with Autism Spectrum Disorder (DPAASD) scale. Results were analyzed as a collective, in addition to sub-groups of parents of young adults with mild, moderate and severe ASD. They found that collectively, parent PA, exercise competency, social skills and neighbourhood safety were correlated to increased young adult PA, while video game use was correlated to decreased young adult PA (Bishop et al., 2022). For those with mild ASD specifically, daily routine, hyperactivity and home exercise equipment were facilitative of PA at this time (Bishop et al., 2022). For young adults with moderate ASD, community fitness program access, the child's discretionary time, and digital technology use were determinants (Bishop et al., 2022). Finally, for individuals with severe ASD, a child's age, access to adapted PA programs, social skills, the child's attitude toward PA, and the parent's age were important factors (Bishop et al., 2022).

Other research has illustrated the relationships relative barriers and facilitators can have on each other. For instance, Young-Southward, Cooper, and Philo (2017) interviewed young adults with ID on their feelings towards the transition to adulthood, and although they expressed motivation to pursue healthy lifestyles and awareness of the value of proper nutrition and exercise (facilitative), difficulty translating this knowledge into practice following high school was evident (barrier). Potential determinants of PL development need to be analyzed via the holistic lens of PL; without the cognitive component of knowledge, individuals could not activate their other domains of PL to facilitate ongoing engagement independently.

Facilitating PL development for individuals experiencing disabilities as they transition from high school will require careful consideration of the various factors associated with



facilitating (or impeding) ongoing development. The transition from high school presents a complex time in one's PL journey, worthy of further analysis.

### **Chapter Three: Methods and Methodology**

This study was grounded in a social constructivist research paradigm to interpret the subjective experiences of young adults experiencing ID (Creswell & Poth, 2017; Kivunja & Kuyini, 2017). Through this paradigm, it is assumed that the world can be understood through the subjective view of the participants and that meaning is formed through historical and cultural norms as well as interactions with others (Creswell & Poth, 2017). Individuals experiencing disabilities are often displaced outside the norm by society (Grenier, 2007). Therefore, in agreement with the constructivist approach, it can be assumed that the social constructions of disability, as informed by normative standards, impact their opportunities and the quality of services provided.

Consistent with the chosen research paradigm and its assumptions, interpretive phenomenological analysis (IPA) was selected as the research approach (Smith et al., 2009). Such an approach provides a systematic means of exploring and understanding the subjective lived experience of others or how people make sense of their personal and social world (Shinebourne, 2011; Smith et al., 2009). IPA is comprised of three unique yet interwoven elements: phenomenology, hermeneutics, and idiography (Smith et al., 2009). Phenomenology is concerned with the way things appear to individuals in their experience. It aims to direct attention to the essential components of a phenomenon or experience, making them exclusive or distinctive from others' perceptions (Pietkiewicz & Smith, 2014). Hermeneutics is the study of interpretation and meaning (Shinebourne, 2011). Here, the researcher attempts to understand what it is like to be the participant and derive meaning based on this understanding (Smith et al., 2009). Idiography is the in-depth focus on the particular. Within IPA research, each participant, or case, undergoes extensive analysis to ensure a sense of value for the participant's diverse and

variable experience (Eatough & Smith, 2017) before moving onto a more general cross-case analysis aimed at uncovering similarities and differences across cases (Smith et al., 2009).

### **Researcher Positionality and Bias**

Throughout my undergraduate degree, I was involved in community-based services focused on providing and improving PA opportunities for individuals experiencing disabilities in the Guelph and Kingston, Ontario communities. In the fifth year of my undergraduate degree at the University of Guelph, I had the opportunity to work at Torchlight Services in Guelph, Ontario. Torchlight Services provides day programming for adults experiencing ID. My role as a program facilitator was to develop and lead these programs virtually and in person, providing me with a relative insider perspective on operations related to service provision for adults experiencing ID in that community, including those services associated with PA (Merriam et al., 2001). As an individual who does not personally experience disability, I do not have a first-hand understanding of the experiences of those diagnosed with an ID and am, therefore, an external outsider to this experience (Merriam et al., 2001).

Considering the variety of PL conceptualizations in the literature, the level of abstraction of PL applied in this study should be explained. The low level of abstraction, as defined by Young, O'Connor and Alfrey (2020), suggests that a physically literate individual must be able to be “perceptive in ‘reading’ all aspects of the physical environment, anticipating movement needs or possibilities and responding appropriately” (Young et al., 2020). This appears inappropriate for this study as it seems to limit individuals experiencing ID who may have trouble “reading” various social situations and contexts. Additionally, definitions consistent with high levels of abstraction are often focused on fundamental skill development and its measurement, which, while potentially appropriate for quantitative approaches, is inconsistent

with the qualitative methods chosen for this investigation (Young et al., 2020). The medium level of abstraction is applied most frequently in the literature, which is understood to be due to the fluidity inherited by progressing up the ladder of abstraction (Young et al., 2020). This allows PL to be more easily applied across numerous contexts, becoming adaptable to various research aims (Young et al., 2020). As the objective of this study is to explore the subjective PL journeys of individuals experiencing ID, the fluidity afforded by moving up the ladder should create space for individuals to interpret their journeys on their terms (Young et al., 2020).

### **Recruitment and Ethical Considerations**

Participants for this study were primarily recruited through community organizations in Guelph, Ontario; St. John's, Newfoundland and Labrador; Kingston, Ontario; and Whitby, Ontario. Community organizations were only selected if they specifically provide services to adults experiencing ID and promote a PA component to their programming. Organizations that only provide services to children or did not have PA as a primary component did not receive requests to participate. Following the appropriate institutional ethics board approval, community organizations providing services to adults experiencing ID were sent a recruitment letter and a poster outlining the research project (Appendix B and Appendix C). Representatives from these organizations were then invited to forward information about the project to parents of prospective participants. At their discretion, some organizations contacted specific individuals to help ensure a purposive sample that met inclusion criteria. Those parents of individuals who were interested in participating contacted the researcher directly via email. Initial contact regarding participation in the project was solely with the parents of prospective participants, given the participant's potential vulnerability as individuals experiencing ID.

While recruiting participants via community organizations would have been ideal to ensure a purposive and homogenous sample, primary recruitment methods yielded only two participants and did not yield the desired sample size. Therefore, snowball sampling through individuals known to the researcher was convenient for recruiting three additional individuals. Individuals who had already participated in the project were invited to share the initial recruitment email with parents of potential participants in their community network. It is important to note that individuals were known to the researcher only through peer connections, and none of the participants had ever had a professional relationship (i.e., through respite, sports programming, etc.) with the primary researcher.

In initial email correspondence, parents and guardians confirmed to the primary researcher that the prospective participant met the study's inclusion criteria. The researcher then invited those meeting the requirements to participate. Parents submitted signed informed consent forms, and participants signed assent forms before the interview (See Appendix D and Appendix E). Before each interview (data collection), the researcher also reviewed the study's benefits and risks with each participant in person. Participants were also provided the opportunity to rescind their participation (without penalty) at this time, however, all affirmed their interest in proceeding with data collection. Once the interview was transcribed by the primary researcher, all identifying information was removed from the research materials to protect anonymity and confidentiality, and pseudonyms were assigned to all research participants.

### **Participants**

Recommendations for IPA methodology and this level of research (i.e., master's level thesis) suggest a purposive and homogenous sample of a minimum of five participants for adequate analysis (Smith et al., 2009). In purposive and homogeneous samples, participants are

hand-selected based on specific demographics to ensure the study is personally relevant to each participant. This sample was comprised of young adults with 1) a diagnosis of ID confirmed by the parent/guardian, 2) age 20-26 years, and 3) the ability to independently communicate and demonstrate verbal proficiency in English. Diagnosis of ID was confirmed by parents/guardians as they were responsible for communicating the eligibility of participants to the primary researcher. The lower age of 20 was chosen as, in PL literature, young adulthood is understood to be beyond the approximate age of 19 (Whitehead, 2019). The upper range of 26 years of age was chosen as some individuals experiencing disabilities remain in secondary school until age 21. The age range should capture a length of time when individuals may be experiencing some of the impact of transitioning from high school, shown to occur across five years (Gordon-Larsen et al., 2004). Furthermore, the small age range helps ensure a more homogenous sample. The final inclusion criterion was chosen due to the primary researcher's ability to understand English only and the necessity of transcribing interviews verbatim for data analysis.

### **Data Collection**

Per IPA approaches, primary data was collected using semi-structured interviews and were approximately 20-60 minutes long (average of 44 minutes) (Pietkiewicz & Smith, 2014; Smith et al., 2009). The primary researcher conducted all interviews, which took place between December 2022 and June 2023. In-person interviews were conducted in the contexts identified as most comfortable for each participant (e.g., a private home or a community organization), with one participant inviting a parent to participate in the discussion and another inviting a trusted administrator for comfort. Interview questions were developed using the COM-B model and informed by question styles associated with IPA. The attached guide grounded the semi-structured interview (Appendix F). This interview guide was reviewed by a panel of researchers

familiar with IPA, PL and research involving individuals experiencing ID to ensure the methodology was adhered to and the guide would be appropriate for this population.

Additional data was obtained from reflexive notes taken during the interviews (See Appendix G). Notes included remarks on the context of the discussion, initial impressions of the participant and their answers to researcher questions, among other things. The researcher also engaged in reflexive journaling within 48 hours of each interview to ensure that observations such as the relationship between the researchers and participants, participant demeanour and the researcher's positionality within the study were regularly considered.

### **Data Analysis**

Smith et al. (2009) provide a 6-step framework for analyzing data according to IPA. They organize IPA analysis as follows: (1) Reading and re-reading; (2) Initial noting; (3) Developing emergent themes; (4) Searching for connections across emergent themes; (5) Moving to the next case; and (6) Looking for patterns across cases (Smith et al., 2009). The first step involved forming preliminary knowledge of the content, which in this study took the form of audio recordings and written copies of the associated transcripts (Smith et al., 2009). Transcripts were hand-written from audio recordings, converted to digital files, and subsequently read with the recording for a complete analysis. Data was engaged with slowly and methodically, and some observational notes and initial impressions of the data were recorded in the researcher's journal at this stage (Smith et al., 2009).

In the second step of initial noting, notes on the data regarding first impressions of transcripts were taken (Smith et al., 2009) (See Appendix H). Notes or comments took many forms, including descriptive comments that describe the subjects of the transcripts and their associated meaning for participants, linguistic comments to examine language use, or conceptual

comments that ascribe deeper meanings to the content (Smith et al., 2009). When necessary, the reflexive notes and journal entries were examined alongside the transcript to remind the researcher of contextual elements that may not have been reflected by the transcript alone, such as displays of joy or discomfort. Notes were only taken on responses provided by individuals experiencing disability alone, and commentary from individuals assisting was not used for data analysis. This approach was chosen as they did not personally experience disability and, therefore, lacked lived experience related to the phenomenon under study.

During the third step of theme development, connections were drawn between the previously developed comments to categorize them into broader ideas expressed as short phrases (Smith et al., 2009). IPA research seeks to understand experiences as they are articulated and understood by the individual. Therefore, themes were developed according to the participants' voices rather than a predetermined set of codes (Smith et al., 2009).

Next, the ideas generated in step three were further categorized to connect ideas to produce a comprehensive representation of individual experience (Smith et al., 2009). At this stage, 'critical companions' familiar with the phenomenon and demographic of this study reviewed the transcript and research interpretations and offered their commentary (Creswell & Poth, 2017; Zitomer & Goodwin, 2014). Participants and their parents were also provided with the interview transcripts and the researcher's interpretations. They were invited to engage in member checking by offering their thoughts on the researcher's interpretation (Motulsky, 2021). None of the participants or their guardians requested any omissions or changes to transcripts.

These steps were repeated with each transcript, allowing in-depth engagement with each data set individually and new ideas to emerge throughout the analysis (Smith et al., 2009). This is consistent with the idiographic commitment required by IPA approaches (Smith et al., 2009).



Finally, recurrent themes across all cases were established with the consultation of the primary researcher's supervisor to draw conclusions about the PL journey of individuals experiencing ID as they transition from adolescence to adulthood (Smith et al., 2009). The COM-B theory informed the interpretation of these findings.

### **Research Quality and Rigour**

The quality of the research was addressed according to four criteria: (1) sensitivity to context, (2) commitment and rigour, (3) transparency and coherence, and (4) impact and importance (Smith et al., 2009; Yardley, 2000). *Sensitivity to context* was achieved by demonstrating a theoretical, philosophical, and methodological awareness of the research process, including the relevant literature on the COM-B framework and the holistic conceptualization of PL. Sensitivity to context was further addressed through ongoing researcher reflection in a reflexive journal, consideration of the power dynamic between the researchers and participants and the researcher's positionality within the study, the use of purposeful sampling, and being sensitive to the sentiments expressed by each participant before addressing them as part of a collective (Smith et al., 2009; Yardley, 2000; Zitomer & Goodwin, 2014). *Commitment and rigour* were established by developing thorough data collection and analysis strategies. This was primarily achieved through member checking, with four of five parents/guardians agreeing on behalf of participants to thematic interpretations and transcript content and one declining to comment (Creswell & Poth, 2017; Smith & McGannon, 2018; Zitomer & Goodwin, 2014). No amendments to the data or thematic interpretations of the data were requested. Rigour was further established by comparing participant themes against the reflective interview notes and having 'critical companions' engage with the transcripts and thematic interpretations of the primary researcher (Creswell & Poth, 2017; Zitomer & Goodwin, 2014). *Transparency and*

*coherence* were addressed by providing a detailed account of the research process and methodology and disclosing all information to participants regarding their involvement. The COM-B theory was applied throughout the research process (e.g., formulation of tools for data collection, analysis and interpretation, and discussing the phenomenon of PL), further strengthening the cohesiveness and consistency of the study. *Impact and importance* will ultimately be determined by what the reader considers important and what they intend to do with the study's results. By offering a detailed description of the research process, readers can decide whether the findings are meaningful and authentic to them upon publication.

## **Chapter Four: Results**

The analysis of the data from the five participants (pseudonyms: Alex, Dylan, Noah, Riley, and Jamie) included in this study generated three themes. These themes emerged through the past and present experiences of these individuals experiencing ID on their PL journey. They captured their understanding of the transformation of this journey over time, ongoing participation, and emerging independence. The three themes were (a) The past dictates the present and future, (b) A team-based approach, and (c) Exploring opportunities everywhere. They reflect the meaning that these individuals attribute to the physical and social opportunities they experienced in childhood and adolescence, how they make sense of their capabilities in physical pursuits in relation to significant others, and their continued motivation and engagement in the face of challenge and change.

### **The Past Dictates the Present and Future**

The extent to which the transition into adulthood impacted a participant's PL journey appeared predicated on individual perceptions of meaningful past experiences. Participants entered adulthood with a positive perspective on how movement makes them feel and the health benefits it provides. Many displayed knowledge and understanding of the physical health benefits of activity and exercise from prior experiences and cited it as a reason for current participation. Messages about PA and health came from various informants, with teachers, coaches, and parents primarily referred to as sources of information. For Noah, whose activity of choice was running and walking, it "helps your body" and "just makes you, makes your heart pump. It really helps." "I burnt a lot of calories," said Dylan based on the data from their fitness watch after swim practice. Alex stated that their reason for returning to the treadmill was "to try and get healthy again" and "possibly to lose a couple pounds." For others, exercise was

understood to benefit their mental health as well as their physical health. Jamie said, "Walking helps me build self-esteem, self-confidence and helps me live longer," which was something taught to them by their high school PE teacher. Riley also alluded to the mental health benefits of movement, stating: "That's usually how I deal with my stress and everything." For these individuals, significant others imparted a knowledge and understanding of movement that they understood as personally meaningful. They gained the psychological capability to understand the benefits of movement unique to their needs, facilitating reflective motivation to continue long-term PL development.

Various prior experiences through PE and outside of school physical activities such as camp and community-based services also served as a means for individuals to understand the activities they did or did not enjoy. For instance, Dylan was eager to discuss the fun they had at camp, where they played various sports, but described contact sports as "scary" to them. When asked about team and individual sports, Dylan suggested they enjoy a "bit of both." Alex also indicated that some activities were preferred over others, such as soccer, about which they said, "I kind of love it, not the best." Those who had developed an understanding of the activities they enjoyed most through sampling many activities could articulate an automatic motivation towards specific activities. For Dylan, this was evident through their persistent participation in primarily non-contact activities, such as swimming, instead of contact sports, such as floor hockey, where they said, "The other people are like playing, they could hit you, like, with it."

Social opportunities with peers also made PA participation meaningful. All the participants reported friendships facilitated through PA in adolescence and childhood. For instance, when asked about their social life at their community-based swim club, Dylan was eager to mention their friend discussed throughout the conversation and identified friendships

with “the other team members.” “I just miss seeing all my friends I haven’t seen for a long time,” said Alex of his high school peers. For Alex and Dylan, transitioning into adulthood expanded the social contexts and opportunities afforded to them; their prior positive experiences building friendships with other individuals experiencing disabilities motivated them to continue to participate or pursue new avenues to meet others in the present. When discussing present experiences, Noah cited that they enjoyed the social opportunity that community-based sports participation presented as a motivator, saying, “It’s just lots of fun making new friends.” The past friendships that Alex, Dylan, and Noah have found through movement have helped facilitate an ongoing PL journey by motivating these individuals to continue participating and seeking new social opportunities.

Teachers and previous facilitators were also significant figures in the participant’s stories, with high school PE providing a primary context for past PL experiences. Dylan described one teacher’s efforts to actively include them: “When I needed help, she would get someone, and she would give them, like, grades still for it too...really good too for it”. Here, their teacher created a context where other students were responsible for including Dylan. Dylan also reported accommodations for their individual needs when they became overwhelmed, saying, “If I needed, like, a break, she would let me go for a little bit of a walk.” Dylan also said this teacher “helped when I was getting bullied” and “let me stay in her office because of it.” Jamie had a similar experience with teachers who supported them when they were being bullied, saying, “...if they were active, then they would stand up for me. And then they would basically learn how to get me away from those bad kids”. Through the creation of social opportunities and physical opportunities that actively included these individuals or gave them the resources or autonomy to remove themselves from exclusive environments, teachers were understood to be able to take

action to help participants feel meaningfully included in PA settings and safe in school. For Dylan, they said this PE teacher is “still my favourite,” even though PE was once a dreaded part of the school day, and they’ve since graduated from high school.

However, participants were quite aware of other students without disabilities and the limitations their disabilities placed on inclusion within the schools they attended. Riley articulated this experience, saying, “I was kinda the one that was being left out a lot” and, “I wanted to be upstairs, like, with my friends and be like, a normal, like everybody else, but I kinda felt like I was being like kind of, I’m gonna say like, like, held back.” For Riley, experiencing disability created physical and social barriers between themselves and their peers. Dylan and Jamie also felt excluded by their peers in high school. When asked about their experience in PE, Dylan became emotional, reporting that they experienced bullying and exclusion throughout their education, describing high school classmates as “mean” and that even a PE teacher made the experience “not fun”, in contrast to the teacher mentioned in the previous paragraph. Jamie said they had experienced “not being involved on a [sports] team because people didn’t want me at all because I had a disability” and felt “the exclusion was kinda not, properly appropriate and, it wasn’t acceptable, it was kinda treating someone unfairly.” In contrast, exclusion was not discussed when individuals recounted their experiences in community-based contexts, which were often single-sport based services specifically designed for individuals experiencing ID.

Regarding his general experience with teachers, Riley felt: “I guess they were doing their best, but sometimes they weren’t very, like, helpful. Sometimes they were very like, disregarding of, like, what I was going through and stuff and all that.” They also found that their prior experiences were impacting their mental and emotional health. As Riley mentioned, “I still have

flashbacks and stuff. " Furthermore, they expressed that these experiences were something that they had to overcome, with graduating high school being associated with a sense of relief: "I'm just thankful I'm graduated now." Participants experienced physical and social exclusion throughout their youth, limiting their ability to capitalize on the physical and social opportunities experienced in high school. For them, transitioning into adulthood provides an escape from adverse experiences, widening the opportunities for PL development.

### **A Team-Based Approach**

Participants and their families faced increased responsibility for the individual's PL journey as they transitioned from the structured activity environments in their education to increased reliance on community-based resources and independent physical activity. They engage in a collaborative approach to facilitate opportunities for PL development. These participants understood their parents as playing a significant role in connecting them to community-based programming outside the home and encouraging participation. For instance, Alex reported a desire to continue to try new activities, stating: "... if anything else, like, ever happens, I would do it, if, if my mom finds it for me, she will let me do anything." When asked about what helps them stay involved in programming, Riley also echoed that their mothers connected them by transporting them to said activities, saying, "Usually my mom drives me." Noah reported that their mom helped them learn how to navigate social settings across environments, saying: "She just teaches me about...relating to friends." Alex also reported that their mother was often present at their activities to explain and advocate for them if they had a fall related to the disability they experience, saying, "My mom had to come in, and she said, she said, oh this happens to [redacted] a couple times, and this is what happened." Ultimately, their

mother was personally responsible for describing the specifics of Alex's disability to the practitioners there.

Alex also reported that their parents collaborated with other parents of individuals experiencing disabilities. When discussing transportation, they stated: "She [friend of parent] has a son that's the same as me who has problems with stuff, so we, we both do fun things together." These connections, through the communities of parents of individuals experiencing disabilities, help mitigate some potential barriers, like transportation to activities.

While parents seemed heavily involved in their children's participation in PA, they did not always see opportunities the same way. Alex reported being content with their activities, but they also suggested that their parents did not always share their perspectives. When asked what they did not enjoy about their programming, Alex said: "If my mom were here, she would say... she would say something totally different." However, they did not personally report any improvements that needed to be made from their perspective. While the dissatisfaction of a parent could result in PL development opportunities being taken away, none were reported by Alex. Alex and their mother also illustrated how a parent may be involved in an individual's PL development by facilitating opportunities in the home. They devised a plan for them to walk on the treadmill recently, which Alex described as:

"We would make more time like we would do... first would be like 5 minutes, then it would be like 10 minutes, then it would be like half an hour. And then we would have to do it all over again when we didn't do it for a while."

Throughout this explanation, Alex consistently refers to themselves and their mother as "we," despite Alex being the one to complete the activity, their mother is understood to be an integral part of that experience. Jamie was very passionate about the need for systems of support around



individuals experiencing disabilities in future generations, both in and outside the home, stating that they require “more supports, I mean like, support workers, respite workers uh, neighbours, friends, families, peers that are supporting you.”

The PL journey was ultimately understood to be interconnected with various individuals, and as one transitions into adulthood, the nature of those relationships was thought to change. For Alex, their recent interest in treadmill walking was facilitated by their parent, much like a teacher would. However, unlike a standard curriculum in PE, Alex demonstrated agency over the decisions on when, how and to what extent they were physically active with the schedule outlined above. As Jamie stated above, as the nature of these relationships change, individuals require more support in different areas. With the loss of teachers as a means of support, more reliance is placed on parents and community-based practitioners to continue facilitating PL development.

When individuals struggled with motivation, they also reported that parents served as external motivators, “Sometimes you just don’t feel like doing stuff, and that’s definitely me, that’s definitely me sometimes. But sometimes you just have to, you just have to do it.” said Alex. When the interviewer asked Alex how they accomplished this, they replied, “Mostly it’s just like, my parents...My mom gets me up to go to basketball.” Despite becoming adults, parents were still relied upon to help push PL development when the reflective motivation of participants was lacking. While Riley did not report direct involvement from their parents regarding motivation, they found their father to be a source of inspiration for their favourite activity of walking, stating:

“...my father was a big walking, jogger-type person...I kinda got that inspiration from him a little bit...then I said to myself, one day, I said, yeah, you know, I’m gonna go out now and jog and walk now, try to get out for a change.”

This support from inside the home helped facilitate ongoing engagement in PL as an individual aged. While it can be unchanged throughout the transition to adulthood, it was considered essential for continuing engagement.

While many individuals were supported by networks of significant others that start at home, they also displayed a sense of personal responsibility for their PL journey. For the team-based approach to successfully facilitate the PL journey of these participants as they transitioned into adulthood, they also had their own roles to play. Walking was an accessible activity for everyone in the study, choosing to do it with respite workers, friends or independently in their free time. Jamie was highly motivated to walk, regardless of environmental barriers, stating, “I like to go out for walks when it’s really rainy or really cold or really hot...if it’s really raining out, I go here [fitness centre].” Riley also reported that walking was a means for them to travel to activities themselves if their mother was unavailable, stating: “Usually my mom drives me, but now I usually might walk up there if my mother’s gone on a trip.” Noah reported that to access physical activities “on my own” they “usually take a bus.” Riley also stated that they motivated themselves to move independently, saying, “I kind of built myself up and kind of like, like, you know, put myself, put a bit of fuel in myself and kind of made it go spectacular.” For these participants, PL was developed through these independently pursued activities, which became more available as they aged and were able to apply lessons learned from significant others to proficiently navigate their environment and continue progressing in their PL journey.

Overall, exiting the school system presented a transition for these participants in how they discovered and interacted with programs in their community, with the facilitation of daytime activity being a primary avenue of development. Parents seemed active and engaged in connecting their children to programming, creating further social and physical opportunities that align with their children's interests by finding new experiences. Participants also felt a sense of responsibility for their journeys, taking pride in the independence and agency they displayed on their PL journey.

### **Exploring Opportunities Everywhere**

For all participants, transitioning to adulthood required adapting to various new physical and social environments. The relatively sheltered settings provided by compulsory education were considered lost, and individuals had to navigate an increasing level of complexity while experiencing a reduction in personal support provision. Some individuals thrived when they graduated because they felt like they no longer required additional assistance. As Jamie articulated of an introductory PA program, "I'm gonna be involved with it, one more school year because then I'm gonna be graduating from uh, the uh, program because I don't really need a lot of supports anymore." They seemed ready to capitalize on their currently developed psychological and physical capabilities and maintain the reflective motivation to move forward in their journey more independently. Riley acknowledged that there was an ease associated with being in school.

"I mean, it was great, you know, like, I was, I love like, enjoying the work skills like... I would like to go back [to school] sometimes 'cause I still think about it a lot in my mind sometimes...I was so used to going there and had my routine."

Still, they appreciated their current opportunities to develop different PL skills in their physically demanding work environment.

Participants believed that PL development occurred everywhere, in traditional PA environments, homes, and places of employment. Places of work were frequently discussed as new areas of skill development in these individuals' lives. For Riley, navigating the new social environment with management and other individuals made it more challenging to learn new skills in the workplace. These challenges created unpleasant workplace experiences, threatening the potential for a motivational climate to be built in their new work environment as they continued to develop PL. They recounted a particular conversation with a supervisor about moving a piece of product at work, something they reportedly enjoy:

“... I said like, no, I don't know if I'm doing this right. Can you help me? He said well, I mean, that's your uh, that's your position, and you gotta know how to do that right, my son and all that. I was like, yeah, but still, it's not the point; I'm just, I'm kinda like falling back with the instructions. He said, well, my son, maybe this is not a good fit for you. Maybe you shouldn't be here then, my son.”

Riley felt doubted in the workplace but reported that such doubt fuels them to prove people wrong. After this story, they said: “I said, nah, I can prove you, I can prove you wrong. I can probably do better.” They display a resilient sense of motivation and an unshakeable sense of their psychological and physical capabilities in new contexts.

Throughout their interview, Noah mentioned a wide variety of activities in their youth, such as dance, wheelchair basketball, swimming and dodgeball, and PE classes. Now, as an adult, they reported a “higher percent” of activity than in their youth and a positive view of their responsibilities as a cleaner. For example, they said activities such as “cleaning the bathrooms,

the kitchens, the boardrooms, everything.” This indicated that while they may have participated in more structured activities in the past, their day-to-day responsibilities make them perceive themselves as more active today. Perhaps developing a repertoire of physical capabilities in the workplace provided the individual with a sense of personal independence and empowerment that keeps them motivated to continue participating.

Dylan’s employment as a camp counselor with an organization for individuals experiencing disabilities was based on movement and recreation. They described transitioning from being a camper to a leader (their personal preference), where they enjoy helping the campers do activities like “scavenger hunt” and “basketball, soccer ball, not volleyball.” Collectively, participants broadly reported enjoyment of their job-related tasks and the desire to broaden their opportunities in the future, and they displayed an ongoing motivation to continue PL development in various contexts in their lives, particularly those associated with development as an adult. Jamie noted that while the opportunities that they had reflect an overwhelmingly positive impact on them, more prospects still need to be provided for others in the future, and

“There just needs to be a lot more inclusion with accessibility for those with disabilities.

And I think that what the biggest part of the problem is is that there’s not enough support for people who have, like, a disability because there needs to be more people with special needs being hired in workplaces or jobs or going off to school”.

## **Chapter Five: Discussion and Conclusion**

The purpose of this study was to explore the potential impact of the transition from high school to adulthood on the PL journeys of young adults experiencing ID. It has been acknowledged that the time after compulsory schooling is a vulnerable stage in one's PL journey (Gandrieau et al., 2023; Whitehead, 2010). In the transition from adolescence to adulthood, the individuals included in this study encountered new contexts while experiencing decreased support, ultimately causing many challenges. The COM-B framework stipulates that for behaviour to occur, one must possess the capability, opportunity, and motivation to engage (Michie et al., 2011). Additionally, an individual's motivation to engage in PA must be more significant than other contending behaviours (Michie et al., 2011). The theoretical framework of COM-B serves to help frame how the participants in this study perceived and adapted to the changing environments around them.

### **The Past Dictates the Present and Future**

This first theme of the past dictates the present and future illustrates the various messages and experiences that inform the participant's current perceptions and trajectory of their PL journeys. As they moved away from the structure of PE, participants became, in part, responsible for taking the psychological and physical capabilities fostered in childhood and adolescence to translate them to new contexts in adulthood (Michie et al., 2011). In conversations about individual motivations, many participants cited past progression in physical abilities and health as integral to their motivation to continue participating. The adolescents interviewed by McDermott et al. (2022) and Young-Southward, Cooper and Philo (2017) placed similar value on the mental and physical health benefits of movement. This suggests that individuals experiencing ID can comprehensively understand the PA promotion they receive from doctors,

parents, teachers and the media. Their positive self-perceptions, knowledge of the benefits of PA, and understanding of themselves as movers contribute to a well-established psychological capability and, consequently, the reflective motivation to continue participation as they transition into young adulthood (Michie et al., 2011).

Although the interview questions in this study focused on experiences in high school, all reported that prior experiences from childhood were also integral to their relationship with PA and their PL journeys. Participants expressed frustration when confronted with normative expectations and integrated environments that lacked inclusivity, impacting their psychological capability and reflective motivation to participate at that time (Michie et al., 2011). These stories centred around feelings of exclusion based on their experiences of disability and then the perceived lack of ability associated with it, which has been echoed in other studies (Robinson et al., 2020). Indeed, students experiencing disabilities are at an increased risk of discrimination, stigma, and social exclusion in school (Ali et al., 2012; Ditchman et al., 2013).

In addition to feeling targeted by other students, the participants in this study felt misunderstood and physically excluded by some of their schools' PE teachers and coaches. Teachers have been found to reproduce deficit-focused models of disability and placement of individuals experiencing disabilities in a category labelled 'other' (O'Byrne & Muldoon, 2019). Participants were subjected to ableism in physical pursuits due to past teachers' (in)actions. Either consciously or unconsciously, some of the teachers of these participants perpetuated a superiority of the able body and assumptions about the physical, cognitive and emotional capabilities of individuals experiencing ID in their classrooms (Timberlake, 2020). This stigmatization and marginalization of these individuals due to their abilities by those in positions of power can result in self-stigma, low confidence and low self-esteem in individuals

experiencing ID (Ali et al., 2012). While a lack of self-esteem and confidence have been shown to prevent individuals from engaging in PA, most participants regarded these past experiences as illustrative of the physical and emotional growth they have experienced over time, rather than the moments that turned them away from ongoing PL development (McDermott et al., 2022). For those who experienced bullying and exclusion by teachers and peers, graduating high school offered a reprieve from the exclusion experienced in PE.

Individuals also expressed that they were afforded the opportunities to try various activities in their youth, which facilitated their knowledge of their automatic motivators, such as likes and dislikes in terms of activity (Michie et al., 2011). These included how they respond to more combative sports, assessing the relative risk of exercises or what activities and contexts they prefer over others. Through the provision of many opportunities, participants discovered the activities and contexts that they felt autonomously motivated to pursue and subsequently built the psychological and physical capabilities to continue engaging in those activities to facilitate PL development (Michie et al., 2011). The affordance of this variety of opportunities enabled an essential aspect of an individual progressing on their PL journey: the development of an individual's sense of self as embodied in the world. In other words, through rewarding PA experiences in their environment (through various opportunities), individuals felt encouraged to get to know themselves as embodied beings (Whitehead, 2010).

As the individuals grew in their psychological and physical capabilities, their confidence as competent PA participants grew too, feeding their reflective motivation to participate in other physical pursuits, thereby progressing their PL journey (Michie et al., 2011). This cycle illustrates how these participants enter the transition to adulthood with their individualized perceptions of their experiences and that said perceptions impact their sense of self and



confidence in new contexts. Every individual should be provided the opportunity to drive the direction of their PL journey (Whitehead, 2010). The provision of choice and autonomy on this journey encourages participants to continue to participate, and the variety of physical opportunities given to these participants has given them some agency in determining their direction thus far (Michie et al., 2011). As the participants in this study navigated the transition to adulthood, their PL journeys were enduring across changing social and physical opportunities, bolstered by the capabilities and motivation established in their youth.

### **A Team-based Approach**

Individuals included in this study understood their PL journey to be interdependent with others across contexts. For instance, parents reportedly became facilitators of participants' PL journeys through their involvement in seeking community-based opportunities for engagement and efforts to create their own to replace compulsory education. Individual journeys were highly dependent on the participation of parents who helped facilitate opportunities for PL development by finding and scheduling activities, transporting them to activities, teaching social skills, providing equipment at home and managing potential complications such as educating facilitators on potential barriers to participation. This is consistent with research stipulating parental support and the perceived importance of PA participation of parents as integral for individuals experiencing disabilities (Pitchford et al., 2016; Siebert et al., 2017). It also echoes the specific roles found in other research that has examined parental roles in PA participation of their children with disabilities (Pushkarenko, Causgrove Dunn & Goodwin, 2021; Young-Southward, Cooper & Philo, 2017). The social and physical opportunities of young adults with ID to engage in PA hinged on the capacity of their parents to act as gatekeepers to the positive, meaningful interactions with their environment required for PL development (Michie et al.,

2011; Whitehead, 2010). This requirement emerges as a form of hidden parental labour of parents of individuals experiencing ID, who often act as primary caregivers for their children well into adulthood (Davies & Beamish, 2009; Goodwin & Ebert, 2018).

Parents were also found to be primary external motivators for their children, with many participants reporting that when they do not find themselves motivated to participate, parents provided external motivation to go to practice or engage in activity at home. Parents also facilitated the individual's knowledge and understanding of PL development, such as one participant citing the effect of their parent's activity as inspirational to them or another recounting their mother's fitness plan for exercising in the home, thereby contributing to these individual's psychological capability to move (Michie et al., 2011).

In many ways, the stories of these individuals reflect the responsibilities that many parents, regardless of (dis)ability, take for their child's activity in their youth. However, these responsibilities seem to continue long-term for the parents of the participants in this study. For these participants, the responsibility for their journeys was understood to be shared, with many taking as much responsibility as they are individually capable of and seeking assistance as needed. The individuals included in this study also took significant steps to be independently responsible for their PA participation, such as capitalizing on the physical and psychological capabilities that allow them to independently navigate getting to activities when rides are not available or integrating independent activities into their daily lives (Michie et al., 2011). From the participants' perspectives in this study, their parents successfully fostered the motivational climate necessary for ongoing PL development by providing support when necessary but also stepping back to allow the individual the freedom to explore new contexts, especially those related to independence.

The support provided by the parents of participants in this study is significant because it is not consistently seen in parents of adults who experience ID. In fact, many adults experiencing ID feel that their parents impede their ability to make autonomous choices and have control over life progression due to overprotectiveness (Haigh et al., 2013; Jahoda & Markova, 2004; Shogren & Broussard, 2011), underestimation of abilities (Jahoda & Markova, 2004) and support that does not meet their perception of their needs (Shogren & Broussard, 2011). The participants' parents in this study were able to balance the need for autonomy and support, allowing their children to engage in greater self-determination on their PL journeys as they navigate adulthood. Self-determination-related skills like choice-making, problem-solving, and goal attainment have been shown to be determinants of success in the transition to adulthood overall (Vicente et al., 2020). Successful collaboration also required that these participants have the space to engage in building this skill set, empowering them to face the transition in their PL journey as independent, empowered individuals with a system of support around them.

### **Exploring Opportunities Everywhere**

The transition to adulthood afforded the individuals in this study a range of new opportunities. For many, the weekdays where they previously went to school are now filled with activities such as day programming, respite, home-based activity and employment, which were all understood to be opportunities for continued PL development. Examples included planned walks with respite workers, PA programs, and physical work. Employment and the types of employment opportunities often afforded to this population were considered to be potentially impactful areas for continued PL development, including the development of new physical and psychological capabilities (Michie, 2011). While PL is commonly applied in structured PA contexts, it is also applicable to activities of daily life, which increased as these participants aged

and gained responsibility (Whitehead, 2010). Activities associated with adulthood, such as cooking, cleaning, demands of work, and walking, create a range of situations in which an individual has to negotiate various levels of complexity (Whitehead, 2010). The task may be without equipment, in a predictable environment, and not require interactions with others (Whitehead, 2010). On the other side of the spectrum, there are unpredictable environments where an individual must interact with others and navigate equipment or aspects of the built environment (Whitehead, 2010). As these participants entered adulthood, especially when they entered the workforce, they were given opportunities to employ their embodied dimension to succeed in new challenges as appropriate for each individual (Whitehead, 2010). Here, the path of the PL journey is thought to change slightly, progressing in an alternative direction as an individual gains the competence and confidence to engage in new environments fluently.

Beyond the physical skills needed for positive engagement in physical work, individuals also expressed a desire to connect meaningfully with those in new environments, with new friendships being a motivator for participation. Previous studies have illustrated the importance of these social connections, with making friends being a primary determinant of workplace and general life enjoyment for individuals as perceived by them and caregivers (Butcher & Wilton, 2008). For some individuals with more significant difficulties independently forming and maintaining relationships, PE and school education offered an opportunity to make meaningful connections and fostered essential friendships. For others, however, specifically the participants in this study, adolescence was a time when they were keenly aware of the ability gap and differences between them and their peers. Children experiencing disabilities have been found to be aware of the ability gap between themselves and their peers and have cited closing this gap as a motivator for continuous PL engagement (Kahlon et al., 2019). Further development of FMS is

a powerful facilitator of PL development in this younger age group. However, by adolescence, individuals experiencing ID are aware of the widened gap between their abilities and the abilities of their peers, with this social comparison being cited as a barrier to participation (Hansen et al., 2023; Hillier et al., 2020). Perhaps their integrated PE experiences emphasized a climate of high performance, one that heightened awareness of the ability gap and distance between them and their peers. Conversely, in adulthood, they have been able to pursue activities where they already fit in, and ones that contribute to a positive sense of self. The transition to adulthood can actually facilitate one's ability to progress in PL development, as it becomes more tailored to the individual as they take responsibility for their journey. As they transitioned, less emphasis on their physical ability in contrast with their peers allowed for greater opportunities to engage in and enjoy social connections, motivating them to pursue more activities.

Ultimately, the transition from high school was understood to present participants with various growth opportunities. They intended to develop new social connections and physical competencies in novel environments while progressing in their current pursuits. Despite prior experiences of bullying, exclusion and lack of opportunity, their automatic and reflective motivation to move endured (Michie et al., 2011). Subsequently, participants adopted positive outlooks on their PA engagement now and in the future.

## **Conclusion**

Within this study, the COM-B framework illuminated the behavioural influences on the PL journey, including those related to the transition from educational contexts. Ultimately, the transition to adulthood was a transformational time in the PL journey of the participants in this study. This impact was primarily mediated through removing old and providing new physical and social opportunities to develop PL. The fluidity with which one navigates this period seems

predicated on participant's capabilities, opportunities, and motivations from their prior experiences that create a motivational climate for them to succeed in the future. Participants' key relationships with peers, parents, and facilitators were also integral for navigating hurdles on their PL journeys and encouraging them to continue participation. Furthermore, those participants who approached young adulthood with excitement for their future development and the new opportunities that various contexts offered to them to develop personally, professionally, and socially had overwhelmingly positive things to say about this stage in their lives. Although the transition to adulthood appeared to be associated with stagnation in PL development in the initial review of literature, the participants in this study experienced positive PL journeys as they became young adults.

### **Strengths and Limitations**

There were several limitations associated with the data in this study. First, the individuals included in this study could communicate verbally with the interviewer independently. It should, therefore, be acknowledged that this is associated with what is often referred to as "high functioning" ID, and individuals with alternative communication styles would have been unable to participate. PA levels have been shown to decrease with an increase in ID severity, suggesting that those with "low functioning" ID may have a more difficult PL journey than their "high functioning" peers (Hilgenkamp et al., 2014; Phillips & Holland, 2011). Additionally, the transition to adulthood was understood to occur after high school graduation in this study, and all participants reported that this was accomplished. However, 40% of adults aged 25-64 experiencing ID in Canada do not complete high school (Berrigan et al., 2023). Therefore, PL facilitators who work with individuals with a higher degree of ID severity or with alternative paths transitioning to adulthood may find the results of this paper less transferable to the

individuals they work with. Finally, it must be acknowledged that the researcher has varying levels of familiarity with the individuals interviewed, and researcher bias and prior knowledge of participants may have impacted the conversations and the conclusions made through data analysis.

To gather retrospective data, participants were asked to recall prior experiences. It can be challenging for the researcher to determine the accuracy of their recollections of experiences and the trustworthiness of the findings, which could be questioned due to recall bias (Bredahl, 2013). However, those experiences the participants felt were most meaningful likely still came through. It is imperative to acknowledge that these interviews were conducted in late 2021 and early/mid 2022, and therefore, the PL experiences of these participants in recent years were certainly impacted by the COVID-19 pandemic. Although, it should be noted that no participants reported that COVID-19 limited PA participation at the time of their interview.

During the interviews, individuals were invited to bring a companion if it would make them more comfortable. However, the presence of others, especially those significant to the experience, can impact participant's honesty regarding their experiences (Taylor et al., 2021). The individuals who chose to have support may have found it limited or facilitated their ability to talk openly. Additionally, these companions had varying levels of involvement speaking in the interview, which could have introduced their perspectives/ perceptions into the interviewer's impression of the data despite the data being technically omitted from the analysis.

This research addresses a significant gap in understanding the PL journeys of individuals experiencing ID. More specifically, it addresses the gap in research on the PL journey outside of educational contexts and furthers the conversation of PL regarding the inclusion of individuals experiencing disabilities (Pushkarenko, Causgrove Dunn & Wohlers, 2021). Moreover, it builds

on a group of work amplifying the perspectives of adults with lived experience of disability, while much research is often focused on the perceptions of significant others, such as parents and practitioners (Pushkarenko, Causgrove Dunn & Wohlers, 2021; Pushkarenko et al., 2023; Petrusevski et al., 2022). The use of IPA methodology generated data specific to the participants' lived experiences. This allowed for the communication of five unique PL journeys and brought to light where these journeys converge to translate the findings into implications for practice. This study illustrated that despite limitations with retrospective data, an individual's perception of the past profoundly impacts their current PL journey and is worthy of exploration.

### **Future Research Directions and Implications for Practice**

Although this research focused on the transitional period between adolescence and adulthood, implications for PL practice with children and youth emerged. The pillars of each participant's PL development were built in childhood, and the resiliency and fluidity with which these individuals navigated this transition depended on the strength of these pillars. Practitioners working with children and adolescents can maximize each individual's unique physical and psychological capabilities by imparting knowledge and understanding of movement and the benefits of activity, providing a wide range of experiences and choices within said experiences and fostering a sense of inclusion in PL environments (Michie et al., 2011). These practices help facilitate a motivational climate for PL development to continue to develop and endure as individuals move across contexts. During young adulthood, practitioners and programs would benefit from harnessing the connections between parents, participants and their shared responsibility for PA behaviour and PL development. Some effective strategies that have been suggested have included interventions/programming that involves both parent/guardian and



child, a consultancy with parents on their child's individual needs and creating structural supports for caregivers to ease barriers such as transportation (Yi et al., 2020).

Furthermore, these participants illustrate that attention must be given to every individual's autonomy and embodied capacity to take responsibility for their PL development, and any decision-making regarding their PL journey should be centred around their perception of their needs and desires (Whitehead, 2010). Additionally, enhancing the self-determination skills of young adults experiencing ID through independent engagement would help foster individual empowerment, a disposition that will help carry them forward in their PL journeys. Finally, practitioners must recognize the implications for PL development across various contexts, such as a given program, an individual's home and within their community. Participants would likely benefit from practitioners who tailor programming to the contexts that are the most meaningful to each and every participant rather than just the context they practice in.

This research contributes to the understanding of PL development and the PL journey as a complex combination of behaviours as individuals respond to various environmental factors. The COM-B framework is a relatively new approach to understanding the PL journey (Lane et al., 2021; Lane et al., 2022). This framework brought insight into how individuals' behaviour responds to the changes in their environment resulting from the transition to adulthood and the strategies for facilitating PL development that can help ensure a positive journey in this stage. Future research with young adults experiencing ID would benefit from taking a longitudinal approach, perhaps charting the PL journeys of young adults experiencing disabilities over a few years before and after they transitioned from high school. While this would be a complex undertaking, it would help bring out more details about the themes captured in this study. This approach may also address another research gap, exploring the extent to which high school

curriculum prepares individuals experiencing ID for the transition in their PL journey following adolescence. Additionally, it could be interesting to apply retrospective approaches to stages later in the life course. For instance, how do middle-aged adults view their PL journey in young adulthood?

Additional practical implications of this research are the provision of information for practitioners to create new community-based opportunities for PL development for young adults who experience ID. For instance, programs that promote workplace-specific training would be helpful for individuals to acquire the psychological and physical capabilities necessary to move forward meaningfully and successfully in their journey. Overall, applying these approaches specific to young adults' needs and life stages would encourage PL development and improve health and well-being outcomes for young adults with ID now and in the future.

### References

- Ali, A., Hassiotis, A., Strydom, A., & King, M. (2012). Self stigma in people with intellectual disabilities and courtesy stigma in family carers: A systematic review. *Research in Developmental Disabilities, 33*(6), 2122-2140. <https://doi.org/10.1016/j.ridd.2012.06.013>
- Almond, L. (2013). *What is the value of physical literacy and why is physical literacy valuable*. ICSSPE Bulletin, p. 65.
- Behan, S. (2020). *Moving Well-Being Well: Evaluation and development of the fundamental movement skills in Irish primary school children through a physical literacy lens* [master's thesis, Dublin City University] Dublin City University Online Research Access Service. <https://dcu.libguides.com/doras>
- Berrigan, P., Scott, C. W. M., & Zwicker, J. D. (2023). Employment, education, and income for Canadians with developmental disability: Analysis from the 2017 Canadian survey on disability. *Journal of Autism and Developmental Disorders, 53*(2), 580–592. <https://doi.org/10.1007/s10803-020-04603-3>
- Biddle, S. J. H., & Asare, M. (2011). Physical activity and mental health in children and adolescents: A review of reviews. *British Journal of Sports Medicine, 45*(11), 886–895. <https://doi.org/10.1136/bjsports-2011-090185>
- Bishop, J. C., Nichols, C., Kranz, S., Lukacs, J. K., & Block, M. E. (2022). Determinants of physical activity of transitioning adult children with Autism Spectrum Disorder. *Heliyon, 8*(8), e10150. <https://doi.org/10.1016/j.heliyon.2022.e10150>
- Bredahl, A. M. (2013). Sitting and watching the others being active: The experienced difficulties in PE when having a disability. *Adapted Physical Activity Quarterly, 30*, 40–58. <https://doi.org/10.1123/apaq.30.1.40>

- Butcher, S., & Wilton, R. (2008). Stuck in transition? Exploring the spaces of employment training for youth with intellectual disability. *Geoforum*, *39*(2), 1079–1092.  
<https://doi.org/10.1016/j.geoforum.2007.11.002>
- Cairney, J., Dudley, D., Kwan, M., Bulten, R., & Kriellaars, D. (2019). Physical literacy, physical activity and health: Toward an evidence-informed conceptual model. *Sports Medicine*, *49*(3), 371–383. <https://doi.org/10.1007/s40279-019-01063-3>
- Carl, J., Barratt, J., Töpfer, C., Cairney, J., & Pfeifer, K. (2022). How are physical literacy interventions conceptualized? – A systematic review on intervention design and content. *Psychology of Sport and Exercise*, *58*. <https://doi.org/10.1016/j.psychsport.2021.102091>
- Chen, A. (2015). Operationalizing physical literacy for learners: Embodying the motivation to move. *Journal of Sport and Health Science*, *4*(2), 125–131.  
<https://doi.org/10.1016/j.jshs.2015.03.005>
- Clark, J.E., & Metcalfe, J. S. (2002). The Mountain of Motor Development: A Metaphor. In J. E. Clark & J.H. Humphrey (Ed.), *Motor Development: Research and Reviews* (pp. 163-190). NASPE Publications.
- Creswell, J. W., & Poth, C.N. (2017). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (4th ed.). Sage Publications Inc.  
<http://journals.sagepub.com/doi/10.1177/1524839915580941>
- Coats, J. C., Coxon, M., Temple, V. A., Butler, C., & Stuart-Hill, L. (2023). Examining the Canadian 24-hour movement guidelines among adults with intellectual disability: A pilot study. *International Journal of Environmental Research and Public Health*, *20*(13), Article 6291. <https://doi.org/10.3390/ijerph20136291>

- Corbin, C. B. (2016). Implications of physical literacy for research and practice: A commentary. *Research Quarterly for Exercise and Sport*, 87(1), 14–27.  
<https://doi.org/10.1080/02701367.2016.1124722>
- Corder, K., Winpenny, E., Love, R., Brown, H. E., White, M., & van Sluijs, E. (2019). Change in physical activity from adolescence to early adulthood: A systematic review and meta-analysis of longitudinal cohort studies. *British Journal of Sports Medicine*, 53(8), 496–503. <https://doi.org/10.1136/bjsports-2016-097330>
- Dairo, Y. M., Collett, J., Dawes, H., & Oskrochi, G. R. (2016). Physical activity levels in adults with intellectual disabilities: A systematic review. *Preventive Medicine Reports*, 4, 209–219. <https://doi.org/10.1016/j.pmedr.2016.06.008>
- Davies, M. D., & Beamish, W. (2009). Transitions from school for young adults with intellectual disability: Parental perspectives on "life as an adjustment". *Journal of Intellectual & Developmental Disability*, 34(3), 248–257. <https://doi.org/10.1080/13668250903103676>
- Di Bartolomeo, G., & Papa, S. (2019). The effects of physical activity on social interactions: the case of trust and trustworthiness. *Journal of Sports Economics*, 20(1), 50–71.  
<https://doi.org/10.1177/1527002517717299>
- Ditchman, N., Werner, S., Kosyluk, K., Jones, N., Elg, B., & Corrigan, P. W. (2013). Stigma and intellectual disability: Potential application of mental illness research. *Rehabilitation Psychology*, 58(2), 206. <https://doi.org/10.1016/j.ridd.2012.06.013>
- Durden-Myers, E. J., Whitehead, M. E., & Pot, N. (2018). Physical literacy and human flourishing. *Journal of Teaching in Physical Education*, 37(3), 308–311.  
<https://doi.org/10.1123/jtpe.2018-0132>

- Eatough, V., & Smith, J. A. (2017). *The SAGE Handbook of Qualitative Research in Psychology*. SAGE Publications Ltd. <https://doi.org/10.4135/9781526405555>
- Edwards, L. C., Bryant, A. S., Keegan, R. J., Morgan, K., & Jones, A. M. (2017). Definitions, foundations, and associations of physical literacy: A systematic review. *Sports Medicine*, *47*(1), 113–126. <https://doi.org/10.1007/s40279-016-0560-7>
- Eime, R., Harvey, J., Charity, M., Casey, M., van Uffelen, J., & Payne, W. (2015). The contribution of sport participation to overall health enhancing physical activity levels in Australia: A population-based study. *BMC Public Health*, *15*(1), Article 806. <https://doi.org/10.1186/s12889-015-2156-9>
- Farias, C., Wallhead, T., & Mesquita, I. (2020). “The project changed my life”: Sport education’s transformative potential on student physical literacy. *Research quarterly for exercise and sport*, *91*(2), 263-278. <https://doi.org/10.1080/02701367.2019.1661948>
- Faulkner, G. E. J., & Taylor, A. H. (2005). *Exercise, Health and Mental Health: Emerging Relationships*. Taylor & Francis.
- Finlayson, J., Jackson, A., Cooper, S.-A., Morrison, J., Melville, C., Smiley, E., Allan, L., & Mantry, D. (2009). Understanding predictors of low physical activity in adults with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, *22*(3), 236–247. <https://doi.org/10.1111/j.1468-3148.2008.00433.x>
- Gandrieau, J., Schnitzler, C., Cairney, J., Keegan, R., Roberts, W. M., Barnett, L. M., Bentsen, P., Dudley, D. A., Raymond Sum, K. W., Venetsanou, F., Button, C., Turcotte, S., Berrigan, F., Cloes, M., Rudd, J. R., Riga, V., Mouton, A., Vašíčková, J., Blanchard, J.... Potdevin, F. (2023). Development of ELIP to assess physical literacy for emerging adults: A methodological and epistemological challenge. *Research Quarterly for Exercise*

*and Sport*, 1–14. Advance online publication.

<https://doi.org/10.1080/02701367.2022.2125927>

Gill, D. L., Hammond, C. C., Reifsteck, E. J., Jehu, C. M., Williams, R. A., Adams, M. M., Lange, E. H., Becofsky, K., Rodriguez, E., & Shang, Y.-T. (2013). Physical activity and quality of life. *Journal of Preventive Medicine and Public Health* 46(Suppl. 1), 28-34.

<https://doi.org/10.3961/jpmp.2013.46.S.S28>

Ginis, K. A. M., Ploeg, H. P. van der, Foster, C., Lai, B., McBride, C. B., Ng, K., Pratt, M., Shirazipour, C. H., Smith, B., Vásquez, P. M., & Heath, G. W. (2021). Participation of people living with disabilities in physical activity: A global perspective. *The Lancet*,

398(10298), 443–455. [https://doi.org/10.1016/S0140-6736\(21\)01164-8](https://doi.org/10.1016/S0140-6736(21)01164-8)

Goodway, J. D., Ozmun, J. C., & Gallahue, D. L. (2020). Chapter 3: Motor Development Theoretical Models. In *Understanding Motor Development: Infants, Children, Adolescents, and Adults* (8th ed.). Jones & Bartlett Learning.

Goodwin, D. (2016). *Youth sport and dis/ability*. In K. Green & A. Smith (Ed.), *Routledge Handbook of Youth Sport* (pp. 308–320). Routledge.

<https://doi.org/10.4324/9780203795002>

Goodwin, D. L., & Ebert, A. (2018). Physical Activity for Disabled Youth: Hidden Parental Labor. *Adapted Physical Activity Quarterly : APAQ*, 35(4), 342–360.

<https://doi.org/10.1123/apaq.2017-0110>

Gordon-Larsen, P., Adair, L. S., Nelson, M. C., & Popkin, B. M. (2004). Five-year obesity incidence in the transition period between adolescence and adulthood: The national longitudinal study of adolescent health. *The American Journal of Clinical Nutrition*, 80(3), 569–575. <https://doi.org/10.1093/ajcn/80.3.569>

- Gordon-Larsen, P., Nelson, M. C., & Popkin, B. M. (2004). Longitudinal physical activity and sedentary behavior trends: Adolescence to adulthood. *American Journal of Preventive Medicine*, 27(4), 277–283. <https://doi.org/10.1016/j.amepre.2004.07.006>
- Grenier, M. (2007). Inclusion in physical education: From the medical model to social constructionism. *Quest*, 59(3), 298-310.  
<https://doi.org/10.1080/00336297.2007.10483554>
- Guinhouya, B. C. (2012). Physical activity in the prevention of childhood obesity. *Paediatric and Perinatal Epidemiology*, 26(5), 438–447. <https://doi.org/10.1111/j.1365-3016.2012.01269.x>
- Haigh, A., Lee, D., Shaw, C., Hawthorne, M., Chamberlain, S., Newman, D. W., ... & Beail, N. (2013). What things make people with a learning disability happy and satisfied with their lives: An inclusive research project. *Journal of Applied Research in Intellectual Disabilities*, 26, 26–33. <https://doi.org/10.1111/jar.12012>
- Hansen, E., Nordén, H., & Ohlsson, M. L. (2023). Adolescents with intellectual disability (ID) and their perceptions of, and motivation for, physical activity and organised sports. *Sport, Education and Society*, 28(1), 59-72. <https://doi.org/10.1080/13573322.2021.1969909>
- Hilgenkamp, T. I., van Wijck, R., & Evenhuis, H. M. (2014). Subgroups associated with lower physical fitness in older adults with ID: Results of the HA-ID study. *Research in Developmental Disabilities*, 35(2), 439-447. <https://doi.org/10.1016/j.ridd.2013.11.015>
- Hillier, A., Buckingham, A., & Schena, D. (2020). Physical activity among adults with autism: Participation, attitudes, and barriers. *Perceptual and Motor Skills*, 127(5), 874-890.  
<https://doi.org/10.1177/0031512520927560>



- Hsieh, K., Heller, T., Bershinsky, J., & Taub, S. (2015). Impact of adulthood stage and social-environmental context on body mass index and physical activity of individuals with intellectual disability. *Intellectual and Developmental Disabilities, 53*(2), 100–113. <https://doi.org/10.1352/1934-9556-53.2.100>
- Hsieh, K., Hilgenkamp, T. I. M., Murthy, S., Heller, T., & Rimmer, J. H. (2017). Low levels of physical activity and sedentary behavior in adults with intellectual disabilities. *International Journal of Environmental Research and Public Health, 14*(12), Article 12. <https://doi.org/10.3390/ijerph14121503>
- Jahoda, A., & Markova, I. (2004). Coping with social stigma: People with intellectual disabilities moving from institutions and family home. *Journal of Intellectual Disability Research, 48*(8), 719-729. <https://doi.org/10.1111/j.1365-2788.2003.00561.x>
- Kahlon, S., Brubacher-Cressman, K., Caron, E., Ramonov, K., Taubman, R., Berg, K., Wright, F. V., & Hilderley, A. J. (2019). Opening the door to physical activity for children with cerebral palsy: Experiences of participants in the *BeFAST* or *BeSTRONG* program. *Adapted Physical Activity Quarterly, 36*(2), 202–222. <https://doi.org/10.1123/apaq.2018-0048>
- Kapsal, N. J., Dicke, T., Morin, A. J. S., Vasconcellos, D., Mañano, C., Lee, J., & Lonsdale, C. (2019). Effects of physical activity on the physical and psychosocial health of youth with intellectual disabilities: A systematic review and meta-analysis. *Journal of Physical Activity & Health, 16*(12), 1187–1195. <https://doi.org/10.1123/jpah.2018-0675>
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education, 6*(5), Article 26. <https://doi.org/10.5430/ijhe.v6n5p26>

Krahn, G. L., & Fox, M. H. (2014). Health disparities of adults with intellectual disabilities:

What do we know? what do we do? *Journal of Applied Research in Intellectual*

*Disabilities*, 27(5), 431–446. <https://doi.org/10.1111/jar.12067>

Kwan, M. Y., Cairney, J., Faulkner, G. E., & Pullenayegum, E. E. (2012). Physical activity and

other health-risk behaviours during the transition into early adulthood: A longitudinal cohort study. *American Journal of Preventive Medicine*, 42(1), 14–20.

<https://doi.org/10.1016/j.amepre.2011.08.026>

Kwan, M. Y., Graham, J. D., Bedard, C., Bremer, E., Healey, C., & Cairney, J. (2019).

Examining the effectiveness of a pilot physical literacy–based intervention targeting first-year university students: the PLUS program. *Sage Open*, 9(2), 2158244019850248.

<https://doi.org/10.1177/2158244019850248>

Kwan, M. Y., Graham, J. D., Healey, C., Paolucci, N., & Brown, D. M. (2020). Stopping the

drop: examining the impact of a pilot physical literacy-based intervention program on physical activity behaviours and fitness during the transition into university. *International Journal of Environmental Research and Public Health*, 17(16), 5832.

<https://doi.org/10.3390/ijerph17165832>

Lane, C., Carson, V., Morton, K., Reno, K., Wright, C., Predy, M., & Naylor, P.J. (2021). A real-

world feasibility study of the PLAYshop: A brief intervention to facilitate parent

engagement in developing their child’s physical literacy. *Pilot and Feasibility Studies*,

7(1), Article 113. <https://doi.org/10.1186/s40814-021-00849-5>

Lane, C., Naylor, P.-J., Predy, M., Kurtzhals, M., Rhodes, R. E., Morton, K., Hunter, S., &

Carson, V. (2022). Exploring a parent-focused physical literacy intervention for early

- childhood: A pragmatic controlled trial of the PLAYshop. *BMC Public Health*, 22(1), Article 659. <https://doi.org/10.1186/s12889-022-13048-5>
- McDermott, G., Brick, N. E., Shannon, S., Fitzpatrick, B., & Taggart, L. (2022). Barriers and facilitators of physical activity in adolescents with intellectual disabilities: An analysis informed by the COM-B model. *Journal of Applied Research in Intellectual Disabilities*, 35(3), 800–825. <https://doi.org/10.1111/jar.12985>
- McKay, C., Hoch, J. M., Hoch, M. C., & Dlugonski, D. (2022). Sports specialization, physical literacy, and physical activity levels in young adults. *Journal of Sport Rehabilitation*, 32(2), 190–195. <https://doi.org/10.1123/jsr.2022-0057>
- Merriam, S. B., Johnson-Bailey, J., Lee, M.Y., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and positionality: Negotiating insider/outsider status within and across cultures. *International Journal of Lifelong Education*, 20(5), 405–416. <https://doi.org/10.1080/02601370120490>
- Motulsky, S. L. (2021). Is member checking the gold standard of quality in qualitative research? *Qualitative Psychology*, 8(3), 389–406. <https://doi.org/10.1037/qup0000215>
- Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6(1), 42. <https://doi.org/10.1186/1748-5908-6-42>
- Nichols, C., Block, M. E., Bishop, J. C., & McIntire, B. (2019). Physical activity in young adults with autism spectrum disorder: Parental perceptions of barriers and facilitators. *Autism: The International Journal of Research and Practice*, 23(6), 1398–1407. <https://doi.org/10.1177/1362361318810221>

- O’Byrne, C., & Muldoon, O. T. (2019). The construction of intellectual disability by parents and teachers. *Disability & Society, 34*(1), 46-67.  
<https://doi.org/10.1080/09687599.2018.1509769>
- O’Sullivan, M., Davids, K., Woods, C. T., Rothwell, M., & Rudd, J. (2020). Conceptualizing physical literacy within an ecological dynamics framework. *Quest, 72*(4), 448–462.  
<https://doi.org/10.1080/00336297.2020.1799828>
- Pallisera, M., Vilà, M., & Fullana, J. (2014). Transition to adulthood for young people with intellectual disability: Exploring transition partnerships from the point of view of professionals in school and postschool services. *Journal of Intellectual & Developmental Disability, 39*(4), 333–341. <https://doi.org/10.3109/13668250.2014.938032>
- Petrusevski, C., Morgan, A., MacDermid, J., Wilson, M., & Richardson, J. (2022). Framing physical literacy for aging adults: An integrative review. *Disability and Rehabilitation, 44*(26), 8149-8160. <https://doi.org/10.1080/09638288.2021.2012841>
- Petruzzello, S. J., Landers, D. M., Hatfield, B. D., Kubitz, K. A., & Salazar, W. (1991). A meta-analysis on the anxiety-reducing effects of acute and chronic exercise. *Sports Medicine, 11*(3), 143–182. <https://doi.org/10.2165/00007256-1991111030-00002>
- Pietkiewicz, I., & Smith, J. (2014). A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Czasopismo Psychologiczne Psychological Journal, 20*(1), 7–14. <https://doi.org/10.14691/CPJ.20.1.7>
- Pitchford, E. A., Siebert, E., Hamm, J., & Yun, J. (2016). Parental perceptions of physical activity benefits for youth with developmental disabilities. *American Journal on Intellectual and Developmental Disabilities, 121*(1), 25–32. <https://doi.org/10.1352/1944-7558-121.1.25>

- Phillips, A. C., & Holland, A. J. (2011). Assessment of objectively measured physical activity levels in individuals with intellectual disabilities with and without Down's syndrome. *PLoS One*, 6(12). <https://doi.org/10.1371/journal.pone.0028618>
- Pot, N., Whitehead, M. E., & Durden-Myers, E. J. (2018). Physical literacy from philosophy to practice. *Journal of Teaching in Physical Education*, 37(3), 246-251. <https://doi.org/10.1123/jtpe.2018-0133>
- Pushkarenko, K., Causgrove Dunn, J., & Goodwin, D. L. (2021). Physical literacy for children labeled with autism spectrum disorder: Mothers' experiences of ableism, exclusion, and trauma. *Adapted physical activity quarterly*, 38(4), 525–545. <https://doi.org/10.1123/apaq.2020-0123>
- Pushkarenko, K., Causgrove Dunn, J., & Wohlers, B. (2021). Physical literacy and inclusion: A scoping review of the physical literacy literature inclusive of individuals experiencing disability. *Prospects*, 50(1), 107–126. <https://doi.org/10.1007/s11125-020-09497-8>
- Pushkarenko, K., Cavell, M., Gosse, N., & Michalovic, E. (2023). Physical literacy and the participant perspective: Exploring the value of physical literacy according to individuals experiencing disability through composite narratives. *Journal of Exercise Science & Fitness*, 21(3), 237-245. <https://doi.org/10.1016/j.jesf.2023.03.001>
- Robinson, S., Hill, M., Fisher, K. R., & Graham, A. (2020). Belonging and exclusion in the lives of young people with intellectual disability in small town communities. *Journal of Intellectual Disabilities*, 24(1), 50–68. <https://doi.org/10.1177/1744629518765830>
- Roth, K., Pyfer, J., & Huettig, C. (2007). Transition in physical recreation and students with cognitive disabilities: Graduate and parent perspectives. *Education and Training in Developmental Disabilities*, 42(1), 94–106. <https://www.jstor.org/stable/23880142>

- Ross, R., Chaput, J. P., Giangregorio, L. M., Janssen, I., Saunders, T. J., Kho, M. E., Poitras, V. J., Tomasone, J. R., El-Kotob, R., McLaughlin, E. C., Duggan, M., Carrier, J., Carson, V., Chastin, S. F., Latimer-Cheung, A. E., Chulak-Bozzer, T., Faulkner, G., Flood, S. M., Gazendam, M. K., ... Tremblay, M. S. (2020). Canadian 24-Hour movement guidelines for adults aged 18-64 years and adults aged 65 years or older: An integration of physical activity, sedentary behaviour, and sleep. *Applied Physiology, Nutrition, and Metabolism*, *45*(10(Suppl. 2)), 57–102. <https://doi.org/10.1139/apnm-2020-0467>
- Rudd, J. R., Pesce, C., Strafford, B. W., & Davids, K. (2020). Physical literacy - a journey of individual enrichment: An ecological dynamics rationale for enhancing performance and physical activity in all. *Frontiers in Psychology*, *11*, Article 1904. <https://doi.org/10.3389/fpsyg.2020.01904>
- Sartori, G. (1970). Concept misformation in comparative politics. *American Political Science Review*, *64*(4), 1033–1053. <https://doi.org/10.2307/1958356>
- Shinebourne, P. (2011). The theoretical underpinnings of interpretative phenomenological analysis (IPA). *Journal of the Society for Existential Analysis*, *22*(1), 16–31.
- Shogren, K. A., & Broussard, R. (2011). Exploring the perceptions of self-determination of individuals with intellectual disability. *Intellectual and Developmental Disabilities*, *49*, 86–102. <https://doi.org/10.1352/1934-9556-49.2.86>
- Silva, R. M. F., Mendonça, C. R., Azevedo, V. D., Memon, A.R., Noll, P. R. E. S., & Noll, M. (2022). Barriers to high school and university students' physical activity: A systematic review. *PLoS One*, *17*(4), <https://doi.org/10.1371/journal.pone.0265913>

- Siebert, E. A., Hamm, J., & Yun, J. (2017). Parental influence on physical activity of children with disabilities. *International Journal of Disability, Development and Education*, 64(4), 378–390. <https://doi.org/10.1080/1034912X.2016.1245412>
- Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International Review of Sport and Exercise Psychology*, 11(1), 101-121. <https://doi.org/10.1080/1750984X.2017.1317357>
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis : theory, method and research*. SAGE.
- Statistics Canada. (2022, December 2). *Time use among persons with disabilities in Canada* (ISBN 978-0-660-46289-9). <https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2022001-eng.htm>
- St. John, L., Dudley, D., & Cairney, J. (2020). A longitudinal examination of enjoyment of physical education in children with developmental coordination disorder through a physical literacy lens. *Prospects*, 50(2), 127–139. <https://doi.org/10.1007/s11125-020-09469-y>
- Stodden, D. F., Goodway, J. D., Langendorfer, S. J., Robertson, M. A., Rudisill, M. E., Garcia, C., & Garcia, L. E. (2008). A developmental perspective on the role of motor skill competence in physical activity: An emergent relationship. *Quest*, 60(2), 290–306. <https://doi.org/10.1080/00336297.2008.10483582>
- Taplin, L. (2019). Physical literacy as a journey. In M. Whitehead (Ed.), *Physical Literacy across the World* (pp. 239-254). Routledge.
- Taylor, A. K., Armitage, S., & Kausar, A. (2021). A challenge in qualitative research: Family members sitting in on interviews about sensitive subjects. *Health Expectations: An*

- International Journal of Public Participation in Health Care and Health Policy*, 24(4), 1545–1546. <https://doi.org/10.1111/hex.13263>
- Teychenne, M., Ball, K., & Salmon, J. (2008). Physical activity and likelihood of depression in adults: A review. *Preventive Medicine*, 46(5), 397–411. <https://doi.org/10.1016/j.ypmed.2008.01.009>
- Timberlake, M. (2020). Recognizing ableism in educational initiatives: Reading between the lines. *Research in Educational Policy and Management*, 2(1), 84-100. <https://doi.org/10.46303/repam.02.01.5>
- Vicente, E., Mumbardó-Adam, C., Guillén, V. M., Coma-Roselló, T., Bravo-Álvarez, M. Á., & Sánchez, S. (2020). Self-determination in people with intellectual disability: The mediating role of opportunities. *International Journal of Environmental Research and Public Health*, 17(17), 6201. <https://doi.org/10.3390/ijerph17176201>
- Viola, D., & Arno, P. S. (2012). Long-term care planning for individuals with developmental disabilities. In R. C. Talley & J. E. Crews (Eds.), *Multiple Dimensions of Caregiving and Disability: Research, Practice, Policy* (pp. 169–183). Springer New York. [https://doi.org/10.1007/978-1-4614-3384-2\\_11](https://doi.org/10.1007/978-1-4614-3384-2_11)
- Walseth, K. (2006). Sport and belonging. *International Review for the Sociology of Sport*, 41(3–4), 447–464. <https://doi.org/10.1177/1012690207079510>
- Wang, F. J., Cheng, C. F., Chen, M. Y., & Sum, K. R. (2020). Temporal precedence of physical literacy and basic psychological needs satisfaction: A cross-lagged longitudinal analysis of university students. *International Journal of Environmental Research and Public Health*, 17(12), 4615. <https://doi.org/10.3390/ijerph17124615>



- Warburton, D. E. R., Nicol, C. W., & Bredin, S. S. D. (2006). Health benefits of physical activity: The evidence. *Canadian Medical Association Journal*, *174*(6), 801–809.  
<https://doi.org/10.1503/cmaj.051351>
- Weiss, M. R., & Amorose, A. J. (2005). Children’s self-perceptions in the physical domain: Between- and within-age variability in level, accuracy, and sources of perceived competence. *Journal of Sport & Exercise Psychology*, *27*(2), 226-244.  
<https://doi.org/10.1123/jsep.27.2.226>
- West, R., & Michie, S. (2020). A brief introduction to the COM-B Model of behaviour and the PRIME Theory of motivation. *Qeios*. <https://doi.org/10.32388/WW04E6.2>
- Whitehead, M. (Ed.). (2010). *Physical Literacy: Throughout the Lifecourse*. Routledge.
- Whitehead, M. (2013). *Definition of Physical Literacy and Clarification of Related Issues*. ICSSPE Bulletin, *65*.
- Whitehead, M. (2019). *Physical Literacy across the World*. Routledge.  
<https://doi.org/10.4324/9780203702697>
- Whitehead, M. E., Durden-Myers, E. J., & Pot, N. (2018). The value of fostering physical literacy. *Journal of Teaching in Physical Education*, *37*(3), 252–261.  
<https://doi.org/10.1123/jtpe.2018-0139>
- Willmott, T. J., Pang, B., & Rundle-Thiele, S. (2021). Capability, opportunity, and motivation: An across contexts empirical examination of the COM-B model. *BMC Public Health*, *21*(1), Article 1014. <https://doi.org/10.1186/s12889-021-11019-w>
- Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health*, *15*(2), 215-228. <https://doi.org/10.1080/08870440008400302>

- Yi, K. J., Cameron, E., Patey, M., Loucks-Atkinson, A., Loeffler, T. A., Sullivan, A. M., ... & Buote, R. (2020). Future directions for physical literacy education: Community perspectives. *Journal of Physical Education and Sport*, 20(1), 123-130. <https://doi.org/10.7752/jpes.2020.01016>
- Young, L., O'Connor, J., & Alfrey, L. (2020). Physical literacy: A concept analysis. *Sport, Education and Society*, 25(8), 946–959. <https://doi.org/10.1080/13573322.2019.1677586>
- Young-Southward, G., Cooper, S. A., & Philo, C. (2017). Health and wellbeing during transition to adulthood for young people with intellectual disabilities: A qualitative study. *Research in Developmental Disabilities*, 70, 94-103. <https://doi.org/10.1016/j.ridd.2017.09.003>
- Young-Southward, G., Philo, C., & Cooper, S.-A. (2017). What effect does transition have on health and well-being in young people with intellectual disabilities? A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 30(5), 805–823. <https://doi.org/10.1111/jar.12286>
- Zitomer, M. R., & Goodwin, D. (2014). Gauging the quality of qualitative research in adapted physical activity. *Adapted Physical Activity Quarterly*, 31(3), 193-218. 31, <http://dx.doi.org/10.1123/apaq.2013-0084>

**Appendix A**

**Table 1**

*Parallels Between The COM-B Model of Behaviour Change and Physical Literacy*

COM-B		Physical Literacy		Examples of Influences on Individual PA Experiences
Domain	Sub-domain	Core	Secondary	
Capability	1. Physical capability	Physical competence		Previous PA experiences can contribute to increased movement proficiency in future experiences
	2. Psychological capability		Knowledge and understanding  Self-expression and communication with others	Individuals who live in an environment where PA behaviour is modelled and encouraged could have more knowledge regarding physical activity.  Individuals who experience disabilities may have challenges communicating with peers due to unique communication needs.
Opportunity	1. Physical opportunity	Interaction with the environment		Individuals who live in more rural environments may experience fewer opportunities for PA engagement and participation.
	2. Social opportunity			Individuals with supportive parental figures are more likely to have the opportunity to pursue PA across contexts.
Motivation	1. Automatic motivation	Motivation		Prior emotional impulses, such as those related to winning and losing can impact the types of PA experiences an individual seeks out in the future.
	2. Reflective motivation	Motivation Confidence	Self-confidence and sense of self	An individual’s self-efficacy in regard to a new movement task impacts their motivation to attempt the skill.

## Appendix B

### Ethics Approval



ICEHR Approval #:	20230702-HK
Researcher Portal File #:	20230702
Project Title:	<i>Looking Back to Move Forward: A Retrospective Look at Lived Experience to Inform Future Physical Literacy Practice</i>
Associated Funding:	Not Funded
Supervisor:	Dr. Kyle Pushkarenko
Clearance expiry date:	<b>October 31, 2024</b>

Dear Ms. Jennifer Cowan:

Thank you for your response to our request for an annual update advising that your project will continue without any changes that would affect ethical relations with human participants.

On behalf of the Chair of ICEHR, I wish to advise that the ethics clearance for this project has been extended to **October 31, 2024**. The *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans* (TCPS2) requires that you submit another annual update to ICEHR on your project prior to this date.

We wish you well with the continuation of your research.

Sincerely,

**DEBBY GULLIVER**

Interdisciplinary Committee on Ethics in Human Research (ICEHR)  
Memorial University of Newfoundland  
St. John's, NL | A1C 5S7  
Bruneau Centre for Research and Innovation | Room IIC 2010C  
T: (709) 864-2561 |

[www.mun.ca/research/ethics/humans/icehr](http://www.mun.ca/research/ethics/humans/icehr) | <https://rpresources.mun.ca/>

This email and its contents may contain confidential and/or private information and is intended for the sole use of the addressee(s). If you are not the named addressee you should not disseminate, distribute or copy this email. If you believe that you received this email in error please notify the original sender and immediately delete this email and all attachments. Except where properly supported with required and authorized documents, no legal or financial obligation will be incurred by Memorial University as a result of this communication.

Appendix C

Figure 1

*Study Recruitment Poster*

**MEMORIAL UNIVERSITY**

# PARTICIPANTS WANTED

Take part in an in-person, audio-recorded, 30-60 minute interview about your experiences with movement, exercise and physical activity for a Master's thesis project.

Receive a \$25 Amazon gift card in exchange for your participation!

Participation is not required by [name of organization]

**INTERESTED?**

For more information email Jennifer Cowan ([jmcowan@mun.ca](mailto:jmcowan@mun.ca))

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at [icehr@mun.ca](mailto:icehr@mun.ca) or by telephone at 709-864-2861.

## Appendix D

### Information Sheet and Informed Consent Form (Parents/Guardians)

Title: Looking Back to Move Forward: A Retrospective Look at Lived Experience to Inform Future Physical Literacy Practice

Researcher: Jennifer Cowan (School of Human Kinetics and Recreation, Memorial University of Newfoundland, [jmcowan@mun.ca](mailto:jmcowan@mun.ca))

Supervisor: Dr. Kyle Pushkarenko (School of Human Kinetics & Recreation, Memorial University of Newfoundland, [kpushkarenko@mun.ca](mailto:kpushkarenko@mun.ca))

Your son/daughter/dependent is invited to take part in a research project entitled “Looking Back to Move Forward: A Retrospective Look at Lived Experience to Inform Future Physical Literacy Practice”

This form is part of the process of informed consent. It should give you the basic idea of what the research is about and what participation will involve. It also describes the right to withdraw from the study. In order to decide whether it is appropriate for your son/daughter/dependent to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision on their behalf. This is the informed consent process. Take time to read this carefully and to understand the information given to you. Please contact the researcher, Jennifer Cowan, if you have any questions about the study or for more information not included here before you consent.

It is entirely up to you and your son/daughter/dependent to decide whether to take part in this research. If you choose not to take part in this research or if you decide to withdraw a participant from the research once it has started, there will be no negative consequences for you, now or in the future.

**Introduction**

As part of my master's thesis, I am conducting research under the supervision of Dr. Kyle Pushkarenko in the Department of Human Kinetics and Recreation at Memorial University of Newfoundland.

The transition from high school to adulthood is a challenging time full of changes for any young person. Changes in physical activity can affect one's physical literacy (PL). All people are on their own PL journeys, but changes such as the one experienced when leaving high school can impact PL. Individuals experiencing disability are often left out of conversations and research about the design and helpfulness of physical activity programming, despite knowing the most about their own needs. The goal of this research is to gain insight on how to build better opportunities for physical activity and healthy active living for individuals experiencing intellectual disabilities.

**Purpose of study:**

The purpose of this study is to explore the potential impact of the transition from high school to adulthood on the physical literacy journeys of young adults with intellectual disabilities. The objectives of this research are to a) amplify the physical activity experiences of individuals with intellectual disabilities in their own words and b) determine the barriers and facilitators of physical activity participation and their effects on PL.

**Confirmation of Eligibility:**

Prior to the interview, you will be asked to share your participant's age and diagnosis of intellectual impairment in our correspondence, which can be done via email. This is to confirm eligibility.

**What the participant you know will do in this study:**

Participants in this research will take part in in-person, audio-recorded, semi-structured interviews in December 2022, January 2023, February 2023, March 2023 and April 2023 about their past and current experiences with physical activity. The location of the interview will be decided by you, the organization you work with and your dependent, and based on the

availability of all parties involved. The options for the location of the interview include the organization you work with, the home of a parent/guardian of a participant or the home of another trusted individual, such as a practitioner. Questions about experiences in high school physical education, differences in services and programs as they move into adulthood, barriers and facilitators to an individual's participation and current enjoyment and participation in physical activity will be asked. The interview questions will be provided to you and your participant at least 1 week prior to the interview.

**Length of time:**

Length of in person, audio-recorded, and semi-structured interviews will vary; however, it will likely take about 30-60 minutes.

**Withdrawal from the study:**

Collected data, in the form of recorded interviews, will be stored on a password-protected laptop computer. This data will be listened to, read, and summarized during data analysis. Along with the option to skip questions, the option to withdraw from the study will be verbally communicated at the beginning and end of the interview. Your son/daughter/dependent may also leave at any point during the interview and if they wish to leave the recording will be stopped and immediately deleted. They have the right to withdraw until the end of May 2023. Should an individual choose to participate, participants and their parents/guardians will be given a copy of the interview transcript as well as the researcher's interpretation of the transcripts within 1 week of the end of May 2023. If they wish to remove any portion before the end of May 2023 this will be granted. After this date withdrawal will not be possible. Withdrawal from the study at any time will not result in any negative consequences, including the retraction of compensation.

**Possible benefits:**

Participation in this study will be compensated, should your son/daughter/dependent choose to participate they will be given a 25\$ gift card to Amazon.com.

Your son/daughter/dependent's participation in this study provides a platform to discuss their thoughts, feelings and experiences as a person experiencing disability in their community.



Results of this study could also inform improvements in physical activity programming to improve the experience of individuals experiencing disabilities.

The scientific community that seeks to understand the experiences of individuals with disabilities often excludes their perspectives. Physical activity and physical literacy research also often focus on the experiences of younger children, however the perspectives of young adults are also valuable. This study seeks to address both gaps in research with their participation.

**Possible risks:**

There is a very low possibility of psychological or social risk from participating in this study. Psychological risks including stress, anxiety or depressing thoughts could be prompted by memories of negative prior experiences. Social risks such as stigma for participating are extremely unlikely. To mitigate these risks, the participant will be offered breaks throughout the interview, they may skip questions that make them uncomfortable and if they wish to have a parent or guardian such as yourself as a silent observer this is also allowed. Should they experience negative psychological or social outcomes they will be provided with resources such as the St. John's Mental Health Crisis Line (1-888-737-4668), Waterloo-Wellington-Dufferin Addictions, Mental Health and Crisis Services (1-844-437-3247), Kingston and Frontenac 24/7 Crisis Line (1-866-616-6005) and Durham Mental Health Services 1-800-742-1890.

**Confidentiality**

Confidentiality is ensuring that the identities (e.g., names, contact information, personal details) of participants are known only to those allowed to have access. Since participants for this thesis project may be selected from the same community organizations, some of them may be known to each other and may be identifiable to other people based on what they have said in the interviews. This is very unlikely to occur, although some select direct quotations will be reported from the interviews, participants will be given a pseudonym, and all identifying information (names of programs participated in, high schools attended, diagnosis etc.) will be removed from the report. Audio recordings and transcripts will not be released to the public, and only be viewed by the principal investigator, supervisor, and critical companions if necessary. These potential critical companions will be up to 2 other graduate students of Memorial University and

are therefore bound to the same responsibilities regarding confidentiality as the primary researcher. This means they will not discuss any details of the data with anyone not mentioned within this consent form. The supervisor and critical companions will only have access to this data after the data has been anonymized. This means that information in the interviews that could be considered potentially identifiable will be removed from the transcript prior to viewing by individuals other than the primary researcher. In addition, the data from this thesis project will potentially be published or presented at conferences; however, confidentiality will be maintained.

**Anonymity:**

Anonymity refers to not disclosing participants' identifying characteristics, such as name or description of physical appearance. Participation in this study will not be anonymous as audio-recorded interviews will be conducted with the researcher. Anonymity will be further limited if a practitioner is chosen to host and observe the interview, as they will be aware of your child's participation and the content of the interview. Additionally, individuals who are home at the time of the interview, such as those who are connected to your family or a practitioner your child works with will know that they participated and may hear what they say. Documentation with details that could lead to participant identification, such as personal characteristics, will be anonymized and pseudonyms/alternate names will be assigned to help protect anonymity.

**Recording of Data:**

Interviews will be audio recorded and transcribed after recording and kept on a password-protected device.

You are aware that participation in this study requires an audio recording of the interview for later transcription and analysis by the researcher?

Yes

No

**Storage of Data:**

During data collection and analysis, the data (in the form of audio recordings of interviews) will be stored on a password-protected computer as well as a back-up hard drive, password protected as well. This data will only be accessible to the principal investigator, supervisor and by critical companions. Data will be kept for a minimum of five years, as required by Memorial University's policy on Integrity in Scholarly Research.

**Reporting of Results:**

The data collected will be primarily used to complete the requirements of a master's thesis, and therefore the completed work will be publicly available/accessible online via the Queen Elizabeth II library at <http://collections.mun.ca/cdm/search/collection/theses>. Additionally, later adaptation of the manuscript into a journal article is possible. Results will primarily be reported in a summarized collection of themes, which will be supported by some direct quotations should consent be provided.

**Sharing of Results with Participants:**

When the thesis is completed, participants, parents and community organizations will be notified via email and be offered the opportunity to receive a summary of the results. This will be sent if individuals request it.

**Questions:**

You are welcome to ask questions at any time during your son/daughter/dependent's participation in this research. If you would like more information about this study, please contact Jennifer Cowan ([jmccowan@mun.ca](mailto:jmccowan@mun.ca))

**ICEHR Approval Statement:**

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at [icehr@mun.ca](mailto:icehr@mun.ca) or by telephone at 709-864-2861.

**Consent:**

By completing this form, you agree that:

- You have read the information about the research.
- You have been able to ask questions about this study.
- You are satisfied with the answers to all your questions.
- You understand what the study is about and what your participant will be doing.
- You understand that your participant is free to withdraw from the study, without having to give a reason, and that doing so will not affect you now or in the future.

This form and the study it concerns are not anonymous, participants can request their data be removed at any time until the end of May 2023.

By consenting to this form, you do not give up your legal rights and do not release the researchers from their professional responsibilities.

Please retain a copy of this consent information for your records.

**Please check accordingly:**

**I have read the contents of this document including those related to participant risk, benefits and the details of my son/daughter/dependent's participation, including audio-recording of interviews.**

**I have communicated to my son/daughter/dependent the details of their participation in this study and have ensured they understand their role as well as their right to withdraw from participation.**

**Signature of consenting individual:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Researcher's Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Appendix E

### Information Sheet and Assent Form (Participants)

Title: Looking Back to Move Forward: A Retrospective Look at Lived Experience to Inform Future Physical Literacy Practice

Researcher: Jennifer Cowan (School of Human Kinetics and Recreation, Memorial University of Newfoundland, [jmcowan@mun.ca](mailto:jmcowan@mun.ca))

Supervisor: Dr. Kyle Pushkarenko (School of Human Kinetics & Recreation, Memorial University of Newfoundland, [kpushkarenko@mun.ca](mailto:kpushkarenko@mun.ca))

#### Introduction

My name is Jennifer Cowan and I am a student at Memorial University of Newfoundland and Labrador. You are invited to participate in research about your experiences in physical activity such as your favourite sports, gym classes or daily habits. I invite you to read this consent form with your parent or guardian and decide together if you would like to participate in it.

It is entirely up to you to decide whether to take part in this research. If you choose not to take part in this research or if you decide to leave the research once it has started, nothing bad will happen to you, now or in the future.

#### What you will do in this study:

If you would like to participate in this research, you will be asked to meet with me in person at the organization you work with, your parent/guardian's home or the home of a trusted person you work with. The location will be decided by you and based on the availability of space. The interview will be about your experiences in physical activity after you left high school and became an adult. It is expected that the interview will last 30-60 minutes. This conversation will be voice-recorded with a recording device, and you will be able to listen to this recording if you want to.

**Possible benefits:**

You will get the opportunity to tell stories about your experiences with physical activity. This information will hopefully make physical activity programming better for all. In exchange for your participation, you will receive a 25\$ gift card to Amazon.com.

**Possible Risks:**

This is a low-risk study. It is possible that talking about prior experiences could be uncomfortable, however, if you would like a break during the interview, you want to skip a question you don't like, or you want to invite your parent or guardian to watch the interview that is ok. There is also a very low risk to your privacy and your relationships with others, however, your information will be protected so this is unlikely to happen. If you do not enjoy the interview and want to speak with a professional, you and your parent or guardian will be given contact information for professionals such as the St. John's Mental Health Crisis Line (1-888-737-4668), Waterloo-Wellington-Dufferin Addictions, Mental Health and Crisis Services (1-844-437-3247) Kingston and Frontenac 24/7 Crisis Line (1-866-616-6005), and Durham Mental Health Services 1-800-742-1890.

**Privacy:**

It is very unlikely that others will know that you participated in this study except you, a parent, guardian or practitioner you choose to discuss the study with or individuals connected to your family or trusted practitioner who are home at the time of the interview. People may be able to guess your identity based on information shared in the interview, as quotes will be included in published results. But, your name, the names of anyone you talk about, and the name of any organization, school or team mentioned will be removed. Any statement about personal traits such as physical characteristics or disability will also be removed.

**Choosing to Participate:**

You do not have to participate in this study if you do not want to. You can also leave the study at any time before the end of May 2023 if you change your mind about participating. All your information will be deleted if you ask me to. Should you choose not to participate during or after the interview, you will still keep the gift card.

**Asking Questions:**

If you have any questions, you can contact me, Jennifer Cowan at [jmcowan@mun.ca](mailto:jmcowan@mun.ca) and I will answer them.

**ICEHR Approval Statement:**

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at [icehr@mun.ca](mailto:icehr@mun.ca) or by telephone at 709-864-2861.

**Please check the following if you wish to participate:**

I agree that I have read this form with my parent/guardian and want to participate.

I understand that my interview will be voice-recorded and listened to by the researcher

Your Name (please print on the line below):

---

Your signature (please put on the line below):

---

Date:

---

Signature of Researcher (Jennifer Cowan):

---

## Appendix F

### Semi-Structured Interview Guide

#### Icebreaker Questions

1. What are your favourite ways to be physically active?
2. Where do you go to participate in these activities?

#### Capability

1. What did you learn about physical activity in high school?
2. Why are you good at (substitute activity determined in icebreaker questions)? Is there anything you find challenging about this activity?
3. Do you do any physical activities on your own?

#### Motivation

1. Why do you like (activity)? Is there anything you don't like?
2. Did you enjoy physical activity during high school? Do you enjoy it today? What makes it enjoyable?
3. Do you generally like the people who facilitate the activities you attend? Why or why not?
4. Can you share one of your favourite memories in (activity)? What was awesome about it?

#### Opportunity

1. Where were you active during high school? Did this change after graduation?
2. Is there anything that prevents you from being physically active? Are these the same or different from when you were in high school?
3. What are the things that help you be physically active? Are these the same or different from when you were in high school?



## Appendix G

## Reflective Journal Entry Sample

My conversation with [redacted] was probably the longest out of all of my interviews. [redacted] was really open about [redacted] experiences and seemed to really enjoy the conversation. It took place at [redacted] family home with [redacted] mom in the other room and father upstairs. [redacted] had a really compelling story about [redacted] experience with schools in general. [redacted] seemed to experience trouble with authority and expressed frustration and contempt for some of the teachers [redacted] had in the past, especially those that were a part of [redacted] leaving school in junior high. This seemed to be a defining moment in [redacted] life as discussions about how difficult this time was, its effect on [redacted] mental health and [redacted] pride at overcoming it were frequent in the interview. [redacted] linked [redacted] experience overcoming this time to professional wrestlers that [redacted] follows, suggesting [redacted] understanding of [redacted] own PE journey ~~is~~ is informed by the inspiration [redacted] takes from these athletes. Another key element of [redacted] journey that emerged was that his movement

**Appendix H****Sample of Chart Guiding Interview Data Analysis**

Emerging Themes	Transcript	Comments