"As You're Able": Exploring Perceptions of Culturally-Inclusive Physical Activity Classes Among Older Adults

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Abstract

Culturally-inclusive physical activity (CIPA) encompasses initiatives designed to promote movement while accommodating diverse cultural backgrounds. Within this, group dynamics play an important role in fostering a sense of belonging and can improve physical activity participation. While studies on the benefits of CIPA-based programming exist, limited research on how CIPA influences engagement for older adults is available, especially through a group dynamics lens. Older adults face unique challenges when it comes to physical activity adherence which makes them an important population to research. Having more insight into the experience of group-based CIPA engagement could prove useful for identifying avenues to promote adherence, thereby impacting the health of participants positively. Thus, this qualitative study explored the perspectives of older adults (aged 60+) with CIPA program experience (e.g., BollyFit, Yoga, Tai Chi) from the Greater Toronto Area. A descriptive design integrating semi-structured interviews was used to gather information on participant's facilitators and barriers to engagement, as well as group dynamics principles. Twelve older adults were interviewed (M_{age} = 70.16; n = 8 females). Deductive and inductive thematic analysis were used to identify recurring themes, and several strategies were employed to enhance data trustworthiness. Overall, program accessibility, health benefits, and opportunities for personal growth served as key facilitators to engagement, while programmatic issues, physical/mental barriers, and language challenges hindered participation. Notably, group dynamics themes — including social connections, role modeling, and support in various capacities — emerged as central to fostering belongingness and adherence. In sum, these findings illustrate the potential of CIPA to enhance engagement and well-being among older adults by fostering inclusivity and harnessing cultural diversity when creating supportive environments. Findings can be used to inform equitable and diverse

movement opportunities for older adults and contribute to the growing discourse on culturally-sensitive approaches used for physical activity.

Keywords: Culturally-Inclusive Physical Activity, Older Adults, Physical Activity Engagement, Qualitative, Group Dynamics, Belongingness

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List of Acronyms

Acronym	Meaning	Page Number
$5R^S$	5R Shared Leadership Program	28
BME	Black and Minority Ethnic	33
CIPA	Culturally-Inclusive Physical Activity	32
CPAC	Canadian Partnership Against Cancer	25
CR	Cardiac Rehabilitation	26
CSEP	Canadian Society for Exercise Physiology	19
GTA	Greater Toronto Area	35
NSHAP	National Social Life, Health and Aging Project	19
REB	Research Ethics Board	39
USPSTF	U.S. Preventative Services Task Force	20
WHO	World Health Organization	19

"As You're Able": Exploring Perceptions of Culturally-Inclusive Physical Activity Classes Among Older Adults

Introduction

Older Adults and the Aging Process

Older adults aged 65 and over make up approximately 18.8% of Canada's total population (Statistics Canada, 2023a). This number is only set to grow as the baby boomer generation, those born between the years 1945 and 1964, approach retirement (Badley et al., 2015). Due to this increase, emphasis is being placed on public health measures such as policies, community programming, and retirement homes, that aim to improve the overall quality of life of older adults (Badley et al., 2015). Those who fall into certain age categories often have unique, distinctive needs that must be considered when creating and implementing health programming and promoting initiatives (Nelson et al., 2007; Schmidt et al., 2016; Sun et al., 2013). For example, due to the natural aging process, older adults are more likely to experience chronic health conditions such as cardiovascular disease, diabetes, and Alzheimer's disease (Nelson et al., 2007; Schmidt et al., 2016). Additionally, as a result of the COVID-19 pandemic and associated lockdown restrictions, many older adults struggled with their mental health during this time (Bruin, 2020; Forsman & Nordmyr, 2015; Rivera-Torres et al., 2021). Access to traditional support systems and community resources, which are crucial for the well-being of older adults, were restricted or limited (Bruin, 2020; Forsman & Nordmyr, 2015; Rivera-Torres et al., 2021). Moreover, on account of the governmental lockdown procedures that were put in place to reduce the spread of the COVID-19 variant, social networking opportunities were minimized, and physical distancing simultaneously became the norm within most of North America (Bruin, 2020; Forsman & Nordmyr, 2015; Rivera-Torres et al., 2021). These measures,

although necessary from a public health standpoint, had an adverse effect on the physical, mental, and social health of older adult communities (Bruin, 2020; Forsman & Nordmyr, 2015; Rivera-Torres et al., 2021).

Physical Health

Physical health is defined as an individual's ability to perform daily tasks in an efficient manner, often measured through indicators such as fitness level, muscle strength, and ability to function (Koipysheva et al., 2018). Older adults who are physically healthy have reported greater life satisfaction, positive mental health, and fewer limitations in fulfilling societal roles (Chan et al., 2020; Duarte et al., 2021; Kim et al., 2014). However, as older adults continue to age, their physical health tends to decline (Chan et al., 2020; Kim et al., 2014). Factors that contribute to negative health outcomes, such as increased sedentary behaviour, ageism, and lack of opportunities to participate in physical activity become more prominent, ultimately producing long-lasting effects such as decreased mobility (Chan et al., 2020; Duarte et al., 2021; Klaren et al. 2016; Silva et al., 2019; Taylor, 2013). This, in turn, can reduce quality of life and functional independence (Chan et al., 2020; Kim et al., 2014; Silva et al., 2019; Taylor, 2013). These negative health effects are particularly harmful, as losing functional independence can severely impact one's ability to engage in regular daily activities (e.g., standing up, walking, sitting down) and subsequently increase the risk of falls, which can often result in serious injuries (Chan et al., 2020; Grossman et al., 2018; Silva et al., 2019; Taylor, 2013; Vaishya & Vaish, 2020). Along with a natural decline in physiological functions (e.g., reduced mobility, strength), aging can independently increase the risk of chronic diseases such as cardiovascular disease, diabetes, and osteoporosis (Chan et al., 2020; Duarte et al., 2021; Grossman et al., 2018).

To illustrate the interplay between aging and physical decline, Duarte and colleagues (2021) investigated functional capacity (e.g., loss of flexibility) in a sample of sedentary older adults ($N = 19$) aged 65 to 95 years old. Their results indicated a reduction in flexibility among participants, which was exacerbated not only due to the sedentary lifestyle of the participants, but the natural aging process and a lack of opportunity to practice flexibility (Duarte et al., 2021). Ultimately, these findings underscored the significant impact of both sedentary behaviour and the aging process, highlighting the negative physical health outcomes experienced among older adults (Chan et al., 2020; Duarte et al., 2021; Klaren et al. 2016; Silva et al., 2019; Taylor, 2013).

The physical decline associated with aging also has profound implications for mental health. For example, physical limitations such as reduced flexibility and cardiovascular endurance, not only lead to decreased functional independence, but associated increases in social isolation can exacerbate mental health issues such as anxiety and depression (Andrews et al., 2019; Duarte et al., 2021; Stewart et al., 2015). Therefore, it is essential to recognize the interconnected relationship between physical and mental health when it comes to addressing the well-being of older adults (Duarte et al., 2021; Golden et al., 2009; Holm et al., 2019; Rivera-Torres et al., 2021; Vable et al., 2015).

Mental Health

Mental health, defined as the state of emotional well-being and cognitive functioning that is often influenced by social factors, is crucial to consider when addressing the aging population and quality of life (Karel et al., 2012; Karlin et al., 2008; Rivera-Torres et al., 2021; Stewart et al., 2015). A large component of mental health involves how individuals interact with others and create relationships, as well as understanding social components that contribute to an individual's sense of purpose (Andrews et al., 2019; Bartels & Naslund, 2013; Stewart et al.,

2015). Several factors influence mental health in older adults including social isolation, access to resources, and the presence of a supportive community (Andrews et al., 2019; Bartels & Naslund, 2013; Stewart et al., 2015). Additionally, psychological factors such as coping mechanisms and resilience are often impacted by the experiences of loss and life transitions that older adults face (Golden et al., 2009; Holm et al., 2019; Vable et al., 2015). Therefore, understanding mental health involves considering the complexities of life circumstances and health-related challenges that come with aging (Golden et al., 2009; Holm et al., 2019; Vable et al., 2015).

The COVID-19 pandemic starkly highlighted the vulnerabilities in older adults' mental health, as many experienced long-term social isolation from family and friends and were at an increased risk of health challenges (Rivera-Torres et al., 2021). To underscore the importance of mental health during this time, Rivera-Torres and colleagues (2021) conducted a scoping review to examine the contributors to improved mental health among older adults aged 60 and above who were exposed to the COVID-19 virus. The researchers analyzed 10 studies with a combined sample size of 4,819 older adults divided into three categories: young-old (60-69), middle-old (70-79), and older-old (80-89; Rivera-Torres et al., 2021). The researchers noted consistent patterns of leisure activity and recreation intervention involvement that led to improved mental health (e.g., stress, depression; Rivera-Torres et al., 2021). The interventions included "typical" physical activity such as walking or gardening as well as more sedentary activities such as online video conferencing or the use of chat programs (e.g., WhatsApp, Zoom; Rivera-Torres et al., 2021). It was determined that although online recreational activities helped improve mental health for all older adults, older-old adults, compared to young-old and middle-old, often preferred more physical forms of leisure (e.g., walking, aerobic exercise) over other forms (e.g.,

the use of smart technology). Rivera-Torres et al. (2021) determined that engagement in more physical leisure activities often resulted in a form of support that offered increased mental health benefits during the pandemic in this population. Despite the emerging research on older adults, it is important to note that this review lacked generalizability due to the 10 studies being more exploratory in nature, focusing on generating initial insights rather than establishing more broad conclusions, and the unique timeframe during which it was conducted (Rivera-Torres et al., 2021; Zanchetta & Poureslami, 2006). Although the authors included participants from a range of countries (e.g., Mexico, Spain, Australia, Italy), more targeted research that can help address the specific mental health needs of diverse communities within these regions is warranted. In Canada, for example, the population consists of many diverse cultural backgrounds (Schmidt et al., 2016; Statistics Canada, 2023a; Zanchetta & Poureslami, 2006).

While engagement in physical forms of leisure activity has been deemed an important source of mental health support for older adults (Rivera-Torres et al., 2021), strategies to mitigate the effects of isolation caused by life changes such as the pandemic, widowhood, retirement, and chronic health conditions are also needed (Kim et al., 2014; Lindsay-Smith et al., 2017; Rivera-Torres et al., 2021). Social health frameworks, particularly social support, have also shown utility for promoting health and wellness in association with aging (Beets et al., 2010; Campbell et al., 2007; Debnam et al., 2011; Hwang et al., 2009).

Social Health and Social Support

Social health, defined as the ability to form relationships, interact with others, and participate in communal activities, is important for enhancing overall quality of life (Douglas et al., 2017). Social health includes social support and community (Douglas et al., 2017), both of which play a vital role in fostering the development of mental health and well-being, as well as

contributing to reduced feelings of isolation, especially among the older adult population (Kim et al., 2014; Lindsay-Smith et al., 2017; Wu et al., 2022). Social support can be defined as the sharing of assistance or resources by social networks to promote individual well-being (Gottlieb & Bergen, 2010). In contrast, a community consists of a social unit that shares common values and interests (Hupcey, 1998). Older adults are particularly vulnerable to social isolation due to gradual changes in family structure that occur over time and difficulty moving into retirement or care homes (Kim et al., 2014; Lindsay-Smith et al., 2017). For example, the loss of loved ones can significantly impact one's existing social networks, further exacerbating poor mental health and negatively impacting the availability of social support (Lindsay-Smith et al., 2017). Additionally, moving into retirement homes can be especially challenging due to the sense of displacement that may occur (Lindsay-Smith et al., 2017; Wu et al., 2022). Leaving behind a familiar place and settling into a new environment can be daunting, ultimately contributing to social isolation (Lindsay-Smith et al., 2017).

Life transitions like widowhood and loss of identity compound the challenges of aging (Golden et al., 2009; Holm et al., 2019; Vable et al., 2015). Holm and colleagues (2019) conducted a systematic review of 12 studies examining widowhood and health in older adult populations. Through the process of thematic analysis, the authors found social support to be a prominent approach used for coping with widowhood challenges as social support systems can provide a sense of safety for older adults (Bartels & Naslund, 2013; Fortuna et al., 2017; Holm et al., 2019; Zhang et al., 2021). While not all older adults experience significant health-related challenges and many participate in active lifestyles, those within the categories of middle-old (70-79) and older-old (80-89) may face a loss of functional independence and heightened cognitive decline (Bartels & Naslund, 2013; Rivera-Torres et al., 2021; Williams & Kemper,

2010; Zhu et al., 2022). Overall, creating a supportive community may be beneficial for maintaining quality of life for those who need extra support (Williams & Kemper, 2010; Zhu et al., 2022). As older adults experience health-related challenges due to the natural aging process, being surrounded by a supportive community can act as a protective factor, ultimately strengthening one's quality of life (Bartels & Naslund, 2013; Fortuna et al., 2017; Netz et al., 2005; Zhang et al., 2021).

The link between social support and mental health is further evidenced in studies on suicidality. Vanderhorst and McLaren (2005) studied varying types of social relationships to determine predictors (e.g., marital status, social support resources) of poor mental health outcomes. Older adults (n = 110) were asked to complete a series of questionnaires to assess social support resources, levels of suicidal ideation, and depression (Vanderhorst & McLaren, 2005). The researchers found an inverse association between the quantity of social support available, and the degree of adverse mental health outcomes experienced among older adults (Vanderhorst & McLaren, 2005). A need for resources to increase social support among older adults struggling with their mental health, suicidal ideation in particular, was subsequently recommended. As older adults are disproportionately affected by suicidal ideation due to stressful life changes (e.g., spousal loss, retirement; Chen et al., 2016; Conejero et al., 2018; Vanderhorst & McLaren, 2005), the researchers noted the importance of prioritizing social support as it can serve as a critical lifeline for those within this vulnerable demographic (Chen et al., 2016; Conejero et al., 2018; Vanderhorst & McLaren, 2005).

Collectively, by fostering a sense of community through social support, older adults can mitigate the negative health effects of life stressors such as isolation (Campbell et al., 2007; Debnam et al., 2011; Mcphee et al., 2016; Morgan et al., 2019; Nelson et al., 2007). Indeed,

social support can help vulnerable populations alleviate poor mental health and other physical challenges such as mobility limitations by providing increased access to health-promoting resources (Chen et al., 2016; Ejiri et al., 2021; Yang et al., 2021). Umberson and Montez (2010) emphasized the value of establishing strong social relationships as a solution to increasing one's overall health. More specifically, the authors noted a strong positive correlation between mental health outcomes (e.g., emotional support, one's purpose in life), physical health outcomes (e.g., heart rate, blood pressure, stress), and the quantity and quality of social support to which an individual has access. Moreover, building strong social relationships is necessary to allow individuals to engage in and adopt behaviours that lead to positive outcomes, as well as find methods to reduce long-term anxiety and stress (Orden et al., 2012; Umberson & Montez, 2010). Shared community values, such as prioritizing health and well-being, have also been shown to influence individuals to participate in positive health behaviours such as regular physical activity routines (Campbell et al., 2007; Debnam et al., 2011). It is necessary to not only acknowledge the role of physical activity in this context, but also create effective physical activity interventions that will aid in promoting positive health outcomes for older adults (Mcphee et al., 2016; Morgan et al., 2019; Nelson et al., 2007).

Physical Activity as a Health Promotion Intervention

Considering the adverse health effects experienced with age, identifying prevention and treatment strategies to improve quality of life for Canadians aged 60 and older is crucial (Kennedy et al., 2021; Mcphee et al., 2016; Morgan et al., 2019; Nelson et al., 2007). Physical activity is a cornerstone of health and wellness promotion for older adults (Koipysheva et al., 2018). Nelson and colleagues (2007) noted that inconsistent physical activity can reduce aerobic fitness and balance, which are vital for preventing chronic diseases and functional limitations

(Dunlop et al., 2015; Jesus-Moraleida et al., 2022; Koipysheva et al., 2018). For instance, Lee et al. (2021) examined the impact of physical activity intensity (light, moderate, vigorous) on older adults with diabetes using data from the National Social Life, Health and Aging Project (NSHAP). Their analysis of 709 participants aged 50 to 93 revealed that moderate-to-vigorous activity improved physical health outcomes more effectively than light activity, particularly for those living with diabetes (Lee et al., 2021). These findings underscore the importance of guidelines that address a wide range of activity levels for older adults to alleviate physical health risks (Lee et al., 2021).

Physical activity is often assessed by fitness level, muscle strength, and functional capacity (Koipysheva et al., 2018). While the World Health Organization (WHO; 2022) emphasizes that any amount of physical activity is preferable over sedentariness, the 24-Hour Movement Guidelines developed by the Canadian Society for Exercise Physiology (CSEP; 2021) recommend that adults aged 65+ engage in $\geq$ 150 minutes of moderate-to-vigorous aerobic activities plus two days a week of muscle-strengthening, and several hours a day of light activity such as standing. These guidelines also suggest that older adults find methods to reduce sedentary behaviour to improve balance and flexibility and reduce chronic disease risk (CSEP, 2021; WHO, 2022). Notably, older adults often partake in sedentary recreational activities (e.g., video conferencing and chat platforms such as WhatsApp, Zoom), necessitating adherence to screentime recommendations (Rivera-Torres et al., 2021). Chang et al. (2018a) analyzed 1046 adults aged 65 or older and found that those aged 65 to 75 were more likely to exceed two hours of screen-time a day compared to those 75 years or older. Crucially, low physical activity levels (< 150 minutes/week) correlated with higher sedentariness via screentime/TV, highlighting the need to limit recreational screentime (Chang et al., 2018a), especially given the known adverse

health outcomes of sedentary behaviour (e.g., increased risk for cardiovascular disease and obesity; Boehm et al., 2013; Koipysheva et al., 2018; Nelson et al., 2007). Limiting recreational screentime to less than 2 hours a day, excluding physical activity programming conducted through online platforms, is important to promote a more active lifestyle (Chang et al., 2018a).

Engaging in physical activity has many benefits including the amelioration of chronic health conditions, improved bone health, and reduced risk of serious injury from falls through strength training which promotes muscle development (Cunningham et al., 2020; Grossman et al., 2018; Papa et al., 2017; Paterson & Warburton, 2010). In 2023, the US Preventive Services Task Force (USPSTF) updated its recommendations, affirming the efficacy of regular physical activity for attenuating fall risk (Grossman et al., 2018; USPSTF, 2023). Grossman and colleagues (2018) further established physical activity as a valuable intervention for fall prevention in older adults. Additionally, a longitudinal study by Soares-Miranda et al. (2015), which examined the association between physical activity and cardiovascular disease risk in over 4000 older adults across a 10-year timespan, revealed an inverse correlation, demonstrating that sustained physical activity involvement reduced the risk of heart disease and related adverse cardiac events. In another study, Marquez and colleagues (2019) observed that Latin American adults aged 50 years and older residing in the United States exhibited high rates of chronic health issues and decreased levels of physical activity. Their study emphasized the importance of culturally-sensitive intervention strategies when conducting physical activity research to address cultural and socioeconomic barriers prevalent in this population (Marquez et al., 2019). The authors suggested designing behaviour change interventions that are inclusive and attentive such as offering travel reimbursements, accommodating attendance challenges, and offering flexible class time scheduling (Marquez et al., 2019).

Beyond its previously outlined benefits, physical activity can improve heart health, enhance quality of life, and increase one's life expectancy (i.e., quantity of life; Cunningham et al., 2020; Soares-Miranda et al., 2015; Sun et al., 2013). Furthermore, as little as 15 minutes of daily physical activity has been associated with a 4% reduction in mortality rates, therefore underscoring its role in increasing life expectancy among the older adult population (Sun et al., 2013; Wen et al., 2011). Sun and colleagues (2013) further observed that engaging in regular physical activity can also prolong one's quality of life by increasing the years older adults are able to live independently without compromising overall well-being.

Furthermore, researchers in the health sciences field have not overlooked the benefits that physical activity can contribute to one's mental health (Kim et al., 2014; Nelson et al., 2007; Schmidt et al., 2016; Taylor, 2013). For example, Hallam and colleagues (2022) conducted a 50-day workplace intervention involving 1,320 adults (M_{age} = 38.9 years) who aimed to walk 10,000 steps a day. The study found significant improvement in mental health outcomes such as anxiety, stress, and better overall well-being as a result of increased physical activity among participants (Hallam et al., 2022). While this study focused on a younger adult population, it underscores the potential mental health benefits of physical activity in a broader context, which is important when examining similar outcomes in older adult populations. Among older adults, regular physical activity engagement has been shown to reduce cognitive decline and decrease symptoms of anxiety and depression (Kim et al., 2014; Nelson et al., 2007; Oliveira et al., 2019; Taylor, 2013). These effects are partly attributed to increased life satisfaction among individuals who engage in regular physical activity (Kim et al., 2014; Nelson et al., 2007; Oliveira et al., 2019; Taylor, 2013), as well as the role of social support – a factor closely tied to a sense of belonging, defined as an individual's need to feel accepted and connected to others in their

community (Proulx et al., 2016; Vanderhorst & McLaren, 2005). Studies suggest that robust social networks amplify these benefits, fostering mental and physical health (Kim et al., 2014; Nelson et al., 2007; Oliveira et al., 2019; Schmidt et al., 2016; Taylor, 2013).

Given that social support is considered a fundamental determinant of health, recognizing the impact of a diverse range of supports (e.g., emotional support, community support) is vital when it comes to initiating effective and efficient physical-activity focused interventions (Lindsay-Smith et al., 2017). Along with the benefits of familial support, peer influence also encourages older adults to partake in physical activity (Kim et al., 2014). This was exemplified in a qualitative study of 10 older Korean sports club members (aged 65+) exploring the effects of leisure activity participation and life satisfaction on long-term (greater than 15 years) engagement (Kim et al., 2014). Findings revealed a multitude of perceived positive benefits (Kim et al., 2014) including increased mental health. There was also an emergence of positive themes highlighting the relationship between social support (e.g., peer support) and physical health, as participants had built a community and social network within the sports club (Kim et al., 2014). The study underscored the interplay between social support, mental well-being, and physical health, demonstrating the value of long-term group leisure programs. These findings also pave the way for further empirical studies focused on understanding the value of targeted health promoting interventions for older adult populations. Despite these advantages, persistent barriers can hinder older adults' participation in physical activity, presenting challenges to maintaining one's overall health through this behaviour (Kim et al., 2014; Nelson et al., 2007).

Barriers to Physical Activity Engagement

Taylor (2013) noted that 3.2 million deaths take place globally each year due to the consequences of physical inactivity. Older adults, who represent a rising proportion of the

physically inactive population, face elevated risks of diminished quality of life due to sedentary lifestyles, including cardiovascular disease, diabetes, and obesity (Chan et al., 2020; Nelson et al., 2007; Taylor, 2013). For older adults, barriers to physical activity are multi-faceted, encompassing physical, psychological, socio-economic, and cultural factors that limit participation in programming (Lees et al., 2005; Marquez et al., 2019; Morgan et al., 2019; Moschny et al., 2011). It is essential to identify potential barriers to mitigate these concerns and create an environment that is well-rounded, thereby ensuring health programming and behaviour change interventions are both equitable and inclusive (Moschny et al., 2011; Warburton & Bredin, 2017).

Common obstacles to engaging in exercise include age-related concerns such as low energy, increased fatigue, a lack of time or motivation, a fear of falling, and chronic health issues (e.g., cardiovascular disease, diabetes; Boehm et al., 2013; Hughes et al., 2011; Lees et al., 2005; Morgan et al., 2019; Moschny et al., 2011). Moschny and colleagues (2011) investigated physical activity barriers among 1,937 older adults living in Germany and found that 286 reported low participation (Moschny et al., 2011). When further questioned about barriers that hindered their engagement, a multitude were identified including a lack of opportunities available and, for those aged 80+, a pervasive fear of injury stemming from perceived age-related frailty (Moschny et al., 2011; Rebar et al., 2019). This fear often deterred these older adults from participating in regular physical activity as engagement was perceived as risky (Moschny et al., 2011; Rebar et al., 2019). Although this may be true, many studies have demonstrated the benefits of physical activity for people with chronic health conditions, such as improved mood, increased balance, and better quality of life (e.g., Lees et al., 2005; Levinger et

al., 2020; Lindsay-Smith et al., 2017; Morgan et al., 2019; Moschny et al., 2011; Svantesson et al., 2015).

Socioeconomic and cultural barriers – rooted in societal norms, values, or traditions – may prevent older adults from participating in physical activity – further exacerbate disparities in physical activity access, particularly for lower income communities (Jimenez et al., 2018; Lee & Howard, 2019; Lees et al., 2005; Marquez et al., 2019; Morgan et al., 2019; Moschny et al., 2011; Pérez et al., 2008). Pérez et al. (2008) identified discrimination as a significant obstacle to accessing healthcare and health-promoting behaviours such as physical activity for Latin Americans living in the United States, exacerbating health disparities further within this population (Pérez et al., 2008). Similarly, Sharara and colleagues (2018) systematically reviewed 172 studies (2000 – 2016) on physical activity patterns of adults, children, and adolescents living in Arab countries. Results revealed that cultural norms surrounding gender roles significantly contributed to high inactivity rates, specifically among Arab women (Sharara et al., 2018). Designing physical activity programming that takes into account potential barriers marginalized communities may face is an important consideration (Marquez et al., 2019). Recommendations include finding ways to build trust with communities and ensuring that the employees or researchers setting up the intervention are culturally competent (e.g., bilingual; Marquez et al., 2019). Therefore, when seeking to understand the effectiveness of physical activity programming, it is crucial to be mindful of addressing possible cultural barriers, thereby allowing people from marginalized communities access to health resources despite systemic obstacles (Bandura, 2004; Chamravi et al., 2019; Click et al., 2019).

Lee and colleagues (2020) noted a significant concern regarding the number of older adults following the daily physical activity recommendation. The authors obtained a sample size

of 10,700 older adults aged 65+ through secondary data obtained from the Health and Retirement Study. Results revealed low adherence to physical activity guidelines, as older adults were often reluctant to partake due to perceived barriers consisting of physical limitations, decreased motivation to exercise, and safety concerns (Lee et al., 2020). These findings underscore the need for targeted strategies to promote activity among the older adult population (Killingback et al., 2017). In Canada, only 55% of those aged 55-64 and 28% of those aged 75+ meet the recommended 150 minutes of weekly physical activity (CPAC, 2023; CSEP; 2021). These statistics highlight the urgency of addressing barriers such as lack of social support, financial constraints, and fear of falls to improve adherence (DiBrezzo et al., 2005; Kim et al., 2014; Nelson et al., 2007).

In sum, recognizing and acknowledging the different barriers to physical activity engagement that older adults experience is essential to understanding and promoting facilitators (Golden et al., 2009; Holm et al., 2019). Focusing on effective support systems and related benefits, such as group-based physical activity, has demonstrated utility in this regard (Golden et al., 2009; Holm et al., 2019; Vable et al., 2015).

Group Dynamics and Group-Based Physical Activity

To address barriers to physical activity engagement among older adults, incorporating principles of group dynamics into programming shows promise (Burke et al., 2006; Forsyth, 2021; Fransen et al., 2022; Martin et al., 2009). Group dynamics, defined as the interactions between people within a social group, play a critical role in shaping health outcomes (Forsyth, 2021). Key principles of group dynamics can include social support (e.g., peer support or peer sharing), social and task cohesion (e.g., shared goals, group identity, team building), and the role of the group (e.g., leadership, defined roles) – all of which enhance participation and adherence

to physical activity (Burke et al., 2006; Estabrooks et al., 2012; Fitzgerald et al., 2012; Forsyth, 2021; Fransen et al., 2022; Martin et al., 2009).

Group-based physical activity, defined as physical activity performed collectively in a group environment or setting, is an effective avenue to increase engagement among older adults (Kim et al., 2014; Koert van der Linden et al., 2022; Lindsay-Smith et al., 2017). Such programming fosters social support and community, enabling adherence to physical activity guidelines (Killingback et al., 2017; Kim et al., 2014; Lindsay-Smith et al., 2017). Group-based programming, or structured classes within a group context creates an environment that is not only diverse and inclusive, but also educational due to the qualified professionals providing guidance (Cox et al., 2008; Neil-Sztramko et al., 2021). Within group-based programming, peer support, which involves knowledge and information sharing with other group members to overcome barriers, plays a significant role in encouraging individuals to partake in a consistent physical activity routine (Estabrooks et al., 2012; Fitzgerald et al., 2012; See et al., 2021). For example, Clark et al. (2012) evaluated a 12-week cardiac rehabilitation (CR) program (N = 225; mean age = 62.3) that included supervised physical activity sessions twice a week. Once the CR program was completed, 79 patients (M_{age} = 65) opted to partake in the "Buddy Network" peer support program where they were matched with a peer who had previously completed the CR program to help provide social support and guidance to the participants (Clark et al., 2012). Results showed that the individuals who participated in the Buddy Network program continued engaging in physical activity over a period of 12 months, while those who did not participate in the peer support program (n = 30) experienced a decline in physical activity (Clark et al., 2012). While not group-based, these findings highlight the impact of social support (e.g., through peer support) in helping older adults with heart disease adhere to physical activity over a long period

of time and highlight the importance of mentorship in promoting health and well-being (Bouchard et al., 2021; Clark et al., 2012).

For older adults, group-based physical activity helps to foster a sense of community and companionship through the increased opportunity to engage in social interactions and receive social support (Bouchard et al., 2021; Kim et al., 2014; Koert van der Linden et al., 2022; Lindsay-Smith et al., 2017). Various strategies have been noted by researchers that help to increase a sense of community in this population (Kim et al., 2014; Lindsay-Smith et al., 2017; Shin & Park, 2022; Zhao et al., 2022). For example, senior centres that offer group-based programming can foster meaningful connections between individuals (Kim et al., 2014; Lindsay-Smith et al., 2017; Shin & Park, 2022; Zhang et al., 2018). In fact, providing adequate and inclusive networks that offer a diverse range of physical activity programming can significantly improve exercise adherence (Kim et al., 2014; Koert van der Linden et al., 2022; Lindsay-Smith et al., 2017; Svantesson et al., 2015). Building on this notion, group-based physical activity programming can foster a sense of community by increasing social support and belongingness, subsequently enhancing one's ability to adhere to a healthcare plan (Fien et al., 2022; Koert van der Linden et al., 2022; Levinger et al., 2020; Lindsay-Smith et al., 2017).

Burke et al. (2006) corroborated this in a meta-analysis where they examined four physical activity intervention contexts in relation to outcomes including adherence, social interaction, quality of life, physiological effectiveness, and functional effectiveness. The contexts were: home-based programs without researcher/healthcare professional contact; home-based programs involving some researcher/healthcare professional contact; standard exercise classes; and exercise classes that focused specifically on group-dynamic principles (i.e., true groups) to enhance cohesiveness (Burke et al., 2006). In total, 44 studies representing 4,578 participants

were evaluated, many of which included a sample aged 50 years or older (*n* = 31 studies). Results revealed that true groups, those incorporating team building strategies and focused on strengthening bonds among group members, were superior to exercising in a standard exercise setting (Burke et al., 2006). Adherence to physical activity determined through class attendance was also higher when exercise classes focused on group-dynamic principles such as encouraging task and social cohesion (Burke et al., 2006; Fransen et al., 2022). Although the authors noted that all examined forms of physical activity and exercise classes were effective, findings specifically highlighted the positive benefits of social cohesion based on a team building approach when creating physical activity interventions (Burke et al., 2006). As social isolation is a common experience among older adults (Danvers, 2023), ensuring that individuals have access to a space where meaningful relationships can form is essential for psychological well-being and mental health (Burke et al., 2006; Chaudhury et al., 2016; Clark et al., 2011). While these results are promising, further research is needed to more effectively determine the influence of group-based programming on older adults aged 60 or over, especially in the context of culturally-inclusive group-based physical activity (discussed in more detail below; Moschny et al., 2011; You et al., 2021).

Research highlights that environments focused on keeping participants active by forming strong group identities and emphasizing leadership qualities can be a healthy catalyst for creating a sense of accountability (Cartagena et al., 2022; Teixeira et al., 2012). One study conducted by Fransen and colleagues (2022) observed the impact of a group walking program called the 5R Shared Leadership Program ($5R^S$), a structured intervention aimed at improving leadership qualities and group social identity among older adults. This 12-week intervention investigated the ways in which an adapted $5R^S$ program helped older adults to stay active compared to a

regular group-based walking program (Fransen et al., 2022). Out of 503 older adult participants (M_{age} = 69.23), 304 were assigned to the $5R^S$ walking group which involved participating in activities aimed at setting group goals and identifying core group values. In contrast, the standard walking group involved participants engaging in basic group walks (Fransen et al., 2022). This differed from the $5R^S$ program as it lacked activities that helped build group cohesion and group identity. The authors found that group cohesion and adherence improved to a greater extent in the $5R^S$ walking group compared to the regular walking group; factors such as peer leadership were identified as a significant group dynamics principle that contributed to these positive outcomes (Fransen et al., 2022). Ultimately, this study demonstrated that structured group-based interventions for older adults that foster shared goals, define roles, and cultivate a strong group identity alongside quality leadership and shared objectives serve as catalysts for long-term engagement (Fransen et al., 2022; Teixeira et al., 2012).

As older adults often face unique challenges to engaging in physical activity related to physical, mental, or social health determinants, understanding the principles of group dynamics, such as social cohesion, social support, and the role of the group, can be useful for identifying ways to foster participation that is easy and accessible (Cox et al., 2008; Estabrooks et al., 2012; Killingback et al., 2017; Kim et al., 2014; Martin et al., 2009; Moschny et al., 2011; Teixeira et al., 2012; You et al., 2021). Evidence-based group dynamic practices, such as team-building strategies, structured group activities, and providing mentorship or leadership roles, have been proven valuable in the literature for increasing engagement in physical activity programs (Burke et al., 2006; Clark et al., 2012; Estabrooks et al., 2012; Fransen et al., 2022; Martin et al., 2009).

Belongingness

Belongingness refers to an individual's need to feel accepted and connected to others in their community and social network (Proulx et al., 2016; Vanderhorst & McLaren, 2005). Having a strong sense of belonging can act as a form of protection against loneliness by reinforcing the feeling of being valued by the group (Carlson et al., 2012; Vanderhorst & McLaren, 2005; Orden et al., 2012; Umberson & Montez, 2010). Beyond mitigating loneliness, it enhances one's ability to cope with stress and emotional well-being (Baumeister & Leary, 1995; Minkkinen et al., 2016; Orden et al., 2012; Umberson & Montez, 2010). While loneliness affects diverse populations, older adults face heightened risks due to age-related social losses (e.g., retirement, bereavement) and reduced community engagement (Chen, 2022; Chu & Zhang, 2022; Salinas-Rodríguez et al., 2017). As a result, older adults often experience more pronounced feelings of loneliness, exacerbating the typical mental and physical health effects associated with aging (Chen, 2022; Chu & Zhang, 2022; Umberson & Montez, 2010).

In a physical activity context, ensuring older adults experience belongingness is paramount for sustaining adherence, as it cultivates environments where individuals feel valued (Carlson et al., 2012; Lee & Fan, 2023). For example, Carlson and colleagues (2012) examined environmental influences on physical activity among 719 older adults living in Baltimore and Seattle. Using a psychosocial lens, the researchers observed the relationship between facilitators of physical activity and the surrounding environment (e.g., access to parks, walkability) and analyzed the most effective health interventions for participants' long-term engagement (Carlson et al., 2012). A supportive and positive environment (e.g., fewer barriers, increased accessibility, and walkability) was found to be the most beneficial for fostering forms of social support among older adults (Carlson et al., 2012). Although the study focused on environmental and psychosocial factors, it implied that inclusive, activity-friendly spaces may indirectly foster

belongingness by promoting community engagement (Carlson et al., 2012). Ensuring older adults develop a strong sense of connection can not only aid in encouraging engagement in physical activity programming, but also adherence over time (Carlson et al., 2012; Lee & Fan, 2023; McNeil et al., 2016; Toikko & Pehkonen, 2018). By clarifying the role of belongingness in interventions, researchers may develop more effective strategies to this end (Carlson et al., 2012; McNeil et al., 2016).

Tailoring physical activity programming to older adults' specific needs ensures adaptability and cultivates a sense of belongingness (DiBrezzo et al., 2005). Community-based programs, for instance, offer accessible and cost-effective opportunities to improve muscle strength, reduce fall risks, and build social connections (Crist et al., 2022; DiBrezzo et al., 2005; Kim et al., 2014). Such initiatives create supportive and safe environments where older adults can address common concerns (e.g., fall prevention) while developing a sense of community (DiBrezzo et al., 2005; Kim et al., 2014; Nelson et al., 2007).

As previously emphasized, effective physical activity programming is essential for promoting sustained involvement through accessible, population-specific interventions (Clark et al., 2011; Hetherington et al., 2015; Hupin et al., 2015; Netz et al., 2005). While individual programming caters to personal needs, group-based programming leverages belongingness to encourage social support, cohesion, and collective participation (Fransen et al., 2022; Liu et al., 2022; Schmidt et al., 2023). As the ethnic demographic make-up of society continues to grow, physical activity interventions that cater towards diverse populations are increasingly vital to address barriers and ensure inclusivity (Ige-Elegbede etal., 2019; Irie et al., 2021). Moreover, fostering belongingness may improve adherence, and yield other positive health benefits such as chronic disease and weight management (Ackermann et al., 2008; Kent et al., 2015; Tsai et al.,

2022). Few studies to date have explored the integration of group dynamic principles in relation to cultural programming and sense of belongingness, especially among older adults (Dutta, 2007; Georgeou et al., 2022; Irie et al., 2021; Montayre et al., 2020; Periyakoil, 2019). As interventions evolve to address adherence determinants, integrating cultural diversity into program design becomes increasingly important to prioritize engagement (Beune et al., 2022; Ige-Elegbede etal., 2019; Irie et al., 2021; Montayre et al., 2020).

Cultural-Inclusivity, Physical Activity, and Older Adults

Canada's immigration policies showcase the country's value of diversity and multiculturalism, all of which contribute to stable growth and demonstrate the country's commitment to inclusivity (Statistics Canada, 2022c; Statistics Canada, 2023a). The 2021 Census highlights that over 450 different ethnicities and nationalities are represented in Canada's population (Statistics Canada, 2022c). Notably, racialized and marginalized groups now constitute 16.1% of the country's total population – a proportion that continues to rise (Statistics Canada, 2022b; Statistics Canada, 2022c). Much of the growing population in Canada consists of older adults that make up about 18.8% of the country (Statistics Canada, 2023a). Older adults who come from diverse cultural backgrounds often require specific health programming that appropriately caters to their unique needs (e.g., bilingual or multilingual instructors, recognition of cultural traditions; Georgeou et al., 2022; Ige-Elegbede et al., 2019; Irie et al., 2021; Montayre et al., 2020). However, literature examining physical activity participation among older adults is limited within the Canadian context, particularly among visible minority populations. To ensure equity and representation, it is important for researchers to prioritize factors such as cultural inclusivity, which involves respecting and accepting individuals who come from diverse cultural backgrounds, and community engagement are effectively integrated into physical activity

programming (Dutta, 2007; Georgeou et al., 2022; Irie et al., 2021; Montayre et al., 2020; Periyakoil, 2019).

Culturally-inclusive physical activity (CIPA) programming refers to accessible initiatives designed for diverse ethnocultural groups, addressing intrinsic needs through tailored approaches (Montayre et al., 2020). In group-based settings, CIPA enables researchers to acquire a deeper understanding of diverse characteristics known to impact health and well-being from physical, mental, and social standpoints (Beune et al., 2022; Montayre et al., 2020). By promoting accessibility through culturally-inclusive outreach (e.g., the integration of elements such as music, dance, traditions, languages, or movement styles) and addressing financial barriers, these programs can enhance engagement among marginalized populations (Abela et al., 2023; Bandura, 2004; Chamravi et al., 2019; Dai, 2019; Ige et al., 2019). Such efforts not only foster better health outcomes (e.g., reduced risk of cardiovascular disease, diabetes), but also help to increase social cohesion and a sense of collective efficacy (Bandura, 2004; Chamravi et al., 2019; Dai, 2019; Lees et al., 2005; Morgan et al., 2019).

Strategies for Implementing Culturally-Inclusive Programming

Research surrounding culturally-inclusive health programming has acknowledged the importance of a community-centred approach, as many diverse communities in Canada come from collectivistic cultures where social support is valued and prioritized to a greater extent than individualistic cultures (Beune et al., 2022; Ige-Elegbede etal., 2019; Irie et al., 2021; Moore & Rosenberg, 2001; Murray et al., 2016). When it comes to physical activity programming specifically, one study examined the reasons for low physical activity involvement among older adult Black and Minority Ethnic (BME) groups aged 50 and over living in the United Kingdom (Ige-Elegbede et al., 2019). The authors reviewed 1036 studies, 10 of which were qualitative and

met the inclusion criteria which included participant involvement in some form of physical activity such as walking or cycling (Ige-Elegbede et al., 2019). Through the analysis, a series of six key themes emerged, with notable emphasis placed on "cultural expectations and social responsibilities" (Ige-Elegbede et al., 2019, pg. 1). The authors concluded that these themes underscored the relationship between physical activity and health outcomes within minority groups, specifically in relation to cultural expectations that influence social behaviour (Ige-Elegbede et al., 2019). One important cultural expectation that emerged was the responsibilities placed upon BME groups such as familial obligations and cultural traditions or norms, which often hinder regular adherence to physical activity (Ige-Elegbede et al., 2019). To create programming that is not only effective, but also accessible, it is crucial to acknowledge the possible cultural expectations that minority groups face and tailor programming accordingly (Georgeou et al., 2022; Ige-Elegbede et al., 2019).

Additionally, newer research has sought to understand the effectiveness of community-based interventions, or the role of the group, to discern the needs of a diverse group of older adults as they relate to dimensions of health. Beune et al. (2022) evaluated the impact of a culturally-tailored physical activity intervention rooted in dance. The study involved assessing 26 South Asian women mostly aged 50 to 59 years living in the Netherlands, most at risk for Type 2 Diabetes (Beune et al., 2022). Using a mixed methods design, the study combined accelerometer data with qualitative interviews and focus groups. The study revealed that through incorporating culturally-inclusive programming in a group setting (19 sessions, each one hour long), specifically through the use of dance routines choreographed to Bollywood music, adherence and engagement were high and further led to better health outcomes compared to conventional physical activity interventions (Beune et al., 2022). As this was the first study conducted on the

effectiveness of Bollywood dance in Europe, the authors recommended further exploration of additional culturally-inclusive forms of physical activity as a method to increase participation rates and adherence to physical activity in diverse populations (Beune et al., 2022).

Overall, tailoring programs to cultural nuances – such as traditional dance or attire – could enhance participation among minority groups and is worthy of additional exploration (Georgeou et al., 2022; Ige-Elegbede et al., 2019; Montayre et al., 2020).

Limitations and Gaps in Existing Literature

Current research surrounding physical activity programming and its relationship with the varying dimensions of health (physical, mental, and social health) has been thorough. Yet, despite extensive knowledge regarding the benefits of more movement, uptake remains low, highlighting the need for innovative strategies (CSEP, 2021; Hallam et al., 2022; Killingback et al., 2017; Mendes de Leon et al., 2009; Stockwell et al., 2019). While there is a growing amount of research in the field, much of the literature lacks a comprehensive exploration of older adults through a culturally-inclusive lens, raising concerns about the generalizability and transferability of findings across various contexts (Kaiser et al., 2016; Killingback et al., 2017; Koert van der Linden et al., 2022; Mendes de Leon et al., 2009; Nagy et al., 2022; Varma et al., 2022). Additionally, there is a notable gap in the literature investigating the inclusion of group dynamic principles in the context of CIPA programming, particularly among older adults (Dutta, 2007; Georgeou et al., 2022; Irie et al., 2021; Montayre et al., 2020; Periyakoil, 2019). Implementing strategies such as peer support, shared goals, group identity, and the incorporation of leadership qualities has been deemed effective in several contexts and could help increase the adherence of physical activity within this population (Burke et al., 2006; Cartagena et al., 2022; Clark et al., 2012; Fransen et al., 2022; Teixeira et al., 2012).

In Canada's Greater Toronto Area (GTA), where immigration fuels rapid growth, newcomers often face a myriad of unique challenges that inhibit participation in behaviour change programming (Ahmed et al., 2015; Statistics Canada, 2022ac). The transition into Canada and a new environment can be stressful and a significant cultural adjustment (Ahmed et al., 2015; Statistics Canada, 2022ac). This may be exacerbated by language barriers, financial constraints, or a lack of physical activity interventions that are culturally-tailored to these diverse needs (Ahmed et al., 2015). Therefore, research in health promotion would benefit from an increased emphasis on understanding the cultural nuances that contribute to poor physical activity adherence within specific communities (Kaiser et al., 2016; Mendes de Leon et al., 2009; Mina et al., 2018; Nagy et al., 2022). For collectivistic cultures, that is, cultures that prioritize groupness and value interdependence (e.g., East Asian, South Asian, Indigenous), it is essential to tailor programming to focus on community, social support, and a sense of belongingness (Markus & Kitayama, 1991; Mina et al., 2018; Triandis, 1993; Winston, 2008). This could aid in catering to an especially vulnerable demographic of older adults who may otherwise struggle with feelings of loneliness, isolation, and poor mental health symptoms (Ige-Elegbede et al., 2019; Nagy et al., 2022; Varma et al., 2022; Winston, 2008). Older adults residing in Canada are a diverse group of people who come from varying racial and ethnic groups, as well as socioeconomic backgrounds (Killingback et al., 2017; Nagy et al., 2022; Statistics Canada, 2022ac; Varma et al., 2022). Understanding the role of physical, mental, and social health as it relates to such a population is critical for reducing generalizability and promoting research that is both equitable and culturally-inclusive (Hull et al., 2023; Killingback et al., 2017; Nagy et al., 2022; Stockwell et al., 2019; Varma et al., 2022).

Although the current literature on physical activity programming includes a variety of quantitative and qualitative research (e.g., Mellow et al., 2022; Peykari et al., 2015; Vandelanotte & Mummery, 2011), a notable gap exists regarding comprehensive qualitative studies that seek to understand the lived experiences of older adults' engagement with CIPA programming (Golden et al., 2009; Ige-Elegbede et al., 2019; Killingback et al., 2017; Nagy et al., 2022). While existing qualitative research provides valuable insights, many of the studies lack a focus on the specific nuances of older adults' experiences, particularly within the context of culturally-diverse populations (Lindsay-Smith et al., 2018; Golden et al., 2009). For example, of the two studies referenced, both consisted of relatively homogenous samples of older adults from Dublin, Ireland and Victoria, Australia (Lindsay-Smith et al., 2018; Golden et al., 2009). This limits the studies' ecological validity and transferability, concepts used to determine the real-world impact of the findings across more diverse communities (Kaiser et al., 2016; Killingback et al., 2017; Koert van der Linden et al., 2022). Given Toronto's diversity – where visible minorities outpace Australia's foreign-born population (Australian Bureau of Statistics, 2024) – culturally-inclusive interventions are essential (Ige-Elegbede et al., 2019). Despite the existence of qualitative studies in the context of physical activity engagement and older adults, the lived experiences of older adults coming from culturally-diverse backgrounds and engaging in CIPA have not been represented (Lindsay-Smith et al., 2018; Golden et al., 2009). An in-depth exploration of these experiences may aid in uncovering the potential barriers and facilitators to effective and inclusive physical activity programming (Ige-Elegbede et al., 2019; Mays & Pope, 2000; Nagy et al., 2022).

Purpose Statement

The purpose of this descriptive study was to qualitatively explore the experience of CIPA programming as it relates to dimensions of physical, mental, and social health and degree of engagement in a diverse sample of older adults living in the GTA of Ontario, Canada. A secondary purpose involved exploring the degree to which group dynamics principles were included as part of the CIPA experience and their impact on sense of belongingness and adherence. According to Statistics Canada (2022ac), the GTA is one of the most culturally-diverse regions in Canada, with a significant portion of residents identifying as belonging to various ethnic and cultural backgrounds. In light of this diverse cultural landscape, exploratory research is crucial for promoting cultural-inclusivity and to address the unique engagement barriers faced by different cultural groups (Montayre et al., 2020; Rowan et al., 2016). Aiming to further understand the potential themes (e.g., belongingness) that relate to engagement in physical activity programming (Montayre et al., 2020; Rowan et al., 2016) is also vital. It is hoped that the perceptions shared by older adults will inform improvements regarding the effectiveness and efficiency of physical activity programming for culturally-diverse populations. Such health promotion strategies may serve to bridge the gap between the need for CIPA programming and heightened participant engagement in group-based physical activity: all of which may impact physical, mental, and social health positively (Irie et al., 2021; Nelson et al., 2007; Rowan et al., 2016; Umberson & Montez, 2010).

Method

Study Design

The study design for this research study was a descriptive qualitative research design, which enables a comprehensive understanding and summary of a "phenomenon or an event," in this case, the experiences of older adults participating in CIPA (Kowalski et al., 2018, p. 136).

Using qualitative description also involves exploring the unique experiences of a small sample of participants (Kowalski et al., 2018; Parra et al., 2019). A descriptive research design is commonly used in qualitative research and can aid in providing a rich, detailed exploration of varied experiences, ultimately allowing researchers to maintain an open mind, without any preconceived biases surrounding the phenomena being studied (Parra et al., 2019). Furthermore, unexpected themes and insights can emerge throughout the research process, helping researchers to understand the perceptions that shape older adults' engagement with CIPA programming (Kowalski et al., 2018; Parra et al., 2019). Ethical approval for this study was obtained through the Lakehead University Research Ethics Board (REB) prior to conducting this research (Appendix A) (Project Number: 1470574).

Positionality

Offering and reflecting on one's own positionality is a critical component of the qualitative research process, as it helps to clarify the subjective experiences of both the researcher and the participants, thereby allowing the researcher to become aware of their own potential biases (Thurairajah, 2019). By acknowledging the ways in which a descriptive qualitative research design (Kowalski et al., 2018) may involve a more comprehensive understanding of the perspectives and personal experiences that shape and affect the data collection process, this positionality statement was developed to increase self-awareness and enhance transparency throughout the research process (Thurairajah, 2019):

As a student researcher, I understand that my experiences as a young, educated, woman of colour provide a unique lens through which this research is conducted, specifically in regard to approaching the concept of culturally-inclusive and diverse programming. I understand the role of intersectionality regarding the data collection process. As a South Asian woman, there is

an understanding of how various races and ethnicities intersect, forming different experiences for those coming from more diverse or marginalized communities. I expected that my positionality would allow me to connect and empathize with my participants due to shared experiences and similarities in the potential barriers I have faced. On the other hand, I also recognize that my lived experiences may not be representative of all people of colour. Therefore, when conducting research, I approached interviews with a sense of humility to better understand each participant's unique experiences. Moreover, although there was some diversity among participants, I was mindful that the majority of my participants did not identify as being a part of a visible minority group, which required me to remain openminded to the ways in which participant experiences may have differed from my own. Additionally, due to my own participation in group-based physical activity classes, I recognize the role that group-based classes can play in influencing health promoting behaviours. This realization informed a reflexive approach to how I engaged with and understood participants' experiences with CIPA programming.

Relatedly, I acknowledge the difference in age between myself and my older adult participants, and through this recognition, approached the research process with empathy, sensitivity, and reflexivity. To mitigate potential biases that may have emerged, I regularly examined and reflected on my own assumptions and preconceptions through diarizing, and actively seeking feedback from my supervisor and committee members to ensure as much objectivity and understanding of the data as possible. As a researcher, I also applied strategies known to enhance the trustworthiness of the data (Kowalski et al., 2022) such as reflective listening to ensure understanding of participants' intents and meaning.

Lastly, I recognize the importance of trust that is needed within the researcher-participant relationship. Due to the descriptive nature of the research design, participants may have shared

vulnerable experiences. As a result, I prioritized building trust with participants by providing a safe and inclusive environment throughout the interview process. I actively listened, worked to establish rapport with the participants through demonstrating empathy, and was transparent about the goals of this research study.

Participants and Recruitment

To be considered eligible for this study, individuals had to be aged 60 or older and have had three months of prior experience (at minimum one class a week) in group-based CIPA classes (Tan et al., 2016; Whitt-Glover et al., 2015). As previously noted, CIPA refers to programming that intentionally caters towards individuals from diverse ethnocultural backgrounds, either through the class's structure, delivery, or overall purpose (Abela et al., 2023; Andrews et al., 2019; Barney et al., 2020; Ige et al., 2019; Montayre et al., 2020; Sandelowski, 1995). This could include certain cultural elements such as music, dance, traditions, languages, or movement styles (Abela et al., 2023; Andrews et al., 2019; Barney et al., 2020; Ige et al., 2019; Montayre et al., 2020; Sandelowski, 1995): Bollywood Fitness ™, yoga, and Tai Chi for example. To assist in delineating what can be classified as CIPA, classes consisted of bilingual or multilingual instructors, traditional or cultural attire, or the recognition of cultural traditions through dance, music, or martial arts. Furthermore, participants had to be aged 60 or older due to the recognized significance of this age group in existing literature surrounding older adults and physical activity (Rivera-Torres et al., 2021). While definitions of 'older adults' vary, many Canadians begin to experience age-related health challenges, and in some cases retire, before the age of 65 (Statistics Canada, 2023b). In fact, according to a 2023 census, approximately 45.7% of retired Canadians stated having left the workforce sooner than expected because of health-related concerns (Statistics Canada, 2023b). Ensuring participants were aged 60 or older helped

the researcher examine the relationship between physical activity programming and the well-being of older adults specifically (Abela et al., 2023; Andrews et al., 2019; Barney et al., 2020; Bartels & Naslund, 2013; Buman et al., 2010; Enamela et al., 2023).

Participants for this study were recruited using purposive sampling, which involved intentionally selecting participants who met the inclusion criteria relevant to the research objectives; snowball sampling procedures were also encouraged where current participants provided recommendations based on the criteria presented (Al-Rasheed, 2021; Coyne, 1997; Kowalski et al., 2018). While the intent was to recruit participants from diverse cultural backgrounds to ensure a wide range of perspectives, participation was not confined by cultural or ethnic background. Rather, the focus was placed on the participants' experiences of engaging in the CIPA programs themselves. To ensure a comprehensive exploration of experiences, a wide age range, 60 and over, was selected. Sample size was determined through data saturation, which occurred when collecting additional data resulted in no new information or themes (Kowalski et al., 2018; Langford et al., 2016). According to previous literature, data saturation can often be reached effectively with a sample size of approximately 12 to 15, thereby ensuring that all significant themes are efficiently explored (Andrews et al., 2019; Guest et al., 2006; Hennink & Kaiser, 2022; Rahimi & Khatooni, 2024; Sandelowski, 1995). In the current study, saturation was achieved in accordance with the sample recruited.

To assist with participant recruitment, fitness and community centres and other avenues offering CIPA programming (e.g., BollyFit) were approached in the GTA by the student researcher (Al-Rasheed, 2021; Coyne, 1997). Procedures involved reaching out both in person and through email communications (Appendix B) with a request that recruitment posters be distributed to prospective participants and/or posted in public spaces (Appendix C, Appendix D).

In-person correspondence was the primary means of communication whenever possible in order to foster a collaborative partnership for the purposes of this study. The researcher also posted the recruitment ads on community bulletin boards known to be viewed by older adults (e.g., senior centres, grocery stores) and social media posters (Appendix D) on social media sites in order to maximize visibility and encourage participation.

Data Collection

Interested participants were asked to click the link provided via email or scan a QR code on the recruitment poster which brought them to a Google Forms link that included study-related details and eligibility screening. Tear-off tabs featuring the researcher's telephone number were also included on the physical posters to support those without knowledge of or access to Wi-Fi-based recruitment methods (Kogetsu & Kato, 2022; Yancey et al., 2006). If an individual inquired about involvement using this avenue, a conversation ensued to ask the screening questions and subsequently determine the best way to provide the Letter of Information and Consent Form. Within this link participants were able to access the electronic copy of the Letter of Information (Appendix E), Eligibility Questionnaire (Appendix F), Consent Form (Appendix G) and Demographic Survey (Appendix H; Kogetsu & Kato, 2022). Upon reading the Letter of Information and completing the eligibility screening form, those who met the inclusion criteria were redirected to an online Consent Form and asked to sign it by typing their full name and checking a consent box (Kogetsu & Kato, 2022). Participants also had the option to have the Consent Form emailed to them to sign, or provide verbal consent using the Oral Consent Script (Appendix I) prior to the interview. Once consented, participants completed an online Demographic Survey (Appendix H), beginning by creating a unique identification number to

ensure anonymity. Once this took place, the individual was asked to enter their contact details so that the researcher could reach out to arrange an interview time.

This study involved the use of one-on-one semi-structured interviews (Andrews et al., 2019; Pahor et al., 2014) lasting for 30 minutes to one hour. These were conducted via Zoom or Zoom-based telephone depending upon the individual's preference. Virtual interviews were selected to provide increased accessibility for older adult participants who may have had potential time constraints or were unable to access transportation (Abela et al., 2023; Ige et al., 2019). At the outset of the interview, participants were given the opportunity to ask any questions about the Letter of Information (Appendix E) or other aspects of the study (Andrews et al., 2019). They were then asked to verbally consent to the interview process. Interviews were conducted by the student researcher, a Master's level candidate with a background in Kinesiology who also had experience with qualitative transcript analysis. The interviews were conducted using the Interview Guide (Appendix J) while simultaneously asking questions outside of the Guide if new topics emerged throughout the interview process. All sessions but one were recorded for transcription purposes. Interview transcripts were labelled by associating said interviews with a specific identification number rather than through personal identifying information (Andrews et al., 2019; Forsman et al., 2012). This ensured that all participant information remained confidential and could not be linked back to each individual participant. All information was stored securely and safely on an encrypted hard drive within a password-protected computer, only being accessible to the student researcher and the Supervisor.

Instruments

Demographic Survey

The demographic survey (Appendix H) was administered to collect contextual information about the study population including variables such as age, gender, ethnic or cultural background, languages spoken, prior experience with CIPA programming, possible barriers to participation (e.g., financial, familial obligations), and English language proficiency.

Interview Guide

The interview guide (Appendix J) that was used to conduct the semi-structured interviews included a series of open-ended questions that guided participants in sharing their feelings and experiences surrounding CIPA classes. The interview guide was informed by existing literature in the field (Wallbank et al., 2022). In line with the study purpose, the interview guide was divided into four sections: Background and History, Exploration of CIPA Involvement, Group Dynamics, and Final Thoughts. Example questions included: What challenges do you face when engaging in your fitness class? What do you enjoy about participating in this fitness class? What kinds of support do you receive from class members or instructors? Through this approach, participants had the opportunity to share their insights and lived experiences with the CIPA classes. Using broad and open-ended questions helped to foster a deeper understanding of the diverse perspective's participants had to offer (Kowalski et al., 2018; Wallbank et al., 2022).

Data Analysis

Demographic variables (e.g., age, sex, household income, education) were analyzed using descriptive statistics (e.g., frequency counts and percentages). This served a role within the qualitative analysis process as it provided context regarding participants' backgrounds and experiences during the interviews (Elo & Kyngäs, 2008; Fereday & Muir-Cochrane, 2006; Kowalski et al., 2018; Thomas, 2006). The student researcher analyzed the qualitative data through the process of thematic analysis, using both deductive and inductive approaches

(Fereday & Muir-Cochrane, 2006; Horne & Tierney, 2012; Jepson et al., 2012; Shrestha et al., 2021). While the inductive approach allowed for themes to emerge from the data organically, the deductive approach drew on pre-determined categories to help organize the data (i.e., facilitators to engagement; challenges to participation; and group dynamics and engagement; Elo & Kyngäs, 2008; Fereday & Muir-Cochrane, 2006; Kowalski et al., 2018; Shrestha et al., 2021). The inductive approach enabled new patterns that might otherwise have gone unnoticed to be uncovered while providing a deeper and more nuanced understanding of older adults and their involvement in culturally-inclusive and group-based physical activity programming (Elo & Kyngäs, 2008; Fereday & Muir-Cochrane, 2006; Kowalski et al., 2018; Thomas, 2006).

In terms of the analysis process, the audio recordings of the interview process were first transcribed verbatim by the researcher. Once transcribed, each interview transcription file was labelled with its unique identification code that was created by the participants upon enrollment. Coding began once the interviews were transcribed. The researcher began by familiarizing themselves with the text, reading through the transcripts multiple times. Throughout the coding process, transcripts were revisited often to refine codes and identify any new emerging patterns. Analysis was conducted via the process of hand coding where recurrent concepts and words emerged from the transcripts, and potential codes and patterns were identified (Kowalski et al., 2018; Shrestha et al., 2021). Detailed notes were made in the margins of printed transcripts, using highlighters to note key codes and important phrases. Once reoccurring codes were identified, the student researcher grouped them by identifying commonalities and then created themes that related to the overarching research goals surrounding CIPA programming (Kowalski et al., 2018). Using this bottom-up approach ensured participants' experiences and perceptions

were fully taken into account, and the data were not observed through a lens of preconceived notions or biases (Maneze et al., 2015; Shrestha et al., 2021).

Trustworthiness

Trustworthiness, defined as the researcher's ability to ensure confirmability and transferability of the data collected in a research study, is crucial in order to establish the proper rigor of the data obtained and the process to be transparent for all parties involved (e.g., Birt et al., 2016; Elo et al., 2014; Kowalski et al., 2018; McBrien, 2013; Spall, 1998). Reflective listening took place throughout the interviews to enhance the credibility of participant experiences and the themes being deduced (Birt et al., 2016; Braillon & Taiebi, 2020; Elo et al., 2014; Kowalski et al., 2022; Lavee & Itzchakov, 2023; McBrien, 2013; Spall, 1998). The researcher regularly shared participant responses to clarify the information shared. This technique serves as a process in which participants are given the opportunity to validate the researchers' interpretations of the data, which can aid in establishing a sense of validation and reduces researcher bias (Birt et al., 2016; Elo et al., 2014; Koert van der Linden et al., 2022). In addition, peer-debriefing, a methodology used to enhance dependability, was employed by regularly communicating with the student's supervisor and committee members to review the research process and interpretation of the data (Elo et al., 2014; Lincoln & Guba, 1985). Obtaining external perspectives has been shown to increase the overall trustworthiness of the findings (Elo et al., 2014; Lincoln & Guba, 1985; McBrien, 2013; Spall, 1998). Lastly, reflexivity - the process of reflecting on one's own background and biases - was used to address confirmability, as it allowed the researcher to remain objective throughout the research process (Koert van der Linden et al., 2022; Kowalski et al., 2018; Lincoln & Guba, 1985). Subsequently, the researcher strived to be aware of and transparent about any biases that may have arisen.

Reflexivity essentially allowed for the researcher to reflect on their positionality and critically examine how their experiences might have influenced the research process and interpretation of the data obtained (Kowalski et al., 2018).

Results and Findings

Participant Demographics

More than 20 individuals completed the Eligibility Questionnaire for this study. Of these, 12 met the inclusion criteria and proceeded to the interview phase. One participant (P1), declined to have their interview recorded. To capture their participation in the study, this individual's data is still included in the overall demographic summary (see Table 1) and their sentiments were considered throughout the thematic analysis process. Interviews took place via Zoom, an online video call platform, with each lasting approximately 30 to 60 minutes (M = 39 minutes).

The participants in this study (N = 12) represented a diverse age range spanning 60 to 85 years. Participants' sex assigned at birth was predominantly female (n = 8). Regarding ethnic and cultural backgrounds, participants self-identified as either Canadian (n = 9), Italian (n = 1), or Indian (n = 1). One Canadian participant noted they were of French Acadian and Irish descent (n = 1). Furthermore, most participants self-reported being born in Canada (n = 10) or immigrants who are now citizens of Canada (n = 1). One person identified as having Canadian parents, but they themselves were born abroad (n = 1). In terms of relationship status, the Demographic Questionnaire highlighted that most participants were married (n = 7; see Figure 1). The number of children varied across the sample with most participants having two children (n = 6). Approximate household income ranged from below $25,000 to above $100,000 (see Figure 2). Most participants shared that they have two people living in the household (n = 8).

Table 1:

Participant Demographics (*n* = 12)

Demographic	Number of Participants (*n*)	Percentage (%)
Age		
60-65	4	33.33
66-70	2	16.67
71-75	4	33.33
76-80	1	8.33
81-85	1	8.33
Sex		
Female	8	66.67
Male	4	33.33
Intersex	0	0.00
Ethnic/Cultural Background		
Canadian	10	83.33
Italian	1	8.33
Indian	1	8.33
Relationship Status		
Married	7	58.33
Separated or Divorced	2	16.67
Widowed	2	16.67
Single	1	8.33
Number of Children		
Zero	2	16.67
One	3	25.00
Two	6	50.00
Four	1	8.33
Household Income		
< $25,000	1	8.33
$25,000 - $50,000	2	16.67
$50,000 - $75,000	2	16.67
$75,000 - $100,000	1	8.33
> $100,000	4	33.33
Number of People in Household	3	25.00
One	8	66.67
Two	1	8.33
Five		
Highest Level of Education		
Doctor of Veterinary Medicine	1	8.33
Master's Degree	5	41.67
University or College Degree	3	25.00
Post-Graduate Diploma	1	8.33
Professional Certification	1	8.33

High School	1	8.33
Immigration Status		
Born in Canada	10	83.33
Canadian Citizen	1	8.33
Canadian Parents, Born Abroad	1	8.33
CIPA Programming		
Yoga	7	58.33
Tai Chi	6	50.00
Karate	1	8.33
BollyFit	1	8.33

The highest level of education completed by participants ranged from high school to post-graduate degrees. Most participants had obtained a Master's degree (n = 5), and all participants had completed secondary school (see Figure 3). Lastly, participants were recruited based on their involvement in CIPA programming. Physical activity programs that participants were involved in included yoga, Tai Chi, Karate, and Bollywood Fitness (BollyFit). Several participants were engaged in multiple CIPA programs concurrently, which explains why Table 1 displays a total exceeding the number of participants in the study. Most were involved in either yoga (n = 7), Tai Chi (n = 6), or both. Among the participants interviewed, one individual was both an instructor and an active participant in the program. This dual perspective offered insight into both leading and engaging in CIPA programming.

Figure 1:

Current Relationship Status (*n* = 12)

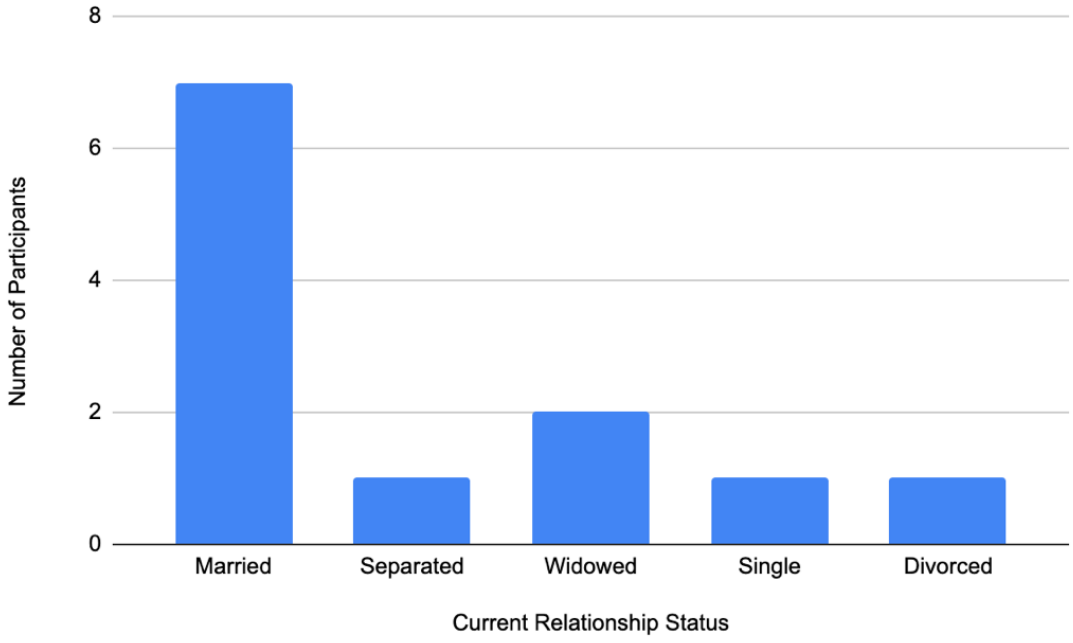


Figure 2:

Approximate Household Income (*n* = 12)

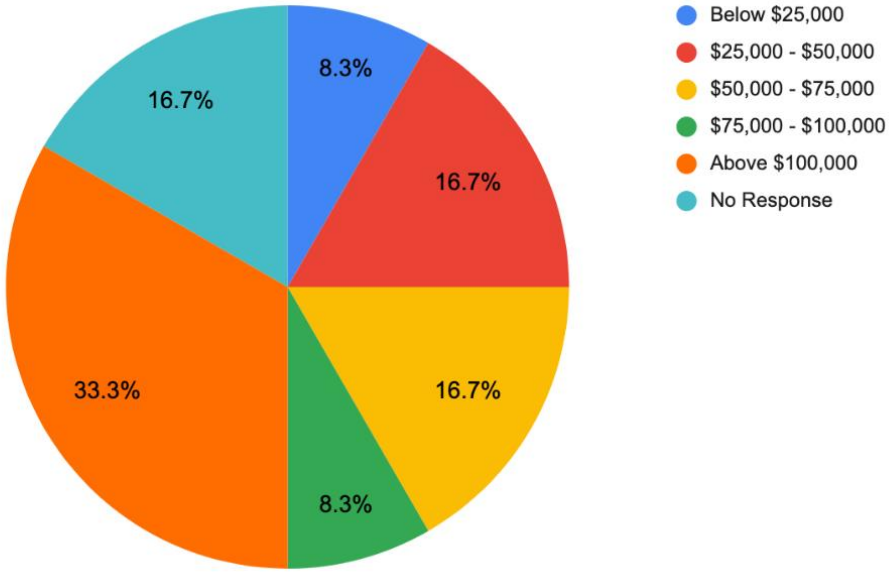
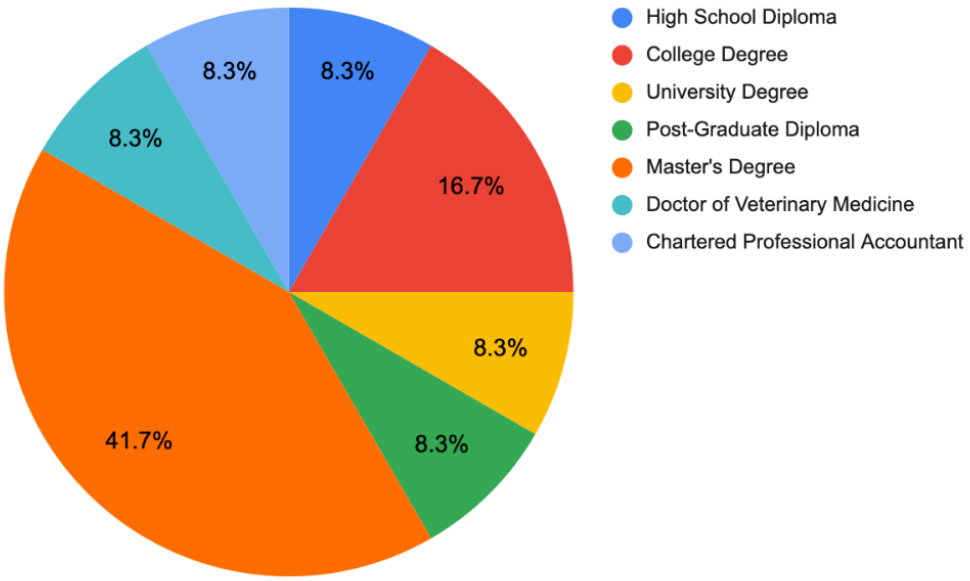


Figure 3:

Highest Level of Education Completed (*n* = 12)



Qualitative Interview Findings

This study included 12 participants, which was sufficient to achieve data saturation as the richness of the data collected and the reoccurrence of the same themes ensured a comprehensive alignment with the purpose statement (Andrews et al., 2019; Kowalski et al., 2018; Langford et al., 2016; Vasileiou et al., 2018). In total, three main categories, identified in line with the study purpose, were used to house 12 main themes that were generated from the qualitative interview findings. These categories and related themes included: Facilitators to Engagement (Accessibility of Programs; Health Benefits; Personal Growth); Group Dynamics and Engagement (Fostering Belonging and Culture; Social Connections; Role Modeling; A Supportive Community; Supportive Environment; and Supportive Leadership); and Challenges to Participation (Programmatic Issues; Physical and Mental Health Barriers; Language Barriers). Some themes also contained related subthemes (i.e., Health Benefits; Personal Growth; Fostering

Belonging and Culture). Since Group Dynamics emerged as a Facilitator to Engagement in CIPA, the two categories have been linked to reflect this relationship, highlighting how group dynamics and engagement mutually reinforce physical activity participation. To promote representativeness of sentiments shared in relation to the group, a theme/subtheme was confirmed if it was discussed by three or more participants and positioned by the student researcher based on the relevance to the categories. Detailed descriptions of each theme and subtheme are provided below, along with the representative quotes highlighting participant experiences. A thematic overview can be found in Figure 4.

Facilitators to Engagement

Facilitators to Engagement involves the factors that encourage or promote participation in CIPA programming. Several salient facilitators emerged as influential regarding CIPA program involvement and were shared by participants: Accessibility of Programs; Health Benefits (Physical Fitness; Mental Health; Interconnectivity); and Personal Growth (Heightened Self-Awareness; Confidence Building). Illustrative quotes can be found in Table 2.

Accessibility of programs was highlighted as a facilitator to engagement, with many participants sharing their appreciation for the ease of registering and attending classes. Some noted how the ability to register two weeks in advance and confirm attendance contributed to a sense of organization and accountability. Furthermore, a few participants emphasized how the close proximity and the convenience of living near the activity centers allowed for more feasible and accessible engagement. Inclusivity in the registration processes was another noteworthy aspect of accessibility, with participants highlighting flexible methods of signing up for classes. For example, online and telephone registration options made signing up convenient.

Figure 4:

Thematic Overview of Themes and Subthemes

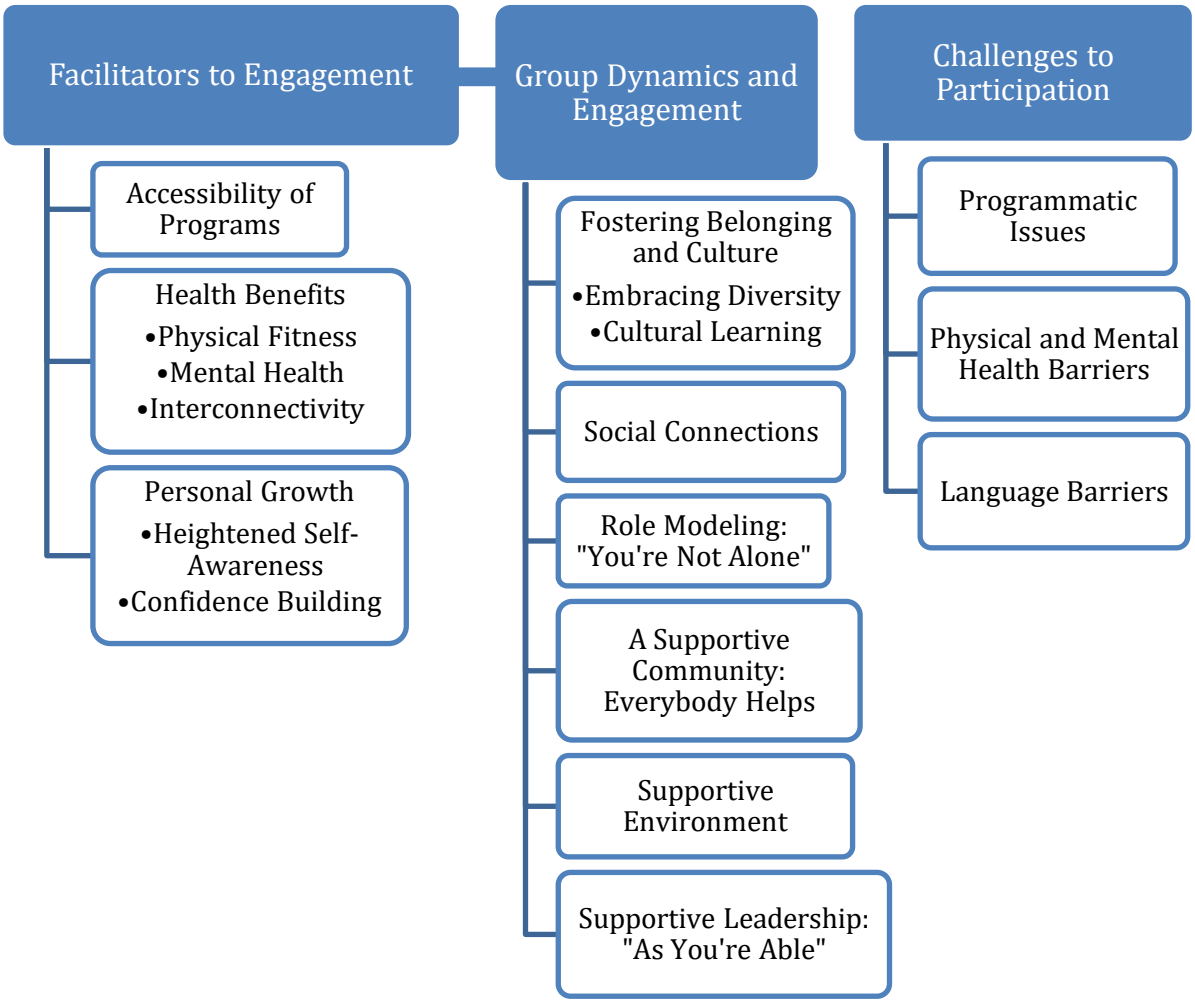


Table 2:

Facilitators to Engagement: Accessibility of Programs

Subthemes	Quotes
Accessibility of Programs	• "The scheduling at the senior center makes it very easy." (P2) • "You register about two weeks ahead… And you tick off your name that you're there." (P2) • "They keep track of who's there because they are responsible. If there were a fire or some unfortunate incident, they are responsible for getting us out." (P2) • "For me personally, I only live about five minutes from the senior center. So that's a bonus. I don't have to go too far." (P3) • "The instructor, she actually has a microphone because some people are hard of hearing and… she dims lights or turns them up depending on people's preferences… But she really tries to cater to everyone's preferences." (P3) • "You can sign up and register online… and they also have like telephone registration so it, they give you lots of options to be able to sign up so I do find it very easy." (P3) • "And it was when my wife like sort of went online and found that, 'Oh, there is a yoga class available at the Oakville seniors center'… But what it's nice is, is that they do have something that is sort of for us older folk and it's available, it's accessible and I think that that's probably been a surprise for us." (P5) • "The dojo is only 10 minutes away from my house. So that's an easy thing." (P6) • "Yoga, I started more because… I thought, why would I not, for $10 a class, go you know, 25 meters to the common, the sort of the clubhouse where we have a common room and have yoga." (P9) • "Location is a big deal [for practicing Tai Chi]." (P9) • "I need people when I feel down, I need to be around people and doing things. So that's one of the things that's having a scheduled class is really helpful because it forces me to get out." (P9) • "Having the availability of the classes to meet our schedule. My wife and I are both retired, so we're fortunate in that aspect, that we have schedule flexibility, but we've also found that the sweet spot for us is like an 11 to 12 class… and it's great that those are available, and we appreciate them." (P10) • "The opportunities [of available yoga classes] are very, very rich. In this community [Oakville]… It's hard to imagine anything better." (P12) • "I do drop-in [yoga] classes, they're drop-ins… So it's very fluid." (P12) • "It's part of… an overall ecosystem of activities that use the facilities that Oakville has, and Oakville's got lots of facilities and they make really good use of them and they have fine instructors and… it's easy to… book a class… So I think we're spoiled with what we've got." (P12)

Participants underscored the significant *health benefits* of CIPA programming, speaking about its positive impact on physical fitness, mental health, as well as the interconnectivity between various facets of health and well-being. Many participants noted significant *physical fitness* improvements such as balance, flexibility, and overall physical capability in conjunction with CIPA participation. Several described how activities like yoga and Tai Chi directly contributed to improved strength. Improved mobility was also cited as a significant physical health benefit with many participants expressing how regular movement achieved through CIPA classes alleviates physical limitations: especially important they noted, when it comes to aging. Similarly, many participants highlighted the positive *mental health* benefits that came from engaging in CIPA programming such as Tai Chi and yoga. For example, participants described experiencing a reduction in stress levels, allowing them to experience a sense of calm and focus when engaging in the exercises. The meditative aspects of yoga were noted as particularly useful for helping participants stay present in the moment and using mindfulness as a way to quiet their thoughts. Several also connected their participation to improving their mood and contributing to a greater sense of happiness, even on days when they were initially unmotivated to go to class. Another reoccurring health benefit that participants observed was the *interconnection* between physical, mental, and social health when engaging in CIPA programming. Many participants emphasized that their engagement in classes such as yoga, Tai Chi, or Karate helped to foster a sense of connection between the mind and the body. Several also shared that they not only felt physically refreshed, but also mentally aware of the present moment, reinforcing the mind-body connection. Refer to Table 3 for these subthemes and corresponding quotes.

Table 3:

Facilitators to Engagement: Health Benefits

Subthemes	Quotes
Health Benefits	***Physical Fitness*** • "Physically, it's... so beneficial, my balance is better. And I credit Tai Chi with that. I mean, Karate necessarily, you know, involves balance, but Tai Chi, there's a lot of balance because you're always moving, and you're often on one foot." (P6) • "The movements are slow and gentle, so there's no sort of impact or muscle strain or joint impact." (P7) • "Tai Chi also demonstrates… that physical activity can improve your health, even though you... have pretty extreme limitations of capability." (P8) • "I've been teaching seniors for a number of years already, and I always said, doesn't matter how able you are, Tai Chi will improve your life, will make you feel better." (P8) • "I think it's [yoga is] to my benefit. Because health-wise, the only thing I have wrong with me is the arthritis. You know, and there's really not much you can do with that. But it's to keep on moving and in a way that I feel safe." (P3) • "I feel like, you know, we're using muscles, you know, in the class that we're not using on a regular basis. So we're not in any kind of pain or discomfort… we've been really, really enjoying it." (P4) • "I like to keep moving because I feel if I don't keep moving, I could seize up and I don't wanna do that." (P6) • "I was a mailman for 30 years here at Oakville, delivering door to door as they used to do… most of my colleagues ended up with knee injuries or back injuries or hip replacements, and, and I escaped that job without any injury whatsoever… I always sort of… attributed my Tai Chi practice to that." (P8) • "We do an exercise called the Tai Chi walk, which is a very slow, very small steps. And it's quite dramatic when you see people come in and their walking is very hesitant or jerky because their balance is compromised. But the Tai Chi walk very quickly allows them to, first of all, relax. They know they're not going to fall over. So, they lose some of that anxiety of movement, especially prevalent for seniors." (P8) • "I can walk again [because of Tai Chi]." (P8) • "I just want to be more fit. I realized that time was slipping by. And there was time to pay attention to fitness." (P2) • "I do feel more flexible and see progression." (P4) • "[Yoga has] opened my mind up to basically stretching and the movements to try and keep flexibility in your... in your body." (P5) • "I purposely started Tai Chi because I knew it was going to be something that would help me down the road as my symptoms [for Parkinson's] increase." (P9) • "Physical health, obviously, flexibility and strength." (P10) • "You can use a lower weight, but you still get this huge result, and your heart is working very hard because of the heat and the physical activity [hot yoga] in the heat." (P10) • "As I get older… it's very important… to be able to put your shoes and socks on properly, right? Not fall over doing it… I've always been a pretty flexible guy,

	and I've been aware of it, but it's [hot yoga] helped me maintain that and improve on it in a lot of areas. So, from that perspective, it's been really good." (P10) • "[My] bone density was a problem… And… I was doing Tai Chi then. And I was told that was really good for it. After a year or two, when we retested, it had receded. I didn't have the bone density problem at all…" (P11) • "[The doctor] said that the three... degenerating disks are just the same… So that's why I do the exercises every day. I don't do the Tai Chi every day. I do it once a week, sometimes twice a week." (P11) • "I have to do something structured. So, it [Tai Chi] really has helped me… keep healthy, have healthy, bone, health, flexibility, all that sort of thing." (P11) • "So the yoga is a good way to stretch, get into different positions, loosen things up, relax, strengthen some muscles that should be strengthened. So it's an antidote…." (P12) • "Yoga is better than hockey. Healthy aging. I'm not… going to get hurt doing yoga. So that's my main… physical health goal." (P12) ***Mental Health*** • "Yoga is an excellent form of exercise for people as they age, because… it teaches you how to de-stress, you know? Like, to be silent and, you know, gain your equilibrium again." (P3) • "Even if it's just an hour a week, like I said, I think it's really healthy to just clear your mind of everything." (P4) • "I think it's really, really important, especially with the phone and everything and to just shut your mind down for an hour… Like, it was great to just not think about anything for an hour… I think that's really important for mental health." (P4) • "It's like a brain reset because… you're focused on that and you're not focused on everything else, which is good, I think. It does calm, it does calm the mind." (P5) • "The idea of quieting your mind and shutting your mind down to be able to just focus on your body for an hour is a good thing." (P5) • "My mental health, particularly since I started at this dojo. I'm so happy. All the time." (P6) • "The mental aspect is, and as I said, it's hard to overestimate the value of meditation and just present being present without the 'blah, blah, blah.'" (P8) • "So, the ability to just try to shut things out and focus on something other than all the other things that are going on in life. I think that is probably the most interesting thing to yet to fully explore." (P5) • "I do need it [Tai Chi and yoga] too, for my own mental health." (P9) • "As you get older, I found that I'm motivated by the fact that I may not want to do it, but I know when it's done, I'll feel great." (P10) • "It's such a dichotomy, because before the workout, it's so easy to talk yourself out of it, and after the workout, you're so glad that you did it." (P10) • "I do it so much for relaxation." (P11) • "It's [yoga is] good… [at] getting rid of all the… things you gotta do later." (P12) ***Interconnectivity***

	• "I think as we walk out of the class… you just feel like not only does your body feel good… you just feel like you walk out and your brain just, you feel refreshed… it's just a really good feeling." (P4) • "I just think it's [yoga is] necessary for your mental health and your physical health. And I think if you're not doing something, if you're just sitting on your derriere all the time, you're just going to deteriorate both mentally and physically. So, I really can't separate physical activity from mental acuity and just overall happiness." (P5) • "I can't think of any other activity that would have the same physical and mental benefits that… Tai Chi does." (P7) • "The mental and the social is sort of tied together… and it does keep my body moving." (P7) • "Both Karate and Tai Chi are, you're developing your mind, your body and your spirit, not just your body." (P7) • "You don't have to run faster, jump higher, or whatever. You're competing with yourself, not with other people. You're competing with yourself the way you were yesterday. You're not competing with other people who are taller and stronger." (P7) • "And connecting to the meditation aspect of it [Tai Chi] as well. It's your awareness of what your body is doing brings you into the moment. And again, that's very therapeutic." (P8) • "I'd encourage anybody and everybody to do Tai Chi… I emphasize with my students that at the end of the class, you feel better." (P8) • "You're connecting with your body. You wiggle your toes and you actually feel the mechanical processes involved in moving your legs and putting your body in a certain position." (P8) • "Mentally, it's great because there's a… sense of community in there." (P10) • "It's all mobility and stretching and you feel so good at the end of the class. Even if you're thinking, I don't feel like it today… a lot of us have been doing it a long time, and you just feel so good at the end of it." (P11)

The final theme that emerged under 'Facilitators to Engagement' was *personal growth*. Interview findings revealed that participation in CIPA programming facilitated significant personal growth among participants, which was reflected through subthemes of *heightened self-awareness* and *confidence building*.

For many participants, their experience in CIPA programming led to a deeper realization of their priorities. Several also emphasized the role of CIPA programs in building their confidence, such as during the testing practices in Karate. Some participants shared that they were able to overcome self-doubt by discovering their capabilities and challenging their own

perceived limitations. Some described how this newfound confidence extended beyond physical activity, empowering them to pursue other goals, such as starting a business or embarking on long hikes. Refer to Table 4 for a detailed breakdown of the subthemes and corresponding illustrative quotes.

Table 4:

Facilitators to Engagement: Personal Growth

Subthemes	Quotes
Personal Growth	***Heightened Self-Awareness*** • "It's [yoga has] gotten me moving more. Um, because I know that I wouldn't do half of what I've been doing if it… wasn't for that, because… I do them [chair yoga] throughout the day, you know, little bits here and little bits there, which I wasn't doing before." (P3) • "To be aware of what's happening to your body is a really protective kind of experience or knowledge." (P8) • "I realized that time was slipping by. And there was time to pay attention to fitness." (P2) • "It's [Tai Chi] been a huge part of my life. And even that 20 years in the middle where I wasn't doing it, I felt that I was living off the benefits." (P8) • "I'm still learning." (P9) • "You have to keep doing it. You have to keep moving as you get older." (P11) ***Confidence Building*** • "I guess I can do a bit more than I thought I could… But for me personally, it's to keep up the movement and and the stretching and you can feel yourself getting stronger." (P3) • "It's confidence building. It, you know, it kind of adds to the, to the character of your life." (P6) • "It [Karate] sort of improved my confidence level… because I'm a short, non-athletic person… anybody can do this." (P7) • "If you have the confidence and the courage to do this, well, then you can start your own business. You can go on long hikes. You can do anything else too." (P7) • "Karate is, it's an incredible confidence builder because it challenges you to do things that you haven't done before. And do them, you know, do them as perfectly as you can, as powerfully as you can." (P6) • "We can get in our own way to achieving an objective just because we're afraid what other people might think. And so, if you can get over that, you probably can do a lot more things than you thought you could if you just give yourself the chance." (P5) • "I've learned not to underestimate myself because… When I went there, I was going to take Tai Chi. That was it, just Tai Chi. And then I realized I needed more." (P6)

Group Dynamics and Engagement

Group dynamics highlights the role of shared experiences in creating a supportive and inclusive environment within CIPA programs. Several related subthemes emerged from the thematic analysis process, including fostering belonging and culture (embracing diversity; cultural learning); social connections; role modeling; a supportive community; supportive environment; and supportive leadership. Participants highlighted these elements as important for fostering meaningful relationships that promote heightened engagement in group-based CIPA programming.

Fostering Belonging and Culture emerged as a salient subtheme within group dynamics and engagement. Many participants highlighted how certain cultural elements in CIPA programming influenced their sense of belonging within the class. For example, learning through exposure to *diverse cultural practices and traditions* and how this promoted their engagement within was noted by several participants. This was especially prevalent among those who participated in Tai Chi and Karate. Participants also highlighted how exposure to unique cultural elements, such as Eastern martial arts philosophies and practices, enhanced their overall experience. One participant reflected an appreciation for the *cultural heritage* of Tai Chi, and the respectful integration of these traditions into many aspects of the classes, such as during the physical movement themselves. Overall, interview findings revealed that these classes allowed many participants to adopt and appreciate new ways of participating in physical activity. Refer to Table 5 for a detailed breakdown of the subthemes and corresponding quotes.

Table 5:

Group Dynamics and Engagement: Fostering Belonging and Culture

Subthemes	Quotes
Fostering Belonging and Culture	***Embracing Diversity*** • "And in my classes in both locations, there have been many people from a variety of settings… From various parts of Asia, various parts of Europe, the people who were born there, Africa, South and Central America, Mexico, which is North America… So, it's a variety of people." (P2) • "My classes with [instructors], are done through… a federally funded group that promotes cultural, not integration, but exposure to other cultures. So, they're very welcoming." (P8) • "My friend who's in the class as well, she's much more social. So she's reaches out to people and tries to speak Chinese to them. And it's, yeah, she has a much different experience of it than I do. She's much more involved in the group. And people smile at me, but when they see her, they light up. They're very pleased to have her interaction." (P8) • "I enjoy meeting all those people… Some of their holidays are different from what I celebrate. Then I hear about what they're doing and the food. We like that." (P2) • "The fact of being a fascinating culture of thousands of years… But culturally… I'm very appreciative of the structure of Tai Chi, the sense of respectfulness towards your instructor." (P8) • "The Canadian tradition, the Christian Canadian tradition is not pushed on anybody particularly… everyone that I've met from many other places seems to be comfortable in that [diverse] setting." (P2) • "There's people in there who are probably 18 right up to North of 60 years old. So it's, there's a very big diversity. Culturally, it's very diverse. The people that attend, it's a lot more women than it is men." (P10) • "I've made some good friends there… We're three… really short women… and [from]very different backgrounds. Like, I'm born in Canada and from 11 or 12 generations on one side. And one moved here with her family from Scotland, another one from England." (P11) • "I appreciate that… the town of Oakville… having the different… cultural mix among the teachers." (P12) • "It's very nice to see people from all over the world in the class and all just treating each other… like anybody else. And that's the other big difference from hockey. The hockey guys, they're all a bunch of old white guys… whereas the yoga classes are from people from everywhere. And it's nice to see that in the community… And everybody is very good to each other." (P12) • "When I see some activities where it's all one racial group, I think, what's going on here?... But in [yoga]… with drop-in, anybody can come. And the community, this community is made up of lots of people from China, India, Philippines… everywhere. So it's nice to see people just get along, enjoy each other." (P12) ***Cultural Learning***

	• "So that's why you see thousands of people in China, and you know, the thousand people in the square doing it in the morning, because they understand that being a part of the group is much more rewarding than doing it on your own." (P8) • "When I began doing martial arts… the philosophy of Eastern martial arts, and Tai Chi is a martial art, a lot of people don't even understand that." (P7) • "I've learned a lot about the Japanese culture, from the sort of Karate perspective, because it comes up and we're advised as to how the little bit of the history of Karate and how it came about and sort of the warrior mentality… and we're encouraged to read books about the development of martial arts, the philosophy of martial arts. So it's, it's a mini education. It's great." (P6) • "Mostly we learn traditionally, I've been told that the way in that you learn in China is you, when you find people practicing Tai Chi, then you, you stay and watch them and try to copy what they're doing and that if you're demonstrate your sincerity and diligence, then after six or seven months, somebody will come up and show you a move." (P8) • "There's a form called qigong, which means working with the energy. So you're doing some pretty dramatic movements, but the focus is not so much on developing the body, although it's definitely a consequence of those activities, those motions, but it's generating the qi flow." (P8) • "And [instructor] is very careful to allow that her and some of her senior students to translate the information that she's providing to the English-speaking folks." (P8) • "We've had some people come where like the one lady did not speak English. So her daughter-in-law came and sat beside her" (P3) • "There's a certain amount of camaraderie and doing something together and struggling to learn something together, especially." (P8) • "I've learned some yoga terms, but it's really westernized yoga… it's a really western spin on practice of yoga." (P10) • "I'm appreciating it [the Chinese language] more because I had [taught] Chinese students [in the past] um who had escaped from Vietnam." (P11) • "As a teacher [referring to the Tai Chi instructor], you include more and more of the culture… he sometimes then sends us to websites and places to go for different kinds of exercises… And that's in Chinese and they play the Chinese music." (P11) • "And at the end, everybody Namaste." (P12) • "So a couple of things in yoga that I get skeptical about… but I'll do it. I'm open to hearing it and trying it… it's very different from our culture. But I like a lot of it." (P12) • "Several of the instructors are from India or South Asia. And they've got a background… in yoga from there. And I'm interested in their perspective, you know, what they bring to it… Some of them have some very different approaches and I think it's interesting being exposed to it. Otherwise, it's not going to happen." (P12)

Social connections – or interacting with others – were discussed often by participants who highlighted how these CIPA programs provide opportunities to forge friendships. Some noted that these connections extend beyond the activity itself, enabling the creation of a support network that enriches participants' lives. For example, several participants mentioned how they look forward to seeing other members in the class, which helps build a sense of community among the members of the group. Many participants also emphasized that meeting other people played a key role in their continued participation, highlighting the positive impact of the friendships they formed through the CIPA classes. In some cases, participants organized to meet up outside of class, for example, after a yoga session for coffee.

Role Modeling: "You're Not Alone" was a common theme shared among participants whereby modelling the behaviour of other class members helped to create a collective sense of purpose. Mirroring others in the class helped to foster a sense of unity and mutual support, as some participants noted that seeing others struggle with certain movements helped to normalize their own challenges with those same movements. Much of this shared experience was also accompanied by a sense of camaraderie or laughter, as participants found a sense of comfort in overcoming similar challenges together. Additionally, a few participants noted that observing their peers helped with motivation, encouraging them to support one another and learning together.

A Supportive Community: Everybody Helps was also an integral sub-theme found within the interview findings, as participants often described assisting one another in navigating challenges. A few participants noted the support they received within the group also encouraged them to help newcomers or beginner students later on, reinforcing a culture of encouragement and cooperation. Participants often mentioned small, but meaningful acts of service from other

participants such as helping a member get a piece of equipment or assisting with setting up chairs. According to participants, this sense of a supportive community between group members fostered strong peer support, helping participants feel included regardless of background, age, or skill level. This also created a space where members reinforced the notion that everybody is collectively working towards a shared goal and *everybody helps*.

Supportive environment was another sub-theme that was shared as a reason for participants' ongoing participation in CIPA classes. Many highlighted the importance of being in an environment where they felt encouraged to participate without fear of judgement from others in the group. Participants emphasized that the inclusive culture of their dojo or class was particularly welcoming and accepting of everybody, ultimately contributing to a sense of belonging.

Supportive leadership: "As You're Able" was also an integral part of participants' experiences, and closely related to the notion of the nonjudgmental and welcoming environment: participants valued these characteristics in their instructors too. Many stressed the important role that their instructors play in making sure everybody in the class feels welcome and catered to, particularly when it comes to accessibility. Instructors who are attentive to participants' needs, and who offer modifications for movements help participants to feel at ease. In turn, this person-centred approach encourages greater participation and engagement, as well as fosters a sense of community. The instructors discussed often establish a culture of respect, positivity, and encouragement for participants. Refer to Table 6 for a detailed breakdown of the subthemes and corresponding quotes.

Table 6:

Group Dynamics and Engagement: Social Connections, Role Modeling, A Supportive Community, Supportive Environment, Supportive Leadership

Subthemes	Quotes
Social Connections	• "We look forward to seeing everybody. We look forward to hearing somebody say, 'Oh, I'm just back from a trip to visit my grandchild in Chicago.'" (P2) • "There's a real camaraderie. There's a real camaraderie." (P6) • "I enjoy meeting all those people. I enjoy hearing about what they're doing at the various holidays." (P2) • "And see with joining the yoga, I get to meet people because being retired you're at home a lot. and I have no partner, so it's nice to get out and socialize." (P3) • "I love them all. They're lovely people. And the more you go, the more you get to know them." (P3) • "There is one lady that will be waiting five minutes before the class and my wife will chat to her." (P5) • "Just the social camaraderie [is the benefit of doing Karate/Tai Chi as a group]." (P7) • "For me, just getting into a room with other people is important in terms of social interaction. And you develop friendships." (P8) • "I'm more sociable. I'm more sociable than I might have thought." (P2) • "As much as people say that I'm very outgoing and stuff, it takes me a little while to sort of warm up [to people in the class]… for Tai Chi, I bet you it was close to a year before I started feeling like I belong there and that people will say hello to me and I'll say hello to them and it feels like I belong." (P9) • "We have a social before, we do the yoga, and then actually three of us now are having coffee regularly afterwards." (P9) • "Meeting people was definitely part of the bonus. So that if I hadn't met people, it would have been more of a challenge for me to go [to Tai Chi]." (P9) • "Social interactions drive so much of what I do, it makes a big difference. So that to know someone is there and I'm gonna miss out, I'm gonna miss out on that conversation, I'm gonna miss out on those conversations." (P9) • "Socially, it's always interesting, because you're always meeting and seeing new people there." (P10) • "You get to really care for everybody." (P11) • "I function much better with others than by myself. I'm much more motivated, because it's more fun with other people." (P11) • "It's nice meeting… the different folks at the yoga class, because… They seem to be gentle, honest, smart, curious, tolerant people. It's a completely different culture to the guys that I play hockey with." (P12) • "[If] I had a choice between just doing yoga in front of a screen with an instructor or going over to the community center, I [would] go to the community center because of the… other people. I get to having little, very

	low-key friendships with acquaintances and friendships with these people. Because we all chit chat before, chit chat afterwards." (P12)
Role Modeling: "You're Not Alone"	• "So we can laugh at each other when we do something wrong… So it's something that makes you feel better about yourself as you realize you're not alone in your abilities." (P3) • "When I went to the gym before and I saw younger people doing what they're capable of, it would actually be demotivating. And in this case, I find it motivating and inspirational to see these older women, what they're capable of doing." (P4) • "When she [the instructor] asks us to do one of the exercises, she'll say, you get into this position and your knees may hit the carpet… and nobody's got the ability to have their knee hit the ground. So we all sort of laugh and stuff and joke about that." (P5) • "The benefits are you can watch other people fail and it makes your failure more acceptable." (P8) • "Uniformity of movement has a multiplying effect on the effect on the qi." (P8) • "We understand that we're all learning this together." (P8) • "It always benefits people to meet other people on a kind of a level playing field where everybody's the same and we're all learning things from the instructor." (P2) • "There's all different fitness levels in there… So, it's just inspiring." (P10) • "As much as you're in your own insular bubble, you're also looking around the class and seeing what other people are doing, people who have been practicing for a long time, or are very fit… So that challenges you to get better at it. And I've certainly gotten better at it." (P10) • "I've gained a lot of respect for… woman who are very fit because their capabilities are… I'm astounded at what they can do." (P10) • "[The instructor] puts… the better and the older ones on the four corners, so that the rest of us have somebody to follow as well as him." (P11) • "There's lots of people better than me. I just watch them and try to learn." (P11) • "Even though you can't see her [the instructor] because you're bent over or something, you get a benefit from the teacher guiding someone else… Everybody in the class gets the benefit of turning your left shoulder higher or… whatever it is." (P12)
A Supportive Community: Everybody Helps	• "Whoever notices that someone needs a block or needs a strap… will say, oh, it's up there, or they'll go get it and give it to them." (P2) • "We kind of look after each other." (P2) • "I feel included and welcomed." (P7) • "The support and the... sense of community is very important." (P8) • "Tai Chi's world has been very accepting and accommodating." (P8) • "There's a few of us that go in that help people with moving the chair. We're a little more mobile, so we help them with the chair." (P3) • "All the women were really encouraging." (P4) • "Nobody's going to say anything negative to you… And people have had, I've had lower belts help me with things because they happen to have the knack of it and I'm a little off on it. So lower belts, higher belts, everybody just helps. It's great." (P6)

	• "When a more advanced or experienced student sees a more beginner student struggling a bit, they sort of give them some encouragement or help them understand what they're supposed to be doing. Yeah, and that's sort of the whole spirit of the... of the Dojo." (P7) • "Two years ago, I broke my legs broken. I was in the hospital for three and a half months. And... It was very difficult. I couldn't walk… it was… my Tai Chi students were very, very supportive in there. And one of them in particular was very encouraging and getting me back." (P8) • "If you happen to miss a week for some reason, 'Oh, I didn't see you last week.' Yeah, so they, they keep track of it. You have to be honest." (P2) • "The senior students, extremely welcoming… part of the [dojo's] philosophy is helpfulness. So if one of the senior students sees me doing something you know, in a way that's not good. They'll help me if they see me struggling with something, they'll help me… And now after kind of about a year, I'm in a position to help newcomers." (P6) • "It's definitely a sense of community." (P4) • "You find commonality in your suffering, right?... I've looked over at people. We just look at each other, and you don't even have to say anything. You both just shake your head and you know what you're thinking." (P10) • "If people notice another person who has the same problem as you, like, when I went through that period where I couldn't do certain moves, I would notice them, and other people would notice I was having trouble. And they would say try this or that, try putting your foot this way or they would try to help you… Everybody does." (P11) • "We look out for ourselves [referring to friends]." (P11) • "It gives you a… sense of community that we're all there, we all live in different parts of Oakville. It's got a couple of hundred thousand people, but we're there in one of our community centers and it's a pretty nice experience. So, there's the feeling of benefit from the community." (P12) • "They're very polite in a very warm and friendly way… They accommodate each other… getting, fitting into the room, spacing out." (P12)
Supportive Environment	• "I think that the environment of... there's no judgment." (P4) • "And it's [Tai Chi and/or Karate] just so encouraging, it's uplifting. So honestly, I love going there." (P6) • "And it's all such a nonjudgmental kind of environment that there's no, and Tai Chi is not a competitive sport in any way at all." (P8) • "So it's the environment. You know, if I go to the gym, probably everybody will be younger. There'll probably be more in shape or be able to do more probably than I can or whatever." (P4) • "The dojo fosters positivity. So everybody comes in with a positive attitude." (P6) • "The senior center has given him [another participant/member] a warm friendly place to go without necessarily buying a coffee or being in a class." (P2) • "So there are people in the class who have considerably restricted movement and yet they can join in and... enjoy themselves and of course their movement becomes less restricted over time." (P6)

	• "You do the best you can, and that's all you need to do, whatever the circumstances are." (P8) • "The dojo that I'm at is, it's a wonderful place to be. It's a very positive place. It's a welcoming place… at age 73, I was a beginner Karate student there, but I didn't feel the least bit out of place." (P6) • "It's a very supportive, in both groups [Tai Chi and yoga], it's a very supportive class. And especially when you get to know people a little bit better after you've been going to classes for an extended period of time." (P9) • "They make you feel very welcome." (P11) • "I do it the best I can. And so do others. There's no criticism of this. We're all just trying to do our best." (P11) • "We have good laughs." (P12) • "Other people ask questions that they think are really for them, but everybody gets a bit of [an] advantage from the question. I didn't ask the question. But I'm glad she asked the question, because now I know something that I didn't even think of asking. So there's the benefit of this number of people in a group where there's questions and explanations." (P12)
Supportive Leadership: "As You're Able"	• "The kind of instructors we have that encourage people to be encouraging to their neighbors… We are encouraged to be flexible." (P2) • "The instructor, she's, she's good about, you know, fostering that [sense of community] because she makes us participate in the class… she really invites participation… and it's kind of breaks the ice and then gets people talking." (P4) • "She [the instructor] communicates well the benefits and maybe the shortcomings of each individual's ability to do a specific position and stuff like that. There's no judgment." (P5) • "In Tai Chi, it's a very common phrase. 'Do this as you're able.' Like if you can't stretch that far down to the ground, just stretch until you're comfortable and we'll adjust for you or that sort of thing." (P6) • "There are rules… but these little kids who grow up there, they become very good little citizens through adherence to these rules. And they respect the dojo, they respect the instructors and the assistants and the senior students. but all of those people also respect them. So it's a culture of respect and positive thinking." (P6) • "The instructors usually divide people up into groups and say, okay, you're more advanced, you work with this assistant and I'll take the beginners down at the other end of the room… so the instructors work with that differences in comprehension of different people." (P7) • "That's part of the instructor's job, I think, to make sure that people understand that it's, it's a very community, communal kind of experience." (P8) • "We're all engaged and we're all like counting down and participating and joking and laughing and… [the instructor's] a big part of that… I think that really does make it, you know, definitely more enjoyable." (P4) • "The instructors are very welcoming and understanding of different people's limitations." (P7) • "The instructor usually starts with like a deep breathing exercise and… what I really like about her is she gives you options… [she] gives you like

	at least three options per move if you can't quite do that or if it starts to hurt for you, which I really like." (P3) • "The fact that she gives us options of different, you know, levels of intensity or whatever that are more challenging, I think will keep me motivated to continue going to that class for a while." (P4) • "The instructor's very good that way [in providing adaptable options]. She'll say, 'this is what I'd like you to do, but you could try doing it this way, this way, or this way.' And she's very open that it's up to what your body will allow you to do today." (P5) • "The class is very accessible. It's I have never heard in any fitness class that I've taken, I've never heard a teacher and instructor use the phrase 'as you're able.'" (P6) • "[The yoga instructor is] very inclusive. I mean, to think that she had a chair yoga class and she was open to the idea of me being able to do it in a standing position and challenge myself in ways that the other residents who are quite a bit older than I am that aren't able to do." (P9) • "He's a really good instructor, like his instruction is good, and he has a really good understanding of some of the fundamentals behind the Tai Chi, which make it more interesting. And I think by understanding the principles behind Tai Chi, it allows you to practice Tai Chi at a higher level." (P9) • "A good instructor is invaluable. Like, if you can get a good instructor… it makes all the difference in the world. And you actually… wind up looking forward to it, because you don't feel like you're wasting your time, right?... But if you have a good instructor who taxes you, works you very hard, it, it's very rewarding." (P10) • "I respect the fact that they put in the effort to get to where they are, because some of them are exceptional. I like the flow of the class. I like the effort they put in to organize and be prepared for the class so that… there's no pauses between routines. They know what they're doing." (P10) • "He's a very good teacher. And… not pushy at all, he… tells us when we've done it well, and all that sort of thing. Yeah, just he's very gentle and it's great." (P11) • "The teachers are good at getting us to relax and to put aside all the other little things in life while you're there in the class." (P12) • "One of the teachers is great. She gives a lot of conversation during the class… She only demonstrates and she demonstrates variations." (P12)

Challenges to Participation

Although not widely discussed among many participants, the thematic analysis revealed some common challenges to participation in CIPA programming which were categorized into three themes: programmatic issues, physical and mental health barriers, and language barriers.

Programmatic Issues: Many participants cited programmatic issues relating to space and facility infrastructure limitations as a significant obstacle. For example, one participant noted the loss of larger venues as a concern. Another highlighted the constraints within smaller spaces, including insufficient room to perform movements freely. In some cases, participants described having to modify their movements due to being in close proximity with others in the class. This limited their ability to fully engage in the CIPA class. Additionally, the competitive nature of registration processes was another key barrier shared by one participant. They described a sense of pressure to secure spots in certain classes, where demand often exceeded availability. Furthermore, a few participants noted some environmental constraints such as room temperature or cleanliness as causing some discomfort.

Physical and Mental Health Barriers were commonly shared challenges that impacted participants' engagement in CIPA programming. Some physical structural barriers, such as arthritis, poor balance, and discomfort, were commonly mentioned by most participants, which made some movements more difficult. Other participants noted that standing for long periods of time caused discomfort and required them to take breaks or try modified versions of the exercise. Participants also noted *mental barriers*, including reluctance or nervousness about participating. One participant highlighted an issue with them comparing themselves to others and how they may be perceived by others in the class. Motivation was another factor that affected engagement, with a few participants citing weather, mood, or "laziness" as deterrents to consistent participation in the classes.

Language Barriers: A few participants faced challenges related to *language*, particularly when activities involved non-English terminology. For example, some participants struggled with instructions delivered in Japanese, with one stating that they had to forego another advanced

class they loved in order to join a beginner class to help them "absorb" the language more easily. They noted that by the time they had processed the instruction, others in the class had already completed the movement. The expectation to understand and respond quickly made it difficult for the participant to maintain a similar pace to other members in the class. Overall, these findings underscore the multifaceted nature of challenges to participation in CIPA and highlight areas of focus to foster greater accessibility and inclusivity in future programming. Refer to Table 7 for a detailed breakdown of the subthemes and corresponding quotes.

Table 7:

Challenges to Participation

Subthemes	Quotes
Programmatic Issues	• "Getting up to register at six AM [is difficult], because even to register for these classes, it fills up quickly." (P2) • "But the senior center doesn't have space to start shuffling around… They can't start moving things to other times for their lecture series because space is booked." (P2) • "The only challenge is sometimes there's not enough space between people like when you have to put your arms out to do." (P3) • "If the class is very full, you're limited on space, so that can be challenging." (P10) • "And the heat, if you get a room full of people really going hard, they generate a lot of heat in an already well heated room, so that can definitely up the game." (P10) • "Sometimes the floors aren't as clean as I want them… Sometimes the lighting is too bright, shining down out of ceilings in your eyes." (P12)
Physical and Mental Barriers	• "Just lack of flexibility. That's the only challenge. It is what it is. The lack of flexibility is only gonna get improved if I was to continue doing the stretching exercises and do them more frequently." (P5) • "Sometimes because of my painful hip or well, discomfort in my hip… sometimes standing for 45 minutes, I have to sort of stop and lean against the wall and rest a bit." (P7) • "My balance is worse now than it was six months ago… Sometimes the slow motion makes it harder because you have to really find your balance. But that's also one of the benefits of, for seniors is balance." (P8) • "I've never been good in the heat… I never enjoyed breathing hot air… I tend to avoid it [hot yoga] in the summer." (P10) • "Just my arthritis and that kind of thing that's all." (P11) • "Because… I still drive… I'm very careful do things in the middle of the day when there's no [traffic]. And I drive very little at night." (P11)

	• "Laziness. And comfort, you know, it's not always comfortable to be active… So that's the hardest thing is just to getting out of the chair in many cases." (P8) • "It's always difficult when you first start, always… You're worried about, are you going to be able to pick up these moves as quickly as you hoped? Is anybody going to think that you look silly?... Being part of a group can be stressful because you're not sure how you're going to be accepted." (P9) • "For me, it's poor weather and attitude too [that are barriers]. I mean, you can, if you're in a lazy mood… I just want to sit on the couch." (P5)
Language Barriers	• "The challenges are keeping up… it's expected that everybody's gonna move at the same pace… Especially if you're trying to figure out what they actually said. Yeah. Because... Japanese term and it's like, okay, that means..., so you figure out what it is, then you have to do it. Sometimes I'm still figuring it out and everybody else has already done it." (P6) • "The language barrier definitely applies because it's a Japanese art… And we're expected to know the commands and the movements and everything in Japanese. So this is why I started to go to this beginner class. in lieu of cardio kicks, which I love. But I'm foregoing cardio kicks so I can absorb more easily the Japanese because I thought I would just sort of absorb it organically and it wasn't happening." (P6) • "There's people who've been doing it for a long time and other people who are very beginners, not everyone has the same level of comprehension. So sometimes the class has to sort of be dumbed down for the beginners." (P7) • "[Instructor] doesn't speak much English, and most of her students are ethnic Chinese. And most, I would say the majority of them don't speak a lot of English too." (P8)

Discussion

This study qualitatively explored the experiences of older adults aged 60 and above participating in CIPA programming within the GTA and emphasized the interplay between physical, mental, and social health outcomes, group dynamics, and sense of belonging. Overall, the findings revealed that program accessibility, health benefits, and opportunities for personal growth served as key facilitators to engagement, while programmatic constraints, physical/mental barriers, and language challenges hindered participation. Notably, group dynamics — including social connections, role modeling, and support in various capacities — emerged as central to fostering belongingness and adherence. These findings are further explored

throughout this text by examining participants' experiences in detail, paying particular attention to the facilitators and barriers that impact overall participation in CIPA programming.

Despite extensive literature on group-based physical activity (e.g., Kim et al., 2014; Koert van der Linden et al., 2022; Lindsay-Smith et al., 2017), a critical gap persists in understanding how cultural inclusivity relates to group dynamics to influence engagement among older adults, particularly within ethnoculturally diverse contexts like the GTA (Martinez et al., 2011; Purath et al., 2011; Zimmer et al., 2021). Traditional models in group dynamics and physical activity research highlight concepts of family support along with peer support (Raudsepp, 2006; Reimers et al., 2019). This research is often studied in the context of young adult or adolescent populations (Lindsay-Smith et al., 2017; Raudsepp, 2006; Reimers et al., 2019). By focusing on the lived experiences of older adults, the current study addresses this gap, offering novel insights into the role of culturally-tailored programming, learning, peer support, and inclusive environments in promoting positive outcomes. The ensuing discussion situates these findings within existing research, underscores implications for culturally-inclusive interventions, and highlights pathways to enhance accessibility and social cohesion in physical activity programming for aging populations.

Facilitators to Engagement

The findings from this research study highlight three key facilitators that collectively play a role in motivating older adults to engage in CIPA programming: accessibility of programs, health benefits, and opportunities for personal growth. These factors not only align with existing research (Lee et al., 2014; Lynn et al., 2022; Martins et al., 2018; Riadi et al., 2024) but also underscore the important role that cultural inclusivity plays in fostering holistic well-being (Frampton et al., 2024; Lanningham-Foster et al., 2008).

Structural Supports That Enable Participation

A prominent theme emerging from the experiences of participants was the convenience of program scheduling and the proximity or distance of class locations. Many participants appreciated the flexibility in scheduling, with some programs offering online or telephone registration to help make signing up for classes an "easy" process. This is consistent with existing literature which demonstrates that ease of registration is positively correlated with increased participation and engagement in physical activity programs (Lee et al., 2014; Riadi et al., 2024; Scott et al., 2022; Silva-José et al., 2022). Additionally, the importance of proximity to program sites was highlighted, with participants noting that senior centers or dojos located within a short distance from their homes significantly facilitated regular attendance. This finding aligns with previous research emphasizing the benefits of close proximity and a safe and accessible walking environment for older adults (Levasseur et al., 2015). Overall, these findings underscore the important role that accessibility plays in encouraging older adults to engage in CIPA programming. Participants' experiences helped to emphasize that access to CIPA programming should be an uncomplicated process to help reduce accessibility barriers and further foster sustained physical activity engagement (Gimie et al., 2022; Weeks et al., 2013).

CIPA as a Health Promoting Tool

Current literature in the fields of Kinesiology and Exercise Science highlights the multifaceted benefits of physical activity for the aging population (Chodzko-Zajko et al., 2009; Stathokostas et al., 2012; Warburton, 2006). The findings from this study emphasize the significant role that physical fitness, mental health, and interconnectivity play when it comes to facilitating engagement in CIPA programming among those aged 60 or older. Many participants frequently associated their engagement in activities such as Tai Chi, yoga, and Karate with

enhancing overall balance, mobility, and flexibility. These sentiments align with research demonstrating the benefits of balanced-focused exercises in preventing falls and enhancing functional capacity in older adult populations (Martins et al., 2018; Pittaras et al., 2023; Stathokostas et al., 2012). The use of low-impact movements which reduce strain on joints and muscles while minimizing injury risk was also noted as a critical benefit by some participants. This supports current research suggesting that non-strenuous physical activity can help to reduce many age-related declines when it comes to musculoskeletal or joint function, and can also help minimize the risk of injury, which older adults are more susceptible to (Puts et al., 2017; Stathokostas et al., 2012; Tse et al., 2015). Importantly, many participants viewed CIPA programming as a tool for longevity, expressing a desire to maintain mobility and prevent physical decline as they age. This perspective reinforces the importance of this type of physical activity as a preventative health tool to preserve quality of life as one ages.

Beyond physical benefits, many participants highlighted the mental health advantages of structured physical activity. Engaging in classes such as yoga was described as a means to reduce stress and promote mindfulness, with participants characterizing their experiences as a “brain reset” or an opportunity to temporarily disconnect from daily pressures. These reflections align with existing literature that emphasizes the role of yoga and meditation in alleviating anxiety and depression in older adults (Frampton et al., 2024; Ko et al., 2023). Furthermore, participants reported enhanced emotional well-being and happiness as a result of their involvement in CIPA programming, suggesting protective effects of group-based physical activity on mental health. This is consistent with previous studies that have highlighted the protective effects of group-based physical activity on, not only physical fitness, but also mental health and mental health disorders (Chang et al., 2018b; Frampton et al., 2024; Healy et al., 2023; Ko et al., 2023).

The Mind-Body Connection

Lastly, many of the study participants described their involvement in CIPA classes as a holistic experience that integrated physical, mental, and social well-being. This interconnected perspective aligns with the biopsychosocial model of aging, which posits that physical activity can promote overall well-being by combining physical fitness or movement, mental engagement, and social interaction (Gaspar et al., 2018; Gaviano et al., 2024; Kanning & Schlicht, 2008). Participants frequently noted that their involvement in CIPA not only improved their physical health, but also reduced stress and provided a sense of purpose and personal fulfillment. This intrinsic motivation, rooted in a sense of self-competition versus external comparison, reflects the principles of self-determination theory, which emphasizes the importance of intrinsic motivation for maintaining long-term engagement in physical activity as opposed to more externally driven reasons (Deci & Ryan, 2000; Fortier et al., 2012; Teixeira et al., 2012). Additionally, some participants noted that the benefits of activities like Tai Chi persisted, even during periods of inactivity, suggesting a lasting impact on their physical and cognitive well-being. This notion aligns with the concept of "embodied cognition" or "embodied memory," which posits a connection between physical experiences and memory retention (Bessell & Riddell, 2016; Ianì, 2019; Mavilidi et al., 2016). For example, one study participant shared that taking part in Tai Chi, even with a 20-year gap in practice, allowed them to retain and benefit from the movement patterns they had learned previously.

In summary, these findings reinforce the utility of CIPA programming in promoting physical fitness, mental health, and a holistic approach to well-being among older adults. By addressing these interconnected dimensions, CIPA serves as a valuable tool for fostering positive health behaviours and enhancing quality of life among adults as they age.

Building Empowerment Through Physical Activity

Participation in CIPA classes was found to foster salient personal growth among older adults, particularly in the areas of self-awareness and confidence building. For example, engagement in chair yoga encouraged some individuals to become more physically active than they otherwise might have been. This bodily awareness helped reinforce the importance of physical activity in daily life. This increased self-awareness also aligns with existing literature, which suggests that mindfulness cultivated through physical activity can be a strong facilitator for engagement and continued participation (Lynn et al., 2022; Remskar et al., 2024). Such awareness is particularly important for older adults, as it empowers them to take control over their health and reap the benefits of physical activity long term (Shook et al., 2017; Young & Baime, 2010). More research is needed to explore the effects of heightened self-awareness among older adults, particularly within the context of CIPA programming, and how it influences long-term physical activity engagement.

Beyond self-awareness, many participants reported that their involvement in CIPA programs significantly boosted their confidence. Several individuals expressed surprise at their own capabilities, with one participant noting that practicing Karate improved their self-perception despite not considering themselves athletic. This shift in mindset reinforced the notion that physical activity can be accessible to individuals of all abilities. Such experiences align with Bandura's concept of self-efficacy, which suggests that overcoming potential challenges and learning new skills can help shape a person's belief in their own ability to succeed (Bandura, 1997; Dishman et al., 2005; Zhaoyang et al., 2017). This belief, known as a mastery experience within Social Cognitive Theory, influences one's confidence when engaging in similar activities in the future (Bandura, 1997). Continued engagement in CIPA programming

such as Tai Chi, Karate, yoga, and BollyFit, not only built participants' confidence but also empowered them to take on new challenges and an active role in their health journey.

Group Dynamics and Engagement

The secondary purpose of this research study involved exploring the role of group dynamics in fostering engagement and adherence to CIPA programming. Six sub-themes emerged, each contributing to the overall experience of these older adults.

Cultural Learning as a Pathway to Belonging

A key finding was the role of group dynamics in fostering a sense of belonging and facilitating cultural learning. Many participants valued the opportunity to connect with individuals from different backgrounds and learn more about the cultural origin of activities like Tai Chi and Karate. Existing research supports the idea that inclusive environments enhance belonging and engagement in classes (Golaszewski et al., 2022; Graupensperger et al., 2019). The current study extends those findings by highlighting the importance of cultural learning in fostering community among older adults. For example, participants shared that exposure to philosophies, traditions, languages, cultural music, and movement styles through the CIPA classes enhanced their enthusiasm to participate. By creating a culturally-diverse and learning-focused physical activity environment, long-term adherence can be supported (Lanningham-Foster et al., 2008). Further research is needed to explore how cultural elements can be naturally integrated into CIPA programming to promote inclusivity and sustained participation, particularly as Canada becomes increasingly multicultural and continues to grow in diversity. Identifying strategies to enhance cultural inclusion in physical activity programming (e.g., through CIPA) is essential for supporting an aging population and improving the quality of life of older adults.

CIPA Classes as "Social Hubs"

Along with fostering belonging and culture, social connections emerged as a central theme in participants' experiences with CIPA programming. Many described the classes as "social hubs" where they can build relationships, exchange life updates, and engage in camaraderie (Rantala et al., 2024). The repetitive nature of weekly classes allowed participants to develop deeper connections over time, aligning with Wenger's (1998) concept of "communities of practice" which states that individuals are able to learn and gain knowledge through *continued* interactions with others in the same group/community. Some participants shared that while they did not socialize much outside of the CIPA classes, these spaces provided them with a sense of community. As older adults are particularly vulnerable to experiencing social isolation, group-based physical activity represents an accessible way to improve mental well-being and social health through fostering connections (de Lacy-Vawdon et al., 2018; Jaramillo et al., 2021; Sebastião & Mirda, 2021). This was reflected in statements highlighting the value of engaging with other people through small interactions and friendly greetings. Existing literature also emphasizes the role of social cohesion in sustaining consistent engagement in physical activity programming (Puigarnau, 2017; Yip et al., 2016). Social cohesion can involve mutual respect between participant and instructor, which can lead to higher levels of motivation and adherence (Moustakas & Wagner, 2023; Yip et al., 2016). This is important for older adult populations, in particular, as they often feel hesitant to participant due to barriers related to aging (Young et al., 2024; Zimmer et al., 2021). Future studies could examine the explicit aspects of CIPA programming that encourage social connections among participants by identifying which social cohesion strategies are most effective in promoting long-term adherence.

Role Modeling, Peer Support, and Engagement

Role modeling emerged as a significant factor in enhancing engagement, with participants drawing motivation from observing their peers during class. Several participants highlighted the importance of not feeling alone in ability and that shared experiences played an important role in boosting feelings of cohesion. The notion of observing others' actions and behaviours and how this information can be used to drive internal motivation aligns with Bandura's (1977) Social Learning Theory, which suggests that individuals learn by imitating others. Additionally, one study by Koert van der Linden et al. (2022) explored the perspectives of older adults who had been practicing Tai Chi for a minimum of one year. The authors found that the group-based format of the classes played a crucial role in supporting participation (Koert van der Linden et al., 2022). Participants described how learning in a group environment made it easier for them to follow along, particularly as instructors placed less experienced individuals in the center of the studio, while more experienced members were placed on the outside (Koert van der Linden et al., 2022). This class structure helped participants mirror, or role model from their peers, as well as facilitated learning as beginners were not automatically placed in the back of the room (Koert van der Linden et al., 2022). These findings further highlighted the importance of role modeling as a key consideration when it comes to promoting participation among older adults.

Additionally, a few participants highlighted the role of humour in mitigating feelings of anxiety associated with making mistakes in class. Role modeling extends beyond imitating physical movements; it also involves mirroring the emotions and atmosphere of the group, thereby fostering a sense of positive interdependence (Reimers et al., 2019; Shimizu et al., 2022; Zimmer et al., 2021). Playful interactions help set a supportive and positive tone, creating an environment where making mistakes are normalized rather than discouraged (de Vries, 2021;

Østergaard et al., 2024; Shimizu et al., 2022; Stevens et al., 2021). Ultimately, these findings support the value of role modeling as a strategy for fostering a sense of belongingness and increasing engagement, aligning with existing literature in the field of exercise science (Batish et al., 2024; Østergaard et al., 2024; Stevens et al., 2021).

Another sub-theme that emerged from older adults' experiences in CIPA programming was the role of a supportive community where "everybody helps" to foster an inclusive environment for attendees. Many participants described experiences such as sharing and bringing equipment to one another. Crozier and colleagues (2020) examined facilitators and challenges of implementing a peer-supported physical activity intervention for older adults (n = 12) using semi-structured interviews and a focus group. The authors found that the use of peer volunteers, or providing peer support in general, helped to increase social engagement within the program. Indeed, findings from the present study suggest that peer support is a key facilitator in helping participants feel part of the group and subsequently engaged. Positive peer interactions in group-based physical activity classes have been found to contribute to long-term engagement in a variety of communities (e.g., older adults, youth, adolescents; McNamara et al., 2013; Stevens et al., 2021) which highlights its value further.

Beyond physical support, participants also noted the importance of emotional support from others in the class. The welcoming nature of those partaking in the CIPA classes, particularly those who were considered more experienced, was a notable factor in making new participants feel comfortable. Experienced participants often took on informal mentorship roles by offering guidance and helping beginners in small ways. Relatedly, one participant also noted that in their Karate class, "lower belts" would also help "higher belts" as well, reinforcing the idea of reciprocal exchange and allowing learning to be a shared experience regardless of

expertise. Current research describes this phenomenon as reciprocal teaching models, a model where students of different skill levels engage in teaching one another, helping to foster increased engagement, and promote confidence among students (Faidah et al., 2023; Ordás et al., 2021). Ultimately, in the context of CIPA programming, these findings illustrate that culturally-inclusive group-based physical activity can foster a unique form of social support that is both physical (e.g., helping provide equipment) and emotional (e.g., offering words of encouragement). By fostering an environment where inclusivity and shared goals are common objectives, this culture of mutual care can serve as a recommended avenue to boost CIPA engagement in the long-term.

Creating Welcoming Environments

Participants consistently emphasized the nonjudgmental and inclusive nature of CIPA classes. The absence of competition and promotion of philosophies rooted in personal progress were identified as helpful for creating an atmosphere that is welcoming, which further motivated participant engagement. Previous literature has similarly highlighted the positive impact that inclusive environments can have on long-term participation (Martín-Rodríguez et al., 2024; Taylor et al., 2023). By reducing fear of failure and focusing on sense of belonging through things like encouraging leadership and promoting collaboration with others in the class, participants may feel benefits when it comes to physical, mental, and social health outcomes (Martín-Rodríguez et al., 2024; Spaderna et al., 2024; Taylor et al., 2023). This experience, in turn, can lead to enhanced engagement (Martín-Rodríguez et al., 2024; Spaderna et al., 2024; Taylor et al., 2023).

A supportive environment within physical activity settings is particularly important among older adults that come from diverse cultural backgrounds, as they may face unique

barriers to participation such as cultural stigma, or lack of access to resources (Richard et al., 2008; Scheerens et al., 2021). An environment grounded in diversity and acceptance can help to address these barriers while encouraging a sense of continued support among participants (Márquez et al., 2014; Vermeesch et al., 2022). Through its' focus on inclusivity and nonjudgmental leadership, CIPA programming can create a welcoming environment where older adults feel supported, comfortable, and motivated to participate (Harvey & Griffin, 2021; Perry & Weatherby, 2011; Vermeesch et al., 2022).

The role of supportive leadership in fostering group dynamics and engagement emerged as a significant theme. Many participants reflected on the positive impact that the instructors had, particularly in regard to creating inclusive and adaptive environments through promoting feelings of comfort and safety. Participants also highlighted how instructors would provide choices and adaptable modifications based on the needs of the individual. The language of "as you're able" was used often and represents an intentional effort by the instructor to create a space where participants feel empowered. The notion of meeting people where they are and engage as they are able illustrates the inclusivity of CIPA and the importance of accommodating older adults who often have diverse physical abilities (Harvey & Griffin, 2021; Perry & Weatherby, 2011). Flexibility and providing accessible options help to accommodate the needs and abilities of participants, as many people in the class may have varying experience levels (Puente & Anshel, 2010; Sánchez-Mateos & Murcia, 2018). Research suggests that when instructors offer modifications, participants feel more empowered to engage in class, reducing risk of injury or mental stress (Puigarnau, 2017; Sánchez-Mateos & Murcia, 2018).

Furthermore, many participants appreciated the instructors' focus on building a "culture of respect" where community members not only respected the instructors, but also supported one

another. A strong culture of respect has been linked to increased feelings of psychological safety, where individuals feel comfortable challenging themselves without fear of failure (Frazier et al., 2016; Ito et al., 2022). This was evident in participants' descriptions of how instructors often facilitated a positive environment by providing constructive feedback and adjusting movements to varying skill levels.

Overall, the role of a supportive environment, such as through supportive leadership from instructors with a focus on respect and adaptability, is essential in fostering a sense of belonging among participants and can be used to reduce barriers of participation and promote long-term engagement (Puigarnau, 2017; Yip et al., 2016). Existing literature stresses the importance of culturally-responsive instruction, where instructors acknowledge the varied abilities and cultural backgrounds of participants (Young & Sternod, 2011). Through strategies such as integrating inclusive language, instructors can break down barriers to participation for older adults who may be uncertain about their physical capabilities and feelings of belonging.

Challenges to Participation

While this study identified many benefits associated with CIPA programming, various challenges emerged including programmatic issues, physical and mental barriers, and language barriers. Collectively, these barriers can hinder older adults' ability to participate in CIPA programming effectively and safely.

Availability and Access to CIPA Programming

Only four participants raised concerns about programmatic issues in relation to CIPA classes. Limited class availability and overcrowding were noted as logistical challenges; difficulty in securing a spot in classes due to high demand, and constraints related to physical space were highlighted. These issues reflect broader concerns in the literature regarding limited

availability of CIPA programming in the community, as high demand and inadequate physical space can restrict access for those who would benefit the most from more inclusive physical activity classes (Gagliardi et al., 2022; Giles & Darroch, 2014). Ultimately, although programmatic issues were only a concern for a few participants from the study, it is still important to highlight the need for more CIPA programs, especially for older adults, as demand continues to grow alongside Canada's increasingly diverse population (Statistics Canada, 2022b; Statistics Canada, 2022c). As the demographic makeup of this country shifts, and the older adult population continues to rise (Statistics Canada, 2023a), expanding the availability of CIPA programs helps to ensure the availability of equitable access to more culturally-inclusive programming, which can lead to increased participation in health-promoting activities (Conn et al., 2014; Montayre et al., 2020; Shahla et al., 2023). Further research on CIPA programming is needed to identify effective strategies (e.g., expanding physical space, increasing class availability/number of facilities) for addressing specific challenges on engagement rates.

Navigating Physical and Mental Barriers to Participation

Along with programmatic issues, several physical and mental barriers were noted as challenges to participation in CIPA programming. Firstly, participants expressed concerns related to the physical discomfort, such as hip pain, that can accompany age-related mobility issues. Other participants expressed concerns about keeping up with others in the class due to physical limitations such as arthritis or balance issues. To offset this challenge, current literature notes the importance of incorporating accessible alternatives for older adults (Franco et al., 2015; Harvey & Griffin, 2021; Zimmer et al., 2021), such as chair yoga. Despite these efforts, some participants still reported physical challenges that impacted their experience when taking part in the class. This suggests that additional strategies may be needed, such as greater range when it

comes to pacing, incorporating rest breaks, addressing environmental factors such as room temperature via air ventilation or temperature control measures, and more specialized instructor training focused on the unique needs of the aging population (Murphy et al., 2012; Valdés-Badilla et al., 2019; Zimmer et al., 2021).

Mental barriers, such as a lack of motivation, poor attitude, or low mood, were also cited as obstacles to participation. Similar research suggests that certain psychological factors (e.g., self-efficacy, motivation) can impact an individual's willingness to engage in physical activity (Pekmezi et al., 2009). Strategies such as reinforcing positive behaviour change and developing structured habits through goal setting have been identified as effective in addressing these mental barriers (Bailey, 2019; Peng et al., 2024). Participants in this study also described their struggles with the initial stages of joining a new class. They felt uncertain about their ability to pick up movements as quickly as others and were initially worried about how they were perceived by members in the class. A similar sentiment was echoed by Levinson and colleagues (2013) who noted that the fear of being perceived negatively was often the root cause of social anxiety, impacting one's adherence to programming. Additionally, others highlighted more external factors that influenced their participation in class, such as "laziness" or poor weather. However, more research is needed on mental barriers in CIPA programming and how structured goal-setting strategies, combined with culturally-relevant approaches such as mindfulness, spiritual reflection, or the impact of group social structures, can help mitigate psychological barriers for older adults who want to participate. Ultimately, these findings emphasize the need for CIPA programs to incorporate more supportive strategies that address both physical and mental barriers that effect long-term physical activity engagement.

Linguistic Challenges in CIPA Programming

Lastly, language barriers emerged as part of the CIPA programming participation experience. Participants noted that when instructions were given in a language they were unfamiliar with, it became difficult to keep up with the pace of the class as it took a lot of mental acuity to process both the terminology, and follow the movements instructed. Current research focused on physical activity programming and broader community-based physical activity interventions suggests that linguistic differences can often create a sense of confusion for participants and may even discourage participation (Maricar et al., 2024; Rio & Saligan, 2023; Zhou et al., 2024). Studies have shown that when participants struggle to understand verbal instruction, it can lead to feelings of exclusion and uncertainty, impacting exercise adherence (Maricar et al., 2024; Rio & Saligan, 2023). Additionally, in classes where the instructors themselves have limited proficiency in English and the majority of students share the same linguistic background, participants may end up feeling isolated due to lack of fluency (Maricar et al., 2024; Nawyn et al., 2012; Zhou et al., 2024).

Despite the challenges participants faced from the language barrier, such as needing to attend specialized beginner classes to better understand the terminology used, some participants embraced these difficulties and viewed them as a learning opportunity. They saw these challenges as a way to engage more deeply with the practice and expand their understanding of the cultural context in which the program came from, aligning with current research highlighting the impact of cultural adaptation in transforming challenges into learning experiences (Conn et al., 2014; Lau, 2006). Furthermore, past studies that investigated language barriers in physical activity programming suggest a more culturally-tailored approach when it comes to instruction (Joo & Liu, 2021; Rio & Saligan, 2023; Zhou et al., 2024). This could include bilingual

instructors, or the use of interpreters as viable solutions to address these barriers (Best et al., 2002; Krampe et al., 2022).

Study Strengths and Limitations

This study provides unique insights into the impact of CIPA programming on older adults, particularly when it comes to its effects on physical, mental, and social health, as well as degree of engagement. One of the key strengths of this research is its use of a descriptive qualitative research approach which allows for an in-depth exploration of older adult participants' lived experiences with CIPA programming. The student researcher was able to obtain contextual data, such as how accessibility, peer support, social connectedness, and sense of belonging impacted participants' motivation to continue participating in CIPA classes. These data can help inform future CIPA programs in the community by highlighting the importance of culturally-inclusive instruction for older adults. Moreover, this study captured the experiences of older adults across a wide age range (60 to 85 years old), providing diverse insights into how participation in CIPA may vary across different stages of life. This is important because it emphasizes the role of age-related factors, such as mobility, community, and environment, and how they influence the ways in which older adults benefit from CIPA programming as a whole. Furthermore, this study also included participants from a wide range of socioeconomic backgrounds, with average household incomes distributed relatively evenly across different levels. Participants also had varied levels of education, which provided a diverse range of perspectives on the accessibility and benefits of CIPA programming. This is valuable knowledge as it allows for a more comprehensive understanding of the impact of socioeconomic factors that may also influence CIPA participation. Additionally, while group-based physical activity is a well-researched topic studied in kinesiology and exercise science, it is not often examined

through a culturally-inclusive lens (Georgeou et al., 2022; Ige-Elegbede et al., 2019; Montayre et al., 2020). A culturally-inclusive approach is essential to ensure that diverse communities can access health promoting resources/interventions, such as physical activity classes, in an equitable way. By analyzing physical activity programming from this perspective, researchers can identify both effective strategies and areas for improvement. For example, this lens allows for the development of future interventions and programs that better serve diverse communities, particularly those from collectivistic cultures where group-based physical activities align more with their social and cultural needs (Beune et al., 2022; Ige-Elegbede etal., 2019).

When it comes to limitations, while the primary aim of this study was to explore the CIPA classes themselves, the researcher anticipated a more diverse sample in terms of cultural backgrounds that would represent the diverse demographic makeup of the GTA. With the majority of participants coming from a predominantly white Canadian background with Western European heritage, the study's ability to fully capture the perspectives of older adults from other ethnocultural communities was limited. In addition, the classification of certain classes as CIPA (e.g., yoga, Tai Chi, BollyFit) may have reflected more Westernized adaptations rather than authentically representing the ethnocultural traditions from which they originated. As such, participants may not have perceived these classes as having a strong ethnocultural component. Additionally, hesitancy to participate in research could also have contributed to the lack of participant diversity. This lack of representation may affect the ecological validity (Kaiser et al., 2016; Killingback et al., 2017) or the extent to which findings of this study can be applied to real world settings. Furthermore, some of the identified subthemes, such as physical challenges or programmatic constraints, may reflect the experiences of older adults in broader group fitness settings rather than being unique to CIPA classes. This may limit the conclusions that can be

drawn when it comes to CIPA programming specifically. Moreover, this study observed CIPA solely through the lens of ethnicity and race, potentially overlooking gender identity, or sexual orientation. Future research should explore CIPA more broadly, taking into account intersecting identity factors. This further highlights the need for future research with a more culturally-inclusive sample of participants to improve the transferability of findings across diverse communities. Future research could benefit from more targeted recruitment efforts at a greater number of fitness centers across the GTA, as well as an extended recruitment period to ensure a more representative and diverse sample. Additionally, researchers could explore comparisons between CIPA and non-CIPA classes to assess similarities and differences in inclusivity, social connections, and overall engagement. Lastly, the majority of participants in this study were assigned female at birth, with fewer male participants represented. More research is needed on the barriers and facilitators of older men in CIPA programming, to determine whether and to what degree sex might be a factor in group-based physical activity participation. Furthermore, additional research is also needed to better understand the experiences of older men who are not currently engaged in CIPA programming or physical activity, as their barriers may differ from those who are already participating. Gleaning these views may be useful for tailoring CIPA programming to meet the specific needs of men, particularly as men had lower participation rates in CIPA classes when compared to women in this study. Lastly, although this study used the term ‘data saturation’ to justify ending recruitment after reviewing data for 12 participants, it is important to acknowledge the increasing critiques of this concept within emerging qualitative research whereby it may not ever be possible to reach saturation (Braun & Clarke, 2019).

Conclusion

This study explored the experiences of 12 older adults who participate in CIPA programming as they related to dimensions of physical, mental, and social health, while also examining how group dynamics principles influenced participants' sense of belongingness and adherence. Findings from these one-on-one interviews reinforced the importance of culturally-inclusive approaches when it comes to fostering a sense of belongingness for older adults who want to be active in the GTA. Noteworthy facilitators to engagement included accessibility of programs, health benefits, and personal growth – all of which were described in the context of aging and heightened quality of life.

While a few participants experienced some challenges or barriers to participation (e.g., programmatic issues, physical and mental barriers, language barriers), most participants valued and reflected upon the positive experiences associated with CIPA to a greater degree. One unique study feature was the inclusion of a group dynamics lens to examine the CIPA experience in this context. By exploring the impact of the group on belonging, this study was able to identify unique factors that contribute to a positive experience while fostering participant engagement. For example, several group dynamics principles that contributed to participants' positive experience in CIPA programming included social connections, role modeling, and support via the community, environment, and leadership. Social connections particularly fostered a sense of community by allowing participants to feel included in class by both instructors and fellow members. The environment emerged as especially salient in this context whereby the physicality associated with the CIPA as well as the spirit or culture of being in the class were discussed often. Both were noted as important for promoting a sense of belonging, especially for participants with diverse physical and cultural needs.

Overall, based on the present study, inclusivity in the exercise and physical activity space is essential. This research makes a valuable contribution to the growing subfield of culturally-inclusive health promotion. Current literature in the field of kinesiology highlights the influence of physical, mental, and social factors when it comes to participation in group-based physical activity. This study extends this understanding further by examining how CIPA in particular affects participant engagement, specifically among older adults. By understanding the experiences of this cohort, a greater awareness of the positive benefits associated with CIPA programming as an effective group-based physical activity option emerged. By focusing on the intersection between group-dynamics and cultural-inclusivity, this study adds a practical approach when it comes to designing health promoting initiatives for diverse communities. This is especially relevant during this time where diversity is rich and ethnocentric approaches are warranted. Future research should consider the perspectives of those who chose not to participate or dropped out of the classes prior to the three-month inclusion cut-off, as their experiences may provide valuable insights into additional barriers or challenges to participation when it comes to long-term engagement in CIPA programming. Future research should also continue to examine how specific group dynamics strategies can be approached through a cultural lens (e.g., group cohesion, culturally competent instructor training), and can be catered to a more diverse population of older adults, especially when it comes to increasing engagement and maintaining an active lifestyle for better quality of life and health outcomes.

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Appendix A

Research Ethics Board Approval Letter

Lakehead UNIVERSITY

Research Ethics Board
t: (807) 343-8283
research@lakeheadu.ca

August 08, 2024

Principal Investigator: Dr. Erin Pearson
Student: Aaila Wadhwa
Health and Behavioural Sciences\School of Kinesiology
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1

Dear Dr. Erin Pearson and Aaila Wadhwa:

Re: Romeo File No: 1470574
Granting Agency: N/A
Agency Reference #: N/A

On behalf of the Research Ethics Board, I am pleased to grant ethical approval to your research project titled, "**Fostering a Sense of Community: Exploring Perceptions of Culturally-Inclusive Physical Activity Class Engagement Among Older Adults**".

Ethics approval is valid until **August 8, 2025**. Please submit a Request for Renewal to the Office of Research Services via the Romeo Research Portal by July 8, 2025, if your research involving human participants will continue for longer than one year. A Final Report must be submitted promptly upon completion of the project. Access the Romeo Research Portal by logging into myInfo at:

https://erpwp.lakeheadu.ca/

During the course of the study, any modifications to the protocol or forms must not be initiated without prior written approval from the REB. You must promptly notify the REB of any adverse events that may occur.

Best wishes for a successful research project.

Sincerely,

Dr. Claudio Pousa
Chair, Research Ethics Board

/dg

Appendix B

Email Template [Draft]: Email to Fitness/Community Centre Owner/Manager

Hello [Name],

I hope this email finds you well.

My name is Aaila Wadhwa, and I am a Kinesiology Master's student at Lakehead University in Thunder Bay. I am reaching out to you because I am conducting a research study to understand the experiences of older adults (aged 60 and over) who participate in culturally-inclusive physical activity programming. I am particularly interested in understanding how participation in classes such as BollyFit, Zumba, and Tai Chi impact the physical, mental, and social well-being of older adults.

Participation in this study involves completing a brief demographic survey and participating in a one-on-one interview, which will last approximately 30-40 minutes. The interviews will be conducted via Zoom or telephone at a time that is convenient for the participants.

I'd appreciate your help in sharing details about this research study with eligible participants at your center. I have included a poster and would appreciate it if you could put this somewhere visible in your establishment. I would also welcome the opportunity to visit your center to talk to your members about the study in detail should you agree.

Thank you and I look forward to a potential collaboration! If you have any questions or require further information about the study, you can contact me at [my phone number] or awadhwa1@lakeheadu.ca.

Aaila Wadhwa, MSc Candidate
Dr. Erin Pearson, Student Supervisor, Associate Professor
School of Kinesiology, Lakehead University

Appendix C

Participant Recruitment Poster

Lakehead UNIVERSITY | School of Kinesiology

ACTIVE OLDER ADULTS

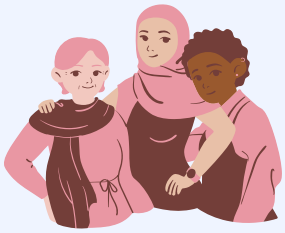
RESEARCHERS FROM LAKEHEAD UNIVERSITY ARE LOOKING TO STUDY FITNESS CLASSES TAILORED TOWARDS PEOPLE FROM DIVERSE CULTURAL BACKGROUNDS

WHO CAN PARTICIPATE?

- AGED 60 OR OLDER
- HAVE PARTICIPATED IN FITNESS PROGRAMS THAT INCLUDE CULTURAL ELEMENTS (E.G. ZUMBA, BOLLYWOOD FITNESS, TAI CHI, YOGA)
- PARTICIPATED FOR AT LEAST 3 MONTHS, ATTENDING AT LEAST ONE CLASS PER WEEK
- PARTICIPANTS MUST HAVE ACCESS TO A COMPUTER/INTERNET OR TELEPHONE AND ARE COMFORTABLE COMMUNICATING IN ENGLISH

WHAT IS INVOLVED: One 30-40 minute discussion with a research team member over the telephone or zoom

BENEFITS: Share your experiences with physical activity and culture. Your viewpoints will contribute to the science on older adults and physical activity.



Approved by Lakehead University Research Ethics Board

INTERESTED? CONTACT US AT:

Aaila Wadhwa
awadhwa1@lakeheadu.ca
647-608-3600
Aaila Wadhwa
awadhwa1@lakeheadu.ca
647-608-3600
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Appendix D

Social Media Post

Lakehead UNIVERSITY | School of Kinesiology

ACTIVE OLDER ADULTS IN THE GREATER TORONTO AREA

RESEARCHERS FROM LAKEHEAD UNIVERSITY ARE LOOKING TO STUDY FITNESS CLASSES TAILORED TOWARDS PEOPLE FROM DIVERSE CULTURAL BACKGROUNDS

WHO CAN PARTICIPATE?

- AGED 60 OR OLDER
- HAVE PARTICIPATED IN FITNESS PROGRAMS THAT INCLUDE CULTURAL ELEMENTS (E.G. ZUMBA, BOLLYWOOD FITNESS, TAI CHI, YOGA)
- PARTICIPATED FOR AT LEAST 3 MONTHS, ATTENDING AT LEAST ONE CLASS PER WEEK
- PARTICIPANTS MUST HAVE ACCESS TO A COMPUTER/INTERNET OR TELEPHONE AND ARE COMFORTABLE COMMUNICATING IN ENGLISH

WHAT IS INVOLVED: One 30-40 minute discussion with a research team member over the telephone or zoom

BENEFITS: Share your experiences with physical activity and culture. Your viewpoints will contribute to the science on older adults and physical activity.

INTERESTED? SCAN HERE!

OR CONTACT US AT:
AWADHWA1@LAKEHEADU.CA

Approved by Lakehead University Research Ethics Board

Appendix E

Letter of Information

Dear Potential Participant,

Thank you for considering participation in our research study titled, "Fostering a Sense of Community: Exploring Perceptions of Culturally-Inclusive Physical Activity Class Engagement Among Older Adults." This study aims to investigate the impact of culturally-inclusive physical activity (CIPA) among individuals aged 60 and above. CIPA refers to classes that involve cultural elements such as traditional clothing attire, cultural music, dance, movement styles, instructors who are bilingual or multilingual. Examples might include Latin Dance, Bollywood Fitness, Zumba, or Tai Chi. The study is being conducted by Aaila Wadhwa, a Master of Science (MSc) student researcher, under the supervision of Dr. Erin Pearson from the School of Kinesiology at Lakehead University. You are being invited to participate because you engage in CIPA programming at least once a week and have done so for at least the past three months.

If you choose to join, you will be asked to have a brief discussion with the student researcher who will ask you questions about your CIPA experiences. This should last about 30 to 40 minutes, and will happen over the telephone, Zoom, or another remote platform that works for both parties. Before the interview, you will be asked to fill out the eligibility screening questionnaire to see if you're able to participate. If you meet these criteria, you must also have access to a computer/internet or telephone and are comfortable communicating in English. You will then be asked to sign a participation consent form electronically and be asked to provide your contact details so that the student researcher can connect with you to schedule a meeting time.

This research study will pose minimal risk to you as a participant. The interviews that you as a participant will take part in may ask you to share some personal experiences that may be sensitive in nature or require you to share some personal information. As a participant, you have the right to withdraw at any time with no consequences. If you choose to withdraw, your data can also be withdrawn up until the point of data analysis. To withdraw, you can contact the student researcher, Aaila Wadhwa, or the Supervisor, Dr. Erin Pearson from the research team (contact information is listed at the end of this letter). You also may choose to not respond to any questions that bring out feelings of discomfort. Mental health resources are provided within this letter to help you access support throughout the process. The data and research findings obtained from this study will be used for the student researcher's MSc thesis, and may also be used for journal publications, and presentations at academic conferences. Your identity will remain confidential throughout the research process, and you will not be identified in any publications or presentations. All video and audio recordings taken during the interview process, as well as the

consent forms will be stored on a Lakehead University password protected Google Drive account. Interviews will be taking place alone, with no one else present other than you and the student researcher. Interview transcripts and recorded audio files will not state your name, but rather an ID number or code that will ensure anonymity and keep your identity private. Your ID number will be stored separately from your consent form on the student researcher's password protected computer.

Participating in this study may offer a number of benefits such as the chance for you to experience a sense of community when discussing culturally-inclusive physical activity, allowing you to reflect on your experiences within the group fitness classes. Your participation not only validates these experiences but also adds to a greater understanding of culturally-inclusive physical activity programming. Overall, this research aims to improve the understanding and importance of culturally-inclusive physical activity and its role in promoting health and diversity among older adults.

Lastly, all data including transcribed audio recordings, researcher's typed notes during the interview process, and any other related documents, will be stored in an encrypted and safe drive on a password protected computer as per Lakehead University policy for a minimum of seven years. The student researcher and the principal investigator will be the only two individuals who will have access to the drive, and after a seven year period all information and data will be deleted according to Lakehead University policy. As a participant, you can request or ask for a summary of the research findings once they become available. The research team will contact you once research findings become available, and you will have the option to request a summary of the findings at that time.

Thank you so much for your interest in our research. For any reason throughout the research process if you feel you may have a mental health concern and would like to reach out to professional mental health support outside of this research setting, please do not hesitate to use the following resources:

- ConnexOntario Helpline: 1-866-531-2600
- 211 Ontario: Call 2-1-1 or 1-877-330-3213
- Mental health resources for newcomers to Canada / Information in other languages:
    - https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/information-in-other-languages
    - 416 535-8501, press 2
- Spectra Helpline:
    - English Language: 416 920-0497
    - English, Punjabi, Hindi, Urdu, Spanish, Portuguese Languages: 905 278-4890

This research study has been approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

For any questions or concerns regarding the research study, our contact information is below.

Thank you,

Aaila Wadhwa, MSc Candidate/Student Researcher

School of Kinesiology, Lakehead University

awadhwa1@lakeheadu.ca

647-608-3600

Dr. Erin Pearson, PhD

Supervisor & Principal Investigator

School of Kinesiology, Lakehead University

espearso@lakeheadu.ca

Appendix F

Eligibility Questionnaire

Age: This study aims to investigate the impact of culturally-inclusive physical activity (CIPA) among individuals aged 60 and above.

1. How old are you? _____

Participation in Physical Activities Tailored to Diverse Cultural Backgrounds:

2. Have you recently participated in physical activity programs that include cultural elements such as music, dance, traditions, languages, attire, or movement styles? YES/NO _____

3. If "Yes" to Question #2, have you attended this class for at least 3 months, at least once per week on average? YES/NO _____

4. Which physical activity program(s) have you been involved in over the past 3 months? _____

English Language Proficiency:

5. Is English your first language? (YES/NO) _____

6. If not, how well do you speak English? (Very well / Somewhat well / Not well at all) _____

Appendix G

Consent Form

I _____, have read and fully understand the purpose and procedures of this study, as outlined in the Letter of Information provided. I voluntarily agree and consent to participate in this research study titled, "Fostering a Sense of Community: Exploring Perceptions of Culturally-Inclusive Physical Activity Class Engagement Among Older Adults."

- All of my questions have been answered.
- I understand the potential risks and benefits associated with participating in this study.
- I acknowledge that my participation is entirely voluntary and that I can withdraw from the study at any time without any negative consequences or repercussions.
- I have the right to refuse to answer any questions during the interview process and the demographic survey if I choose to do so.
- I am aware that all data obtained throughout this study will be securely stored with the Principal Investigator, Dr. Erin Pearson, and Student Researcher, Aaila Wadhwa, for a minimum of seven years on an encrypted and safe Google Drive on a password protected computer as is in accordance with Lakehead University policy.
- I also recognize and understand that my identity will be kept confidential throughout the entirety of the research process, and ultimately, I am able to request the findings of this study if at any time the research findings become publicized. If research findings do become public, my confidentiality will remain intact.
- By consenting to participate, I have not waived any rights to legal recourse in the event of research-related harm.
- I understand that I can request a summary of the study's findings once they become available.
- If I do not agree to be recorded, I understand that notes will be taken by the researcher during the interview as an alternative.

By signing this Consent Form, I confirm that I have read both this form and the Letter of Information, and I give my full consent to participate in this research study.

_____	_____	_____
(Participant Name [Printed])	(Signature of Participant)	(Date)
_____	_____	_____
(Researcher Name [Printed])	(Signature of Researcher)	(Date)

☐ I would like to receive a summary of the research results once they become available (please provide your email address only if you would like to receive a summary of the research results).

Email: _____

Appendix H

Demographic Survey

To create your ID number, take the first letter of your name, the last two digits of your birth year, the first two letters of your favourite colour, and the number of siblings you have.

For example, Maria was born in 1961, her favourite colour is blue and she has 2 siblings. Her ID number would be: M61BL2

ID Number: _____

1. Date (YYYY/MM/DD): _____

2. What is your age? _____

3. What is your sex assigned at birth?
    a. Female
    b. Intersex
    c. Male
    d. Prefer not to say

4. What is your gender identity? _____

5. What is your ethnic or cultural background (for example: Canadian, Chinese, Italian, Indian, Pakistani, Lebanese, French, Indigenous, Nigerian, etc.)?

    _____

6. What is your current relationship status?
    a. Single
    b. In a Relationship
    c. Married
    d. Separated
    e. Divorced
    f. Widowed
    g. Other: _____

7. Do you have any children? If so, how many? _____

8. What is your approximate *household* income?
    a. Below $25,000
    b. $25,000 - $50,000
    c. $50,000 - $75,000
    d. $75,000 - $100,000
    e. Above $100,000

9. How many people currently live in your household? _____

10. What is your highest level of education completed? _____

11. What is your immigration status?
    a. Born in Canada
    b. Immigrant
    c. Permanent Resident
    d. Refugee
    e. Other: _____

The researchers are interested in understanding more about culturally-inclusive physical activity classes. This means classes that include instructors that speak different languages, incorporate different cultural traditions, cultural attire, or include cultural music.

12. Please list any classes that you have participated in over the past three months that would be considered culturally-inclusive.

    _____

13. On average, how often do you attend each of these classes per week?

    _____

14. How long does each class last? _____

15. What studio/fitness centre/community centre do you take each class at?

_____

Appendix I

Oral Consent Script

Hello [Participant's Name],

I would like to go over the details of the study with you to ensure that you fully understand the purpose and procedures involved. This study is titled, 'Fostering a Sense of Community: Exploring Perceptions of Culturally-Inclusive Physical Activity Class Engagement Among Older Adults.'

You have been provided with a Letter of Information that outlines the study in detail. Do you confirm that you have read and understood the purpose and procedures as outlined in that document?

☐ Yes, the participant has read and understands the document.

If you have any questions at any time, please feel free to ask. Do you have any questions now?
~ Pause ~

Your participation in this study is entirely voluntary, and you can withdraw at any time without any negative consequences or repercussions up until we analyze your data. You also have the right to refuse to answer any questions on the brief demographic survey and during the interview process. If you do not agree to be recorded, you understand that notes will be taken by the researcher during the interview as an alternative.

☐ Yes, the participant understands these conditions.

Please be assured that all data obtained throughout this study will be securely stored by the Principal Investigator, Dr. Erin Pearson, and myself, Aaila Wadhwa, for a minimum of seven years on an encrypted and safe Google Drive on a password-protected computer, in accordance with Lakehead University policy. Your identity will be kept confidential throughout the research process, and if the research findings are publicized, your confidentiality will remain intact.

You have the right to request a summary of the study's findings once they become available. By giving your verbal consent, you are not waiving any rights to legal recourse in the event of research-related harm.

Do you voluntarily agree to participate in this research study and fully understand the potential risks and benefits associated with it?

☐ Yes, they agree.

If you agree to participate, I will sign a consent form indicating that you have provided your verbal consent. This will include the date and your confirmation that you understand the study details.

Thank you for your consent. I will now sign the consent script on your behalf.

I, Aaila Wadhwa, confirm that _____ has been fully informed about the study titled, 'Fostering a Sense of Community: Exploring Perceptions of Culturally-Inclusive Physical Activity Class Engagement Among Older Adults.' _____ has voluntarily provided oral consent to participate in the study, understands the potential risks and benefits, consents to the audio/video recording of their interview, and knows that they can withdraw from the study at any time without any negative consequences or repercussions. This consent was given on _____.

_____	_____	_____
(Researcher Name [Printed])	(Signature of Researcher)	(Date)

Appendix J

Interview Guide

Section 1: Background and History

- What does physical activity mean to you?
- What makes it easy for you to be active?
- What makes it hard for you to be active?
- How does your culture link to the physical activity that you do?
    - Probe: Are there any specific traditions, values, or customs from your culture that you feel are important when engaging in physical activity?

Section 2: Exploration of CIPA Involvement

- What does participating in the [fitness class] class look like? Please walk me through what happens.
- What do you like about participating in the [fitness class]?
- What don't you like about participating in the [fitness class]?
- How would you say these classes impact your health in general?
    - Probe: In what ways do the [fitness classes] impact your physical health/mental health/social health?
- In what ways does this [fitness class] relate to your culture, if at all?
- What challenges have you faced when participating in the classes themselves?
    - Probe: e.g., physical limitations, language barriers, scheduling conflicts
- What kinds of things help you participate in this class?

Section 3: Group Dynamics

Belongingness and Peer Support:

- How do the other people in this _____ class make you feel?
- What are the benefits of doing this _____ class as a group?
- What are the challenges of doing this _____ class as a group?
- What do you like about the group leader in this class?
    - Probe: What do they do that you enjoy? What do they do that you don't enjoy?

Shared Goals and Team Dynamics:

- How do people in your fitness group help or support each other?
- How has being a part of this fitness group helped you reach your fitness or personal goals?

Section 4: Final Thoughts

- What have you learned about yourself from participating in this fitness program?
- How do you think the program could be improved for future participants?
- Is there anything else you would like to share about your experience with the fitness program?