

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Physical Literacy Development in People with Parkinson's: A case study of participant perspectives within community-based physical activity programming

By

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PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Abstract

Physical inactivity among older adults is a present issue globally. As the population is getting older, it is necessary to explore approaches and strategies that may promote physically active lifestyles and healthy aging. Physical literacy is one possible framework researchers and practitioners have pursued due to its capacity to foster meaningful experiences with movement and increase lifelong physical activity for all. While physical literacy appears promising, its use has been centralized in children and youth, with minimal understanding of the concept's application for older adults with chronic conditions or diseases. This research explored the perspectives of people with Parkinson's within a community-based organization and highlights how their experiences in physical activity programming contributed to their physical literacy development. The research question was, "How does inclusive, community-based physical activity programming contribute to the overall physical literacy development of individuals living with a specific chronic condition or disease?" To address this question, a qualitative study was conducted using semi-structured interviews with eight older adults aged 60 – 77 diagnosed with Parkinson's. This single case study of one community-based organization was guided by interpretive description methodology and the communities of practice theoretical model knowledge as the conceptual framework. Data analysis resulted in three overarching themes: (1) United Through Participation, (2) Collaboration at all Levels and (3) Meaningful Engagement. Participants attributed great value to their involvement within the community-based organization and its positive impact on their holistic development; however, this area of research warrants further inquiry to understand the complete application of physical literacy for this population.

Keywords: physical literacy, Parkinson's, participant perspectives, communities of practice

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List of Appendices

Appendix A: Ethics Approval

Appendix B: Recruitment Poster

Appendix C: Recruitment Letter

Appendix D: Demographic Information Form

Appendix E: Informed Consent Form

Appendix F: Interview Guide

Appendix G: Example of Reflexive Notetaking Entry

Appendix H: Chart Guiding Interview Transcript Analysis

Appendix I: Example of Individual Emerging Theme Organization

Appendix J: Cumulative Theme Development Layout

Table of Contents

Abstract ii

Acknowledgements iii

List of Appendices iv

Chapter One: Introduction..... 1

Research Problem and Rationale..... 4

Study Purpose and Objectives..... 5

Research Question..... 6

Conceptual Framework: Communities of Practice Theoretical Model of Knowledge..... 7

Chapter Two: Review of Literature..... 10

Philosophical Underpinnings of Physical Literacy..... 12

Interpretations of Physical Literacy and its Application..... 13

Physical Literacy within Community Programming..... 16

Physical Literacy Development and Older Adults..... 18

Potential Barriers and Facilitators for Physical Literacy Later in Life..... 22

Chapter Three: Methodology and Methods..... 25

Paradigmatic Assumptions..... 25

Methodology..... 26

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Researcher Positionality.....	27
Case and Participant Recruitment.....	29
Participating Organization.....	30
Participant Selection.....	31
Participants.....	32
Data Collection.....	32
Data Analysis.....	34
Research Quality and Rigour.....	36
Chapter Four: Results.....	39
United Through Participation.....	39
Collaboration at all Levels.....	44
Meaningful Engagement.....	48
Chapter Five: Discussion and Conclusion.....	52
Study Limitations.....	60
Conclusion.....	62
References.....	65
Appendix A.....	79
Appendix B.....	80

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Appendix C.....	81
Appendix D.....	83
Appendix E.....	87
Appendix F.....	94
Appendix G.....	97
Appendix H.....	98
Appendix I.....	99
Appendix J.....	100

Chapter One: Introduction

Population aging is a present phenomenon that presents possible challenges globally. In Canada, over 6 million or 15.6% of people are aged 65 and older, and this is expected to increase to 9.5 million or 23% by 2030 (Government of Canada, 2015). As the older adult population grows, more individuals inadvertently heighten their risk for chronic health conditions that commonly impact their overall well-being and quality of life (Barnett et al., 2012). Approximately one in three Canadians are currently living with one or more chronic conditions (Roberts et al., 2015), highlighting the need for health-promoting approaches in this population. As such, the promotion of physically active lifestyles has been demonstrated to assist in the management of current chronic conditions or disorders and the prevention of further cognitive and physical declines (Petrusevski et al., 2022; Kastner et al., 2018).

Despite the well-documented health benefits of regular physical activity for individuals of all ages (Warburton et al., 2017; Gill et al., 2013) and older adults specifically (Jones et al., 2018), participation rates remain low and continue to decline with age (World Health Organization, 2015). According to national survey data, less than half of older adults aged 60 and older+ in Canada over the age of 60 meet physical activity recommendations of 150 minutes of moderate to vigorous physical activity per week (Statistics Canada, 2023). This indicates that the proclaimed physical health benefits that are commonly attached to health promotion initiatives and public health campaigns may not be sufficient to motivate and encourage participation (Agans et al., 2024). Physical activity guidelines commonly provide individuals with information on what they can do to reduce the risk of adverse health outcomes and live an active and healthy life. However, these messages are often framed with prevention in mind, limiting application for older adults who may already be living with a chronic condition or disease. A widely used theory

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

on successful aging (Rowe & Khan, 1997) suggests that aging successfully is hindered by the presence of disease or a decline in physical and cognitive health (Paglione, 2022; Rowe & Khan, 1997). This perspective can lead to an emphasis on rehabilitation and restoration of function, which may devalue the holistic nature of one's experiences with movement and physical activity. To better appreciate the complexities of lifelong movement and promote meaningful participation in physical activity for older adults living with chronic conditions or diseases, significant consideration must be given to holistic and person-centered approaches (Jones et al., 2018; Mouton et al., 2024).

Physical literacy has emerged as an innovative approach to fostering meaningful experiences with movement and increasing lifelong physical activity participation for all (Agans et al., 2024; Carl et al., 2022; Keegan et al., 2013). It is suggested to promote the holistic development of individuals and deepen their interactions with various movement contexts in which they may participate (Whitehead, 2010; 2019). The concept has rapidly gained popularity and has grown beyond its use in physical education and physical activity promotion, now being recognized and implemented globally in fields such as sport, recreation, and public health (Carl et al., 2023; Dudley et al., 2017; Tremblay et al., 2018). Specifically, physical literacy is proclaimed to be a primary contributor to physical activity participation (Tremblay et al., 2018) and a potential determinant of health due to its impact on physical activity engagement and subsequent health benefits (Cairney, Dudley, Kwan et al., 2019).

Despite the widespread use of physical literacy, a consensus has not been reached on a universal understanding of the concept across research and practice (Shearer et al., 2018; Edwards et al., 2017). Ambiguities regarding the conceptualization and operationalization of physical literacy have led to variations in its interpretation and understanding within various

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

contexts (Bailey, 2022). According to Margaret Whitehead's conceptualization, physical literacy is holistic, encompassing an interplay between human dimensions (i.e., physical, cognitive, affective) and one's environment (Whitehead, 2001). Physical literacy is defined here as an individual's "motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life" (Whitehead, 2019, p. 8). This definition suggests that all individuals possess the capability to develop physical literacy and that each person's 'physical literacy journey' is unique and ongoing throughout their lifespan (Whitehead, 2010). The opportunity to engage in purposeful movement and capitalize on one's embodied potential (Whitehead, 2010) leads to the nurturing of positive attitudes toward physical activity and motivation to establish connections with the surrounding environment (Pushkarenko, 2019). According to Whitehead (2010), physical literacy is beneficial to one's overall well-being as it aims to "capitalize on innate movement/physical potential to make a significant contribution to the quality of life" (p. 12), therefore enabling individuals to thrive and foster a sense of human flourishing (Durden-Myers et al., 2018).

It is worth noting that while essentially all countries include 'physical activity' or 'physical activities' within their definition of physical literacy (Hurter et al., 2022), physical literacy is not synonymous with these terms. Instead, there is a reciprocal relationship between them in that they are constantly influencing one another, whereby physical literacy does not exist without physical activity or movement in some shape or form. The degree to which individuals form positive and meaningful relationships with physical activity and their physical activity environment is essential for developing physical literacy. In the same breadth, physical literacy serves as a primary determinant of physical activity participation (Cairney, Dudley, Kwan et al., 2019) as its holistic development reflects one's connection and commitment to movement and

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

physical activity for life. Here, there is positive feedback between the two terms, as enjoyable physical activity experiences can lead to increased motivation, confidence, physical competence, and knowledge and understanding to be active (i.e., physical literacy), promoting further engagement with physical activity and movement experiences.

Nonetheless, while the majority of published research reflects the Whiteheadian definition and philosophical underpinnings of physical literacy (Edwards et al., 2017), a multiplicity of perspectives still focus solely on the physical domain (Hyndman & Pill, 2018; Bailey, 2022). While focusing on the physical domain may allow for a more seemingly practical application of the concept and provide a path to measurement and assessment, this view has the potential to emphasize privileged physicality via the development of specific functional movements/motor skills considered mandatory for engagement in physical activity (Hyndman & Pill, 2018; Young et al., 2020). Moreover, describing physical literacy in a way that postulates that individuals may only become 'physically literate' through attaining specific skills contradicts the understanding that physical literacy development is individualized to one's own endowment and in constant flux throughout one's life.

Research Problem and Rationale

Physical literacy has been established as a promising approach in the contexts of physical education and physical activity promotion (Durdan-Myers et al., 2018; Whitehead et al., 2018). Unfortunately, existing understandings and empirical studies of the concept are heavily skewed toward youth and adolescents, with minimal evidence of its use to better understand physical activity opportunities for older adults and even less for those living with chronic conditions (Jones et al., 2018; Mouton et al., 2024). Furthermore, physical literacy models which solely focus on development through childhood may not be appropriate for older adults as they do not

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

include age-related considerations such as retention and adherence, loss or re-development of skills, or decreased confidence and motivation as a result of physiological decline (Jones et al., 2018). Whitehead (2010) asserts that nurturing positive interactions with movement later in life is essential to older adults through “maintaining physical activity options and thus enhancing the confidence, independence and self-respect of these members of society” (p. 39). Here, it can be understood that physical literacy is developed along a dynamic and lifelong journey rather than a mere endpoint to be achieved remaining stagnant throughout one's life (Holler et al., 2019).

Despite the persistent understanding that physical literacy occurs across the lifespan and that its development is essential for healthy aging (Petrusevski et al., 2022; Whitehead, 2010), little is known about how physical literacy may be incorporated into physical activity programming to better support older adults with chronic conditions or diseases. To ensure that older adults with chronic conditions or diseases have the opportunity to engage in purposeful movement experiences, establish meaningful interactions with their physical activity environments, and (re)develop the motivation and confidence to participate in physical activity, we must explore and highlight the lived experiences and perspectives of these individuals within the contexts in which they participate.

Study Purpose and Objectives

Given the limited understanding of how physical literacy may be fostered equitably in older adults living with chronic conditions and diseases (Mouton et al., 2024), the primary goal of this research was to better understand how an inclusive community-based organization creates and delivers meaningful opportunities from the perspective of participants. This study recognizes that

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

the perspectives of older adults hold inherent value in creating purposeful physical pursuits¹ throughout life, emphasizing the notion that physical literacy is a lifelong concept (Almond, 2010). By seeking these perspectives, this study provides a foundation that may assist similar organizations in offering inclusive physical activity programming to older adults and individuals with chronic conditions and diseases. This study aimed to explore the perspectives of people living with chronic conditions or diseases within a specific community-based organization and highlight how their experiences within inclusive physical activity programming contribute to their physical literacy development.

Overall, the objectives of this study were to:

- a) Highlight the subjective physical activity experiences of a specific cohort of older adults living with a chronic condition or disease
- b) Better understand how focusing on participant experiences and knowledge may enhance opportunities to develop physical literacy for all

Research Question

The research question for this study was: *How does inclusive, community-based physical activity programming contribute to the overall physical literacy development of individuals living with a specific chronic condition or disease?*

¹ The term “purposeful physical pursuits” is used at times throughout this paper as a means to promote a more positive perspective on physical activity participation. Here, we view opportunities to move and engage in physical activity as enabling all individuals a greater sense of vitality and dynamism throughout their physical literacy journeys (Almond, 2010).

Conceptual Framework

As this research was rooted in the idea that new knowledge may only be created through a dynamic and collaborative process amongst relevant community members, the *communities of practice theoretical model of knowledge* (Wenger, 1998) guided the formation of the research purpose and question, further serving as a source of reflexion during data collection and analysis (Collins & Stockton, 2018). This framework views learning as a process of social transformation (Snyder & Wenger, 2010) and aims to break through the binary of expert/non-expert knowledge dissipation. This allows researchers and participants to create, expand, and exchange perspectives and experiences which grow and develop individual and community capabilities. Mortier (2020) explains communities of practice within inclusive education settings and states that its use can address common flaws in knowledge dissipation by providing a useful alternative to traditional top-down approaches. Here, all stakeholders are afforded the opportunity to be active contributors and engage in ongoing dialogue, eliminating the common assumption that participants must be passive recipients of knowledge (Mortier, 2020). Pushkarenko et al. (2023) also utilized the communities of practice framework to explore the value that individuals experiencing disability attributed to their physical literacy development. Through this lens, they noted that participants expressed a greater environmental connection and that collective engagement created a sense of community toward a common goal. All stakeholders within communities of practice share a passion or focus and deepen their knowledge through ongoing interaction and collaboration, highlighting that each member is an 'expert' knowledge-holder in their own right (Wenger et al., 2002). Sharing each individual's unique and valuable knowledge depends on informal learning, which occurs through conversations, storytelling, and specific lessons learned through lived experience (Snyder & Wenger, 2010). This dependence on

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

constant communication and collaboration amongst all community members aligned with this study's purpose of exploring participants' lived experiences within a community setting and allowed the researcher to better understand how knowledge was continuously created within the specific case.

The success of a community of practice lies in its usefulness and real-life application for members and its ability to capture and promote the complexity and richness of human interactions (Mortier, 2010). Communities of practice further comprise three essential elements: a joint enterprise (domain), mutual engagement (community), and a shared repertoire (practice; Wenger, 1998). Joint Enterprise, or domain, is the shared passion or goal that connects the community of practice and “inspires members to contribute and participate; it guides their learning and gives meaning to their actions” (Wenger et al., 2002, p. 28). All members of a community of practice recognize that each individual holds unique expertise related to the domain and, therefore, are constantly learning from each other (Shaheen et al., 2021). Within the bounds of this case, there is a shared goal to maintain and slow down the progression of Parkinson's symptoms while engaging in meaningful movement with others. Here, there is a collective understanding of common goals and an overall sense of togetherness that drives the actions of this community. Mutual engagement, or community, refers to the interconnectedness of the community of practice; it is the “willingness to share ideas, expose one's ignorance, ask difficult questions, and listen carefully” (Wenger et al., 2002, p. 28). Members strive to build trust and rapport amongst all relevant stakeholders (e.g., program participants, instructors, family members, caregivers) as they acknowledge that all perspectives and experiences are crucial to accomplishing community goals. This ongoing collaboration fosters an environment where members are comfortable sharing ideas and discussing issues (Shaheen et al., 2021). Belton et al.

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

(2022) further highlights the importance of collaboration between all stakeholders due to the wide variation of experiences and understandings of the physical literacy journey. Shared repertoire or practice is the “specific knowledge the community develops, shares, and maintains” (Wenger et al., 2002, p. 29). The shared knowledge acquired through this study was the understanding and value that participants attributed to their community-based programming and their engagement in meaningful movement opportunities. Participants expressed learnings and purposeful takeaways from their involvement with the community-based organization, demonstrating their motivation for ongoing participation and their commitment to taking responsibility for their individual physical literacy journeys.

Chapter Two: Literature Review

Many researchers within academia suggest that physical literacy is a relatively new construct (Corbin, 2016). However, despite the rapid adoption of the concept since the 21st century, physical literacy has been referenced as far back as the 19th and 20th centuries (Cairney, Kiez, Roetert et al., 2019; Dudley, 2018; Edwards et al., 2017). For example, physical literacy was used within the USA Army Corps of Engineers in 1884 and by American educators in the 1920s and 30s (Cairney, Kiez, Roetert, et al., 2019; Jurbala, 2015). Physical literacy within this era was predominately focused on the physical domain, and was considered a gateway to physical activity participation and physical fitness through the development of movement competencies and physical skills (Bailey, 2022; Cairney, Kiez, Roetert et al., 2019). The ultimate goal of physical literacy was to better one's health and ensure safe, active participation in society during periods of modernizing lifestyle threats such as the introduction of mechanization, electronics, and the internet (Cairney, Kiez, Roetert et al., 2019).

Although it is evident that the term physical literacy pre-dates the modern conceptualization as presented by Whitehead (2001), early use of the concept was sporadic in the literature (Bailey, 2022; Durden-Myers, 2020) and lacked models, frameworks, and philosophical underpinnings to guide practice (Cairney, Kiez, Roetert, et al., 2019). With limited foundational understandings of physical literacy before the 21st century, Margret Whitehead is considered the pioneer of the currently understood concept. According to Whitehead's current definition, physical literacy is defined as one's "motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life" (Whitehead, 2019a, p. 8; IPLA, 2017). This definition postulates that physical literacy is developed through three distinct yet interrelated domains (Whitehead, 2010). The

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

affective domain refers to one's motivation, confidence, and positive sense of self within the context of their participation (Durden-Myers, 2020; Whitehead, 2010). The physical domain refers to developing physical competence and refining functional movement skills in various physical activity contexts or environmental situations (Durden-Myers, 2020; Whitehead, 2010). The cognitive domain refers to one's knowledge and understanding of the benefits of physical activity and the appreciation of their unique means of participation in various activities. (Pushkarenko, 2019). It is critical for each domain to be considered of equal value. Without the development of all domains, it is unlikely that physical literacy will develop holistically as intended (Durden-Myers et al., 2018). However, it is important to understand that not all forms of participation will attend to all domains simultaneously. Further, leaders or facilitators of physical literacy must be aware that each individual is on a personal journey with movement and may require differing levels of attention for each domain.

In 2010, Margaret Whitehead emphasized the value of each individual's unique embodied dimension and highlighted her four motivations to engage in further developing the concept of physical literacy: (1) the philosophical writings of existentialists and phenomenologists and their promotion of embodiment in human existence; (2) childhood education was not attributing value to movement development and was primarily directed towards language and numeracy; (3) the widespread decrease in physical activity, specifically in developed countries; and (4) the growing emphasis of high-level and elite sports performance as a priority in physical education (Whitehead, 2010). Due to this, Whitehead expressed immense value in the contribution of physical literacy towards one's human embodiment, their lived experiences, and the subsequent meaningful connections made within their physical activity environments (Durden-Myers et al., 2020; Whitehead et al., 2018).

Philosophical Underpinnings of Physical Literacy

Physical literacy is grounded in the philosophy of monism, existentialism, and phenomenology (Whitehead, 2010). Although each is different and particular, they are interrelated in the value attributed to one's human embodiment and overall physical literacy development (Whitehead et al., 2018). Monism fundamentally conceptualizes all individuals as holistic beings. Whitehead (2010) asserts that physical literacy must include the understanding that humans are essentially indivisible wholes as opposed to the dualistic perspective, which considers humans to be comprised of separate parts, the mind and body. Existentialism is the idea that "existence precedes essence" (Whitehead, 2010, p. 24). In other words, individuals progress through their personal development based on the unique interactions, experiences, and accumulated situations with which they are involved (Whitehead, 2010). Phenomenologists describe the relationship between one's interactions and their embodiment (Whitehead et al., 2018) which reflects the idea that individuals will experience or make sense of the world as it appears to them (Whitehead, 2010). Here, each experience that one has and their perception or meaning of that experience will subsequently impact their future experiences in a unique way due to their subjective realities.

As physical literacy is rooted in multiple philosophies, the concept is often difficult for many researchers and practitioners to understand (Edwards et al., 2017), leading to issues with implementing physical literacy into practice (Pot et al., 2018). This confusion often leads to a variety of interpretations and expected outcomes of physical literacy that misalign with the concept's philosophical tenets (Young et al., 2020, 2021). Oftentimes, organizations and policy-makers seek a more accessible and applicable concept for measurement and assessment (Young et al., 2020); however, through this lens, physical literacy is defined in a way that promotes a singular or specific component of physical literacy which is inconsistent with the true and

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

complete definition. Under the guidance of such philosophical schools of thought, physical literacy is promoted as a holistic and individualized journey, one that is developed throughout one's life. Furthermore, under this lens, Whitehead presents physical literacy as an inclusive concept that applies to all, regardless of one's embodied endowment (Whitehead, 2010). The philosophical views described above demonstrate the foundational understanding that although the expression of one's human capabilities may differ with respect to their embodied dimension, the attainment of physical literacy is within the realm of every person's potential (Whitehead, 2010), regardless of age, ability or individual characteristics.

Interpretations of Physical Literacy and its Application

Throughout the last two decades, physical literacy has guided the creation and development of programs and initiatives primarily focused on physical education and promoting physical activity engagement (Bailey, 2022). With the rapid uptake of physical literacy-focused research and practices in sectors such as public health and sport and recreation (Dudley et al., 2017; Jurbala, 2015), there has been increased discussions of the concept's capacity to enhance health outcomes and improve overall quality of life (Quennerstedt et al., 2020; Whitehead, 2010). As such, it has been suggested that physical literacy may play a role in establishing clearer frameworks for restructuring national policies and practices (Carl et al., 2023; Dudley et al., 2017). Whitehead initiated the current physical literacy movement in the United Kingdom (International Physical Literacy Association); however, it has since been adopted across the world in countries such as Canada (Canada Sport for Life, Physical Health and Education), the United States (Society of Health and Physical Educators), Wales (Sport Wales), Northern Ireland (Sport Northern Ireland), New Zealand (Sport New Zealand), Australia (Australian Sport Commission), China (Li et al., 2022), and most recently, England (Physical Literacy Consensus Statement for England; Sport

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

England, 2023; Hurter et al., 2022). Additionally, international organizations such as the World Health Organization (i.e., Global Action Plan on Physical Activity; WHO, 2018) and the United Nations Educational, Scientific and Cultural Organization (i.e., Quality Physical Education, Sport, and Physical Activity Framework; UNESCO, 2015) have included physical literacy within their future policies and plans aimed at fostering a healthier and more active society.

As physical literacy grows in popularity, the number of definitions and interpretations has increased due to its application across various contexts (Shearer et al., 2018; Young et al., 2020). Although there is consensus that physical literacy must be defined and understood as a holistic concept attainable for all, the concept is often interpreted and used differently depending on the specific objectives of its user (Young et al., 2020). Robinson & Randall (2017) state that despite progression towards understanding physical literacy in its entirety, more must be done to enhance the operationalization of the concept as intended by Whitehead. Furthermore, it has been noted that current physical literacy frameworks display a range of epistemological perspectives, applications to various sectors, and philosophical underpinnings (Dudley, 2023). Since 2012, 19 frameworks have been identified in the literature (Dudley, 2023), illustrating a need for consensus within academia and a conceptualization of physical literacy that is more appropriate for practical use. Notably, this lack of consensus typically leads to overthinking or overcomplicating the concept. More must be done to adapt current understandings of physical literacy to meet individuals wherever they might be on their journey. This means shifting from singular viewings of physical literacy to one that simply questions, "How can this movement experience support each individual to progress toward fulfilling their unique potential in life" (Agans et al., 2024, p. 12)? A systematic review conducted by Carl et al. (2022) found that out of forty-six physical literacy intervention studies, thirty-four claimed to adopt a holistic

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

understanding of physical literacy, conceptually aligning with the Whiteheadian philosophy; however, only seven studies included all domains of physical literacy within their intervention techniques (i.e., affective, cognitive, and physical).

Despite all domains being referred to as interrelated, interconnected, and of equal importance (Durdin-Myers, 2020), current displays of physical literacy in practice show an overemphasis on the physical domain, with other domains being overlooked throughout the literature (Hyndman & Pill, 2018). Belton et al. (2022) explored stakeholder views on physical literacy and found that all stakeholder groups (e.g., non-specialist teachers, coaches, physical education teachers, and decision-makers) ranked the physical/psychomotor domain significantly higher than both affective and cognitive, with the top two individually ranked physical literacy components being physical activity and functional movement skills. It is suggested that these views and rankings of importance may be attributed to a lack of understanding of the holistic nature of physical literacy and the need to disseminate practical definitions of physical literacy in an accessible manner (Belton et al., 2022). Educating those who are delivering and partaking in physical literacy-based programs is recommended by Belton et al. (2022) and emphasized by Whitehead (2019), as she acknowledges that alternative definitions may be used to disseminate physical literacy in practice; however, the inclusion of affective, physical and cognitive domains are required. With this in mind, it seems that to better emphasize the nature of each human's unique embodiment, future studies should avoid deviating from core physical literacy domains and focus on practices that align with lower levels of conceptual abstraction (Carl et al., 2022; Young et al., 2020).

According to Young et al. (2020), a lower level of abstraction of physical literacy embraces the concept in its entirety. As one moves up the "ladder of abstraction" (p. 954),

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

physical literacy becomes more straightforward and generalizable for practice. The higher the abstraction, the more uncoupled physical literacy becomes from its core meaning (Young et al., 2020). Through an alternative lens, it is suggested that physical literacy interventions be guided by a “problematization” (Young et al., 2023, p. 67) approach. Young et al. (2023) suggest three ‘cosmos’ of physical literacy: physical literacy as health-promoting physical activity, physical literacy as motor competence, and physical literacy as phenomenological embodiment. They suggest physical literacy should be understood as a multiverse whereby various interpretations may be justified by the specific cosmoses that align with their objective(s) (Young et al., 2023). Such recommendations align with previous points of meeting individuals where they are on their journey and ensuring they have the tools to thrive and flourish based on what that means to them. Regardless of the path taken toward consensus, there is a clear need to couple the “what” with the “how” regarding the implementation of physical literacy into practice (Carl et al., 2022).

Community-Based Programming Settings

In accordance with the purpose of this research, it is necessary to include how physical literacy is understood and applied within community-based settings. The multiplicity of research regarding physical activity and subsequent health benefits for all humans (Gill et al., 2013; Warburton et al., 2017), coupled with the proposal that physical literacy may serve as a primary determinant for physical activity engagement (Cairney, Dudley, Kwan et al., 2019), has led to the implementation of physical literacy as a key programming element (Tremblay et al., 2018).

While this discussion revolves around community-based physical activity programming and the impacts on physical literacy, it is important to remember that physical activity and physical literacy are not synonymous terms. Rather, they constantly influence and act reciprocally throughout one’s life. Previous research with older adults has stated that continued participation

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

in community or group physical activity settings can create more positive attitudes toward aging and increase one's self-efficacy in movement environments (Royse et al., 2023). Specifically, Ferrusola-Pastrana et al. (2024) found that involvement in community-based exercise programs led to an increased sense of belonging and decreased feelings of loneliness or isolation for people with Parkinson's. Additionally, they claim that community-based programming may be more intentional in its delivery to a specific population and holds the potential to be more effective in promoting sustained engagement in physical activity compared to other approaches (Ferrusola-Pastrana et al., 2024). As a result of the positive associations between community-based settings and physical activity participation for people with Parkinson's, Ferrusola-Pastrana et al. (2024) offer seven practical suggestions for the creation and implementation of future opportunities. These include tailored engagement, socialization support, motivational strategies, inclusive and structured programming, collaboration with healthcare professionals, consistent availability, and routine monitoring and evaluation (Ferrusola-Pastrana et al., 2024, p. 11).

Despite the potential benefits of using physical literacy as a lens to promote healthy and active lifestyles in older adults (Jones et al., 2018) and the positive relationships that can be established with movement in community settings (Claesson et al., 2020; Ferrusola-Pastrana et al., 2024), there is a clear gap in the literature surrounding physical literacy-based programs or interventions in this population and context. Based on a systematic review of forty-four physical literacy interventions, not a single program or intervention was identified for older adults in a community-based setting (Carl et al., 2022). Although inclusion of all individuals is a foundational component of physical literacy, there is an evident need to determine how the concept may apply to underserved populations such as older adults, and especially those living with chronic conditions or diseases. The inclusivity of physical literacy has recently been

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

explored and addressed in other populations such as individuals experiencing disability (Pushkarenko et al., 2021) and indigenous peoples (Nesdoly et al., 2020), which exemplifies the importance of exploring and understanding the nuances and lived experiences of the specific population that a program sets to serve.

A primary issue that appears to impede the implementation and delivery of physical literacy-based programs is the complexity of the concept (Edwards et al., 2017). As such, Yi et al. (2020) sought to gain the perspectives of community practitioners and stakeholders concerning their understanding of physical literacy education. While this study does not focus on older adults, it provides insight into how physical literacy may be applied holistically in a community setting. By use of focus groups and interviews, some of their conclusions were that physical literacy education: “is not just teaching movement skills,” “should be a collaborative community effort,” and “should ensure accessibility and choices” (Yi et al., 2020, p. 125). These findings support previous notions that physical literacy is a holistic concept, that there is value in allowing all stakeholders (especially participants) to be active contributors, and that physical literacy is an inclusive concept that must be accessible to all individuals regardless of age, ability, culture, or individual characteristics. Moreover, Yi et al. (2020) state that collaborative community efforts, where all resources and knowledge are allocated toward the greater goal of the whole community, are necessary for delivering sustainable physical literacy-based programming.

Physical Literacy Development in Older Adults

According to foundational elements of the concept, all individuals have the capacity to develop physical literacy throughout their lifespan (Whitehead, 2010). The “motivation, confidence and competence to take part in physical activity is within the grasp of us all” (Whitehead, 2010, p.

39). While all individuals have the potential to realize this human capability, its expression will differ depending on one's embodied endowment and the surrounding culture in which one lives and engages in movement opportunities (Whitehead, 2010). It is not as important that individuals are making specific progress toward becoming 'physically literate' as it is that each individual finds satisfaction and success on their own personal journey with movement and physical activity.

It would seem intuitive that physical literacy holds value for adults and older adults; however, the usage and understanding of physical literacy later in life is novel (Jones et al., 2018; Petrusovski et al., 2022). A vast majority of research on the development of physical literacy is concentrated on children and adolescents, with very minimal attention given to adults and older adults with chronic conditions or diseases, specifically (Carl et al., 2022). According to Carl et al. (2022), only one physical literacy intervention study (Holler et al., 2019) included middle-aged and older adults as the primary focus of intervention, with zero highlighting the intersection between physical literacy and chronic disease. While childhood and adolescence are critical times to set a foundation for long-term physical literacy development later in life, capturing the experiences of adults and older adults would solidify the assumption that physical literacy is a life-long journey (Carl et al., 2022; Taplin, 2019; Whitehead, 2013) and promote the relationship between physical literacy, health and quality of life (Cornish et al., 2015).

With the apparent need to explore the physical literacy journey beyond adolescence and even young adulthood, there has been recent interest among researchers in better understanding physical literacy in older adults (Jones et al., 2018; Petrusovski et al., 2022; Stathokostas et al., 2020), and particularly in older adults with chronic conditions or diseases (Mouton et al., 2024; Petrusovski et al., 2024). Although it has been suggested that a physical literacy approach may be

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

the missing piece to encourage sustained engagement in lifelong physical activity participation, some studies have demonstrated deviations from Whitehead's conceptualization of the concept. Jones et al. (2018) state that current models of physical literacy primarily focus on childhood development and, therefore, do not account for factors associated with older age such as retention, loss or redevelopment of functional capacities or physiological and cognitive decline. They further explain that within older adults, the primary interest may not be developing functional movement skills such as running, throwing, kicking, or jumping but rather developing various capacities that assist them in maintaining physical independence and preventing frailty (Jones et al., 2018). Their work aimed to describe physical literacy in the context of the older adult population and, as such, used an ecological approach to outline four additional domains to Whitehead's core conceptualization. New domains included interpersonal (i.e., social support in the form of formal and informal personal relationships), organizational (i.e., programs, resources and services that offer opportunities for physical activity), community (i.e., influences within individuals' social, physical, and natural environments that impact physical activity participation), and policy (i.e., the overarching, macro-level influences on an individual's opportunity to participate in physical activities; Jones et al., 2018).

Petrusevski et al. (2022) also emphasize that traditional physical literacy models present limitations for older adults who may not have participated in structured physical activity throughout their lives or who have not engaged for many years. They conducted an integrative review to examine what is known about physical literacy for adults and what components are required to optimize physical activity experiences in this population (Petrusevski et al., 2022). While they suggest a need to expand beyond the Whiteheadian definition of physical literacy to offer an inclusive representation of older adults, their findings align with the holistic

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

interpretations in which physical literacy is intended. Their findings highlighted that physical literacy requires additional components, such as engagement in purposeful, social, and diverse physical activities, developing motivation and confidence to move, understanding age-related changes, and physical activity's role in adapting to these changes. Although these components offer a more straightforward understanding of what physical literacy development can accomplish, it is well in line with Whitehead's understanding, as she states that physical literacy must advocate a nurturing of positive attitudes towards movement through the realization of one's embodied potential and the knowledge and understanding that physical activity is innately rewarding and self-affirming (Whitehead, 2010).

Whitehead's conceptualization does not explicitly acknowledge age-related changes or consider the possibility that individuals may have to relearn or redevelop various functional capacities as a result of health conditions or other circumstances; however, her focus on physical literacy being an individualized and holistic concept is meant to include a broad range of subjective experiences that one may have along their unique journey. Nonetheless, a main difference between recent conceptualizations of physical literacy for older adults and Whitehead's interpretation is recent emphasis on rehabilitation and restoration of function. At first glance, this area of focus appears to contradict the importance of viewing physical literacy as a holistic concept due to the specification on the physical domain and the requirement of specific functional skills to thrive within physical activity and movement contexts. However, we cannot entirely dismiss this perspective due to the inherent value that older adults place on understanding age-related changes that may negatively impact functional capacities and their desire to learn or (re)develop skills that may assist with managing chronic conditions and successful aging (Petrusevski et al., 2024).

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Moreover, Petrusevski et al. (2022) highlight that physical literacy is holistic in nature and that its development for older adults requires an array of constructs that stretch beyond physical competence. While negative assumptions surrounding older adults and their capabilities to partake in meaningful physical activities exist (Whitehead, 2010), it is essential to understand that physical literacy is universally attainable. To encourage physical literacy development among older adults, we must appropriately define what physical literacy might mean for this population and highlight that each individual may establish subjective experiences with movement and physical activity according to their unique endowment.

Potential Barriers and Facilitators for Physical Literacy Later in Life

As individuals move through their unique physical literacy journey, they will inevitably encounter challenges, setbacks, changes, and periods of ups and downs. Physical literacy is in constant flux, moving in various directions depending on one's experiences with the world and the subsequent meaning they attribute to those experiences (Whitehead, 2010). While it is important to understand that an individual's physical literacy develops through the accumulated interactions that exist between their motivation, confidence, physical competence, and knowledge and understanding to engage in physical activities, we must also consider the various factors that facilitate or hinder one's ongoing physical literacy development. Those involved with delivering or facilitating the physical literacy development of others must recognize that all journeys are individualized, meaning that a facilitator or barrier for one person may not be for another. Specifically, due to the episodic nature of many chronic conditions and diseases, such as Parkinson's, facilitators must be aware that there may be moments where perceived barriers are more or less debilitating (Jones et al., 2018).

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

The literature surrounding barriers and facilitators to physical literacy is minimal. As such, the barriers and facilitators within this section will primarily focus on general engagement in physical activities and movement opportunities for older adults, as well as some studies which offer barriers and facilitators to specific physical literacy components (i.e., motivation, confidence, physical competence, and knowledge and understanding) that may increase or decrease participation.

Barriers to regular engagement in physical activity include a lack of time, ill health or physiological decline, fear of injury, a lack of motivation, and environmental factors such as accessibility and availability (Costello et al., 2011). However, Almond (2010) states that 'not having enough time' is an inadequate explanation for inactivity and that older adults do not view physical activity as a priority in their lives for many reasons. Therefore, an increased awareness of the link between physical activity and healthy aging through knowledgeable instructors or educational opportunities has the potential to facilitate sustained engagement (Ward et al., 2020). Furthermore, Jones et al. (2018) highlight that programming that includes an educational component can increase the likelihood of adherence. Interestingly, the presence of chronic conditions or diseases is often viewed as both a barrier and a motivator (Costello et al., 2011). Individuals may exercise or partake in movement experiences to prevent further decline or to maintain physical capacities; however, individuals may also be deterred from participating due to decreased self-efficacy or perceived competence because of their condition or disorder. Similarly, the fear of falling or exacerbating one's condition persists in older adults with chronic conditions or diseases (Costello et al., 2011; Jones et al., 2018). As these barriers are related to confidence with different movements or skills, such as balance, Jones et al. (2018) explain the

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

importance of gaining insight into older adults' past experiences with physical activity and the context in which these experiences occurred.

Older adults' motivation to engage in various movement opportunities is multifaceted and extends beyond merely attaining physical benefits or knowing that physical activity is good for them (Jones et al., 2018). Programming for this population should focus on promoting individuals' capacity for self-determination and tailoring activities to align with their values and needs (Brunet et al., 2022). Additionally, primary motivators for older adults are having opportunities to socialize and create meaningful connections with others (Costello et al., 2011; Patel et al., 2024; Petrusovski et al., 2024). This notion is further supported by Ward et al. (2020), who found that having a positive support system and an encouraging movement environment fostered a motivational climate where participants wanted to maintain physical activity participation. Programming must also provide accessible and affordable options for older adults. Costello et al. (2011) state that approaches that fail to consider social inequities in access, privilege and power often lead to negative experiences with movement. Similarly, Stathokostas et al. (2020) conducted a cross-sectional survey of older adults, demonstrating that accessible environments and affordable opportunities were primary factors in one's likelihood to engage in physical activity and develop physical literacy. Finally, Almond (2010) states that overarching policies and guidelines need to recognize the diversity and individuality of older adults' experiences with physical activity. Promoting 'cookie cutter' or 'catch-all' approaches will further decrease participation and subsequently, limit physical literacy development.

CHAPTER Three: Methodology and Methods

Due to the deeply rooted philosophical discussions surrounding physical literacy and its understandings within research and practice, it is necessary to align the paradigmatic assumptions of the researcher with the philosophical underpinnings of physical literacy. This alignment demonstrates a level of methodological coherence and highlights that my present paradigmatic assumptions, beliefs and values suit the methodology and methods used to answer my research question (Kivunja & Kuyini, 2017; Mayan, 2009). Maintaining a high level of methodological coherence (Mayan, 2009) is essential to producing excellent qualitative research (Tracy, 2010) and provides clarity for readers. These assumptions and the conceptual framework guided all methodological decisions throughout the research process.

Paradigmatic Assumptions

As I believe that all stakeholders make valuable contributions toward the creation of knowledge and that specific learnings of one's reality can only be gained through subjective lived experiences, this thesis was grounded within an interpretive–constructivist research paradigm (Kivunja & Kuyini, 2017; Lincoln et al., 2011). Under this perspective, I assume that multiple social and experiential realities exist, are socially constructed, and are experienced differently depending on one's interactions with others and their surrounding environments (Patton, 2015). In other words, an interpretive–constructivist paradigm encapsulates an understanding that the beliefs and worldviews held by each human being are constructed based on their personal experiences (Guba & Lincoln, 1994). This understanding aligns with key philosophical underpinnings of physical literacy, including existentialism and phenomenology (Whitehead, 2010). Furthermore, I recognize that 'expert' knowledge about one's experiences with

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Parkinson's, physical activity programming and physical literacy may only be achieved and created through the voices and perspectives shared with me.

The interpretive–constructivist paradigm comprises a relativist ontology and a transactional or subjectivist epistemology (Kivunja & Kuyini, 2017; Lincoln et al., 2011). Here, we understand that perceptions of reality can change throughout the research process and that interactions between researcher and participants allow for new social constructions regarding the studied phenomena. Throughout this research, these assumptions, in addition to the communities of practice (Wenger, 1998) conceptual framework, were used to highlight each participant's unique experiences and realities and demonstrate how these realities were shared and used in creating new knowledge. Moreover, this research emphasizes that this collaborative approach may present a more mutually acceptable inquiry framework to better understand and address participant needs within physical activity programming (Patton, 2015).

Methodology

In line with paradigmatic assumptions, a single case study design (Stake, 1995; Yin, 2014) was used as an overarching approach to gather participants' rich and detailed experiences (Merriam & Tisdell, 2016). Simons (2009) uses insight from Stake (1995) and MacDonald and Walker (1975) to provide a clear definition of a case study as “an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, program or system in a ‘real life’ context” (p. 21). Although there exists an array of qualitative methods that focus on in-depth examinations of phenomena, a case study allows a greater “degree of depth” (Hodge & Sharp, 2019, p. 63), given that a case is further defined by its particularity and boundedness (Hodge & Sharp, 2019; Merriam, 2009). Within this study, the bounded system or case included program participants of one community-based organization in Newfoundland and

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Labrador focused on delivering inclusive physical activity programming to individuals diagnosed with chronic conditions or diseases.

Additionally, consistent with the purpose of this study, interpretive description (Thorne, 2008; 2016) was used as an approach for collecting and analyzing data. Interpretive description has played a significant role in applying subjective and individualized knowledge within health and health-adjacent settings (Thorne, 2008; 2016) and can be used in combination with other approaches (Ocean et al., 2022). The reason for using interpretive description within this study was to create a “context in which engagement with the data extends the interpretive mind beyond the self-evident” (Thorne, 2016, p. 40) and to provide purposeful direction for the findings to not only shape new research questions and inquiries but also to translate findings into practical and meaningful applications for participants.

Researcher Positionality

With my background in high-level sports and athletics, my experiences with physical activity have revolved around objective metrics and standardized testing for performance purposes. My views on promoting physical activity to the general public were centralized on a utilitarian and public health perspective, whereby physical activity was viewed as a means to attain better physical health. It was not until the near completion of my undergraduate degree in Human Kinetics and Recreation that I became immensely curious about how a physically active lifestyle and meaningful movement experiences could be afforded to all individuals, and not merely those seeking involvement in high-level sports performance. Recognizing this interest, I began conversing with my current master's supervisor, Dr. Kyle Pushkarenko. His undergraduate courses introduced me to concepts such as adapted physical activity, inclusion, physical literacy, and the promotion of physical activity for all individuals. From our discussions, I was fortunate

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

to start working with him as a research assistant during the summer and fall of 2022. During this time, we explored the value that individuals experiencing disability attributed to their physical literacy development (Pushkarenko et al., 2023). This study sparked further interest in inclusive physical activity programming and the development of physical literacy for all. As this research continued, it became apparent that physical activity programming is often designed, implemented, and delivered without context-specific understandings of individuals with varying needs, abilities, or circumstances that may impact their experiences with movement. As such, I deepened my involvement in research that constantly sought participant perspectives and recognized that each individual holds valuable and 'expert' knowledge regarding their lived experiences.

Throughout this journey, I have developed a passion for inclusive physical literacy development and firmly believe that all individuals, regardless of individual characteristics or life circumstances, should have equitable opportunities to reap the benefits of physical activity and engage in movement experiences that they deem meaningful. Despite this passion, I had to recognize that my positionality and experiences are unique to me and could impact any aspect of the research process (Holmes, 2020). I further acknowledge my identity as an able-bodied, white, educated male and was, therefore, in a position of privilege and power (i.e., researcher). As such, I recognized that I was an outsider to this research and engaged in constant reflexivity regarding my positionality and the possible power dynamics that could have arisen during the study (Merriam et al., 2001). Although this position included similarities and differences to participants in the study, the interpretive-constructivist lens through which I view the world acknowledges that all individuals hold subjective experiences and perspectives that benefit the construction of new knowledge and understandings. Furthermore, as the primary investigator of

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

a qualitative study, I had to recognize my role as an interpretive instrument throughout the data collection and analysis process (Merriam et al., 2001; Holmes, 2020). Despite the various roles, positions and identities that I continue to hold, it was essential that I understood and respected the importance of acting reflexively and self-monitoring the biases, beliefs and experiences that I brought to the research process as I created knowledge alongside participants (Berger, 2015; Milner, 2007).

Case and Participant Recruitment

Following approval from Memorial University's Ethics Board (see Appendix A), the researcher sent introductory emails to prospective community-based organizations within Newfoundland and Labrador, which included preliminary information about the study's background and purpose as well as a recruitment poster (see Appendix B). Organizations within Newfoundland and Labrador were considered for this research if they (1) provided inclusive physical activity programming for individuals with varying abilities and (2) were believed to include physical literacy to some degree within their programming (identified through websites, program documents and informal introductory meetings). The researcher met with gatekeepers from five organizations in Newfoundland Labrador who met case inclusion criteria. This process included email correspondence and informal meetings with organizational gatekeepers to discuss the aims of the research as well as the organization's capacity to reach program participants who may be interested in participating. It should be noted that the initial inclusion criteria did not specify older adults with Parkinson's Disease. Instead, a broad net was casted over potential organizations based on the above criteria, which led to a meeting with the chosen organization. During introductory meetings, the gatekeeper of the chosen organization expressed the greatest interest, and demonstrated that their organization was information-rich with respect to the

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

research question (Patton, 2015). As such, the organization was purposefully selected. Once the organization was selected, the researcher provided the organizational gatekeeper with recruitment letters and information about participation in the study (see Appendix C). This information was forwarded to potential participants within the organization by the gatekeeper, with instructions to reach out to the researcher and provide their contact information if they were interested in participating. Once potential participants expressed interest in participating, the researcher sent individual emails to discuss any potential questions or concerns, and provide participants with informed consent forms (see Appendix E) and link to an online demographic form (see Appendix D). Simultaneously, the researcher began to immerse himself in the organization by attending various exercise classes so that participants could establish rapport with the researcher and put a face to the name on the documents they were receiving. During this engagement, participants also had the opportunity to ask questions regarding their potential involvement. Before the researcher attended classes, the organizational gatekeeper introduced the researcher to the participants and explained the intentions of the research and the researcher's attendance in their classes. Once all questions were addressed and informed consent forms were signed, the researcher reached out to participants to identify the most appropriate medium, location and time for them to participate in an interview.

Participating Organization

The community-based organization that served as the bounded system or case for this research study is a not-for-profit charitable organization within Newfoundland and Labrador.

Approximately four hundred individuals are members of the organization; however, only about a quarter of current members actively participate in physical activity opportunities. The organization began offering physical activity classes in 2015 and has since expanded to over 20

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

programs being offered across the province. Programming focuses on the promotion of physical activity and exercise, providing a safe space for social interactions, and empowering participants through the provision of new knowledge and educational opportunities. Various programs are offered every week and occur year-round, with the option to participate in person or virtually. Additionally, community members are able to access all programming opportunities for free, limiting potential financial barriers to participation. Here, participants can participate in programs that work best for them and engage in movement-based activities that they deem valuable (e.g., music, voice, balance).

Participant Selection

In line with interpretive description studies, a purposive sampling strategy (Patton, 2015; Thorne, 2008) was used to select 8 to 10 participants who could share insights into how programming is delivered and how their experiences in these programs may contribute toward their overall physical literacy development. An interpretive description study requires a purposeful selection of participants who, to some degree, share commonalities to create a better understanding of the phenomena in context (Thorne et al., 1997; Thorne, 2008). It is stated that studies following interpretive description typically include sample sizes of 5 and 30 (Thorne, 2008). The researcher set his aim at 8 to 10 to allow for a variety of unique perspectives from participants, therefore attaining “information power” (Malterud et al., 2021, p. 1754). The specific eligibility criteria for participants included (1) being a user (i.e., program participant) of inclusive physical activity programming within the chosen community-based organization and (2) being English-speaking. Exclusion criteria for the study only included the inability to communicate independently or with moderate support.

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Participants

The sample comprised four individuals who identified as male and four as female. All participants stated during interviews that they were previously diagnosed with Parkinson's disease. This shared identity between participants allowed the researcher to better understand their unique experiences within their movement contexts. The average age of participants was 67.4 years (range 60 to 77 years). The average duration of participation within the organization's programs was 3.4 years (range 3 months to 10 years). At the time of recruitment, all participants were currently involved in at least one physical activity program within the organization; however, the majority of participants were involved in more than one program.

Data Collection

In line with a case study design and an interpretive description approach, this research used various in-depth data sources (Patton, 2015; Thorne, 2008). As the aim of data collection was to explore participants' unique experiences within their community-based programming, the researcher primarily collected data through audio-recorded, semi-structured interviews. Before starting all interviews, each participant completed the demographic form to assist the researcher in establishing a context for the upcoming conversation. The lead researcher conducted all eight interviews at a location and time convenient to each participant. Six interviews were conducted in person at a location chosen by the participants (e.g., a private home), one online via Webex, and one via telephone.

An interview guide informed by the research focus and conceptual framework was used to obtain contextual and background information, building rapport and enabling a reciprocal attitude and communication style to elicit detailed descriptions of one's knowledge, feelings, and

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

experiences within programming. Specifically, the interview included general rapport-building questions (e.g., Tell me a little about the programs you're involved with at [Organization Name]. How did you hear about [Organization Name] and the programs they offer?), questions about participation within the organization's programming (e.g., What is or has been your goal for participating in programs offered by [Organization Name]? Tell me a story of a time when you felt these goals were being achieved.), and questions about participants' idealizations for physical activity programming (e.g., From your perspective what does an excellent program experience look like? What type of activities are included? Who would be a part of it? Where and when would you participate; see Appendix F). Additionally, due to the nature of researcher-participant relationships and the possibility of power imbalances, the researcher reiterated to participants that the study is grounded in a collaborative framework (i.e., communities of practice) that strives for collegiality rather than a stratified knowledge landscape. This approach allowed individuals to contribute as much information as they deemed necessary. It also allowed the researcher to ask follow-up questions that may not have been initially included in the interview guide (Turner, 2010), further fostering elaboration and clarification of the researcher's initial understanding or interpretations (Thorne, 2016). An expert in qualitative research reviewed the interview guide to ensure consistency and accuracy with respect to the chosen methodology, conceptual framework, and research question. Revisions were made based on their input (Smith & Sparkes, 2019).

The interviews averaged 37 minutes in duration (ranging from 28 to 52 minutes). Following the transcription of interviews, the researcher emailed each participant the raw transcript from their individual interview, seeking any comments, suggestions, changes or

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

additions they may have as a means of member reflections (Smith & McGannon, 2018; Tracy, 2010). Seven participants responded to the email, and no additions or changes were required.

In addition to interviews, data was obtained via reflexive notetaking during and after the interviews (see Appendix G). These notes included remarks on the context of the conversation, initial impressions, and points to highlight that might assist during the analysis stages. The researcher also engaged in a reflexive journal throughout the research process, which served as space for self-monitoring (Berger, 2015; Milner, 2007). More specifically, this was a space to demonstrate humility and reflexivity during all participant interactions within the case to ensure that inherent aspects of the researcher's personality, beliefs or passions do not steer encounters and the subsequent interpretations in predictable directions (Thorne, 2016).

Data Analysis

Data analysis aligned with data collection methods using an interpretive description approach. Interpretive description uses inductive analysis to understand a phenomenon by illuminating patterns, themes, and structures that may be translated into valuable and practical knowledge (Thorne et al., 2004). In line with interpretive description methods and its use of concurrent data collection and analysis (Thorne 2008, 2016), pieces of analysis begun during the data collection phase (i.e., reflexive journaling and notetaking) to ensure that ongoing interpretations were relevant to the study's purpose and research question (Merriam, 2009). The analysis stage formally began with the researcher fully immersing themselves in the data before delving further into interpretation involving coding and organizing. This step included repeatedly listening to the interview audio recordings to allow time for initial reactions and to form preliminary knowledge of the content (Thorne, 2016).

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

All audio-recorded data was transcribed (typed) verbatim by the researcher. After each interview was transcribed, the researcher went through a second time to remove all identifying information to ensure anonymity and confidentiality. At this point, all participants were assigned pseudonyms. Once completed, the researcher began an initial coding stage, making margin notes and brief highlights within the text to identify any nuances, words, phrases or tones that stood out (Thorne, 2016). During the early coding and organizing stages, Thorne et al. (2004) state that breadth is often more useful than precision so that various codes or groups of data may be examined and re-examined for the possibility of alternative perspectives. As the analysis progressed, the researcher added two distinct columns to the transcripts, labelled “exploratory comments” and “emerging themes” (see Appendix H). First, the researcher went through the transcript, organizing exploratory comments as either descriptive or interpretive. During this stage, the researcher participated in intellectual inquiry processes, constantly exploring questions such as “Why is this here? Why not something else? And what does this mean?” (Thorne et al., 2004, p. 7), to consider how the interpretative conclusions may yield “constructed truths” (p. 6). Secondly, the researcher identified connections between various exploratory comments and transcript quotes and categorized them into short-handed broader ideas (Thorne, 2016) labelled emerging themes. At this stage, a “critical companion” (Paterson & Higgs, 2005, p. 340) familiar with the phenomenon of the study reviewed the transcripts and researcher's interpretations and offered additional feedback and commentary where appropriate (Creswell & Poth, 2017). They assisted the researcher in maintaining transparency and a high level of rigour. Next, the researcher engaged in theme development using the list of emerging themes from each transcript (see Appendix I). Once this stage was completed, the researcher emailed participants their individual themes and invited them to engage in member reflection by offering thoughts or

additional comments regarding the researcher's interpretations (Smith & McGannon, 2018).

Additionally, participants had the opportunity to review themes in relation to the transcripts they previously received. Throughout all stages of analysis, reflexive notes and journal entries supplemented audio-recorded data, allowing the researcher to return to the research setting and ensure that interpretations were constantly specified in the study context (Phillippi & Lauderdale, 2018).

These steps were repeated with each transcript to allow in-depth engagement with each data set individually, highlighting the value of new knowledge and ideas from each participant, aligning with a critical element of communities of practice that states that each community member is an expert knowledge holder in their own right (Wenger et al., 2002). Finally, the researcher engaged in a cumulative analysis of all individual themes to establish overarching conclusions from the findings (see Appendix J). These overarching themes were then brought to the researcher's supervisor for consultation on relevance and connections to the physical literacy journey and the communities of practice theoretical framework (Collins & Stockton, 2018). This process included a discussion of the researcher's inductive analysis, which led to an organic interpretation of the themes that aligned with the communities of practice theoretical framework and the physical literacy journey.

Research Quality and Rigour

Research quality was addressed according to four criteria for evaluating qualitative research that Thorne (2016) states should be present for all interpretive description studies: a) epistemological integrity, b) representative credibility, c) analytic logic, and d) interpretive authority. Although criterion is commonly debated in qualitative research, it is added here to legitimize claims and potentially provide backing for the findings to be useful for similar demographics. While I

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

acknowledge the subjectivity of the human experience, and that all knowledge or findings may not be relevant to all populations or contexts, it is important to demonstrate quality criteria as a means to enhance credibility and assist with the reading and understanding of qualitative and interpretative description research.

The researcher established *epistemological integrity* by developing and performing thorough and context-specific data collection and analysis strategies that aligned with interpretive description methods (Thorne, 2008, 2016), paradigmatic assumptions, and the communities of practice theoretical framework. The overall attention to theory throughout the research process strengthens the coherence and consistency of the study. *Representative credibility* was achieved by demonstrating an understanding of previous literature on the usage of the communities of practice theoretical model of knowledge, case study research, and the interpretive description methodology. This ensured that all decisions and actions were valuable to the study and within the realm of physical literacy and community-based programming for older adults with Parkinson's. More specifically, all interpretations and claims based on the findings are consistent with the studied phenomenon and participant sample. To strengthen and confirm the researcher's constructed perception of the data, multiple data sources were used as a means of triangulation (e.g., interview data, reflexive journal), and several inductive steps were taken as a way to view and consider data beyond and single angle of vision (Thorne, 2016). The researcher achieved *analytic logic* by maintaining an audit trail of the entire research process through various data management and organization tools. Additionally, the researcher has included an in-depth summary of the data collection and analysis processes, and has emphasized transparency by providing the step-by-step inductive analysis process within the appendix (See appendix). The researcher also provided all participants with full disclosure of their roles in the

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

research process and the purpose of the study, aligning with ideas of reciprocity of communication, and knowledge sharing between researcher and participant to further promote transparent collaboration. Finally, *Interpretive authority* was established by the researcher keeping a reflexive journal throughout the research process to maintain impartiality and constantly reflect on how his beliefs and positionality may have impacted the data, asking questions such as 'How is it that I came to that understanding or make this decision?' Further, the researcher checked his interpretations and ensured accuracy of claims through multiple levels of member reflections during the data collection and analysis processes as well as by using a critical companion to ensure relevancy and accuracy of interpretations.

CHAPTER Four: Results

The data analysis from the 8 participants (pseudonyms: Ralph, Mae, James, Doug, Daphne, Debra, Brian, and Penny) included in this study generated three overarching themes. The three themes emerged from the experiences of individuals within their community-based organization and represent how their participation in the inclusive physical activity programming contributed toward their continued engagement in purposeful physical pursuits and overall physical literacy development. The three themes were a) United through participation, b) Collaboration at all levels, and c) Meaningful engagement. They reflect the shared identity, goals, and experiences that exist between participants (joint enterprise), the constant communication and collaboration that led to positive experiences within programming (mutual engagement), and the holistic growth that stemmed from programming and allowed individuals to thrive along their unique journeys (shared repertoire).

United Through Participation

Participants' experiences revealed that there is great value attributed to the community connectedness and sense of belonging that is attached to their participation in physical activity programming. Being surrounded by others who share similar identities and experiences was noted as comforting and led to more positive interactions within the physical activity environment. Mae stated, "I mean, everybody there is like you and that type of thing. You feel more comfortable; I do anyway." James elaborated on this comfortability: "It's nice to go there and see other people suffering with the same thing I'm suffering with." Here, James demonstrated how the community-based organization deepened participant unity through a collective understanding of the challenges a person with Parkinson's may experience throughout

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

their journey. Solidifying this point, Ralph stated that “having others who understand” was a primary element of his ongoing participation in programming.

More specifically, participants repeatedly mentioned that they appreciated the organization's specificity toward Parkinson's Disease. As Parkinson's is a progressive condition that has different presentations of symptoms, motor abilities, and cognitive capacities, the participants felt at ease knowing that the physical activity programming was made for them. When asked what makes programming successful for this demographic, Brian stated, “The programs that are available here are more directed on the symptoms of Parkinson's.” Doug answered the same question: “It's designed for people with Parkinson's problems and symptoms... It focuses on the problems that a person with Parkinson's has in their daily lives.” Here, Brian and Doug explained that their programming activities positively impacted activities that they partake in on a day-to-day basis. Knowing that their programs recognize their unique needs and shared goals was increasingly motivating and encouraging. With regard to one's physical literacy development, this relatedness not only enhanced experiences in physical activity programming but also motivated individuals to try new things and feel comfortable exploring their unique potential with movement. Debra continued on this idea as she stated, “I thought, well, I'm going to be with a group of people who are also living with Parkinson's. So, like, if I can't do something, I won't feel bad over it, you know what I'm trying to say.”

Through conversations about program intentionality, participants compared past experiences with other (albeit minimal) available opportunities to engage in physical activity outside of their current community-based organization. Brian contrasted a past experience to current programming as he stated:

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

They are specifically designed for patients with Parkinson's, whereas if I go over to another program at another time, it's just more for the general public. It's not a specialized exercise team. Maybe I could keep up with them, maybe not, I don't know.

Ralph also shared a more negative experience, explaining, "They sent me to a general Parkinson's class... I said what am I doing here? I was so disappointed. But then I found [Organization Name] who had things for people at my level." It is evident that having the option to attend specialized programming afforded greater comfortability while participating and that participants felt more connected when they participated amongst like-minded and individuals who shared similar identities and abilities. It was apparent that the experiences one has with physical activity and the relationships they create with their movement environments significantly impacted future participation.

Participants were further united through their involvement in physical activity programming as they share motivations for participating. Despite each individual's unique journey with Parkinson's and physical literacy, participants acknowledged a sense of togetherness as they strived toward similar goals. Motivations commonly included improving one's quality of life with Parkinson's through managing symptoms and improving one's functional capacities to continue with other activities they enjoy. James stated, "We know that there is no cure for it. But we can, you know, not stall it, but slow down the progress [of symptoms]." Ralph emphasized that his goal was "To maintain them [Parkinson's Symptoms] and slow them down." Doug pointed out his main objective was "staying mobile. That's number one, for sure." Participants shared knowledge and an understanding of the benefits of physical activity and exercise, which were also primary influences for joining the organization and continued participation. Debra stated, "Exercise is such a big, big thing with Parkinson's. So, my

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

goal is to stay as active as I can for as long as I can.” Further emphasizing this point, Penny stated,

I'm just trying to keep moving and, you know, try to improve my condition the best I can. My balance and those kinds of things. I think that's a personal goal for me, along with probably learning more about Parkinson's in itself.

Here, Penny was able to identify specific items that she wanted to address within her journey, such as activities to help improve her balance. As she stated, she also desires to learn more about Parkinson's disease itself. When individuals share knowledge regarding the nuances of their journeys, things that have worked for them, or challenges they may have faced, there is always an opportunity to learn. James reiterates this as he states:

You can talk with other people with Parkinson's, and you gain a bit from that because I want to know what kind of medications they're on, how often they take medications compared to me and what foods they like to eat and don't like to eat, which can be helpful to me as well.

Participants also highlighted that regular participation with similarly motivated individuals inspired them to continuously show up. Penny commented on this motivational climate as she stated:

So, you know, we feed off each other's energy. And it's the kind of thing with Parkinson's; you might get up and have a really bad day, and you're not feeling 100%. But if you can get yourself going and get to a class, you will feel better when you leave. And that's partly because of the exercise, but it's also because of others around you who are having a good day that will affect you as well.

As a result of constant connection to the community, participants explained the positive impact of seeing their peers succeed or make progress toward their goals. Here, physical literacy

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

development was fostered amongst all members through the creation of a positive environment that offers reciprocal support and encouragement. Penny stated,

When you see someone attend, say, yoga, boxing or exercise, and they probably weren't doing so well. And then, six months down the road, they could do some of the things they couldn't do when they started. Yeah. So, you know, that's really good to see... It gives me some satisfaction that what we're doing is doing everybody some good.

Further, participants note an overall feeling of camaraderie between members. Through the combination of shared experiences and common goals, there is a driving force that bonds individuals together, as stated by Mae, "I've made some really good friends here." This bond is evident from first contact with the organization as Brian, a relatively new member, talked about his initial reactions to the programming, "There's a lot of support there... It's one thing to have a disease and not have any support or help, but it's another thing to have a disease and see that there is support for you." He continued, "I find great solace in the people that I've dealt with so far." These connections only strengthen with time as Penny, who is a longstanding member, added,

We operate as a group, and the friendships that are formed within [Organization Name] are beyond measure. You know, it's just wonderful because we're all there for each other. You know, I get just as much support from them as they get from me.

It is clear that the overall sense of community that exists within this community-based organization is a strong facilitator for continued participation in physical activity programming. As stated by Brian, "You can have the perfect program set up, but it all depends on whether or not the participants want to go there, whether or not they want to be a part of it." Creating a welcoming, safe, and supportive environment has been a cornerstone of this program's success and encourages participants to keep coming back. Penny made the point, "You know, sometimes

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

when you have Parkinson's, you feel like an outsider in a normal world, but here, you're not."

Through their participation, participants know they are not alone and that all members are there for each other as they navigate their unique, yet shared journeys.

Collaboration at all Levels

Participants emphasized that a critical component to the success of their programming is the constant collaboration and communication between all relevant stakeholders. As all community members are understood to play a valuable role in the implementation and delivery of programming, there was mutual engagement among organization staff, external community members (e.g., healthcare practitioners), caregivers, instructors, and, most importantly, participants. A specific area where collaboration was noted at the organizational level was participant recruitment and initial engagement in programming. Since the organization is specifically delivers programming to people diagnosed with Parkinson's, they created a network which includes local healthcare practitioners and rehabilitation centers. Doug commented on this connection when he said, "It's like the left foot is [Organization Name] and the right foot is the [Local Healthcare Centre]. You know, they are working together all the time."

Additionally, the organization intentionally informs local practitioners of available opportunities so they may relay information to potential participants. Daphne stated, "Yes, we got the brochures done up and gave them to different doctors. I don't know the extent of it, but I know that my doctor has them." She further explained an advertisement strategy used by the organization in which participants play a role in disseminating information about program opportunities. Daphne emphasized this later in her interview when she mentioned, "We're the ones raising the money and making it accessible to people." This opportunity to collaborate empowers individuals to take an active role in how their programming is created and delivered

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

and provides participants with a sense of ownership and a deeper connection with the organization. Further reiterating the value of external collaboration with local healthcare, James discussed a recent conversation he had with his family physician,

She says one of the best things you can do for Parkinson's is exercise. And the more exercise you do, the better. Better than you know all the pills. She said all the pills and medicines I'll give you will never do as much as doing some exercise.

Although this conversation is slightly removed from the physical activity opportunities within the organization, it is included here to demonstrate the value of a collaborative and holistic network that is needed to deliver excellent programming for individuals living with Parkinson's.

Other essential collaborators within this community-based organization include participants' families and caregivers. Brian stated, "You need to look at participants from all facets of [Organization Name], not only those who are doing the programs but also the caregivers." Here, participants acknowledged that caregivers and family members hold valuable knowledge and 'expertise' in delivering the best possible programming to participants. Penny elaborated on the unique expertise that families and caregivers hold when she said, "People can relate when they have a partner, mother, father, or relative with Parkinson's because they've seen these people go through different changes. And that's probably just as important as any training you could get." Although all members may not interact directly with one another, there was a consensus and overall recognition that all stakeholders assist in creating opportunities for physical literacy development.

Collaborating at all levels is further explained through the partnership between participants and instructors. Participants acknowledged that programs must tailor activities to suit their needs, desires and interests through a team-based and individualized approach. In this same

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

breath, the participants stated that the instructors always seek their input and expertise to ensure that programming is delivered with intent. Ralph highlighted the need to provide individualized programming when he said,

Everyone with Parkinson's has different problems. The programs need to take each person and help them in their own way. One person can't walk, another person shakes, and each of us as a group of individuals needs to be taught in our own way, with our own issues in the group.

Further highlighting the uniqueness of one's experience with Parkinson's, Daphne commented, "There's as many different Parkinson's as there are people with Parkinson's." Through ongoing interaction with other members, participants acknowledged the diversity in how one lives with Parkinson's. When asked what a 'perfect' program would need, Penny singled out the importance of communicating with participants and incorporating their voices and knowledge into programming,

You need an influx from the participants. If you're going to create a program, you need to talk to the whole group and not just one or two people. Talk to the whole group, and ask them what they want to see involved in their program.

Here, participants demonstrated that physical literacy is only developed with the idea that participants must be the drivers in their physical activity and movement experiences. Participants continued on the dynamic of these participant-instructor partnerships, such as when Ralph said, "The instructors listen to us. They focus on the individual as well as the group," and when Daphne stated, "We're all in learning mode. So, they're open to suggestions and, you know, willing to try anything new. If we want to try something new, we just have to let them know." This collaboration is specifically highlighted as participants discuss how instructors tailor

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

activities and provide variations within programs to meet the differing needs of each participant.

Penny stated,

All of the instructors, when we get members just joining into a class or whatever, they really, you know, talk to people and scope up what their needs are so that they can tailor the class to everybody else, but also the person who's going to be a little bit different.

Creating this initial and ongoing rapport establishes a positive and welcoming environment where individuals feel comfortable and more willing to engage. As Debra stated, "You don't sit out if things are too difficult. They take into account everybody's level and everything. It makes it enjoyable." Due to the heterogeneity of Parkinson's Disease, there is often a reluctance to participate due to feelings of isolation or fear of being incapable. Doug commented that the organization and instructors aim to make programming accessible and inclusive to all individuals, "Pretty much anybody on any spectrum at any level of Parkinson's can go to this one because [instructor name removed for anonymity] gives us options." James explained that having choice and autonomy in participating is extremely valuable as he stated, "There's never a one-size-fits-all approach, you know, for everyone." Debra elaborated on these points, saying, "So I feel that they're [the instructors] not there just presenting instruction; they're there with an awareness of the condition and what people with Parkinson's may need in terms of exercise." Despite the diversity of experience with exercise or physical activity, the instructors are constantly working with participants to ensure each individual can strive toward their common goals.

Through the constant collaboration between all community members, there was a collective understanding that all relevant stakeholders are valuable in offering meaningful physical literacy opportunities for all participants.

Meaningful Engagement

Participants highlighted that their participation in programming led to a greater appreciation for movement through the provision of new opportunities and challenges that they have come to enjoy. "I find it very good because there are more different exercises than what I would normally do in the span of a day," explained Brian. Value was attributed to new learnings and takeaways, which may not have been available without their community-based organization. Participants commonly mentioned new activities, such as boxing, as a challenge that has since become a part of their regular routine. Debra stated, "I always exercise, and I'm very active. But now I do things like boxing, and I've never done that before." Penny discussed how she began boxing during her time with the organization, "I didn't know much about boxing classes and Parkinson's, so I learned about that. And you know, the challenge was there, and you meet this challenge; that's a feel-good thing." Penny continued discussing her enjoyment of boxing, saying, "It's a little bit more challenging. And I love that." Providing participants with an appropriate level of challenge is essential as it allows them to explore their unique embodied potentials with movement and navigate various approaches that may better suit their goals and needs. Debra further described this, "I find sometimes they can be a challenge, but it's a challenge I always feel I'm up for. Nothing is too difficult that it's a turn-off, and nothing is so simple that I'm not getting anything out of it." Additionally, she stated, "You're always encouraged, you know, to push yourself. But you're not encouraged to overdo it, like know your limits, as well as your strengths." Here, participants are empowered to choose programming and activities that work for them, while instructors are constantly adapting to the varying needs of each individual. Debra described the varying degrees of challenge that are offered on a day-to-day basis,

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

They're geared towards individual needs and abilities. So like, if I'm doing something, and I can probably go a step further for an exercise or a pose, say, for example, is offered that would challenge me. Whereas if I'm having a bad day, like there are different levels of challenges, I guess, that are offered.

James additionally commented on his navigation of various program offerings, stating, "I've tried to pick the classes that are best for my condition and that I get the most out of as far as I'm concerned."

Participants also discussed how program learnings transfer into meaningful takeaways outside of programming. "We go to class, and there's all kinds of encouragement, but before class, on a daily basis, we need to do our homework, our exercises at home. In a sense, class is an opportunity to show what we've done at home," Ralph explained. As participants are commonly exposed to new activities and movements, they appreciate how the instructors relate movements to their everyday lives. James provided an example, stating,

She [Instructor] says squats are great for you. 'So how many people do squats when you're home?' I said I don't do any squats at home; I just wait until I go to class. But she said it's helpful for anyone with Parkinson's to do squats every day. It helps you sit down on a toilet and get up and stuff like that. I'm gonna try to do that from now on.

Doug provided a second example, as he explained,

And it helps with daily life. Reaching up to the cupboard to get something. Our stretches and exercises are focused on stuff like that. Like you see us do the balance stuff with staggered feet, going forward and backward. That's for gait for walking.

The combination of real-life examples with answering the 'Why are we doing this?' was stated to "make all the difference in the world." Doug further explained the importance of these learnings, saying, "You're motivated to do it because, you know, it's explained to me why it's good for me." Providing these explanations and adding an educational component to

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

programming deepened participants' knowledge and understanding of movement and physical activity and increased their confidence in various settings outside of programming. Participants also found great value in the consistency and reliability of programming as a motivator for ongoing engagement. Daphne explained, "You know you got an organized program, so you do it, so if there's a time set to do it, I'll do it. Leave it to yourself, and you might not do things," while Debra said,

There are times when you feel like, for whatever reason, physically, mentally, emotionally is like, 'Oh, God, I don't think I'm gonna go today.' Yes, I'm going to go I need to go. And you go, and you feel so good that you went, yeah, know?

Finally, participants expressed that participation in programming fostered an overall sense of growth and accomplishment that extends beyond mere physical benefits. Understanding the holistic nature of programming and the holistic needs of participants, Doug highlighted, "Parkinson's is so complex and affects so many different things in so many different ways in the body, So everything here serves a purpose." Brian elaborated on his growth since he began participating in programs as he explained,

I know that I'm not gonna get better; I know right now there's no cure. But a big part of it for me was my acceptance that I have it and that there's nothing I can do to change that. So, I've been learning to live with it. I've started saying, 'Don't watch for where Parkinson's will take you; see where you can take it.'

Participants explained the familiar feelings of exclusion and uncertainty that many people experience once they are diagnosed with Parkinson's. Although there are many factors involved, participants acknowledged that the organization assisted them in overcoming these challenges and served as a facilitator of their individual growth. Debra offered a reflection on her experiences with Parkinson's and how she has witnessed growth within herself,

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

I was always hesitant, like I had early onset Parkinson's, and I was a very private person. So, I really kept to myself, and I never joined these groups initially because I was too private. And I didn't want to see other people. What could be in store for me... But I don't know. I guess over time, as more people knew about my condition, I just shed the I don't know if it was shame, embarrassment, or not wanting to face it; I don't know why, what held me back. But anyway, once I gave in to it, it was great because I met some really good people.

While each individual offered unique experiences and perspectives, the participants underlined the overall shared repertoire continuously developed throughout their programming with the community-based organization. Penny summarized a shared understanding of programming, stating,

Kind of living within the Parkinson's world, you know, sometimes your head can get all Parkinson's, and it's all you think about. And that's not healthy, it's really not. So, participating in other things outside of that makes you feel, pardon the word, 'more normal'.

Collectively, participants fostered positive attitudes toward meaningful engagement with movement and developed an understanding that regardless of one's unique circumstances, there is always something for you.

CHAPTER Five: Discussion and Conclusion

This study explored how participants' experiences within inclusive physical activity programming contributed to their physical literacy development. By applying the communities of practice theoretical model of knowledge, this study illuminates the perspectives and experiences of older adults diagnosed with Parkinson's and highlights the importance of including participants' input and perspectives in creating new and relevant knowledge in this field.

Despite all participants responding that they had not heard of the term 'physical literacy' prior to their participation in this study, their accounts echoed understandings in line with those displayed by Whitehead (2010, 2019). Participants noted that rather than solely focusing on the development of specific skills or physical competencies, more emphasis was placed on maintaining physical activity options to continuously enhance one's confidence, independence, and enjoyment with movement and purposeful physical pursuits (Almond, 2010; Whitehead, 2010). Here, physical literacy was developed on the collective understanding that despite the individuality and heterogeneity of participant journeys, all members strived toward common goals. Participants also illustrated great value toward the social connections and sense of togetherness that exists within the community-based organization. This reflects past literature of older adults in physical activity programs that have demonstrated the significance of fostering relationships among program participants in order to promote positive emotions of safety and happiness, enhance the overall motivational climate, and encourage ongoing physical activity participation (Zimmer et al., 2022). Additionally, this aligns with recent conceptualizations of physical literacy, which have sought to include a social domain (Agans et al., 2024; Sport England, 2023) to contribute towards one's lifelong engagement. The community connection and ongoing collaboration that persisted throughout organizational programming was a primary

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

contributor to sustained engagement. It afforded participants greater opportunities to expand their movement horizons and broaden their attitudes toward new physical activities (Whitehead, 2010). The community-based organization offers support, information, resources, and programs that allow participants to pursue personal goals, connect with others in a community setting, and create experiences that nurture positive relationships with movement (Whitehead, 2010; 2019). As a result, participants felt the organization's approach aligned with their unique journeys, leading to a commitment to sustained engagement with physical activity for life.

The participants in this study demonstrated that early engagement with programming was facilitated by the belief that physical activity is a useful strategy to maintain and slow down Parkinson's symptoms. Immense value was attributed to the specificity of programming for people diagnosed with Parkinson's, knowing that other participants would understand their experiences and that instructors would be conscious of their individual needs and interests. Participants' motivation to initially join and partake in programming was heightened by the idea of shared goals and desires that drive the community; within this study, this was referred to as the joint enterprise or domain. Such motivations align with those seen in previous research with people diagnosed with Parkinson's, which center around increasing or maintaining functional capacities, slowing down symptom progression, and attaining physiological/psychological benefits of physical activity (Brunet et al., 2022; Eriksson et al., 2013; Flynn et al., 2022; Hunter et al., 2019). Participants also expressed that having the opportunity to share experiences with others was comforting and created an environment that was supportive and encouraging. The relatedness between participants created a social context that inspired helping one another (e.g., sharing information and encouraging participation) while also attending to personal needs and goals. These findings follow those from Zimmer et al. (2022) who highlighted that shared

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

characteristics such as age, gender, physical abilities and other salient features affecting one's perceived social identity all play an important role in the development of relationships and social connections amongst older adults in physical activity programming. Emphasizing this social cohesiveness, participants emphasized that while physical literacy is an individualized journey, its development does not occur in isolation and that no person is responsible for navigating their unique journey alone.

Participants' positive and enjoyable feels toward programming was predominantly explained by the camaraderie between participants. Although participants highlighted that initial engagement was primarily determined by noticeable health and Parkinson's specific benefits or improvements, they noted that the friendships and bonds built within programming were critical for their continuous engagement and willingness to show up repeatedly. Participants acknowledged that these social connections positively impacted their physical literacy development, as engaging with others made programming fun and rewarding. Similarly, participants articulated their collective engagement as a means to combat common barriers or struggles that may occur in their day-to-day lives (e.g., feeling alone, general fatigue, or increased presentation of symptoms) and led to participants 'feeling good' at the end of program sessions. Participating with other older adults who could empathize with each other about similar experiences greatly increased the development of positive coping strategies and feelings of accomplishment toward physical activity engagement (Beselt et al., 2021). This increased satisfaction was evident from personal accomplishments as well as observing peers succeed, learn new skills or experience any form of individual progress. The overarching sense of togetherness among community members deepened their social connections with the group and encouraged continued participation as participants felt accountable to themselves and others

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

(Brunet et al., 2022). The participants perceived their connections within the community as more than superficial transactional relationships; it was the accumulation of many reciprocal partnerships whereby participants worked together toward common goals and where members felt comfortable expressing themselves devoid of comparison or judgment. As noted by Zimmer et al. (2022), this demonstrates that older adults play an essential role in enhancing the overall experiences of other participants within physical activity programming. More specifically, this illuminated the understanding that there is a dynamic interplay between one's independence (i.e., developing along an individual physical literacy journey) and the various interdependencies that exist within the organization (i.e., the partnerships and relationships which are required for the provision of positive and meaningful experiences with movement and physical activity). These findings align with past research on group exercise classes for people with Parkinson's (Claesson et al., 2020; Ferrusola-Pastrana et al., 2024), which found that knowing and understanding the health-related benefits of physical activity was not enough to keep people interested in participating and that people with Parkinson's were bounded by interdependencies between participants and instructors of group-based exercise programs (Ferrusola-Pastrana et al., 2024). Both studies underlined that forming friendships and meaningful connections within the exercise environment is essential to ongoing engagement.

In addition to the reciprocating positive relationships that exist within the organization (i.e., instructors, participants, organization staff), participants' accounts demonstrated a deep appreciation for continuous collaboration and communication amongst all relevant stakeholders, such as family members, caregivers, and healthcare professionals. As Parkinson's often presents with a variety of motor and non-motor complexities, which may negatively impact one's participation, Ferrusola-Pastrana et al. (2024) suggest that multifaceted approaches are required

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

to foster perceptions of belonging and meaningful involvement within the Parkinson's community. Specifically, participants in this study attributed value to their roles as active contributors within the community-based organization, allowing them to collaborate with various knowledge holders and granting them agency to participate in meaningful and enjoyable activities. Brunet et al. (2022) emphasize this notion, stating that perceptions of self-governance and autonomy support continued engagement in programming and are critical in developing self-determined motivation in people with Parkinson's. Participants expressed that for the community-based organization to succeed, all relevant stakeholders, specifically the participants themselves, must be viewed as equally valued and with unique and valuable knowledge and expertise regarding their experiences with physical activity and Parkinson's. Furthermore, Pushkarenko et al. (2023) argue that in order to attend to the dynamic and individualized nature of one's physical literacy development, physical activity programming must provide individuals with a space to voice their needs and desires as well as a safe and welcoming environment where those voices are heard and respected. As such, this study expands on similar ideas that the support individuals receive within a community environment, the culture within one's movement context, and the places and spaces in which one participates immensely influence physical literacy development (Sport England, 2023).

As these interpretations emphasize the importance of attending to participants' holistic needs within programming, there is alignment with Whitehead's operationalization of physical literacy, demonstrating that in practice, appropriate attention must be given to all domains (i.e., affective, physical, and cognitive). Durden-Myers et al. (2018) reiterate this, stating that without the inclusion of each domain, it is unlikely that physical literacy will develop according to its holistic nature. Within this study, participants attended to their physical domain through the

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

(re)development of skills and movement within various contexts, their affective domain through various mechanisms fostering motivation and self-efficacy and their cognitive domain through shared knowledge and collective understandings of physical activity experiences for people with Parkinson's. As participants acknowledged the importance of each domain within programming, it is evident that their participation in organizational programming is likely to impact their physical literacy development positively and continually lead to enjoyable movement experiences and purposeful physical pursuits.

Further illuminating the intentionality and individualization of programming, participants stated that instructors and organization staff constantly supported and welcomed their voices, concerns or suggestions regarding all things programming (e.g., activities, equipment, instruction, or space). Here, program instructors were characterized as active listeners, open-minded, and always seeking new ways to learn from participants and enhance movement experiences. Through consistent collaboration between participants and instructors, it was apparent that partnerships were built on mutual respect, and facilitated autonomy, empowerment, and a sense of personal belonging within the larger group. In other words, physical literacy was understood as something that cannot be generalized to the entire group nor presented as a strict end-point that all individuals must aim to achieve. Participants explained that instructors always operate and provide instruction with an awareness of the subjectivity of one's experiences with Parkinson's, constantly asking participants what they needed or wanted from programming and subsequently tailoring or adapting activities to meet these unique or individualized needs. Similar to one's physical literacy journey, instructors seemed to recognize that one's experiences with Parkinson's may go through periods of flux and, therefore, may require adaptations or variations to optimize experiences. The importance of tailoring exercises or physical activities

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

has been repeatedly seen in past research with older adults and people with Parkinson's (Brunet et al., 2022; Flynn et al., 2022; Jones et al., 2018), with one study finding that the mode of program delivery was less valuable to older adults compared to the instructor's capacity to tailor programming to meet individual needs (Hobbs et al., 2013). By asking participants what they need or expect from programming and attending to those needs, individuals gain a sense of ownership and control over their participation, which may not be possible through typical top-down approaches (Gluchowski et al., 2022).

Participants also emphasized that they attributed great value to the informational support they received from instructors and the organization as a whole. Instructors increased participants' knowledge and understanding of specific physical activities and movements they engaged in, and the organization offered educational opportunities for all members to learn more about Parkinson's (e.g., new research and potential innovations) and gain insight into navigating the many complexities and possible barriers that may arise along their journeys. As highlighted by Jones et al. (2018), older adults feel more confident and competent with their movement experiences if provided with an explanation of 'why' and 'how' the activities they are participating in may be beneficial. Within this study, participants explained that knowing why they were doing something led to more self-directed participation in program activities and even encouraged them to 'come out of their shell' and try new movement opportunities outside of the organization, affording them the confidence to test their limits and explore their unique embodied potentials (Whitehead, 2010). Specifically, participants began to participate in activities outside of the organization together. Here, they not only attained the associated benefits of physical activity but also seemed to develop a love for movement where their participation shifted from something they needed to do to something they wanted to do. In addition, the

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

provision of appropriate challenges within programming increased their enjoyment and created an environment that was both motivating and fun. Participants explained that since participating in community-based programs, they have tried new activities, such as boxing or yoga, which they may not have otherwise attempted. In other words, the community-based organization facilitated new opportunities for individuals to develop physical literacy and fostered a movement context that was increasingly exciting and enjoyable. This approach to program delivery aligns with what Almond and Whitehead (2012) would refer to as pedagogical sensitivity. Specifically, the instructors demonstrated 'drawing out' through assisting participants in confidence building activities and 'stretching' by challenging participants' abilities and allowing them to explore their limits and unique potentials with movement.

Furthermore, a primary takeaway that participants illustrated was the instructors' ability to relate program activities to real-life contexts and incorporate movements they engage in on a day-to-day basis. Although the organization has become the space where individuals participate in the majority of their structured activity, the learnings that they take away allow them to be more confident with movement and promote further activities that they enjoy (e.g., playing with younger family members, walking their dog, gardening, walking, biking, hiking, etc.). As such, participants achieved a level of preparedness to partake in physical activities throughout their lives and create meaning for their varied capacities to move (Whitehead, 2010). While organizational programming is one of the only local opportunities for older adults with Parkinson's to engage in inclusive physical activity, all participants expressed that they felt content with their movement experiences and perceived holistic development in themselves and other participants. Participants expressed that participation within the community-based organization fostered an environment that bolsters personal growth and community, further

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

establishing positive attitudes toward movement and a commitment to sustained engagement in physical activity. Such beliefs align with what Durden-Myers et al. (2018) would describe as human flourishing. In this sense, physical literacy was observed to develop everywhere as participants developed the motivation to engage within various movement contexts and the confidence and self-efficacy to continuously expand their movement horizons throughout life.

Study Limitations

It is important to recognize that several limitations were associated with this study. Firstly, people with Parkinson's from a single case (i.e., one community-based organization) comprised the participant sample in this study. Due to the heterogeneity of experiences with chronic conditions or diseases, and the uniqueness of individual journeys with physical activity and movement, this data may not represent or be generalizable to other participant populations who have also been diagnosed with Parkinson's. Possible differences in program offerings or opportunities between organizations could also impact the experiences of participants in different inclusive physical activity programs, leading to different findings. Additionally, all participants self-reported themselves as relatively active individuals outside of community-based programming. While each participant described unique experiences with varying types and levels of physical activity, they all expressed an intrinsic motivation to engage in active and healthy lifestyles; therefore, the findings from this study may be more applicable to others who share similar characteristics. To thoroughly explore the experiences of people with Parkinson's and their physical literacy development, future research should include individuals who are not currently active as well as individuals who may have become inactive due to negative experiences with Parkinson's or past physical activity engagement.

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Furthermore, this study did not highlight differences in perspectives that may exist because of one's progression with Parkinson's, the length of time since their diagnosis, or individual characteristics such as gender, race, ability, marital status, or secondary health conditions. Although some of these items were briefly mentioned during interview conversations, they were not included during the data analysis as it was not consistently mentioned by all participants. Future research would greatly benefit by considering participants' social identities and contexts within analysis as several studies have demonstrated that individuals feel more connected to those who they share identities with (Beauchamp et al., 2021; Zimmer et al., 2022). While study aimed to broadly explore physical activity experiences of older adults with Parkinson's and how these experiences may impact their physical literacy development, further research should examine how specific factors, characteristics, and socio-demographic data may contribute to the necessity for individualized approaches and the idea that all individuals move along unique physical literacy journeys. Considering such factors may illuminate various nuances in participant experiences that were not captured in this study. To more accurately and holistically understand the experiences of this older adults with Parkinson's within community-based programming, it would be valuable to make use of ecological approaches that consider participants' broader environmental and social contexts. Finally, due to the geographical limitations of the researcher, all in-person interviews had to occur within St. John's, Newfoundland and surrounding areas. Individuals living in rural and remote areas were welcome to participate, however, they were limited to virtual or telephone interviews. While interviews that took place virtually and over the phone provided this research with rich data, limitations were evident due to limited or absent visual and social cues such as body language or attentiveness that commonly facilitate rapport and increase the comfortability of interviewees

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

(Smith & Sparkes, 2019). Additionally, technology-based options can present difficulties for older adult populations, which may have deterred potential participants.

Conclusion

This research serves as a valuable starting point for better understanding the experiences of older adults with chronic conditions or diseases (particularly Parkinson's) within physical activity environments and how physical literacy may be used as an appropriate approach or lens to promote holistic development and positive interactions with movement. Current literature in this area is evidently limited, however, the findings from this study demonstrate value in extending future research and initiatives to better understand and apply physical literacy within older adult populations. Despite the participants' lack of formal knowledge regarding physical literacy, it was interesting that all participants demonstrated an unconscious understanding of its holistic nature and the varied mechanisms that positively influence its development. Furthermore, participants' motivation to continuously engage in movement experiences and their appreciation of all forms of development (i.e., physical, affective, cognitive) through these experiences reiterates the notion that physical literacy is a lifespan issue and that opportunities for ongoing development must be available and accessible throughout one's life. As such, it was clear that the organization's facilitation of positive relationships with movement and physical activity impacted participants' willingness to engage in purposeful physical pursuits regularly.

While all participants in this study were older adults diagnosed with Parkinson's, the findings from this thesis should be interpreted according to one's unique condition, disease, or individual circumstances to create deeper meanings or sense of relatability. As such, findings have the potential to increase academic and public discourse regarding physical activity opportunities and physical literacy development for other underserved groups who are

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

considered to have low physical literacy levels such as older adults with other chronic conditions or diseases, older adults who have low income, who are Indigenous, or who live in rural or remote locations. It is the hope of this thesis that its contents highlight the need for individualization across various contexts and that future research must incorporate user perspectives and experiences in order to foster inclusive physical literacy development throughout the lifecourse.

Finally, the conceptual framework of the communities of practice theoretical model of knowledge (Wenger, 1998) that was used in this study highlights the significance of gathering authentic perspectives on one's experiences within physical activity programming and how the knowledge and expertise of all relevant stakeholders can work together to optimize participants' opportunities. More specifically, this work demonstrates that the communities of practice model may provide a practical operationalization of physical literacy for community-based settings. Aligning with the notion that physical literacy is an individualized journey, the communities of practice model emphasizes that all individuals hold valuable and unique knowledge. Offering individuals a safe space to share their stories and experiences, and enabling them to have a role in creating desired physical activity opportunities for themselves and others may lead to a greater appreciation for one's physical activity engagement and lead to ongoing participation. The communities of practice model is also rooted in ideas of collaboration and co-creation amongst all relevant stakeholders. As recent studies have expressed the benefits of using ecological models to better understand and apply physical literacy in general (Agans et al., 2024) and for older adults specifically (Jones et al., 2018), the communities of practice model emphasizes the inherent connection between various systems or 'ecological layers' and promotes continued communication and collaboration at all levels. Finally, the communities of practice model

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

conforms with the understanding that physical literacy is a lifelong journey as it seeks to establish meaningful and sustainable engagement and development according to the specific community's goals and needs.

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Appendix A

Ethics Approval



Interdisciplinary Committee on
Ethics in Human Research (ICEHR)

St. John's, NL, Canada A1C 5S7
Tel: 709 864-2561. icehr@mun.ca
www.mun.ca/research/ethics/humans/icehr

ICEHR Number:	20241296-SC
Approval Period:	December 1, 2023 – December 31, 2024
Funding Source:	SSHRC [RIS# 20231038]
Responsible Faculty:	Dr. Kyle Pushkarenko School of Human Kinetics and Recreation
Title of Project:	<i>Inclusion within community-based recreation: Exploring user perceptions and lived experience</i>
Title of Parent Project:	<i>Physical literacy for all in Atlantic Canada: Tailoring frameworks to meet organizational capacity and individual community need</i>
ICEHR Number:	20240768-HK

December 1, 2023

Mr. Nicholas Paul Gosse
School of Human Kinetics and Recreation
Memorial University

Dear Mr. Gosse:

Thank you for your submission to the Interdisciplinary Committee on Ethics in Human Research (ICEHR) seeking ethical clearance for the above-named research project. The Committee has reviewed the proposal and agrees that the project is consistent with the guidelines of the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS2)*. *Full ethics clearance is granted to December 31, 2024.* ICEHR approval applies to the ethical acceptability of the research, as per Article 6.3 of the *TCPS2*. Researchers are responsible for adherence to any other relevant University policies and/or funded or non-funded agreements that may be associated with the project. If funding is obtained subsequent to ethics approval, you must submit a [Funding and/or Partner Change Request](#) to ICEHR so that this ethics clearance can be linked to your award.

The *TCPS2* requires that you strictly adhere to the protocol and documents as last reviewed by ICEHR. If you need to make additions and/or modifications, you must submit an [Amendment Request](#) with a description of these changes, for the Committee's review of potential ethical issues, before they may be implemented. Submit a [Personnel Change Form](#) to add or remove project team members and/or research staff. Also, to inform ICEHR of any unanticipated occurrences, an [Adverse Event Report](#) must be submitted with an indication of how the unexpected event may affect the continuation of the project.

The *TCPS2* requires that you submit an [Annual Update](#) to ICEHR before December 31, 2024. If you plan to continue the project, you need to request renewal of your ethics clearance and include a brief summary on the progress of your research. When the project no longer involves contact with human participants, is completed and/or terminated, you are **required** to provide an annual update with a brief final summary and your file will be closed. All post-approval [ICEHR event forms](#) noted above must be submitted by selecting the *Applications: Post-Review* link on your Researcher Portal homepage. We wish you success with your research.

Yours sincerely,

James Drover, Ph.D.
Chair, Interdisciplinary Committee on
Ethics in Human Research

JD/bc

cc: Supervisor – Dr. Kyle Pushkarenko, School of Human Kinetics and Recreation

Appendix B

Recruitment Poster

PHYSICAL LITERACY FOR ALL

Are you a participant or staff member involved in inclusive physical activity opportunities in Newfoundland?

We want to hear from you!

We value your perspective and want to better understand how recreational organizations can enhance their practices.

What to Expect:

- 45-60 minute conversations about your experiences
- Your perspectives will help shape organizational efforts to be inclusive of all!

For more information, contact

Beth Howse - erhowse@mun.ca

Nicholas Gosse - npgosse@mun.ca



KIN-ECT LAB



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 or by telephone at 709-864-2861.

Appendix C

Recruitment Letter

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School of Human Kinetics and Recreation

Physical Education Building, St. John's, NL, Canada, A1C 5S7

Tel: 709 864 8129 Fax: 709 864 3979 www.mun.ca

Recruitment Letter (Users)

Dear Potential Participant:

My name is Nicholas Gosse, and I am a Master's of Kinesiology student in the School of Human Kinetics and Recreation at Memorial University of Newfoundland and Labrador (MUN). For my thesis project, I am leading a research project titled "**Participant Perspectives on Physical Literacy and Inclusion: Exploring perceptions and lived-experiences of community-based program users in Newfoundland**". The specific aims of this study are to explore how users of community-based programs perceive inclusion in relation to their physical activity experiences and physical literacy development, and to highlight factors that contribute to their feelings of inclusion or exclusion within these settings.

I am contacting you to invite you to participate in a face-to-face discussion as you have been identified as a program user with [Organization Name]. If you are interested in participating, I would like to invite you to share with us what inclusion means to you within [Organization Name] programs, stories about your involvement with [Organization Name], what factors may contribute to feelings of inclusion or exclusion at these programs and how your overall experiences within these physical activity environments contribute to your physical literacy development.

I am looking to conduct this research over the next 2 – 3 months (April – June), with discussions (an initial discussion with potential for follow ups if needed) to last approximately 30 – 60 minutes. Should you accept my invitation, I will do everything in our power to make this as convenient as possible, including where and when these discussions take place. Participation in this research is not an organization requirement.

If interested, or should you have any questions about the project, please feel free to contact me by email at npgosse@mun.ca or by phone at 709-697-3494. I would be happy to set up a phone or video call to discuss any additional details that you may require.

Thank you in advance for considering my request,

Nicholas Gosse, BHKRC, MSc (c)

School of Human Kinetics and Recreation

Memorial University of Newfoundland

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 your rights as a participant, you may contact the Chairperson of the ICEHR at icehr.chair@mun.ca or by telephone at 709-864-2861.

Appendix D

Demographic Information Form

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PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Demographic Information Form

(Participant Perspectives on Physical Literacy and Inclusion: Exploring perceptions and lived-experiences of community-based program users in Newfoundland)

Instructions: Please provide a response for each of the following questions.

1. What is your name? _____

2. What is your gender?

Female

Male

Other _____

3. What is your age? _____

4. What is/are/has been/have been your role(s) at [Organization Name]?
(please check all those that apply)

Program Participant

Parent/Guardian of a Program Participant

5. What program(s) do you participate in?

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

6. How long have you been involved with [Organization Name]? _____

7. Have you ever heard of the term “physical literacy”?

If yes, please briefly describe what this means to you:

8. Do you feel fully included within physical activities and physical activity program(s) that you participate in at [Organization Name]?

If yes, please briefly explain:

If no, please briefly explain:

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

9. Would you be open to a follow-up interview?

If yes, could you please provide your email address and telephone number

Email address: _____

Telephone number : _____

Appendix E

Informed Consent Form

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School of Human Kinetics and Recreation

Physical Education Building, St. John's, NL, Canada, A1C 5S7

Email: npgosse@mun.ca

Informed Consent Form (Users)

Title: Participant Perspectives on Physical Literacy and Inclusion: Exploring perceptions and lived-experiences of community-based users in Newfoundland

Principle Investigator: Nicholas Gosse, MSc. Kinesiology (c), School of Human Kinetics and Recreation, Memorial University of Newfoundland and Labrador

Supervisor: Kyle Pushkarenko, PhD, School of Human Kinetics and Recreation, Memorial University of Newfoundland and Labrador

You are invited to take part in a research project entitled “**Participant Perspectives on Physical Literacy and Inclusion: Exploring perceptions and lived-experiences of community-based users in Newfoundland**”

This form is part of the informed consent process, giving you a basic idea of what the research is about and what your participation will involve. It also describes your right to withdraw from the study. To decide whether you wish to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision. Take time to read this carefully and to understand the information given to you. Please contact me, Nick Gosse, by phone or email, if you have any questions about the study or would like more information before you consent. 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 withdraw from the research once it has started, there will be no negative consequences for you, now or in the future.

Introduction:

You are being invited to participate in a study exploring the community-based facilitation of inclusive physical activity programming for all, regardless of age or ability. This study is being led by Nick Gosse, a master's student in the School of Human Kinetics and Recreation at Memorial University of Newfoundland and Labrador's St. John's campus. This study will serve as Nick's thesis project. If you have any further questions, interests, or concerns, you may contact Nicholas (npgosse@mun.ca) or Nick's supervisor, Dr. Kyle Pushkarenko (709-864-2173; kpushkarenko@mun.ca).

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Purpose of Study:

The overarching goal of this project is to assist community-based organizations in Newfoundland and Labrador in promoting physical literacy development (i.e., skills, attitudes, and lifestyle habits needed to engage in active living throughout one's life) for everyone through inclusive and equitable physical activity opportunities. This specific study will serve as a pilot for a larger study of all Atlantic Canadian provinces that aims to build an authentic, evidence-based foundation of physical literacy and inclusion emerging in Canada. In collaboration with nationally and internationally-recognized partners (Abilities Centre in Whitby, ON and the International Physical Literacy Association in the United Kingdom), and community-based organizations in Atlantic Canada, a research team will explore the impact of a co-created physical literacy framework on organizational capacity for facilitating physical literacy in all individuals. The larger study will be attempting to develop this authentic foundation via the perspectives of "insiders" (e.g., program participants, parents, practitioners, program staff, and administrators) of organizations currently offering adapted physical activity programming within Atlantic Canada, and through conducting direct observation of programs in action.

Recognizing the importance of "insider" perspectives, and the value of a grassroots approach to research, the purpose of the present study is to explore specifically, the perspectives of users (i.e., program participants and/or their parents/guardians) and highlight how their experiences in inclusive physical activity programming contribute to their physical literacy development.

What You Will Do in this Study?

You have been asked to participate in face-to-face, audio-recorded semi-structured interviews. Should you wish for any of these conversations to not be recorded, please let me know, and I will halt the recording process. In the event that these discussions are not recorded, I will be taking notes (i.e., field notes) on pertinent information that may arise. These discussions will be informal in nature, and will include questions about topics such as what inclusion means to you at programs within [organization], stories about your involvement in these programs, what factors may contribute to feelings of inclusion or exclusion within physical activity programs with [organization], and your overall experiences within this physical activity environment. If you would like to participate, but do not feel comfortable with face-to-face discussions, we are open to setting up a virtual discussion or phone call should you feel that is more appropriate. Additionally, you will be asked to fill out a demographic information sheet (e.g., age, gender, years participating in programs, roles within organization, etc.). This information will provide the research team with context for the study and will be used as a supplement piece of information for data analysis.

Participation in this study is not a requirement of your participation with any of your community-based programs.

Length of Time:

While we anticipate that only one scheduled discussion will be needed, we may require a follow-up discussion for clarification purposes. In any case, all discussions will last no more than approximately 30 – 60 minutes.

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

Withdrawal from the Study:

Participants are free to withdraw from the study at any time during the anticipated 2 – 3 month window without prejudice. Should you choose to withdraw from the study prior to discussions with a research team member, you can contact me directly via email. Any information (i.e., demographic information, email correspondence) acquired up to that point will be destroyed upon your request. Should you choose to withdraw during a discussion (e.g., stopping abruptly in the middle of a conversation), any information collected will be destroyed upon your request. If you choose to withdraw yourself from the study after a discussion has taken place, you have two weeks to contact us from the time you receive a notification email to proof the transcripts (i.e., discussion summaries) and/or our interpretation of the discussions. After this two-week period, all information collected will be automatically included within our analysis. Any discussions that we have will be subject to this process. You are free to refuse to answer any question that is asked within our discussions.

Possible Benefits:

Your participation in this study will be essential in providing valuable information about the quality and inclusiveness of physical activity programs within community-based organizations in Newfoundland. The information acquired from our discussions will contribute to the development of physical literacy for all, will contribute to development of inclusive physical activity opportunities for everyone, and may help grow and attract future participants as well as key investors to these programs.

Possible Risks:

The likelihood of any psychological risk (e.g., feelings of discomfort, embarrassment, anxiety, etc.) and/or social risks (e.g., status, privacy, reputation) is very low. If you experience any effects of these possible risk, you may visit Bridge the Gapp (<https://bridgethegapp.ca/>).

Confidentiality and Anonymity:

The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use, or disclosure. Should you participate in face-to-face discussions, you will be offered the opportunity to choose the location for where these discussions are to take place. As such, your participation in the investigation will not be anonymous as there is potential for in-person, face-to-face discussions to take place with members of the research team. The lead investigator of the current study, Nicholas Gosse will be the primary individual with face-to-face contact with any participants, for the purposes of this study, however, since this project is a sub-project of a larger study, research members from the larger study may come in contact with you. These individuals include the lead investigator, Dr. Kyle Pushkarenko, and the project coordinator, Elizabeth Howse. Other members of the larger study's research team beyond the mentioned group will not have any face-to-face contact with you, however, they may come in contact with the collected data after names and potential identifying features have been removed from the data. These members include Dr. Jeff Crane, Dr. Liz Durden-Myers, Dr. Amy Latimer Cheung, Dr. Kelly Arbour-Nicitopolous, Dr. Emily Michalovic, and Ms. Makaeli Cavell. Please be advised that although the researchers will take every precaution to maintain confidentiality of the data, and anonymity of your participation in this study, the nature of data being collected within group physical activity settings may prevent the researchers from guaranteeing confidentiality. In this event, the researcher will remind all participants to respect the privacy of fellow participants.

Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance. Participation in the investigation will not be completely anonymous as it requires in-

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

person, face-to-face interviews with members of the research team. Any documentation that will be viewed by members beyond the 3-person data collection team above, and that includes identifying and/or demographic information that could compromise the anonymity of the participant will be anonymized (removal of identifying characteristics, specific demographic information, descriptions, etc.). All participants will be assigned a pseudonym that protects their anonymity, yet provides context for discussion between research team members. Additionally, all those having direct contact with participants will be required to sign a confidentiality/non-disclosure agreement, binding them to holding the strictest privacy and anonymity of all participants involved in the research.

Use, Access, Ownership, and Storage of Data:

The data for the current investigation will be primarily used by the research team to address the study's purpose – to explore the perspectives of users (i.e., program participants and/or their parents/guardians) and highlight how their experiences in inclusive physical activity programming contribute to their physical literacy development. As previously mentioned, this study will serve as a pilot for a larger study that aims to assist community-based organizations in Atlantic Canada in their quest to foster physical literacy for all through inclusive and equitable physical activity opportunities. Due to this, the data may also be used and analyzed for the larger study.

All collected and analyzed data from either the current study or the larger project will be stored online on Google Drive, which will be password protected. Any downloaded data (e.g., Excel file, program document) will be stored on a research team member's computer, which are solely used by the individual and password protected. Any hard copy of collected data that may be collected or produced during creative method protocols will be stored in locked cabinets at Memorial University's School of Human Kinetics and Recreation. Only research team members will have access to raw/anonymized data. Any other individual that may come in contact with the data (e.g., research assistant and/or transcriptionist) will be required to sign a confidentiality agreement, binding them to protect confidential information from being shared beyond the scope of this research project. Data will be kept for a minimum of five years, as required by Memorial University's policy on Integrity in Scholarly Research. At that time, all electronic files will be destroyed and/or permanently deleted from the research team members' computers and laptops.

Third-Party Data Collection and/or Storage:

Data collected from you as part of your participation in this project will be hosted and/or stored electronically through Google Drive and is subject to their privacy policy, and to any relevant laws of the country in which their servers are located. Therefore, anonymity and confidentiality of data may not be guaranteed in the rare instance, for example, that government agencies obtain a court order compelling the provider to grant access to specific data stored on their servers. If you have questions or concerns about how your data will be collected or stored, please contact the researcher and/or visit the provider's website for more information before participating. The privacy and security policy of the third-party hosting data collection and/or storing data can be found at: <https://policies.google.com/privacy>.

Reporting and Sharing of Results

We intend to use the results of these projects, including creative outputs and direct quotations from conversations with participants, for community-based presentations, as well as other educational training opportunities (e.g., web-based resources, printed documents, etc.) regarding physical literacy, and inclusive physical activity opportunities. The results of current study (sub-project), specifically, will act as Nicholas Gosse's master's thesis, and will therefore be shared through manuscript publication and/or

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

conference presentations. Nicholas' thesis will be available at Memorial University's Queen Elizabeth II Library, and can be accessed online at <https://research.library.mun.ca/>.

Should any part of the creative outputs compromise the confidentiality or anonymity of any of the participants, we will refrain from inserting them in publication or presentation form. Additionally, participants will be given the opportunity to review data throughout the collection and analysis process to ensure authenticity and truthfulness (i.e., member checking). At the end of the sub-project, Nicholas will send an email informing you that the research has been completed and ask if you are interested in receiving a short summary of the collective results from the study via email.

I Still Have Questions:

You are welcome to ask questions before, during, or after your participation in this research. If you would like more information about this study, please contact Nicholas Gosse (Lead Investigator) by email at npgosse@mun.ca, or by phone at 709-697-3494.

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 or by telephone at 709-864-2861

Consent:

By reading and completing this document you agree that:

- You have read the information about the research.
- You have been advised that you may ask questions about this study and receive answers prior to continuing.
- You are satisfied that any questions you had have been addressed.
- You understand what the study is about and what you will be doing.
- You understand that you are free to withdraw participation from the study by contacting the research team and that doing so will not affect you now or in the future.
- You understand that you are free to stop participating in an interview at any time and have data collected up to that point be destroyed if you choose to halt participation in the study.
- You understand that data cannot be removed from the analysis after transcription review.

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

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

I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions and my questions have been answered.

I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.

I agree to have my creative outputs shared to the public through knowledge dissemination efforts (i.e., academic publication, conference presentations, etc.)

I agree to the use of direct quotations by the research team through their various knowledge dissemination efforts (i.e., academic publication, conference presentations, etc.)

Signature of Participant: _____

Date: _____

For the Researcher:

I have explained this study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

Signature of Investigator: _____

Date: _____

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

Appendix F

Interview Guide

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School of Human Kinetics and Recreation

School of Human Kinetics

Physical Education Building, #2023A, St. John's, NL, Canada, A1C 5S7

Tel: 709 864 8129 Fax: 709 864 3979 www.mun.ca

Tentative Interview Guide (Users)

Program User Interview Guide:

Good (morning/afternoon/evening) [name of participant(s)]. Thank you for agreeing to participate in this interview. Your perspective is important to me, and will help me immensely as I collect insight into how physical literacy and inclusion is facilitated for individuals with varying ability levels within [organization] and beyond.

As a general reminder, we expect this discussion to take about 30 – 60 minutes. I will be asking you some fairly general questions on your physical activity programs to start, and gradually move to those more specific to your experiences with inclusion and physical literacy within these programs. Should, at any time, you feel any discomfort or uneasiness, please let me know and we can briefly pause the interview, or stop it altogether. Should you wish to refrain from answering any of the questions, just say so and we can move on to the next question.

Are you ready to start?

CLUSTER 1: General Questions

1. Tell me a little about the programs you're involved with at [Organization Name]. How did you hear about [Organization Name] and the programs they offer?
2. What are some of the positives/negatives (pros/cons) of these programs? What do you enjoy the most/least?
3. How does [Organization Name] set itself apart from other organizations that you have been a part of in the past?
4. Tell me a story of one of your more memorable experiences with [Organization Name] programs. Why does this experience stick out to you so much?

CLUSTER 2: Program/Organization Specific

5. What is or has been your goal for participating in programs offered by [Organization Name]? Tell me a story about when you felt these goals were being achieved.

PHYSICAL LITERACY DEVELOPMENT IN PEOPLE WITH PARKINSON'S

6. What motivates you when it comes to participating in physical activity in general? How do the programs at [Organization Name] contribute to this motivation to participate?
7. How do the opportunities at [Organization Name] align with your personal needs? What do you feel could improve your overall experience?
8. How do the actions, instruction, and communication of those within the programs you participate in impact your overall experience?

CLUSTER 3: Idealizations

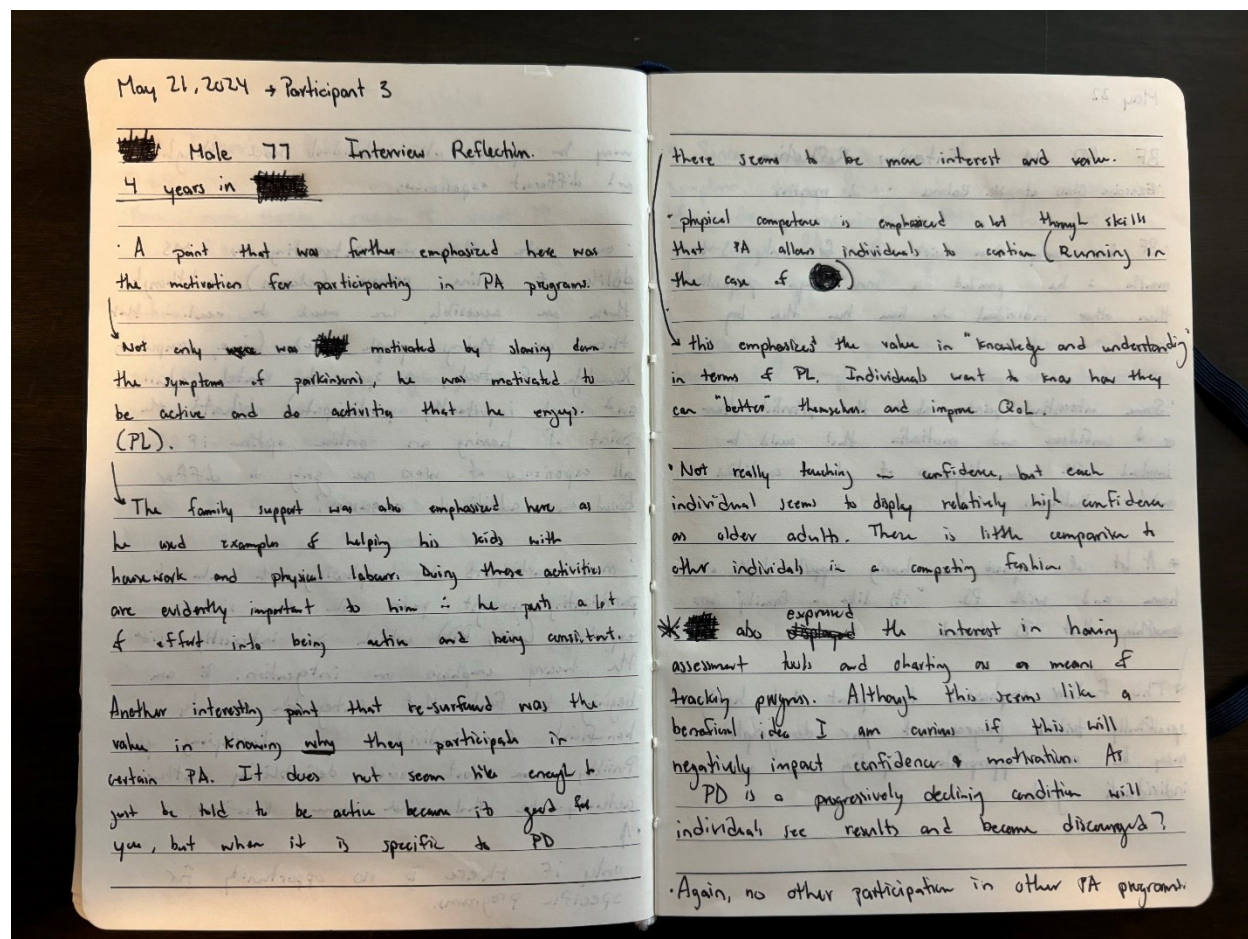
9. From your perspective, what does an excellent program experience look like? What type of activities are included? Who would be a part of it? When would you participate?
10. Describe how you would create the “perfect” physical activity environment. What and who is involved in helping this become a reality?

FINAL QUESTION

Is there anything else that you would like to share that may have been passed over or missed?

Appendix G

Example of Reflexive Notetaking Entry



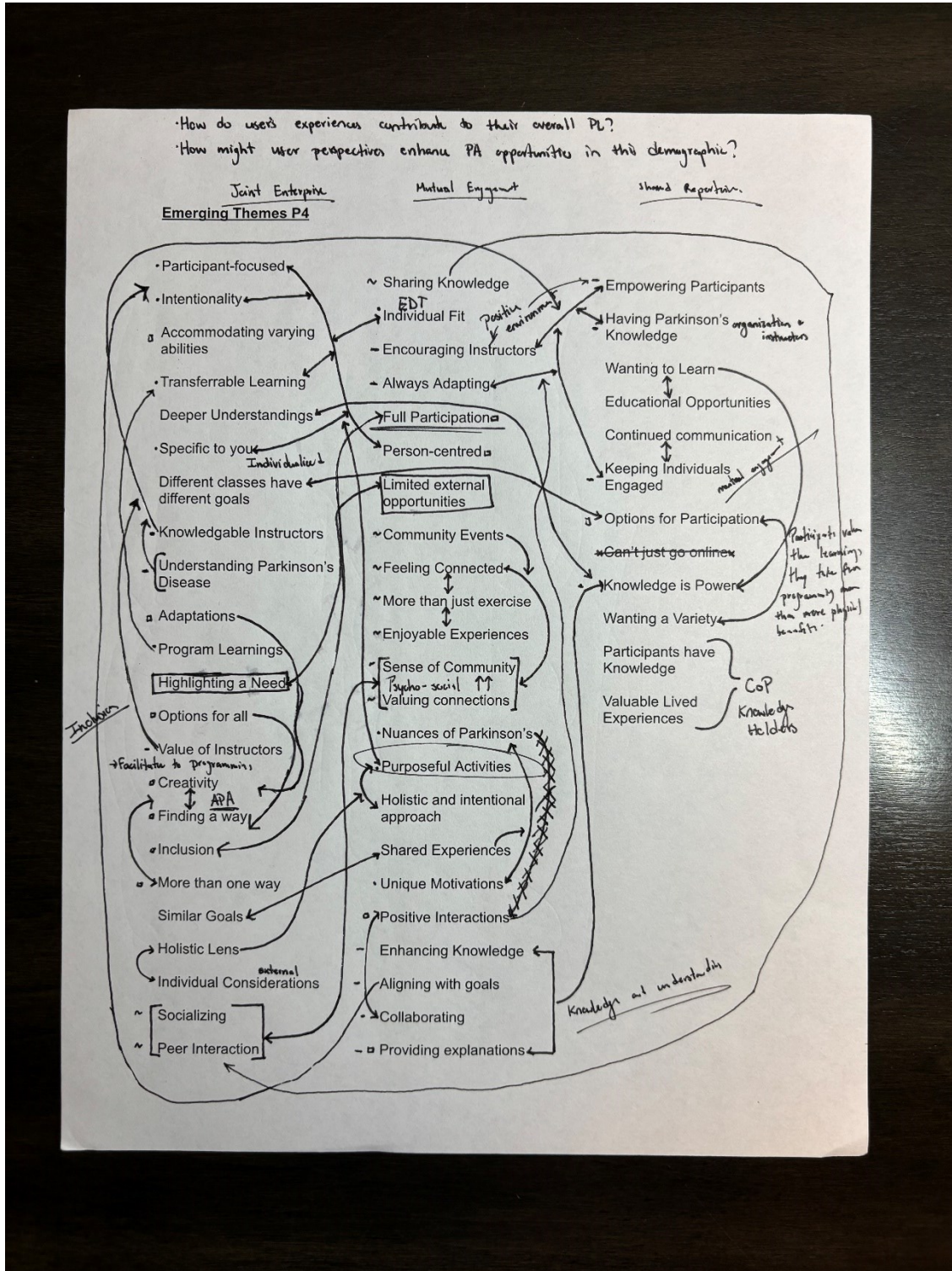
Appendix H

Chart Guiding Interview Transcript Analysis

Emerging Themes	Transcript	Exploratory Comments Red = Descriptive Blue = Interpretive

Appendix I

Example of Individual Emerging Theme Organization



Appendix J

Cumulative Theme Development Layout

