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Physical Activity in Older Adulthood: The Impact of Positive Outlook

By E. Megan Wing

A Thesis

Submitted to the Faculty of Graduate Studies

through the Department of Psychology in Partial Fulfillment

of the Requirements for the Degree of Master of Arts

at the University of Windsor

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ABSTRACT

The present study investigated the function of physical activity in the lives of physically active older adults. The impact of aging stereotypes on physical activity was explored. Using a grounded theory analysis of interview data, positive outlook emerged as an integral link to leading a physically active lifestyle in older adulthood. Positive outlook was comprised of five major components: being open to possibilities, exercising control of aspects of one's life, feeling youthful, satisfaction and feeling fortunate, and having a purpose in life. This constellation of components interacts with one another and good health to influence the importance of physical activity in one's life and, in turn, one's resistance to aging stereotypes. The perspective of participants is reflected in a theoretical model that accounts for their behaviour.

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`PHYSICAL ACTIVITY IN OLDER ADULTHOOD: THE IMPACT OF POSITIVE OUTLOOK

Introduction

Senior citizens are the fastest growing age group in Canada, growing about twice as fast as the overall population. The number of Canadians age 65 and over has increased by 62% from 2.4 million in 1981 to 3.8 million in 2000. More than one out of every eight Canadians is now a senior citizen. The rapid growth of the senior population will continue as baby boomers become seniors (Public Health Agency of Canada [PHAC], 2005) and life expectancy continues to increase (Ontario Human Rights Commission [OHRC], 2005b). By 2021, an estimated 6.9 million senior citizens will comprise 19% of the total Canadian population, and the numbers rise to over nine million by 2041 and 25% of the total population (PHAC, 2005). Although increasing numbers alone will not lead to a crisis, concerns regarding the potential demand on health care services and financial resources, increasing dependency ratios and intergenerational conflict have been raised. Canadian policies and programs often neglect or are indifferent to the needs of the elderly (OHRC, 2005a) despite the existence of organizations such as the Division of Aging and Seniors – PHAC, the Canadian Association of Retired Persons (CARP) and the National Advisory Council on Aging (NACA) that advise the Government of Canada on aging issues.

While we all hope to live to enjoy our later years, the living conditions for today's Canadian seniors include the obstacles of isolation, poor health care and discrimination (OHRC, 2005a) in employment, health care and housing (OHRC, 2005b). In 2005, 91% of seniors reported one or more chronic health conditions as diagnosed by a health

professional (NACA, 2006) and the results of the 2005 Community Health Survey indicate higher rates of diabetes (Statistics Canada, 2007b) and high blood pressure (Statistics Canada, 2007c) for those age 65 and over than those age 45 to 64. Thus, Canadian health care, with its emphasis on treating acute illness, may not meet the needs of older adults who tend to suffer from chronic illnesses (Chappell & Penning, 2001; OHRC, 2005b). Approximately 62% of seniors were physically inactive in 2005, with 55% of men and 67% of women living sedentary lifestyles (NACA, 2006). Longitudinal data from the 1994/95 and 2004/05 National Population Health Surveys indicate that physical activity levels decrease with increased age (Statistics Canada, 2008). Older seniors, female seniors and seniors with illness, disability, chronic disease, low income or low education level are even less likely to be physically active and more likely to face barriers to participation in physical activity (Health Canada, 2002).

Organizations, like NACA, the World Health Organization (WHO), the Canadian Health Network, the Division of Aging and Seniors – PHAC, the Heart and Stroke Foundation of Canada, the National Institute on Aging (NIA), and many researchers have all recognized the importance of physical activity for maintaining physical, mental and social health in older adulthood. While physical inactivity makes the body age faster (NACA, 2004; PHAC, 2003), engaging in regular physical activity can postpone the onset and minimize the impact of many diseases and disabilities, restore lost capacity and prevent premature death. Health benefits include prevention of colon cancer (Neiman, 1998; PHAC), heart disease, depression, osteoporosis and obesity (NACA; PHAC; WHO, 2007). While the type and intensity of physical activity one engages in may require changes as one ages, the benefits continue, even if one becomes physically active

later in life (Neiman; WHO). Canada's Physical Activity Guide to Healthy Active Living (PHAC) recommends 30 to 60 minutes of moderate physical activity most days a week, incorporating endurance, flexibility, strength and balance exercises.

In the past, more people were physically active through their work because physical labour was more common. The history of work is tied to the function and type of activity pursued in one's leisure time (Koshar, 2002). As manual occupations became less common, leisure time physical activity became more important and leisure time relaxation was less critical (Anderton,1992; Cross, 1992). Since industrialization, increases in health and longevity and decreases in work hours and the span of one's work life, later entry to employment and greater possibility for retirement have expanded the function of leisure (Cross).

Focus groups of seniors identified the core concepts of dignity, independence, participation, fairness and security as inter-related concepts promoting overall health and well-being for their age group (PHAC, 2006a). These core concepts were adopted as the principles of the National Framework on Aging. Incorrect assumptions and stereotypes about older people lead to negative attitudes and discrimination, infringing upon the dignity and worth of older persons (OHRC, 2005b). Stereotypes are beliefs about a person or a group based on simplistic (Ory, Kinney Hoffman, Hawkins, Sanner, & Mockenhaupt, 2003), exaggerated, and homogenizing generalizations. They influence research, policy, programs, organizations, and interactions at the individual level and become social determinants of health (Angus, 2006).

Aging stereotypes can be activated without one's awareness (Levy, 1996) and research has demonstrated that negative aging stereotypes adversely affect cognitive and

physical performance for older adults (Levy et al., 2000). Contamination, also called internalization, is the most common of three main theoretical considerations that Rothermund and Brandtstadter (2003) have identified as having been applied to research on aging stereotypes. The other two theories are externalization, which resembles a 'false consensus effect', and social comparison, which is based on the idea that people evaluate themselves by making comparisons to others (e.g., Heckhausen & Krueger, 1993; Wood, 1989). Each of these theories will be explained in detail later in this text.

Aging stereotypes and ageism are pervasive in North America (Ory et al., 2003) and can be found in health care, media, education, the work environment and everyday life (Harwood et al., 2000; Hummert, Garstka, Shaner, & Strahm, 1999). Our actual stereotypes of aging are numerous and sometimes contradictory. Typically, older adults are negatively stereotyped as mentally and physically incompetent, yet positive stereotypes, such as the perfect grandparent, being wise, kind and happy, also exist (Hummert et al.,1995). An aging stereotype may be a mix of both positive and negative traits for example, seniors are often stereotyped as warm yet incompetent (Donlon, Ashman, & Levy, 2005; Fiske, Cuddy, Glick, & Xu, 2002; Kite, Stockdale, Whitely, & Johnson, 2005). The warm but incompetent stereotype can lead to justification of the lower status of seniors and paternalistic treatment (Fiske et al., 2002). Aging stereotypes can negatively influence communication directed toward older adults. Patronizing, condescending and childish phrases and tone indicate lack of respect and foster low expectations for competence (Ryan, Hummert, & Boich, 1995), thus sustaining the stereotype of incompetence.

Indeed, aging myths have been widely recognized as problematic (e.g., NACA, OHRC, WHO). The myth that aging involves inevitable and continual physical and cognitive decline promotes a focus on disease management rather than prevention and intervention (Grant, 1996; Nelson, 2005). Some of the major health problems common to older adults are heart disease, cancer, stroke, arthritis, osteoporosis and falls (Klein & Bloom, 1997). Yet, many of the diseases usually associated with aging, including osteoporosis, diabetes and high blood pressure, can be prevented or changed (Grant) by altering health behaviours, such as cigarette smoking, alcohol consumption (Rowe & Kahn, 1987) and physical activity (Health Canada, 2006; Osteoporosis Canada, 2008). Despite the health benefits linked to physical activity and the fact that many seniors are physically active, there is a tendency to portray the normal older adult as quite sedentary (Baltes & Baltes, 1990). Furthermore, people are more likely to alter their health behaviours if they know and believe that this can eliminate some of the negative consequences of aging (Grant; Rowe & Kahn).

The present study focused on physically active older adults. The aim of the research was to examine the function of physical activity in their lives and investigate the relationship between aging stereotypes and physical activity. As the majority of older adults in Canada are inactive, the perspective of physically active older adults was sought after for their potential to provide insight into successful means of overcoming possible barriers to participation in physical activity.

Health and the Value of Physical Activity

Health is generally understood to be comprised of physical, mental and social health. Being physically active is associated with improved physical, mental and social

health, emotional well-being, the prevention, control and management of disease and increased autonomy and independence (Health Canada, 2002). Indeed, it is widely considered one of the most important things people can do to maintain their health and quality of life (e.g., Canadian Health Network, Health Canada, Heart and Stroke Foundation of Canada, NACA, PHAC, WHO). While one may need to alter the type and intensity of physical activities in which one is involved, the health benefits continue (Baltes & Baltes, 1990) and are experienced even if one becomes physically active later in life (PHAC, 2003; WHO, 2007). Although physical fitness does decline with age, a sedentary lifestyle escalates the rate of decline considerably (NACA, 2004; PHAC). Census data from 1994/95 and 2004/05 revealed that people 65 and older are changing from being moderately active to inactive at higher rates and from being inactive or moderately active to active at lower rates than younger age groups (Statistics Canada, 2008).

Physical health benefits of engaging in physical activity, as listed by leading organizations for the welfare of seniors (e.g., Health Canada, PHAC, WHO), include prevention of arthritis, osteoporosis, falls, obesity, heart disease, diabetes, certain cancers, stroke, hypertension and pain and the promotion of strength, flexibility, balance and coordination. Other physical health benefits include preventing high cholesterol (Levine, 2004) and premature death (Health Canada, 2006; PHAC, 2003) and improving energy level, respiratory functioning (Health Canada; Levine; PHAC), endurance and motor control (WHO, 2007). Being physically active decreases the risk for chronic disease in general (PHAC, 2006b).

Mental and social health benefits are also numerous. Physical activity helps reduce and manage mental disorders such as depression (Levine, 2004; NACA, 2004; Nieman, 1998; PHAC, 2003; WHO, 2007) and Alzheimer's disease (NACA; WHO, 2007). It improves self-esteem (Health Canada, 2006; Levine; PHAC, WHO, 2007), and cognitive function (WHO, 2007). A meta-analysis (Colcombe & Kramer, 2003) revealed that fitness training increased older adults' performance on cognitive tasks, especially those that involved executive control processes (e.g., planning, inhibition of irrelevant information, switching between tasks). Cardiovascular training has been found to increase prefrontal and temporal brain volume in older adults (Colcombe et al., 2006). These cortices, often found to deteriorate with age, are responsible for everyday functioning and long-term memory.

Physical activity also aids relaxation, reduces stress (Health Canada, 2006; Levine; NACA; WHO, 1998), provides a sense of increased control over one's life (Levine; NACA) and helps maintain independence (Health Canada; Nieman; PHAC; WHO, 1998). Participation in physical activity creates opportunities to create and maintain social networks and interact with people of all ages, thereby reducing loneliness and social exclusion. (PHAC; WHO, 2007). Being physically active gives the individual an opportunity to exert some control over his/her life and health (Levine). Research has shown that walking and stretching increase self-efficacy for specific and generalized physical activity and that self-efficacy predicts exercise behaviour and adherence to exercise programs (Kavussanu & McAuley, 1995; McAuley et al., 1999; Netz, Wu, Becker & Tenenabaum, 2005). Ongoing participation in physical activity is a requirement for maintaining self-efficacy about physical activity (Baltes & Baltes, 1990).

Physical activity can be considered a core factor for other positive health behaviours. It is related to lowered risk of injury, malnutrition and frailty and less tobacco use (Health Canada, 2002). Likewise, many of the health benefits of physical activity are interrelated. For example, physical activity helps maintain a healthy body weight, which in turn reduces the risk of diabetes. In addition to anti-depressant and anti-anxiety benefits of physical activity (ALCOA, 2006), the stress of living with a chronic illness can hinder mental health. Yet, despite the health benefits, 62% of older adults in Canada are not physically active (NACA, 2006).

Aging Stereotypes

The Basics of Aging Stereotypes

Aging stereotypes are beliefs and expectations about aging or about older adults, which, negative or positive, are based on overly simplistic generalizations (Fiske et al., 2002; Ory et al., 2003). These attitudes and beliefs are shaped by our culture (Grant, 1996). Stereotyping is the process of employing stereotypic information to individuals or groups (Cuddy & Fiske, 2002). Possible sources of aging stereotypes include lack of knowledge about the process of aging or about older adults as a group and fear of becoming older (Martens, Goldenberg, & Greenberg, 2005). Thus, increasing knowledge about aging and older adults (Kite et al., 2005) and addressing the fear of aging (Martens et al., 2005) can decrease reliance on aging stereotypes. Stereotypes are persistent (Angus, 2006) but fluctuate with changing social circumstances which alter the group's status (Fiske et al., 2002; Ory, et al., 2003) (e.g., technology replacing older adults' role as transmitter of knowledge).

Aging stereotypes are dangerous because their influence not only impacts the individual older person but extends to societal impacts, including policies, programs, organizations and research (Angus, 2006). In general, stereotypes reinforce existing power relations by supporting the idea that such relationships are justified and natural (Angus). Incorrect assumptions and stereotypes about older people lead to negative attitudes and discrimination, which violate the dignity and worth of older adults (OHRC, 2005b). In other words, ageism consists of cognition (stereotyping), affect (prejudice) and behaviour (discrimination) (Cuddy & Fiske, 2002). Aging stereotypes are pervasive and are evident in media, health care, education, the workplace and everyday conversations (Harwood et al., 2000; Hummert et al., 1999). Often the negative portrayal of older adults is intended to be humorous (Bowd, 2003) and is largely condoned. A quick look at birthday cards down the card aisle will provide plenty of evidence of this.

Specific Aging Stereotypes

According to Hummert, Garstka, Shaner, and Strahm (1995), within the broader category of 'senior citizen' there are a number of subtypes due to the numerous and sometimes contradictory aging stereotypes in North American society. In their study, participants rated the typicality of stereotypes of the elderly and the age of those who represent stereotypes of the elderly. Participants of all ages chose the more negative stereotypes for the older age ranges and younger age ranges for the positive stereotypes. Additional subtypes were held by some age groups but not others. Six subtypes were identified by young, middle-aged and older adult participants alike. The subtypes are the Golden Ager (e.g., active, sociable, alert), the perfect grandparent (e.g., wise, loving,

capable), the John Wayne conservative (e.g., patriotic, religious, nostalgic), the severely impaired (e.g., feeble, incompetent), the despondent (e.g., sad, hopeless, lonely), and the shrew/curmudgeon (e.g., greedy, ill-tempered). Western societies in general tend to hold negative aging stereotypes (Hummert, Garstka, Ryan, & Bonnesen, 2004; Levy et al., 2000).

In a web-based study with over 68,000 participants, negative attitude toward older adults was greater than that for a range of other stigmatized groups (Nosek, Banaji, & Greenwald, 2002). This held true for both younger and older participants. Older adults are negatively stereotyped as mentally and physically incompetent. Some of the mental stereotypes include being unproductive, lonely, stingy, senile, rigid, religious, conservative (Cardinali & Gordon, 2002; Grant, 1996; Hummert et al., 1995; Palmore, 2001), forgetful (Hummert et al., 1995), dependent, unable to cope, having more mood disorders (Sneed & Krauss Whitbourne, 2005), and regressing back to childhood (Levy et al., 2000). Some of the physical stereotypes include being in poor health (Cardinali & Gordon; Grant; Hummert et al., 1995; Levy et al; Palmore; Sneed & Krauss Whitbourne), slow, frail (Cardinali & Gordon; Grant; Hummert et al., 1995; Palmore), unattractive (Bowd, 2003; Hummert et al., 1995; Kite et al., 2005) and asexual (Hummert et al., 1995) or possessing deteriorating sexual functioning (Bowd). Additional negative stereotypes of seniors are that they are dejected and ill-tempered (Hummert et al., 1995), that they are an economic and family burden (Angus, 2006) and that as they age they become more and more alike (Sneed & Krauss Whitbourne).

A recent meta-analysis (Kite et al., 2005) illustrated that negative stereotyping of older adults continues, especially in areas of attractiveness and competence. On the other

hand, older adults may be stereotyped as wise, loving, capable, active, lively, sociable or alert (Hummer et al.,1995). Recently, positive images of older adults on television seem to be on the rise, especially in commercials (e.g., Dove pro-age advertisements) and perhaps due to the increasing buying power of this growing sector of the population. Aging stereotypes are not necessarily purely positive or negative, as seniors are stereotyped as both warm and incompetent (Donlon et al., 2005; Fiske et al., 2002; Kite et al., 2005). This mix of characteristics leads to the paternalistic treatment of older adults, as they are pitied but not respected (Cuddy & Fiske, 2002). It also justifies their inferior status and promotes their compliance (Fiske et al., 2002). Behaving more incompetently increases ratings of warmth but ratings of competence do not increase with behaviour that is less warm. Thus, the positive stereotype of warmth is malleable but the negative stereotype of incompetence resists change (Cuddy, Norton, & Fiske, 2005).

The Impact of Aging Stereotypes

Impact on health. Positive beliefs about the aging process are fundamental to health promotion (Rowe & Kahn, 1987). Research has shown that negative aging stereotypes can generate negative cognitive and physical effects in older adults, including elevated blood pressure (Levy et al., 2000) and decreased memory performance (Levy, 1996), self-efficacy, will to live (Levy, Ashman, & Dror, 1999), functional health (Levy, Slade, & Kasl, 2002) and longevity (Levy, Slade, Kunkel, & Kasl, 2002). In one longitudinal study, older adults holding more negative perceptions of aging lived a mean of 7.7 years less than those holding more positive views of aging (Levy, Slade, Kunkel et al., 2002).

Having some control over aspects of one's life is extremely important. In the classic study by Langer and Rodin (1976), nursing home residents given more control were happier, more active and more engaged socially. They had higher ratings of general improvement. Indeed, perceived control partially mediated findings of better functional health for those with more positive attitudes towards aging (Levy, Slade, & Kasl, 2002). Self-efficacy also has a positive impact on adoption of and adherence to physical activity programmes (Active Living Coalition for Older Adults, 2006). Unfortunately, negative aging stereotypes weaken self-efficacy (Levy et al., 1999). For instance, the common expression of pity towards older adults (Fiske et al., 2002) conveys the message that older adults are helpless.

People are more likely to look after their health if they know that some of the negative health outcomes typically associated with aging can be prevented (Grant, 1996; Rowe & Kahn, 1987), postponed or minimized and if they believe that they are capable of undertaking the necessary measures to improve their health. Health promotion efforts must preserve autonomy and control through enabling, rather than disabling support (Rowe & Kahn). As such, one must be wary of paternalistic interventions to protect older adults because they may undermine the older adult's perceived capabilities. Unfortunately, policy and practice in Canada has been governed by the biomedical model, which focuses on disease, disability and problems associated with aging. This view fails to acknowledge the experience and skills older adults have in caring for themselves (Bernard, 2000). As such, health promotional efforts should also improve the quality of information presented, provide ample opportunities for skill enhancement,

improve access to resources (Bernard) and help people learn to recognize and challenge aging stereotypes.

Aging myths, widely recognized as problematic (e.g., NACA, OHRC, WHO), feed on stereotypes of aging. Some of the common myths are that longevity and quality of life are determined by genetic factors (Ory et al., 2003), that it is too late to reap the benefits of recommended health behaviours in older adulthood (Rowe & Kahn, 1987) and that getting older means being sick or having health conditions (NACA, 2003). The vital role that behavioural and social factors have on health is discounted (Ory et al., 2003). These myths discourage older adults from proactively taking health promoting measures, such as increasing or commencing physical activity or improving their diet. A belief with similar impacts is that conserving energy is necessary for a long and happy life (Klein & Bloom, 1997). Media portrayal of older adults as physically inactive reinforces the stereotype of "normal" seniors as sedentary (Baltes & Baltes, 1990).

Another aging myth is that seniors are not willing or able to alter their health attitudes and behaviours. This leads to the belief that interventions to promote health are in vain (Ory et al., 2003). The myth that mental and physical deterioration are inevitable and continual leads to passive acceptance of health decline. This myth also promotes a focus on disease management rather than prevention and intervention, despite the fact that many of the diseases typically associated with aging (e.g., diabetes, blood pressure, osteoporosis) can be addressed proactively (Grant, 1996; Nelson, 2005). For instance, in the past, osteoporosis was considered part of "normal" aging and therefore the focus was on managing it rather than preventing it (Rowe & Kahn, 1987). However, now we know that the risk of osteoporosis can be reduced by altering health behaviours, such as

cigarette smoking, inadequate calcium and vitamin D intake, heavy alcohol consumption and physical inactivity (Osteoporosis Canada, 2008).

Age-based discrimination. Negative aging stereotypes contribute to age discrimination in the Canadian health care system including poor accessibility, disregard for health concerns, normalizing of health problems and focus on acute care (OHRC, 2005a). Unfortunately, seniors in Canada are frequent users of the health care system, are more likely to be hospitalized, and for longer durations than younger persons, and rates of hospitalization increase with increasing age (Health Canada, 2002 OHRC, 2005b). Negative aging stereotypes held by health care professionals can lead to discrimination (Grant, 1996). For example, mental health professionals rated older clients as less appropriate for treatment and their prognosis as less positive than younger clients, despite the success of treating depression in older adults (James & Haley, 1995). Likewise, the services and advice of medical and social service personnel whose views of 'normal' aging are informed by aging stereotypes will be limited by those stereotypes. For example, if one considers loss of independence as normal, and thus acceptable, he/she may suggest living in a nursing home and not offer other suggestions (Kane & Kane, 2005). To exacerbate the problem, older adults face both ageism and healthism (James & Haley). Health professionals rated people in poorer health as less tolerant and flexible than those with no apparent health problems (James & Haley). This becomes especially problematic, as symptoms of depression often accompany chronic illness (James & Haley).

Intergenerational communication, including that in the health-care setting, is often hindered by aging stereotypes, such as beliefs that older adults have impaired hearing and

mental deterioration (Kite & Smith Wagner, 2002). Cues, such as posture, facial features, use of a cane, and where the interaction takes place shape expectations about the older adult's ability to communicate, which guides the communication strategies that are adopted (Ryan et al., 1995). Patronizing communication can be verbal or nonverbal. Verbal qualities may include simple vocabulary and grammar, the use of 'we', first names, terms of endearment (e.g., 'dear'), slow speech, exaggerated intonation, simple sentences, high volume, and a demeaning emotional tone. Some nonverbal qualities are standing with hands on hips, rolling eyes, winking and patting on the head (Ryan et al., 1995).

Over time, patronizing communication jeopardizes self-esteem, social identity, health, functioning and emotional satisfaction (Ryan et al., 1995). It conveys the message that older adults are no longer independent or productive and that they should take on a more passive and dependent role (Ryan et al., 1995). As such, interactions with health professionals are a major concern (Nussbaum, Pitts, Huber, Raup Krieger, & Ohs, 2005). Research has shown that even those older adults who fit positive aging stereotypes are spoken to in a patronizing manner in a hospital setting (Hummert, Garstka, Shaner, & Henry, 1998). Although it is more common in institutions, patronizing communication is also experienced in the community, including interactions with strangers. As it is particularly vexing to community dwelling older adults, one's reactions to it may be related to one's degree of independence (Ryan et al.).

Older employees are stereotyped as being unable to learn new things, having low physical capacity and low job productivity, which leads to age discrimination in the workforce. As employment is linked to economic resources, independence, security, self-

worth, self-esteem, equal participation and opportunity (OHRC, 2005b), the potential negative impacts of employment discrimination are substantial and include adverse affects on health. The Ontario Human Rights Code was revised in 2006 to include protection of employees over 65 years of age. Prior to this, the code protected employees against employment discrimination but defined employee age as being 18 or more and less than 65. Thus, those over 65 could not complain of age discrimination (OHRC, 2005b). As of December 2006, employee age was redefined as those over the age of 18 and therefore, older workers are protected. It is at the employer's discretion however, whether or not to provide medical, dental, disability and insurance benefits to employees 65 and older (OHRC, 2006).

Aging stereotypes and self-view. Although this research is not focused on identifying the exact relationship between aging stereotypes and the self-views of physically active older adults, a review of theoretical considerations that have been applied to the topic of aging stereotypes and ageism is necessary, as self-views likely impact participation in physical activity. As introduced earlier, three major theoretical positions regarding the relationship between aging stereotypes and older adults' self views have been applied to research on aging stereotypes and ageism. They are the contamination hypothesis, in which older adults' self-views are tainted by aging stereotypes; the externalization hypothesis, in which the older adults' views about themselves become their stereotypes of aging; and the comparison hypothesis, in which older adults compare themselves to aging stereotypes (Rothermund & Brandtstadter, 2003). Unlike Rothermund & Brandtstadter who limited the comparison hypothesis to comparisons that lead to enhancement of self-views, I will remain open to the possibility

that comparing oneself to positive aging stereotypes could lead to more negative self-views.

The contamination hypothesis is the most common theoretical perspective applied to the topic of aging stereotypes and ageism and is also known as internalization and self-stereotyping. Self-stereotypes are an individual's views of themselves becoming older (Levy, Slade, & Kasl, 2002; Levy, Slade, Kunkel et al., 2002). According to this hypothesis, the aging stereotypes specific to the older individual's society and culture that are adopted in childhood are gradually integrated into his/her self-views as he/she ages and becomes a member of what was previously an out-group (Levy, 1996). Supporting this position, Levy (2003) found that endorsement of aging stereotypes grew with increasing age. When contamination is operating, an individual endorsing negative aging stereotypes will have negative views of himself/herself getting older but if he/she endorses positive aging stereotypes, his/her self-views about getting older will be positive.

A great deal of research under the contamination hypothesis has used subliminal primes of aging stereotypes because activation of aging stereotypes is assumed to occur without one's awareness. Positive aging stereotypes have been primed with words such as wisdom and sage while negative aging stereotypes have been primed with words such as decrepit and senile. One condition for activation of aging stereotypes is the relevance of the stereotype to the individual's self-image (Levy, 1996). Thus, identifying with the older adult category is an important factor (Angus, 2006). Research has demonstrated the ability of aging stereotypes to affect a range of outcomes, including performance on memory tasks, self-efficacy and views of aging in older adults (Levy, 1996), blood

pressure in response to stress (Levy et al., 2000), balance, swing time and gait speed when walking down a hallway (Hausdorff, Levy, & Wei, 1999) and will to live in a scenario situation (Levy et al., 1999). In longitudinal studies, older adults endorsing positive self-perceptions of aging lived a mean of 7.7 years longer than those endorsing more negative views of themselves becoming older (Levy, Slade, Kunkel, et al., 2002) and reported better functional health, with perceived control acting as a mediator (Levy, Slade & Kasl, 2002).

The externalization hypothesis holds that the older adult's self-views are projected onto other older adults and become aging stereotypes (Rothermund & Brandtstadter, 2003). This hypothesis corresponds to the false consensus effect (assuming others are more similar to you than they actually are) and social projection. According to this hypothesis, older adults alter their aging stereotypes based on their own experiences of aging and therefore, the stereotypes can be negative or positive. Thus, someone who has had positive aging experiences would assume that this is typical for older adults. Externalization is more likely when self-esteem is low (Suls, Lemos, & Stewart, 2002) and when one perceives oneself as similar to the target (Ames, 2004). If one sees oneself as dissimilar to the group, one is more likely to rely on aging stereotypes (Ames). Externalization may serve to alleviate one's fear of aging by appraising one's own problems as typical.

Like the contamination hypothesis, support for the externalization hypothesis is the positive relationship between aging stereotypes and self-views. To determine whether aging stereotypes were incorporated into self-views or whether self-views shaped aging stereotypes would require looking at initial self-views and later change in

aging stereotypes and vice versa. Rothermund and Brandtstadter (2003) found support for both contamination and externalization.

The comparison hypothesis is based on social comparison theory, in which individuals compare themselves to others, sometimes to attain self-enhancement goals and sometimes being forced to make comparisons (Wood, 1989). It presumes that aging stereotypes can serve as a standard which one compares oneself to (Rothermund & Brandtstadter, 2003). As such, an older adult who compares him/herself to negative stereotypes of older adults and fares well in comparison should enhance his/her self-views (Rothermund & Brandtstadter). These downward social comparisons have been found to ease depression associated with perceived decline in physical functioning (Kohn & Smith, 2003). However, the self-enhancement from downward social comparisons only lasts as long as one continues to fare well in comparison to the point of reference (Rothermund & Brandtstadter). Both the specific domain of comparison and general self-esteem may be positively affected by downward social comparisons. For instance, comparing oneself to the stereotypical sickly and frail older adult may lead to more positive appraisal of one's physical competence and overall self-view (Rothermund & Brandtstadter).

Comparison can have a positive impact on some seniors but a negative impact on other seniors. Wood (1989) proposed that the social environment can force individuals to make social comparisons that are not positive. For instance, older adults may be forced to compare themselves to the North American ideal of youth and economic productivity. Certainly, we are bombarded with media images that feed our obsession with youthfulness. Products (e.g., anti-wrinkle creams, drugs, dietary supplements) and

procedures (e.g., plastic surgery) that promise to combat signs of aging and restore vitality and sexual vigour are common. Meanwhile, health promotion takes a relative backseat in much of the media. The message conveyed is that aging is a bad thing and that it is something to be feared. Furthermore, those who buy into this view of aging and who can afford to take extreme measures, such as celebrities, may serve as a standard of comparison for other older adults. As such, an older adult in poor health who compares him/herself to the stereotype of the Golden Ager may experience more negative self-views, as he/she suffers in comparison, while an older adult who is in good health who compares him/herself to the unattainable images found in the media may also experience more negative self-views.

With the comparison hypothesis, the relationship between aging stereotypes and self-view may be positive or negative, depending on the individual's experiences of aging. A negative relationship would occur when an older adult feels he/she fares well in comparison to negative aging stereotypes but also when an older adult feels he/she does not live up to positive aging stereotypes. A positive relationship would occur when an older adult feels he/she fares well in comparison to positive aging stereotypes or when an older adult feels that he/she fares poorly in comparison to negative aging stereotypes. Unlike the contamination and externalization hypotheses, which require older adults to categorize themselves as "old" for aging stereotypes to affect self-view (Rothermund & Brandtstadter, 2003), an older adult may compare him/herself to aging stereotypes even if he/she does not completely identify with the category "old". In fact, not categorizing oneself as "old", suggests that the individual is in effect comparing him/herself to the older adult category. By not identifying themselves as "old" or "elderly", older adults

may ease fears of aging (Martens et al., 2005) or avoid internalizing aging stereotypes, relying instead on a lifetime of personal information (Levy, Hummert, & Zebrowitz, 2003).

Goals of this Research

The specific aims for this research project are:

1. To examine the function of physical activity in the lives of physically active older adults.
2. To explore the relationship between aging stereotypes and physical activity for physically active older adults.

Although the numerous health benefits of physical activity are well known, little research has explored older adults' reasons for being physically active. In fact, there is a lack of research on physically active older adults in general. This population may provide insight to potential barriers to engaging in physical activity and thus highlight systemic, interpersonal and intrapersonal areas to target. By focusing on physically active seniors, this research may stretch the image of aging in Canada beyond the stereotypical and promote a much needed positive image of aging (OHRC, 2005a). It is anticipated that the findings of this research will contribute to knowledge about physical activity and aging stereotypes in regards to older adults that will eliminate imposed limitations and empower the individual. Rather than promote a gerontology of the usual, in which usual aging is considered natural and therefore immutable, this study will explore the perspective of atypical (see NACA, 2006) senior citizens in Canada, specifically the physically active senior.

The other relatively untapped research area that this study will address is the role that aging stereotypes play in decisions regarding physical activity. As Angus (2006) noted, only older adults themselves can say just how they are affected by aging stereotypes. This research will give a voice to those not normally heard in research. A better understanding of these two research areas could positively contribute to and impact policy, program and service development, prevent chronic illness and disability and prolong independence in later adulthood. Far from a crisis, population aging is an opportunity to enrich the lives of a large portion of the population by improving their health. The results of this study may be used to provide a necessary building block towards this goal. Dissemination of the study's results could potentially help older adults negotiate through barriers to leading a physically active life.

Situating Myself as Researcher

I am interested in the topic of health and physical activity because of my background in competitive sport. As an elite athlete in the high profile sport of figure skating, there is the possibility that some of my participants may recognize me. If this occurs, participants' answers could be biased by their perceptions of me. My interest in aging stereotypes stems from a general interest in stereotyping, prejudice and discrimination, which has been aroused by my experiences as someone with a mixed racial background.

It is important to acknowledge my assumptions and attitudes and control for them by understanding how they influence my behaviour and analyses (Angus, 2006) and by keeping an open mind. The following are my assumptions.

1. Older adults should be physically active. The health benefits are substantial.

2. Health is valuable and efforts to maintain health into older adulthood can and should be strived for.

3. One's ability to care for oneself and actively pursue one's health as an older adult can and should be prolonged. However, valuing self-reliance does not negate government responsibility or mean that dependency is necessarily negative. It also does not mean that disability or frailty signifies failure. Upon declines in health, changing needs should be met to facilitate optimal wellness

4. There are barriers to leading a physically active lifestyle in older adulthood and one of these may be aging stereotypes. Only older adults themselves can identify barriers they experience (Angus, 2006).

5. All members of society should be valued equally and treated well and justly throughout the life span. Older adults in Canada experience stereotyping, prejudice, and discrimination.

6. Participant characteristics, such as gender, age, education, living situation, income, ethnic background and socioeconomic status may impact the role physical activity plays in their lives and the impact that aging stereotypes have. Well-being and overall status in Canada are determined by interconnected factors including gender, income, social status, social support networks, personal health practices, coping skills, physical and social environment and health services (PHAC, 2006a). Physical activity tends to increase with higher education level (Chad et al., 2005). Seniors with low incomes, low education levels, older seniors, seniors with illness, disabilities or chronic diseases and women are particularly vulnerable to reduced levels of physical activity and

most likely to encounter barriers to participation in physical activity (Health Canada, 2002).

Method

Design and Approach: Grounded Theory

The grounded theory method is most useful when there is a gap in the knowledge about a topic or when a new perspective is needed in a well-researched area (Holloway & Todres, 2006; Wuest, 2007). It is an inductive approach with the goal of using the research data to build a theory to explain human behaviour in its social context. The domains of health behaviour and situational challenges are especially well suited to the grounded theory approach (Wuest). Grounded theory methods give the qualitative researcher systematic methods to structure the data collection and analysis processes (Charmaz, 2003). Other popular qualitative methods, such as ethnography and phenomenology, are concerned with description and understanding rather than generating a theory or model to explain a social phenomenon. The current investigation explored the domain of older adults' physical activity to develop a theory to account for their behaviour. By choosing grounded theory as a method, the information provided by the participants will be reflected in a theoretical model of physical activity in older adulthood. A model based on the perspectives of older adults could contribute to the development of more effective promotional strategies for physical activity.

Participants

Thirteen participants, age 65-84 years ($M = 72.31$, $SD = 5.3$), six women and seven men were recruited. Although all of the participants were living in the Windsor-Essex area of Southwestern Ontario, five had been born in Europe, one in India and one

in South America. Eleven of the participants identified themselves as Caucasian and one as Indian. The percentage of visible minorities in the sample approximated the make-up of seniors in Canada in 2001 (Statistics Canada, 2007a). Two of the participants were high school graduates, four had completed some university and seven had graduate degrees. Eight participants reported having a chronic health problem which was controlled or stable and, of those eight, three people reported more than one chronic health problem and one reported an acute health problem. Further demographic characteristics of the participants are presented in Table 1. Participants ranged in experience with physical activity from those who had only become physically active in their thirties or forties to those who had been physically active since childhood. Two of the participants, both male, had been elite athletes, playing at the university level or higher.

Selection Criteria

Criterion sampling involved selecting individuals fitting previously determined criteria: (1) age 65 or older, (2) English speaking, (3) live in the Windsor/Essex area of Southwestern Ontario and (4) usually engage in 30-60 minutes of physical activity on most days per week, as recommended by Health Canada (2006). By drawing on older adults who are quite physically active, participants act as expert informers. The age of 65 was chosen due to convenience, as many researchers and the Government of Canada defines seniors as those 65 and older.

Recruitment Procedure

Recruitment of initial participants was aided by the Centre for Seniors in Windsor, Ontario, the Heart and Stroke Foundation of Ontario - Windsor Essex County Chapter

Table 1. Demographic Characteristics (N = 13)

	N	%
Gender		
Female	6	46.15
Male	7	53.85
Age-group		
65-69	4	30.77
70-74	5	38.46
75-79	1	7.69
80-84	3	23.08
Marital status		
Married	7	53.85
Divorced and remarried	1	7.69
Single	1	7.69
Divorced/separated	2	15.38
Widowed	2	15.38
Current residence status		
Private home alone	1	7.69
Private home with adult child/children	3	23.08
Private home with spouse	8	61.54
Retirement home	1	7.69
Employment status		
Employed	1	7.69
Semi-retired	3	23.08
Retired	9	69.23
Social Economic Status		
Working class	3	23.08
Lower-middle	0	0.00
Middle class	7	53.85
Upper-middle	2	15.38
Upper	0	0.00
Annual Income		
20,000-29,000	1	7.69
50,000-59,000	1	7.69
60,000-69,000	2	15.38
70,000-79,000	3	23.08
90,000-99,000	1	7.69
100,000 or more	2	15.38
Self-rated General Health		
Excellent	4	30.77
Very good	5	38.46
Good	3	23.08
Fair	1	7.69
Poor	0	0.00
Change in Health in the Past Year		
Much better	0	0.00
Somewhat better	2	15.38
Same	7	53.85
Somewhat worse	4	30.77
Much worse	0	0.00

and through the snowball method (initial participants generate additional participants). Managers at the above organizations and pilot interviewees were approached to give a letter of information (Appendix A) to those who met the sample criteria. People interested in participating contacted me by phone, at which point I asked if they engaged in 30-60 minutes of physical activity on most days per week. This served as a means to screen potential participants. One person was not included in the sample due to not being physically active enough to meet the selection criteria. Interview data collection and analysis directed subsequent sampling. Once key categories were identified in the data, additional participants were selected to further expand on the categories. Additional interviews were more narrowly focused than initial interviews to obtain full variation and saturate the categories. Efforts to attain diversity in activity level, age and gender were made. Participant recruitment continued until the data collected became repetitive, few new themes emerged and further collection was deemed unlikely to provide additional insights. Thus, saturation of categories determined the sample size.

Method of Data Collection

Although primarily a qualitative study, a combination of qualitative and quantitative methods was used to explore the role of physical activity in the lives of physically active older adults and the relationship between aging stereotypes and physical activity. The qualitative research method of grounded theory, which is common in anthropology, nursing and sociology, and is gaining popularity in social psychology, (Elliott & Lazenbatt, 2005) was employed. Quantitative data (demographic information and a physical activity questionnaire) was used to add descriptive information about the participants.

Researchers using the grounded theory method begin by looking at the data with an open-mind (Gilgun, 2001; Holloway & Todres, 2006). Typically (e.g., Charmaz, 2003; Elliott & Lazenbatt, 2005; Gilgun; Holloway & Todres; Rennie, Phillips, & Quartaro, 1988) data are simultaneously collected and analyzed. Analytic codes and categories are developed from the data, rather than guided by preconceived hypotheses. These codes and categories are used to integrate and explain the data, which is constantly compared to the emerging data in order to identify categories and develop a core category. Memo-making is used to aid analysis by creating a record of thoughts about the concepts. Theoretical sampling, with its focus on theory construction rather than population representativeness, is used. Participants are recruited based on missing links identified through the analysis of the data until additional information becomes redundant, thus reaching theoretical saturation. As such, the data gathered in grounded theory become increasingly focused because the analysis and identification of core concepts during data collection drives subsequent data collection (Charmaz; Holloway & Todres; Procter & Allan, 2006) and literature review (Wuest, 2007). Theoretical saturation is achieved when additional data become redundant and when a full range of experiences has been captured. Saturation for a narrowly defined domain can usually be attained with 10 to 15 participants (Wuest).

A feature of grounded theory is the need to strike a balance between doing enough literature review to be able to understand the strengths and weaknesses of current knowledge in the domain of study and gain sensitivity to important concepts that may appear in the data (Holloway & Todres, 2006) but not to become constrained by expectations developed from the review of literature. Adherence to the practice of

constant comparison and ensuring that codes evolve to fit the data prevents knowledge of existing theory from directing the emerging theory (Wuest, 2007).

Demographic questions. Participants filled out a demographic question form (Appendix B). The demographic form included questions about gender, age, marital status, education, socioeconomic status, health, living arrangement and ethnic background.

Measure. Participants completed the Physical Activity Scale for the Elderly (PASE). The PASE was developed to assess physical activity of persons age 65 years and older, taking into account that older adults may engage in physical activity on a more irregular basis and/or at a lower intensity than younger adults (Harada, Chiu, King, & Stewart, 2001). It covers leisure, household and occupational activity over the past seven day period (Harada et al., 2001; Washburn, Smith, Jette, & Janney, 1993).
Response format for sitting activities, walking, cycling, recreational and sport activities are never, seldom (1-2 days/ week), often (3-4 days/ week) and mostly (5-7 days/ week). Duration is categorized as less than 1 hour, between 1 and 2 hours, between 2 and 4 hours and more than 4 hours per week. Paid/unpaid work is recorded in total hours per week. A Yes/No format is used for housework, lawn work, home repair, gardening and caring for others (Schuit, Schouten, Westererp, & Saris, 1997). The total PASE score is the amount of time spent in each activity (hrs/week) multiplied by the item weights and summed over all activities. Item weights were based on physical activity estimated with motion sensor counts, physical activity diaries and global activity assessments (Washburn et al., 1993). Total PASE scores can range from 0 - 400 (Dinger, Oman, Taylor, Vesely, & Able, 2004).

Cronbach's alpha coefficients of .69 (Washburn et al., 1993) and test-retest coefficients ranging from 0.75 to 0.91 (Dinger et al., 2004; Washburn et al., 1993) support the reliability of the measure. The PASE has demonstrated good construct validity, with significant ($p<.05$) correlations between PASE scores and strength ($r=.25$), grip strength ($r=.37$), static balance ($r=.33$), resting heart rate ($r=.13$) (Washburn et al., 1993), peak oxygen uptake ($r=.20$), systolic blood pressure ($r=.18$) (Washburn, McAuley, Katula, Mihalko, & Boileau, 1999) and actigraph monitored movement ($p<.01$, $r=.43$) (Dinger et al., 2004). Further evidence of construct validity includes activity monitoring, performance tests and self-report measures (Harada et al., 2001). Preliminary norms for the PASE were established in a general population of adult age 65 and older by Washburn, Smith, Jette and Janney (1993). Scores ranged from 0-361 ($M = 102.9$, $SD = 64.1$).

Some limitations to this measure have been noted, including a lack of frequency and duration information for non-leisure time activities (Dinger et al., 2004; Schuit et al., 1997; Washburn et al., 1999) and the potential for external factors, such as weather conditions to impact scores because activity is measured over "the past seven days" (Schuit, et al., 1997; Washburn et al., 1993). Easy to administer and geared specifically for older adults, it was deemed appropriate for the gathering of additional descriptive information in the current study, despite the above limitations.

Interviews. Two physically active older women were recruited as pilot interviewees through acquaintances and these interviewees were encouraged to provide feedback and discussion. The pilot interviewees were comfortable with the interview protocol (Appendix C) and as such it was used for subsequent interviews. Interview

questions were designed to be both broad and general to allow participants to take their answers in any direction they saw fit.

Open-ended semi-structured interviews were used. With semi-structured interviews, the interviewer develops rapport, places minimal emphasis on the order of questions, follows the interests of the interviewee and probes interesting topics that arise (Smith, 1995). Interviews addressed the following issues:

1. How and to what degree the participant's involvement in physical activity has impacted his/her life.
2. What impact aging stereotypes have had on the life and physical activity of the participant.

With permission from the participants, all interviews were audio-taped and transcribed by the researcher. Interviews took place in the participant's home or in another agreed upon location. Participants were assured confidentiality and asked to select pseudonyms. Identifying passages for the participants and for third parties mentioned by the interviewee are excluded from dissemination of the results. Only I had access to the raw data and the transcripts were stored in a secure location. Participants had access to transcripts of their own interviews only. Participants were given the option of reviewing their transcript for accuracy. Although participant review of transcripts can increase the reliability of results, it is time consuming for the participants and thus it was made optional. All participants received a synthesis of my interpretations and conclusions with anonymous quotes as examples to support my interpretations and were given the opportunity to add, correct, clarify or reframe what they have said. This is sometimes

called a member check (Creswell, 1998) and is used to build the credibility of the researcher's data analysis (e.g., Stathi et al., 2002).

Efforts were made to secure a comfortable, accessible meeting location with low levels of distraction. Participants were instructed to take all the time they wanted to answer a question and that if at any point they did not want to answer a question that it was okay. The interview sequence followed the recommendations of Tod (2006). The interview began with an introduction section. Warm-up questions were followed by the main interview questions. Flexibility in the order of the main questions allowed participants to expand on their thoughts in a logical order. Prompts and probes were used as necessary to generate richer data. The interviews wound down with some simple questions and an opportunity for the interviewee to add any comments.

Procedure

Participation time ranged from approximately one hour to slightly over two hours. Collection of demographic information and quantitative data took approximately 30 minutes and interviews lasted anywhere from 40 to 90 minutes. Participants were asked if they understood the consent forms (Appendix D & Appendix E). Opportunity for questions and discussion regarding consent was provided prior to obtaining written consent. Demographic information was collected, followed by the interview and finally the completion of the physical activity measure. Participants were asked to fill out the demographic questions and PASE but were told that they could ask the researcher any questions they might have, or request assistance in completing the measures. This approach was used to prevent unintentionally supporting aging stereotypes by reading the questions to the participants. In addition, completing the questionnaire alone increases

the likelihood that participants would answer the items honestly. One participant requested assistance specifically asking that I read the questions aloud and fill in her answers according to her verbal responses. In case participants had impaired vision, all printed material was in Arial 16 font, as recommended by the University of Windsor Student Disability Services.

Upon conclusion of the meeting, the interviewee was asked if he/she would like to check the transcript and was reminded that he/she would be asked to review my interpretations and conclusions at a later date. Giving participants their transcript and later my interpretations to review, also served as opportunities to engage in follow-up conversations to the interviews. Participants were thanked, given a $15 gift card as a token of appreciation for participating and an information pack with health, exercise and nutrition materials. The dollar amount of the research incentive was based on the general minimum wage in Ontario, as of February 1, 2007, ($8.00) and the estimated participation time.

Ethics approval was attained through the University of Windsor Research Ethics Board. Identifying passages were removed from the transcripts and participants were given the option of reviewing their transcript for accuracy and of removing parts of their data if they so chose. Although three participants chose to review their transcript, none requested alterations to their transcript. Upon completion of data analysis, all participants were given a synthesis of interpretations and conclusions, with anonymous quotes as examples as support, to review and add to, correct, clarify or reframe what they said. Also included was an envelope, postage and a written thank you letter of appreciation. Upon completion of this thesis project, participants will receive a summary of the results

and information on how to access the summary on line. Audio tapes of the interviews will be erased upon successful defence of the thesis.

Analysis

Data Analysis

The coding process of grounded theory reduces the risk of researcher bias by building the analysis upon the data itself. The data analysis methods of Glaser & Strauss (1967), as outlined by Glaser (1978) and Rennie, Phillips & Quartaro (1988), were used. Charmaz (2003) points to differing epistemologies within grounded theory. Some grounded theorists take a more constructionist view of the research process, in which reality is considered to be constructed by the researcher's perspective and interpretations of language. Others take a more realist view, maintaining that the research process uncovers structures that are already in existence. This research project took a middle approach, looking to find structures that exist but being especially conscious of the language used by participants and the researcher's assumptions in order to minimize the influence of the researcher's perspective.

Throughout the analysis process, memos were written to record my thoughts about concepts and their relationships and to record the development of the theory. Immediately following a meeting with a participant, notes regarding the interview were made, including behavioural observations, themes that emerged and self-reflection. This information was appended to the interview transcripts. Data analysis was done by hand rather than by computer data analysis software in order to stay close to the data and because the researcher had previous experience conducting grounded theory analysis by hand.

As recommended by Glaser (1978), coding began with open coding and progressed to more abstract and focused analysis. During open coding, codes were developed for each sentence in the text to name what was happening in the data. The goal was to identify as many codes as possible and more than one code was often assigned to one sentence. After initial codes were identified, the codes were grouped based on shared meaning in order to form categories that captured the data most accurately and fully, and carried explanatory power. As recommended by Rennie, Phillips and Quartaro (1988), I stayed close to the language used by the participants when coding and categorizing the data. Previous data and provisional concepts were continually examined for similarities and differences across the data, and directed modifications of the categories. This process of constant comparison helps ensure that the theory is developed from the data, rather than from existing theoretical assumptions. It also works to saturate the categories with instances in the data.

Once central categories were identified, theoretical sampling began. Additional participants were recruited to clarify and expand the concepts, examine their properties and identify relationships between concepts. New codes identified from new data were compared to existing categories. Categories were integrated and refined to reflect variation gained. Through theoretical coding, the relationships between categories were conceptualized. Facets such as cause, context, conditions, covariance, consequences and contingencies were explored (Glaser, 1978). Hierarchical relationships between categories were conceptualized and categories with few connections were dropped or collapsed (Rennie et al., 1988). Concept mapping was used to visually organize concepts into a meaningful structure. Through ongoing analysis, a core concept that was linked to

all other categories and explains the data emerged. Upon identification of the concept, existing literature was examined to support the emerging theory. A theory that accounted for the relationships between concepts was developed. The theory provides a way of understanding the role of physical activity and aging stereotypes in the lives of active seniors in Ontario.

My interpretation is not a simple validation of participants' experiences but a thorough analysis involving a critique of their perspectives (Kitzinger & Wilkinson, 1997; Prilleltensky, 2001). To my analysis, I brought an awareness of the impact that dominant social structures of gender, ethnicity and social class can have on one's experiences of aging. While these factors are important to consider, I was also aware that there is great diversity within these social categories and that stereotypes can impact the behaviour and beliefs of the individual. I did not code specifically for these factors, but was aware that I would probably notice their emergence in the data (Wuest, 2007). I was also aware of the potential influence of my belief that health is a valuable commodity that should be preserved and that physical activity can increase the likelihood of extended health.

Reliability. Reliability, often called dependability in qualitative research, was promoted by keeping thorough notes, logging participant's non-verbal behaviour immediately after each interview session, journaling my reflections on the interview process and keeping a running record of my analyses, interpretations and design decisions and the rationale behind them. I checked my findings against both my notes and the transcripts. In addition, having a narrow population increases homogeneity.

Validity. In qualitative research, validity is often called credibility or truthfulness of study findings. To build validity, I had participants check whether they found my interpretations and conclusions to be accurate, which helps ensure construct validity (constructs are in fact occurring and are not a creation of my perspective) and face validity (conclusions make sense to the participants). I preserved the participants' narratives to illuminate findings and the theory generated comes from their experiences as illuminated in the interview data. Through journaling, I tried to be cognizant of biases that could distort the findings. Through data collection, transcription and ongoing analysis, I became very familiar with the data. Throughout the analysis process, I considered rival explanations, reflected on the meaning of exceptions and looked for threats to generalizability. I paid attention to language used by the interviewee, with awareness that we may not share the same meanings.

Risks/ Benefits Assessment of Participation

As older adults in Canada experience status inequality due to ageism, they can be considered a vulnerable population. Participants may experience the additional oppressive forces of class, ethnic background and gender. Possible risks of participating in this research include the inconvenience of participating and economic loss due to time spent participating. In addition, discussing negative aging stereotypes could be potentially upsetting to some participants. Steps to prevent and minimize the risks to participants are built into the research design. Participants were interviewed in a supportive, non-confrontational manner, in a quiet and private location of their choice, at a convenient time for them and I was flexible in the duration of each interview. Post-interview contact required for transcript review and summary review served as follow-up

to discuss any questions or concerns. Direct benefits to participants included receiving a summary of the findings, receiving a package of health, exercise and nutrition information, and having an opportunity to share their experiences and create a better understanding of the needs and goals of the older adult community in the Windsor area.

Results

PASE scores ranged from 113 to 258 ($M = 182.41$, $SD = 41.8$). One participant's PASE questionnaire could not be scored because one page had been left blank. Mean scores did not vary greatly by five year age groupings. Three of the male participants, one from each age grouping, scored within four points of each other. Female participants scored lower on the PASE, between 113 and 192 ($M = 149.78$, $SD = 31.7$) than males, whose scores ranged from 142 to 258 ($M = 215.04$, $SD = 34.87$). An independent samples t-test indicated that the difference was significant $t(11) = 2.83$, $p = .009$, ($p < .01$). However, with so few participants, the results of the t-test must be regarded with caution. The highest female score was 192 (82 years old) and the highest male score was 258 (70 years old). Results are presented in Table 2 and PASE score by name, age and gender are presented in Table 3. As the current study was exploratory in nature, the aim was to gain insight into the specific population's perspective and develop some hypotheses and a theory to account for their behaviours. Representative quotes are used to illustrate the ways in which individuals responded.

Core Category: Positive Outlook

Following the criteria outlined by Glaser (1978), Positive Outlook emerged from the data as the core category. The category of Positive Outlook summed up the pattern of participants' behaviour, was related to most other categories derived from the data,

Table 2. PASE Scores (N = 12)

	N	*M*	*SD*
Gender			
Female	6	149.78	31.70
Male	6	215.04	34.87
Age-group			
65-69	4	175.88	41.59
70-74	4	188.82	75.16
75-79	1	188.05	0.0
80-84	3	180.70	45.24
Female by Age-group			
65-69	2	143.24	43.07
70-74	1	119.71	0.0
75-79	1	188.05	0.0
80-84	2	152.24	39.41
Male by Age-group			
65-69	2	208.52	25.38
70-74	3	211.86	46.36
75-79	0	N/A	N/A
80-84	1	237.62	0.0

Table 3. PASE Scores (N = 12)

Name	Score	Age	Gender
John	258	70	Male
Ernie	238	81	Male
Jim	235	71	Male
G	234	67	Female
Olivia	192	82	Female
Elizabeth	188	75	Female
Trackwidow	183	68	Male
Alice	165	66	Female
Geordie	142	74	Male
Kristine	122	65	Female
Taa Daa	120	71	Female
Rosemary	113	84	Female
Shannie	N/A	66	Male

* In order of high to low score

recurred frequently in the data, was variable and related meaningfully and easily with the other categories. Nine of the thirteen participants emphasized the importance of positive outlook to health and/or aging and all of participants embodied aspects of what they called “a positive outlook”. John explained the importance of having a positive outlook,

> I know a lot of people say, well, now I'm too old to do this, or I can't do that, or whatever but uh… I think it's, you're not as old as your years. I mean you're as old as how you look at your years and how you, how you treat yourself, and how you look on your own abilities and how you maintain, you know, your outlook on life. (John, 70 year old male)

All of the participants were very positive, upbeat and humorous when talking about aging and during most of the interview. However, participants varied in how intensely they displayed a positive outlook. At one end were the extreme optimists who expressed enthusiasm and excitement about the many projects they were doing and about life in general and at the other end were those who, although generally positive, expressed concerns about not being useful or still searching for a purpose in life. Participants also varied in the strategies they used to be positive. Some were planners while others were more carefree and "let serendipity reign".

Development of Positive Outlook

Participants considered "upbringing" and life experience factors that contributed to the development of a positive outlook. Experiences, both recent (e.g., retirement, new physical activities) and distant (e.g., childhood, recovery from illness) were noted as influential. In particular, participants explained that experience being able to successfully exercise control over one's environment has an impact on one's outlook on life.

> For me I've always succeeded, I've always done well, I've always had a talent, I've always enjoyed that but if I had not had good self-esteem as a youngster and didn't succeed in school and didn't have high energy. I, if I had their challenges or grew up without someone always celebrating your successes, would I think like

they do? (Taa Daa, 71 year old female)

Another part of upbringing that some participants noted was the impact of culture on positive outlook. Most of the participants were aware of social norms for their age and many spoke about the behaviour deemed appropriate for their age and the change of role that occurred with retirement. Four participants (Ernie, Kristine, Olivia & Shannie) also noted social norms for older women in particular. Participants stated that they ignored or rejected the norms for their age and did not let negatives bother them. Although participants rejected certain cultural norms for older adults, they endorsed wider societal values of youth, health, time, being useful, having a sense of purpose or feeling needed and being independent.

Health status was linked to the outlook of participants. Participants spoke both about the influence of positive outlook on health and the impact of health on one's outlook. They described how health problems can make it difficult to remain positive or how good health can contribute to a positive outlook. Participants used a combination of their medical history, their knowledge about aging and comparisons to others of a similar age or older relatives to assess their health. Most participants expected to be healthier and to "age better" than previous generations or others of the same age.

Impact of Positive Outlook

As mentioned above, most participants felt that positive outlook has a positive impact on health. Participants expected to maintain their health or slow the aging process by taking actions to protect their health and they accepted those changes that they deemed unalterable.

I think people's goals are very different right from the beginning. Some people

> expect to have a bad life. They're brought up feeling guilty, that they're bad people and that anything that happens to them, it's their fault. You know, so that they don't have high expectations of how they're gonna achieve things in life. They just look at the bare minimum and that's what they're gonna live. (John)

Later he added, "and, uh, so this will also depend on how you treat yourself from a health point of view as to whether you, whether you really want to retain your health or not". Most participants also felt that health impacts one's outlook. Being in good health had a positive impact on participants' outlook. Kristine (65 year old female) explained, "I feel really good about being this age because I've been physically active". The impact of illness or injury could be positive or negative. For some participants, illness or a "health scare" provided the impetus to take better care of their health, to "live one day at a time", to "appreciate the time left" and to accept rather than worry about changes. Participants also described how illness or poor health can negatively impact one's outlook. Taa Daa explained that it is "easy to cocoon" when not feeling well and many participants provided examples of friends who had succumbed to health challenges rather than fight back. In addition, by maintaining their health, participants felt able to do things and enjoyed their independence.

Some participants found that their positive perspective was not always welcomed by others. Olivia (82 year old female) found that her words of encouragement such as, "we're eighty-two and we're still doing that sort of thing" or "we can still do it and you could do it too if you tried" were "not always well received" and that "not everybody likes to see that or hear that" and so she "play[ed] it by ear with that". She explained,

> It's gotten to the point with this one set [of grandparents] where I was feeling,

> telling my husband you know I almost think, feel that maybe we shouldn't come because it makes [name], the other grandfather *feel*, feel uh, how should I put this, inadequate? Because he can't do this, he can't do that. He can't, he can't go up the stairs. He's allowed himself to get *way* too heavy and his knees are giving in. And here we come in and of course he says, *oh* here come the honeymooners! You know this kind of thing (laughs). And thinking well alright, is he being sarcastic or is he is he being truthful and pleased about seeing us being there? Or is he *jealous*, you know. And, and we used to think often, maybe we shouldn't go anymore because maybe it makes him *feel* less capable, certainly he was less capable, but making him feel bad because of that, you know. (Olivia)

Taa Daa explained that by introducing change, even unintentionally, the

> Mind really has to adapt and then you see new horizons. So if you're going down the highway and you take the wrong turn. My husband might be upset but then I say we'll have an adventure. We haven't been down this road before. There are others who (laughs) don't want to hear about your adventures because they just want to be mad, you know. But I don't think there's time, there's just no time to be mad. It's done you can't change it so where do we go from here? (Taa Daa)

The strategies participants used to retain a positive outlook included, smiling, avoiding negative people, ignoring the negatives, helping others, gathering information, being physically active, believing in serendipity, dealing with illness or injury proactively and adapting as needed. Although some said they did not believe in having goals, all had the goal of remaining physically and mentally active. The data indicated a link between positive outlook and attitude towards aging, including positive expectations of health,

rejecting aging stereotypes, having a sense of humour, feelings of social connectedness, being physically active, having self-efficacy, feeling useful and the ability to take initiative.

Components of Positive Outlook

Five major components of positive outlook emerged from the data; Open to Possibilities, Exercising Control of Aspects in One's Life, Feeling Youthful, Satisfaction and Feeling Fortunate, and Having a Purpose in Life. This constellation of components interacted with each other to create what participants called a positive outlook. Each component interacts with at least one other component and with physical activity.

Open to possibilities. Nine participants spoke about being open to possibilities, trying new things and doing whatever they felt like at the moment. As Taa Daa said, "If you don't introduce some element of change everyday in your life there's something wrong. A lot of people don't believe that but I do. If you're used to going this way, take the other". Two participants called this openness to possibilities "serendipity" and explained that it meant that the twists in their lives would lead to something that was meant to be and that it would be good. Ernie (81 year old male) said "Uh, I believe in serendipity and uh, I could go on for a long time on how it's played a part in my life, that you do things just for the sake of doing them, not with uh, not with an idea of *outcomes*". He and other participants who believed it was important to be open to possibilities described experiences of how unplanned things had led to other things in their lives (e.g., career, meeting their spouse, helping others) that they had found rewarding. Participants felt that continuing to learn or try new things was important.

So when we're *old*-er, you just need to look for the opportunities to say I can learn

> that. I mean, I don't have any patience with somebody who says I'm too old to learn that, ugh! They'll say, I know what you're going to say, you're darn right. But they probably also sell themselves short on other opportunities. (Taa Daa)

Eleven participants mentioned that with retirement came the benefit of having more free time to start new projects or do as they pleased.

Exercising control of aspects in one's life. Eight participants emphasized aspects of control. Seven mentioned seeking goals, including physical activity goals. Five of these participants noted that goals and expectations must be realistic and attainable or it can lead to disappointment and a "poor frame of mind". As Olivia suggested,

> In retirement, don't look for a grand and glorious something, cuz that's not what it's all about really. It's, its being *happy* with what you're doing and having the sense of doing something worthwhile and being appreciated for what you're doing, ok? I mean that's, attitude is so very important. Like my husband says, don't, don't look for, for what people or, or society, whatever can do for you. Look to see what you can do to improve society for yourself and, and, and for others and then it improves for yourself too. (Olivia)

Eleven participants felt that the ability to adapt their expectations as they aged and to listen to their body was important. Two (Shannie & Taa Daa) mentioned that the more energy they expended the more they created. Although not all of the participants explicitly said that they were exercising control over their health by engaging in physical activity, all of them spoke about the health benefits that they experienced from engaging in physical activity, stressed that they were trying to stay physically active and that this should be a goal for others. Eight held similar sentiments about mental activity and eight

expressed similar sentiments about social activity.

Another major aspect of control that twelve of the participants mentioned was actively coping with illness, injury or loss of loved ones. Indeed, eight of the participants expected a gradual decline in their health as they got older. Yet, eight participants expected to experience better health than the average older adult and than previous generations of older adults because of being physically active. Most participants based their health expectations on the experiences of others, including relatives that they had seen age. Geordie (74 year old male) explained that "things are going to happen and how you deal with them becomes important". Participants emphasized having to "deal with the cards you get", "work through problems", "make the best of things" and that one "cannot succumb" to illness. While positive outlook seemed to come easily to some participants, others pointed out that maintaining a positive outlook requires work and personal resolve. Rosemary suggested,

> I don't know, you have to be more optimistic. And put more positive thinking and no matter if you have an ailment as we all have when we get up in the age. You make the best of it, you know. Cuz….I think you just have to make the best of it. You know. Take the positive and if you can't be positive, I don't know, keep it to yourself. (Rosemary, 84 year old female)

Olivia described the fighting attitude that helped her recovery from heart surgery,

> I wasn't prepared to just lay down and take it. So, one has to have a real desire to live and carry on. So, life before that has to be pretty good before that too, worth, worth fighting for. But if you're, if you become ill and before hand you have allowed the illness to defeat you, then it has also defeated your will to live. So, I

think it's attitude. Attitude has so much to do with it. (Olivia)

Taa Daa said her approach to dealing with physical challenges would be to "act your way into a new way of thinking" and that she would ask what her options are and what is the best that can be done. She noted that she didn't have much "patience" for those who "after [they] get over the initial disappointment" don't ask "where do we go from here". This she attributed to "mind over matter" or "attitude". Jim (71 year old male) displayed this kind of resilience in dealing with his recent shoulder injury. Determined to continue his physical activity while waiting for surgery, he did what he could with his lower body.

Although most participants expected their health to gradually decline, TaaDaa said that she did not expect her health to change much and felt that other people also did not expect "declining health and declining activity" anymore because of increases in longevity, "availability of information", "availability of travel" and financial resources available to her generation. Two male participants, one who had been a competitive athlete, explained that they had stopped playing a sport that they had previously liked because they could no longer play like they used to. Whether this was in reaction to unexpected health declines or not is unclear. All of the participants mentioned goals of remaining physically active and four expressed concern of becoming a burden to others or suffering in old age.

Control and self-efficacy were linked in that experiences of exercising control over one's life required self-efficacy but, by exercising control, the self-efficacy of participants was enhanced. Participants described experiences with physical activity that fostered their self-efficacy; however other experiences had a more negative impact on feelings of control and self-efficacy. Retirement fostered a positive feeling of being in

control for some but a negative feeling of being forced into an unwanted situation for others. Some participants welcomed retirement and chose to retire early while others resented being forced to retire.

Eight participants stressed the importance of focusing on the present. For example, participants spoke about "living in the present", being "in the moment" or "taking one day at a time". Both Alice (66 year old female), who had not had a serious illness, and G, who had had two heart attacks emphasized living "one day at time". G remarked, "I take one day at a time. If I get up in the morning, I'm happy. I don't look ahead". Four participants stressed the need to look forward and plan for the future. Planning and goal seeking were related to the category of exercising control. For some participants, both living in the present and planning for the future were important. For example, Ernie commented, "I preach serendipity. You know, to talk about goal setting, I don't believe in that because I think it narrows your will." However, later he spoke about goals he had for himself, for example in regards to recently getting a bus driver's license he said,

> Because I'm old, I have to take a retest every year and my *goal* is to get 100%. And the tester said we've *never* had anyone get 100%. We always find something wrong. I can hardly wait for next year. I'm gonna get 100%. (Ernie)

Similarly, Shannie (66 year old male) talked about his travel plans and said, "I think you've gotta give yourself these goals, things that you really want to do, you know. Makes life so, so much sweeter": yet, he also felt that "aging will always throw you curves and you cannot completely plan out your life say five or ten years ahead. You can't do that because life is going to throw weird ones at ya".

Feeling youthful. A third component of positive outlook was participants' feelings of being youthful. Eight of the participants mentioned the importance of youthfulness. Five (Alice, Elizabeth, John, Kristine & Trackwidow) said that they felt young or like "the same old me" and six explained that others often think they are younger than they are. Elizabeth (75 year old female) stressed, "I haven't grown up yet (laughing)" and Taa Daa shared that "I have to stop and tell myself I'm seventy-one. If you ask me, I'll say, well, I don't know. I feel like thirty-seven, thirty-eight, I don't know". G emphasized the need to "think young",

> The younger you think the better off the person is because you stay young. That's the end of it, the minute I start saying I've got to sit in that wheelchair or … forget it, I'm growing old. I keep telling myself that and I believe that. (G, 67 year old male)

Part of feeling youthful was the desire to learn and grow, feeling able to do things that they used to do and feeling energetic. While most participants felt young, one explained that he was used to being thought of as old because, as a teacher, you are seen as old by the "time you're about thirty-five".

Satisfaction and feeling fortunate. Ten participants mentioned feeling fortunate or happy. Six said that they felt lucky, fortunate or blessed and seven said they felt happy or satisfied. Six expressed their enjoyment of being able to do what they wanted. Words like "lucky", "fortunate", "blessed", "thankful" and "enjoy" came up frequently in the interviews. Whether coming from a different country or born and raised in Windsor, experiencing or knowing people in worse situations influenced their feelings of being fortunate and gave them "a perspective into reality". As G commented,

> We're really blessed here in this country and we don't realize it. This time when I came in the early years, when I saw someone throw away half a burger I couldn't believe it. I just couldn't believe it. You see people picking up garbage, rummaging through garbage, picking up something like a bone to suck. And I couldn't do it for years, I just couldn't do it and then you follow a pattern and um, when kids say, dad there's nothing to eat, they don't realize what other countries have to go through, people, I'm not saying in general but uh, what people have to go through just to exist. So it gives you great perspective on life even though it's not what you pictured and um, I think that lives with you, it'll never change. (G)

Taa Daa had a similar point of view, "somebody whose life story, when you think about what they had to overcome in many cases, you realize how fortunate you are and how privileged you are to meet them". Many participants indicated that they enjoyed others. Taa Daa said, "I've met *wonderful* people in my life, I mean incredibly gifted people in all forms, like um, so that's, that's been ah enhancing kind of thing" and she explained that "they enrich me a great deal".

All of the participants had a sense of humour about aging and Shannie stated that "a sense of humour is absolutely indispensable". Participants smiled, laughed, joked and told humorous stories during their interview. Participants laughed about wanting a "quick end" and used phrases like "kick the bucket", "drop dead" or "get rid of me". For example, John who was not fond of exercise said, "I just hope that when I drop dead it will be at the beginning of class and not at the end of class. It would be terrible to drop dead when you just finished (laughs)". Some participants jokingly referred to their friends as old, for example "the old farts club" or "old people" and when talking about

the negatives of aging, some joked "you've got this to look forward to" and "it's gotta be damn hell from here".

Having a purpose in life. Eight participants communicated the importance of having a purpose in life. One of these shared that, although he hadn't found his yet, he knew that he did have a purpose and would find it. Six emphasized the importance of giving back, volunteering and helping others, including family members and friends. Shannie recommended, "you've gotta stay engaged in life. There's so much going on out there. Uh, volunteer for Christ's sake. There's so many good volunteer organizations". Doing things that they deemed worthwhile was important to participants. While some participants talked about doing physical tasks for those who were less physically able, others gained a sense of purpose through less physical things, like writing or visiting friends who were isolated. As such, serving one's purpose in life does not necessarily require great physical strength or ability. However, being healthy enough did seem to have an influence. For example, G noted that since his heart attack he did not "feel competent at helping or serving a purpose" and did not feel comfortable getting romantically involved with anyone because he wouldn't want to become a burden to them. In addition, five participants emphasized the importance of feeling needed or successful in some capacity as one ages.

Many of the participants were leading very busy lives at the time of the interview and some mentioned being busier than before retirement. In addition to their physical activity, participants engaged in social activities and volunteered. Being busy was considered desirable by some participants. Trackwidow commented,

On days where there's that other stuff not going on I'm like, time on my hands,

> you know, to do what I wish and sometimes you feel sort of boring, you know. You want to be more active so, I'm perhaps not as active as I think I should be. (Trackwidow, 68 year old male)

However, having enough time to do what one wants was also noted as important. Taa Daa remarked, "never was there enough hours in the day and there still aren't". Five participants spoke about their awareness that time is running out and so it is important to appreciate the time left and make use of it. As Shannie said,

> Life is sweet. It's, it's very finite. We all know we're going to die, okay. And um, when you get to my advanced age, sixty-six, the realization is, is always there. There's always a little voice in the back of your head saying you'd better do it now rather than later. And uh, another cliché it's, it's a case of carpe diem. You've got to seize that carpe, right? The older I get, the more seizing I, I want to do because, you know.

On the other hand, participants also noted the increased time available because of increased longevity.

> Many people now are retiring at fifty-nine, sixty, whatever, and so they still have twenty, and then the longevity has increased so they still have twenty years to go. So what am I going to do with these twenty years (laughs)? I don't want to stay at home. I don't want to just do nothing. (Taa Daa)

In summary, positive outlook was influenced by one's upbringing, life experiences and health, and in turn influenced one's health and sense of control and self-efficacy. The physically active older adults who participated in this study displayed a positive outlook in their optimism and openness to possibilities, their feeling of

empowerment or being in control, their desire to make the most of their time and their sense of contentment and life purpose.

Positive Outlook and the Role of Physical Activity

The data revealed a link between positive outlook and physical activity. Being physically active was very important to most of the participants. For some, physical activity served primarily as a means for protecting their health, while for others physical activity had been a major part of their entire lives, having had a history of sport involvement as an athlete, coach or sport educator. Instances of both physical activity impacting outlook and outlook impacting physical activity were evident. Positive experience with physical activity and the health benefits of being physically active fostered self-efficacy, control, independence and positive self-image. For Ernie, who was an athlete, had a career in physical activity and whose love is coaching, physical activity had been a huge part of his life. He said, “See it’s hard to think of benefits because again, it’s been my whole life, so every part of it is a benefit”. Some participants spoke about how much they enjoyed physical activity and that it was the fun part of life. In contrast, John described how he disliked physical activity but did it because he thought of it “as a measure of safeguarding his health” and explained,

> Well it’s purely, you know I just, I’m a law abiding citizen and I pay my taxes and do my exercise. You know so it’s uh something that I’ve uh, you know, made part of my life. Do I like to pay taxes? No, I don’t like to pay taxes, you know, but uh, I don’t know which I dislike more paying taxes or exercising (laughs). I know that exercise is probably more beneficial (laughs). (John)

Whether they enjoyed or disliked physical activity, all of the participants mentioned a

multitude of benefits that they had experienced because of being physically active, which will be discussed in detail later in this section.

Physical activity contributed to and was influenced by each component of positive outlook. Participants were open to trying new activities and their involvement in physical activity increased the range of opportunities available to them. Participants felt that they had made a conscious choice to be healthy and therefore physically active. They felt responsible and in control of their health behaviours. They noted that in order to take this initiative, one must believe that physical activity can impact their health and that poor health is not inevitable. Physical activity, self-efficacy and perceived control were intertwined. Being physically active directly contributed to the component of feeling youthful because participants felt energetic and healthier, younger looking and more physically able than others their age. Participants mentioned looking forward to and enjoying physical activities. They gained a sense of satisfaction from being physically active, partially due to the knowledge that they were taking care of their health. As such, physical activity was considered a worthy use of time. For some participants, physical activity served as a means of social connection and aided their sense of purpose. For example, Taa Daa felt that her exercise class provided an opportunity to meet those who could potentially need her help in some way. Participants were physically able to do the things that they deemed important (e.g., outdoor activities with family, household maintenance). In addition, some participants felt that participation in sport in particular contributed positive attributes such as focus and self-control. Many participants displayed resilience when facing injury or illness.

Benefits of Physical Activity

All of the participants held very positive beliefs about physical activity. The benefits of engaging in regular physical activity that they described included physical, mental and social benefits. Although three of the participants did not mention social benefits, all thirteen described mental and physical benefits.

Physical benefits. All of the participants listed good or better health as a benefit of being physically active. All described a multitude of physical benefits that they gained from engaging in physical activity. Physical benefits fell into the areas of physical functioning, physical appearance and physical sensation. All of the participants described multiple benefits related to physical functioning. These benefits included increased longevity, endurance, joint functioning, flexibility, strength, coordination and balance. The benefit of decreased rates of disease and injury was noted by nine of the participants, including the ability to slow or modify the progression of chronic illnesses and the prevention of osteoporosis, heart disease and falls. Elizabeth found she had "more stamina" and said that she had "not had any serious health problems and I think it's got a lot to do with the fact that we do keep active". John alluded to a decreased risk of falls because of the agility he gained in his step classes,

> I think one's most likely to have a slip and fall you know uh, uh you know, occasionally trip on the sidewalk like anybody else and I find that it doesn't bring me down to the ground, which I would think otherwise it might, you know, it might do if I hadn't got that sort of coordination of stepping over and around and things like… so I think that, from that point of view, it probably reduces your chance of getting fractures not because it's uh, not just because your bones are

> strengthened by the exercise but I think you're just sort of less likely to fall down if you're involved in active, physical exercise. (John)

Many participants described how they had modified and then continued their physical activity when injured or ill. While only one participant noted that having been physically active aided the ease and speed of recovery from illness and surgery, another one noted that it helped speed recovery after an instance of intense physical exertion.

In general, participants felt that being physically active would enable them to maintain their level of fitness and continue "an active and healthy lifestyle". As Shannie remarked, "if I've got say ten years left, I want them to be good years and I stand a better chance of them being good years if I'm active." Alice had a similar point of view, "I just don't want to seize up. Like if you don't do something, you lose it, is what I'm saying". Participants also used physical activity to provide a relief from boredom, "to get out of the house", and "to keep busy". Because of being physically active, participants expected to retain the physical functioning required to maintain their independence. The benefit of being able to do household things and maintain independence was noted by three participants,

> Certainly it's got the effect that we're keeping mobile. Uh at eighty-two we're still down on our hands and knees painting a floor and there aren't too many seniors at the [organization] much younger than us who can still do that you know, physically do that, ok. But we can and so I think that our, our keeping active over the years has something to do with that. (Olivia)

Eight of the participants described benefits related to physical appearance, such as looking young, lean and generally "looking good" or "looking sharp". Many of the

participants related stories of people being surprised by their age. For example, Kristine said "Most people can't believe I'm sixty-five. I mean this is a nice, it's a nice ego trip." Six participants explained that being physically active kept their weight under control. As Shannie remarked, "I try to stay under about 180 lbs, which is okay for my height and my age. And, that's a motivator, just stay as slim as I can. I would shoot myself if I developed a beer gut, okay".

Five of the participants mentioned the positive physical sensations that they experienced as a result of being physically active. These participants explained that they felt more energetic or felt the endorphin rush. TaaDaa said, "I think the endorphins in the brain get released and if you don't do that then somehow the day isn't really complete". More generally, Kristine remarked, "I like the way my body feels when I'm in shape".

Mental benefits. All of the participants described mental benefits from engaging in physical activity. Eleven of the participants described physical activity as something enjoyable, fun or something to look forward to. For some, physical activity was an opportunity to spend time outdoors, in nature. Some participants mentioned looking forward to seasonal activities such as kayaking, camping, swimming outdoors, biking, playing baseball or hiking. As Ernie commented, "I believe uh that being active has a big effect and it's not just uh, it's not just the being active, it's the anticipation of being active". He used some of the men he knew who played a seasonal team sports, as an example,

> They wouldn't *ever* miss a game and their wives tell me that they're, boy they're like caged animals all winter long waiting for the season to get started. And I'm *firmly* convinced that, well at least three of them, maybe more, uh stayed *alive* for

> two, three, four more years than they really would have if they hadn't been in involved. And that's not the physical activity because they're not getting that much of it, it's the anticipation, the looking forward to, they have something to, you know, doing it. So I think that part of it has more to do with it than we very often think. (Ernie)

Nine of the participants said that physical activity made them "feel good" or "feel better" and three said that they missed it when they were not physically active. Jim said, "I don't, I'm not trying to look like these twenty-five years old that are well built and everything. I'm not into that, as long as I'm working out and I feel good, that's all that counts". While most of the participants enjoyed physical activity, one repeatedly expressed his dislike of exercise and participation in sport. However, this aversion did not seem to extend to the physical activities he did outside of his structured exercise class, such as walking to work, biking or yard work.

For eleven participants, physical activity provided the means and opportunities to take charge of their lives. This benefit was a major component of the participants' positive outlook and illustrates the interplay between physical activity and positive outlook. Participants felt that their actions were improving their health and they experienced satisfaction from knowing they were doing something good for themselves. As Kristine said "It means, um, you accomplish something that day. It's part of the satisfaction of having taken care of your body, um, so, it's, it's sort of at the positive side of life as opposed to all the negative side". Or as Elizabeth remarked, "Well you know what, I think there are mental benefits because you do, *I* feel a little a prouder of myself that I am making these, this effort". Similarly, Olivia spoke about her recovery from

heart surgery, "*I* had a lot to do with that. I made up my mind that it was time *Olivia* took charge of her life". Trackwidow noted that because of being physically active, he had not "run into too many surprises" in terms of his health as he got older and John described how his cardio workouts were protecting his health, "I reckon there's a 75% chance of dying of a cardiac episode so the other twenty-five I'll leave to chance". He explained that "you're as old as your arteries" and "if you live long enough you'll die of cancer. If you die of a heart attack when you're forty, you won't die of cancer when you're sixty".

Seeing others of a similar age, whom participants evaluated as being in worse shape, also supported their sense of being in control of their health,

> I bump into people that I… I go to the mall and bump into somebody who I went to grade school with and they all look ten to fifteen years older than me and fifty to sixty pounds heavier than me. And they're carrying an oxygen tank and everything else. (Jim)

Self-efficacy was fostered through physical activity, as participants spoke about being able to do physical things that others their age could not do. Kristine also noted that being able to do her chosen physical activities well made them more enjoyable because she could challenge herself and feel herself "still improving… what my body is doing, as opposed to just maintaining stuff. I'm getting better at doing stuff. So, so that's kind of fun". In fact, many participants expressed satisfaction from experiencing the physical improvements gained through physical activity. As Alice remarked,

> Now I'm doing the aerobics with the weights, it's making me a stronger person. Like I'm getting my muscle tone back and things that I kind of lost over the years cuz I always had, you know, I was always quite muscular. And you know, like

> you lose it. If you don't use it, you lose it. So, anyways, it's all coming back. I've actually got muscle (laughs) which is good. (Alice)

Seven participants spoke about physical activity benefiting their mental capacities. Four described mental skills gained through sport participation (e.g., discipline, focus, dedication, self-control) and three (Alice, Ernie & John) mentioned the maintenance of mental sharpness. Participants also enjoyed the opportunities to challenge themselves and achieve goals that physical activity provided. The ability to cope with stress was also mentioned as a benefit by four participants. Trackwidow remembered,

> When I was working I felt I was able to cope much better with even though people don't think [job] is very rigorous, it is, mental rigor and physical rigor. And I never had any problems with the mental or physical strain at all when I exercised. However, if I ever like there were cases when, when I had to lay off I could notice the change fairly quickly. (Trackwidow)

A link between the physical and mental was described by six participants,

> I just can't over emphasize, to my way of thinking, the advantages of being physically active because it's just your mind and your body respond to it". (Elizabeth)

Or, as Shannie said, "What'd the Romans say, Mens sana in corpore sana, okay. A healthy mind and a healthy body.. and I think that's what everybody should strive for.

Social Benefits. Social benefits experienced from engaging in physical activity were described by ten participants. For six, physical activity was described as an opportunity to meet new people, or as Rosemary said, "widen the social network". Ernie

found reassurance in knowing that, if he dies before his wife, she will still have a wide social network through her involvement in different sports so that "no matter where she goes she can find people to be part of it". Five participants said that they felt less isolated and more involved because of their physical activities and seven participants described a "sense of belonging", "community", "team" or "camaraderie" from their participation in physical activity. Physical activity was seen as an opportunity to share with and talk to those close to them by five of the participants. For example, Geordie kept in contact with a few geographically distant friends for the past ten years by going on hiking trips, on which he said they had "shared more than we've shared with anybody else". For others, like Taa Daa, physical activity was an opportunity to spend quality time with their spouse,

> I think it's a very um, connecting kind of activity if you do it together. There are people who I see walking on the trail that you know have the ipod on but, but we don't chose to do that. And, and, you're very young, but, but when the TV is on or when, when you're leading busy lives, sometimes there's not a lot time when you actually sit down and talk. I've been in families where they get their dinner and they go back to the TV (laughs). So when you're walking or you're doing something together, that physical activity has an augmented benefit I think. (Taa Daa)

In addition, participants revealed a link between being physically active and the ability to break social norms. Three participants described how they had not conformed to social norms for their age and/ or gender by doing things others thought they were not physically capable of. Four mentioned changes in attitudes and opportunities that will

enable more people to be physically active in older adulthood. Part of the change in attitude was a change in the belief that women shouldn't be physically active and so participants believed that women today should be more likely to continue activity. Of the three participants (Elizabeth, Jim & Kristine) who did not describe social benefits of physical activity, two did note that instructors and classmates provided motivation and one chose to do physical activities alone (e.g. early morning walks, gardening).

Negatives of Physical Activity

When asked about negatives associated with physical activity, participants had few things to say and five said they had not experienced any negatives. Most of the negatives participants mentioned were relatively minor, including inconvenience, being bored with the activity, disliking the activity or having less time for other things. Five participants explained that "it is worth any inconvenience",

> Um, the, on the bad side of it, is having to get up early in the morning for that, having to go to the club and pay a fee to, to participate. Uh, it's it's.. I just look at it as an essential thing in life to do. I don't, don't... I think that the benefits are pretty obvious if you look at them and the inconvenience is minimal compared to what the benefits are. You know, that's the way I look at it. (John)

Or as Elizabeth commented on the types of negatives she had experienced due to physical activity,

> Well not serious ones. I'd have more time to do my gardening and my housework if I didn't do it (laughs) but outside of that no. It's worth all the money, *all* the money, it sounds like it's real expensive. But it's worth it, worth all the time and effort. (Elizabeth)

Three participants mentioned a risk of injury and needing to use common sense. Kristine noted that the risk of injury is higher for those who are not physically active because "a person that's not physically active doesn't know what they can't do". However, for the physically active older adults who participated in this study, minor pains were considered more of an inconvenience to be overcome than a negative,

> I'm not saying that I feel... that I'm free of pain, I'm not free of pain but I kinda work through it. You know, like you just don't, can't give in to it. I just have to keep going and doing. (Alice)

Ernie explained that "even the negatives are positives" because the treatment of injuries can fix physical imbalances and prevent future injuries and that even if one dies in the midst of physical activity he/she will still have prolonged his/her life by having been active.

Motivating Factors

Participants used a number of motivational strategies to help them continue their physical activities and some experienced an ongoing struggle to stay motivated. As John said, "Every year when it comes to renewing my club membership... I say, idiot, don't quit, you need a club membership, you know." The motivating factors described by participants included others as motivation, setting goals, having the information and taking the initiative, just doing it and making physical activity a habit.

Others as motivation. Nine participants noted that others were helpful. Seeing "what seniors are still doing" physically and having instructors, friends/spouse or classmates "egg [you] on" was motivational, for example,

> Sometimes it's that way with exercise. Before you do it you might have to talk

> yourself into it. I think that's also the benefit of having a spouse that needs to or is willing and wants to. So if you're not feeling like going, you're gonna say, oh come on, in an hour we'll be finished and vice versa and then you're happy that you did it. (Taa Daa)

Some found those they engaged in physical activity with to be a source of motivation, "we make sure we all turn up to class and things like that. We always say you know if you don't show up to class you better bring a note with you next time (laughs)" (John). Another way that others can be motivational is as being an example of what not to do or what not to be like, for example,

> Now, I'm a Scot. I go to Scot[land] once a year. The Scots are the *worst* in terms of what they eat and what they drink and how they *don't* exercise and how they *don't* see doctors. So they're optic lessons, most Scots, in what not to do. You know, Scotland is the land of the fried mars bar. Really. And their diet is just terrible. I'm sounding very, very morally superior and I don't, I love Scot[land] and I love Scottish people but my god they don't look after themselves, especially the guys. (Shannie)

Or as G explained, he is "put off" by his friends' "pot bellies" and he does not "ever want to get like that". Comparing themselves to others of a similar age served as motivation for participants to be active. Assessing themselves as doing better than others motivated participants to continue to be physically active and seeing others older than themselves engaging in physical activity provided inspiration. As Shannie explained, "every time I see a grey bearded guy on a bike I, I want to cheer"

Setting goals. Participants set physical activity goals for themselves, including

duration of activity, frequency of activity, mileage, laps, pounds to lose, pounds to lift and number of repetitions. Some of these goals were short term and others were long term. For example, Elizabeth was working towards her short term goal of losing the weight she had put on while on vacation and John had the long term goal of continuing to do thirty minute cardiovascular workouts three times per week "for the next forty years, when I'm a hundred and ten years of age".

Having the information and taking the initiative. Nine participants mentioned that people need to know the benefits of physical activity so that it becomes a priority. Ten of the participants said that people must be willing to take the initiative to seek out physical activity. It seems logical that in order to take the initiative, it helps to know that physical activity has health benefits. Some participants explained that it is not always easy to engage in regular exercise, that it "is hard work" and as Trackwidow said, "it requires a little....self-motivation, a little determination, a little stubbornness". Alice, who had recently started a strengthening class and had been enjoying a gain in muscle tone, noted that to gain full benefits from one's activities one needs the information early enough,

> Wish I'd of known about all this exercise before I did, especially the ones with the weights and stuff because I think that would have been more important to start that when you're in your forties than when it is to start it when you, you know, I was what sixty-six when I started it, so you know... um, I think it would have been more beneficial twenty years ago. I think it would've maybe prevented a lot of the um... maybe the arthritis, maybe the diabetes, that could have been likely prevented at that time too. (Alice)

Participants also noted that knowing where to find a positive environment to exercise in

was important. Taa Daa alluded to the different experiences women and men have and how that impacts physical activity later in life,

> It's also a female issue. Women generally never saw to their own needs. Now that they're career people they tend to but in days gone by they never did that. Everything was for other members of the family so now there's no perspective for them to be able to do that. Those people would be less active. (Taa Daa)

In addition, four participants mentioned what they felt was a change in attitudes and opportunities that would enable more people to be physically active in older adulthood. Part of this change in attitude was a change in the belief that women should not be physically active, which they expected would result in more women continuing physical activity into older adulthood.

Just do it. Participants explained that it did not matter whether or not they wanted to or felt like it or were good at or liked the particular activity, they knew they had to do it,

> Even if you don't feel like doing it, you *do* it. You act your way into doing it and then for example if that's physical, then the endorphins in the brain are going to produce their own happiness and you will feel better having done it so what's an hour a day or whatever. (Taa Daa)

Elizabeth remarked, "I don't like going down to exercise every morning. Ah, it's not big on my list outside of the results. So, that's what motivates me". Similarly, John who compared exercise to paying taxes, said,

> I think uh, a lot of people will not do exercise because they don't like it, and, my, my thoughts of that are, who cares if you *like* it or not, it's whether you've got to

> *do* it or not. If someone said, you know, oh I *love* the treadmill! Anyone who loves the treadmill needs their head examined not their body examined you know. (John)

All of the participants listed health benefits as major motivators and, for many, a health scare, their own or that of someone close to them, served as motivation to become physically active or increase their physical activity.

Making physical activity a habit. Three participants emphasized the need to develop a habit of being physically active. Participants felt that once the habit is established, physical activity became easier to do and that they would "miss it", "feel guilty" or find it "distressing" when they did not do it, for example,

> I think that a lot of people, some people say "oh my god, I *hate* doing, you know" so, so what? The point is once you've been doing it you may you know, a guy might hate shaving for example, whatever, I mean I think, or hate paying taxes or whatever it is but I mean you establish something as a *habit*, okay and then you can just follow that *habit*, a commitment and then it's not so difficult. It just becomes part of your life. (John)

For some participants, motivation to be physically active did not seem to be a major concern. Those for whom physical activity was a major part of their lives and who viewed physical activity as part of the fun in life seemed to need motivation less than those who were physically active purely for the health benefits,

> (laughs) It's… uh motivation isn't needed, it's my life. And so uh, it's just what to do, just like breathing or uh, well like you've got a piano or a keyboard downstairs because you like to *play, n*othing to motivate you except you want to

do it. It's part of what you do. (Ernie)

Three participants commented that what is ideal for one person may not be so for another and so an ideal environment in which to become physically active is difficult or not possible to determine. While many noted the importance of physical activity throughout the lifespan, some participants felt certain age ranges were key. John stressed that one must be physically active in one's thirties to develop the habit and Alice wished she had started weight training in her forties. Although Kristine felt that physical activity could be started at any age, she felt that between the ages of fifty and sixty there is a risk of people becoming less physically active.

In summary, positive outlook and physical activity were intertwined in the lives of the participants. Positive outlook influenced participants' physical activity and their physical activity influenced their outlook, in part due to the positive impact that physical activity had on their health. The fact that participants could find so many benefits, physical, mental and social, from being physically active and very few negatives may also be due in part to their positive outlook. Those with a positive outlook may tend to see any negatives as minor because of their optimism and focus on the bigger picture. In addition, motivation and positive outlook were linked. Participants who did not enjoy physical activity looked for multiple sources of motivation. Someone with a less positive outlook might not seek out the means to stay motivated or might let setbacks impact them to a greater extent,

> Once poor health sets in the activity automatically I think gets, gets dwindled down an awful lot. And then I would think that those people then set into a mindset that you know I can't do this because of my leg or because of my back or

> whatever have you. So they very quickly don't even *try* to do anything and the minute they *stop* doing just a few things then they very easily step back some more and stop doing period and that's *bad* and a lot of them do that. (Olivia)

Positive Outlook, Physical Activity and Aging Stereotypes

Aging Stereotypes Don't Impact Me

All of the participants felt that aging stereotypes, or other peoples' beliefs about aging, had little or no impact on them. Each participant was aware of aging stereotypes and described ways in which they did not fit the stereotypes. The aging stereotypes that participants mentioned covered physical (e.g., weak, do nothing, inept, wear dull colours/black), mental (e.g., feel sorry for self, "stupid old fool", lack initiative or persistence) and social (e.g., have nothing to contribute, useless, always at home) stereotypes. Participants, being physically active older adults, described how they did not fit the aging stereotypes involving physical ineptitude and, being people with a positive outlook, they described how they did not fit the mental and social aging stereotypes. While some participants had given thought to aging stereotypes prior to the interview and some had experienced age-based discrimination, others related that they personally had not come across any aging stereotypes and had not thought about the issue. For example, when asked about others' expectations about aging, having an impact on him Ernie said, "Hmm.... No I don't think so. Um, never thought of that. Nah, I don't..... the ones that don't, don't have an impact and the ones that have good expectations, I'm there. No I don't think so."

I'm not like most my age. Participants expressed feeling different than the typical older adult and when comparing themselves to other older adults, they described these

others as “normal aged person”, “the average older person” and “most my age”. How one fared in comparison to others also seemed to influence the impact of aging stereotypes on the participants. Many described themselves as more physically active, healthier, younger looking and better “able to do things” than others their age. Eight participants explained that they expected to enjoy better health than older adults who are not physically active and previous generations. The belief that most older adults “don’t do much” or “sit around” was held by many. Participants compared themselves to both people they knew and the more abstract “average older person”, the conceptualization of which could include stereotypes. Although statistics show that the majority of older adults in Canada are not physically active, this does not mean that they “sit around”, “feeling sorry for themselves”.

Two participants (Elizabeth & Kristine) noted that whether or not one encounters aging stereotypes depends on whom one associates with and four of the participants mentioned that all of their friends are physically active. As such, it seems possible that being physically active may reduce the relevance of aging stereotypes by altering one’s social network. Someone who is physically active may associate with more older adults who are physically active and who also do not fit the aging stereotypes. In addition, one may encounter less negative age stereotyping and age-based discrimination both because of looking younger than one is and because the physically active older adults one associates with may hold similar positive attitudes towards aging because they are physically active. Participants described themselves as “risk takers”, “goers” and “adventurous” and their positive attitude towards life was obvious. While participants expressed being different than the average older adult, most also believed that currently

inactive seniors could start being physically active and thus be like them.

Resisting aging stereotypes. Participants indicated that they did what they wanted rather than what was expected for their age yet they also explained that their expectations of themselves were realistic and flexible,

> Activity can be geared towards the aged, you know. I mean I'm not out horseback riding nor am I out pole vaulting, you know what I mean. But, but, so you gear your activities to some degree toward your age, as long as your uh *healthy*. (Olivia)

Or as John explained, his exercise goal was to maintain his cardiovascular health, not to run a Boston Marathon. Many participants described how they had altered their activities and their expectations for activity over the years. Geordie recalled how five years ago, on a tough hike with friends they had all had problems and afterwards said,

> Look it's about time we packed this in, it's getting too much for us. And as we talked we suddenly realized that we were setting our expectations as though we were thirty years old and we were over seventy. So next year, we backed off, no problems at all. (Geordie)

He also explained how his thoughts about what constitutes physical activity had changed,

> I used to think you had to work to exhaustion. That's what I always used to do. Work to exhaustion, sweat pouring on me. I don't think so now I think that, in fact is for me, negative. Uh, I think you've got to enjoy it as well. (Geordie)

Some participants felt that this flexibility was only natural. As Olivia commented, "as you get older, naturally you don't expect to be able to do things as well as you used to do or as much of it as you used to before." Indeed, eleven participants expected to have to

change and adapt as they got older. However, two of the participants expressed frustration in not being able to play their sport of choice as well as they used to and, in response, had stopped playing. Kristine also pointed out that age should not be the sole guiding factor in determining what is appropriate physical activity for someone because experience with physical activity in general and with whichever activity they plan to do has an impact.

Another way that participants showed resistance to aging stereotypes was by ignoring stereotypes or negatives and by not dwelling on their age. They relayed that to do otherwise would be limiting themselves,

> Aging is a number, it's just a number. I mean, how old I am, eighty-two. So people everywhere tell me, you don't look eighty-two, you know. How am I supposed to look if I'm eighty-two, you know? I'm, fortunately, I think, I don't dwell on the number because then I, I would, maybe I might be inadvertently influenced by the negative, you know. To think well, oh gosh, maybe I shouldn't. (Olivia)

Similarly, Rosemary remarked,

> I suppose it does affect other people but it doesn't affect me very much because if I feel I want to try it and do it, I will make an effort irregardless of what other people think.....if they think I'm stupid to be trying something. If I think well maybe I could do that, I'd be inclined to try it yeah, as long as it was in the code of how I wanted to live. (Rosemary)

Some participants, like Trackwidow, explained that ignoring or not "worrying about" what others think, say or do was not something new to him and that he had always gone

by how he felt. Participants relayed that those who do listen to aging stereotypes or negatives are "fools" and expressed frustration with friends or family members who "bought into" social prescriptions and for their age,

> Well, if, if you have any strength of character as a person, you can ignore the negative. If, if you have worked out what kind of a life is best for you, okay, then it really shouldn't matter that you're going to encounter a bit of negativity. That should not matter. (Shannie)

All participants conveyed that the lifestyle they wanted for themselves included physical activity and not just "sitting around" "day after day".

The physical, mental and social benefits participants experienced from being physically active influenced the impact of aging stereotypes by both creating opportunities and the means to break aging stereotypes and by contributing to a positive outlook. Participants provided ample examples of how they transcended aging stereotypes. For example, Kristine participated in a physical activity that others thought too demanding for her age and she fit right in with participants decades younger than her and John kept up to aerobics classmates "about twenty years [his] junior". Olivia recounted how she was able to defy the stereotype of the helpless and physically weak older woman when she was traveling abroad. The men did not want her to come on their sightseeing trek up a hill because they thought she would slow them down but she was able to not only climb the hill but pass the men on her way up. As such, their physical fitness enabled them to break these physical aging stereotypes.

Engaging in physical activity can lead to increased independence, ability to do physical things and busier days, all of which helps one defy the aging stereotype of being

useless. Participants shared ways that they were able to help family members and friends. For example, Olivia enjoyed being able to do things like sew her granddaughter's costumes, clean the floor after a shuffleboard match and do physical things around the house, like paint or lay a new kitchen floor.

> A lot of the women, they seem to take this attitude that well, you know um, when you reach a certain age, that's not, women don't do those things or grammas don't do that or grammas are just loving and kissy-pooh and that kind of thing and, and that's it, you know. Whereas with us, our grandkids call upon us to do *other* things. And uh, they (laughs) well we had to get an answering machine because they couldn't reach us. We weren't always home, you know (laughs). And so they could leave a message. It's, it's *different*. And so that's, there is a difference in the way people perceive uh, what you're supposed to be like when you're a certain age. And we don't, we don't buy into that. We never have. As long as we are able to do things for ourselves and we enjoy doing them, we're going to continue doing it. And uh it might *embarrass* others, some others a lot younger than us but it's not my problem. (Olivia)

Kristine emphasized the absurdity of the belief that at a certain arbitrary age you lose your usefulness. She said, "this is a really good quote, sixty-five is an age, not an expiry date. Um, I think that's, I think that's really a nice one because it says you have not run out of your usefulness to the work environment just because you hit the magic number". Being physically active can also contribute to positive outlook by fostering self-esteem, positive emotions, feelings of youthfulness and acting as a means to issue control over their health. Five participants felt that older adults who are not physically active think

physical activity is too difficult or do not want to "bother" and ten felt these people lack the initiative or willingness to be "proactive" in taking care of their health. Many participants showed resilience when faced with obstacles or the unexpected and saw such incidents as an "adventure" or something to "accept" rather than something to be upset about. Others showed this resilience in recovering from injury or illness and dealing with career or life disappointments.

Most of the participants articulated that they felt young or did not feel old and some did not seem to identify themselves as senior citizens,

> As a matter of fact, I'm just realizing that I can get senior discounts on just about anything, which is kind of a nice thought. Now, um, I suspect in the next ten years, as I get older, I'm gonna say, oh, they think I'm an old lady, oh, you know. I guess it hasn't hit me yet. Maybe it's happening but maybe I have a good, strong enough ego that it, I'm not noticing it, I don't know. Um, I think it probably is more evident if you're physically falling apart. You know, I think the first time someone takes my arm and takes me across the street or offers up a seat... I have not yet felt obligated to sit in uh, in seats reserved for seniors, put it that way. (Kristine)

Taa Daa pointed out that not everyone sixty five and older will identify themselves as a senior citizen and that this can impact where one seeks out activities. She gave the example of people not going to the seniors' centres because they do not consider themselves senior citizens. However, this may also be due to the match between one's level of physical fitness and the difficulty of the physical activities offered. All participants had a sense of humour and, in particular, about aging. While they

acknowledged the influence of life experience, they emphasized that people are self-governed. G said, "I don't (laughs); there's not stereotyping as far as I'm concerned. You live a stereotyped life because you've got no choice in society but taking advice uh huh [no]."

Aging Stereotypes Do Affect Others

Although participants felt that aging stereotypes did not impact them personally, seven remarked that aging stereotypes do affect others. They explained that they had seen friends who had "let themselves grow old" unnecessarily because of buying into the aging stereotypes and limiting themselves. For example, Ernie clarified that when he says, "I'm old, I can't do that" he is not serious but "a lot of people aren't kidding". Olivia explained that,

> Other people's attitudes towards aging, it has, it has um angered me at times and, and uh um I've been disappointed in many people. I mean with six children there are some in-laws that I *thoroughly* am disgusted with because the way they are uh, letting themselves get old, you know, older than their age. And, and, and that's the way they think it has to be." "They, they uh, they look and say you know, well, you know I'm sixty-five years *old,* you know. And we catch some of them saying, well, uh, you know once you get to be our, my age, I've turned sixty-five or seventy, when you get to be *my* age you can't do this or you can't do that." "there *are* some of them that definitely uh, *accept* an old fashioned, really an old fashioned idea of what grand parents are supposed to be or what seniors are supposed to be. (Olivia)

Trackwidow noted that buying into aging stereotypes takes a negative toll on one's

physical activity and said "I know a lot of them say, well you know I'm getting older so what the heck, I'm going to do what *old* people do which is maybe sit around or play cards". Participants also noted the link between health and succumbing to challenges in life. Ernie shared his frustration about seeing a friend die because he "let himself get slotted", gave up and just spent his time in bed. Although Geordie stated that aging stereotypes did not impact his behaviour "because [he is] a pretty reasonable human being", the upsetting age-based discrimination that he faced in the workplace revealed that aging stereotypes did have an effect on him emotionally.

Although participants said that aging stereotypes did not impact them, four described instances of being discriminated against based on age. For three of these participants, the discrimination centered on retirement and on feelings of uselessness and exclusion that accompanied this change,

> Well, the thing that gets me now is that there is definitely these stereotypes about aging and they [co-workers] treat you differently. You're no good, you're useless. And for some reason, and I don't know why it is, these young people they still don't see me as one of the leading [people in field]. And you still get the sense that you're useless and I am, what can I do? What can I do? Nothing. That's the problem I have. And I am useless by the way, around the house and around the garden. (Geordie)

He felt a significant change in status with retirement, "after I retired that one second to midnight on [date] I was a fully fledged [employee]. One minute past midnight I was nothing!". Not all participants may have recognized or labelled instances of discrimination as such. Kristine described how she broke the aging stereotype of being

physically inferior to younger people. Young volunteers had been recruited for a physical task and when not enough younger volunteers applied the recruiters opened it up to older people as well. She got the job and did it very well. Although Kristine did not label this situation as discrimination, I do consider it age-based discrimination.

Five participants noted a link between aging stereotypes and gender, with older women being treated as physically inept, invisible and not being encouraged to, or being discouraged from, being physically active. None of the female participants noted becoming invisible but one male participant said that two of the women in his life had experienced this. Three of the female participants noted that women sometimes have difficulty doing things for themselves because they have lived a life of thinking of others first and neglecting themselves. Four participants mentioned the changes in "attitude", including the increased emphasis on physical activity for everyone throughout the lifespan and increased opportunities which will enable more people to be physically active in older adulthood. Four participants noted that aging stereotypes are shaped by one's culture and two acknowledged that they used to hold ageist thoughts. Two participants indicated that one's awareness of aging stereotypes depends on whom you associate with and four participants mentioned that most of the people they associate with are physically active.

To summarize, most participants acknowledged the impact of aging stereotypes on others but did not feel that aging stereotypes impacted them personally. They thought that aging stereotypes were not relevant to their lives. Participants felt that they were in better health and stronger mentally than the average older adult, to which aging stereotypes do apply and on whom aging stereotypes have an impact. Participants noted

the influence of culture in determining aging stereotypes and some acknowledged the link between aging stereotypes and gender.

Theoretical Model of Physical Activity in Older Adulthood

Positive outlook and good health influence the importance of physical activity in one's life and, in turn, one's resistance to aging stereotypes. Positive outlook is comprised of a constellation of elements that interact with one another and are impacted by positive outlook. If these elements; being open to possibilities, exercising control of aspects in one's life, feeling youthful, satisfaction and feeling fortunate and having a purpose in life are present, one is more likely to be physically active. Life experiences that contribute to a positive outlook can be gained throughout the lifespan by engaging in physical activity. As such, physical activity feeds back into positive outlook by promoting good health and servicing the constellation of elements that make up positive outlook. Physical activity also provides the means and opportunities to resist and counter aging stereotypes. Resisting aging stereotypes enhances one's sense of control and satisfaction, and thus positive outlook. It is the constant interaction between these domains that sustains one's positive outlook and physical activity in the face of obstacles encountered in the process of aging. See Figure 1 for a visual representation of the theory.

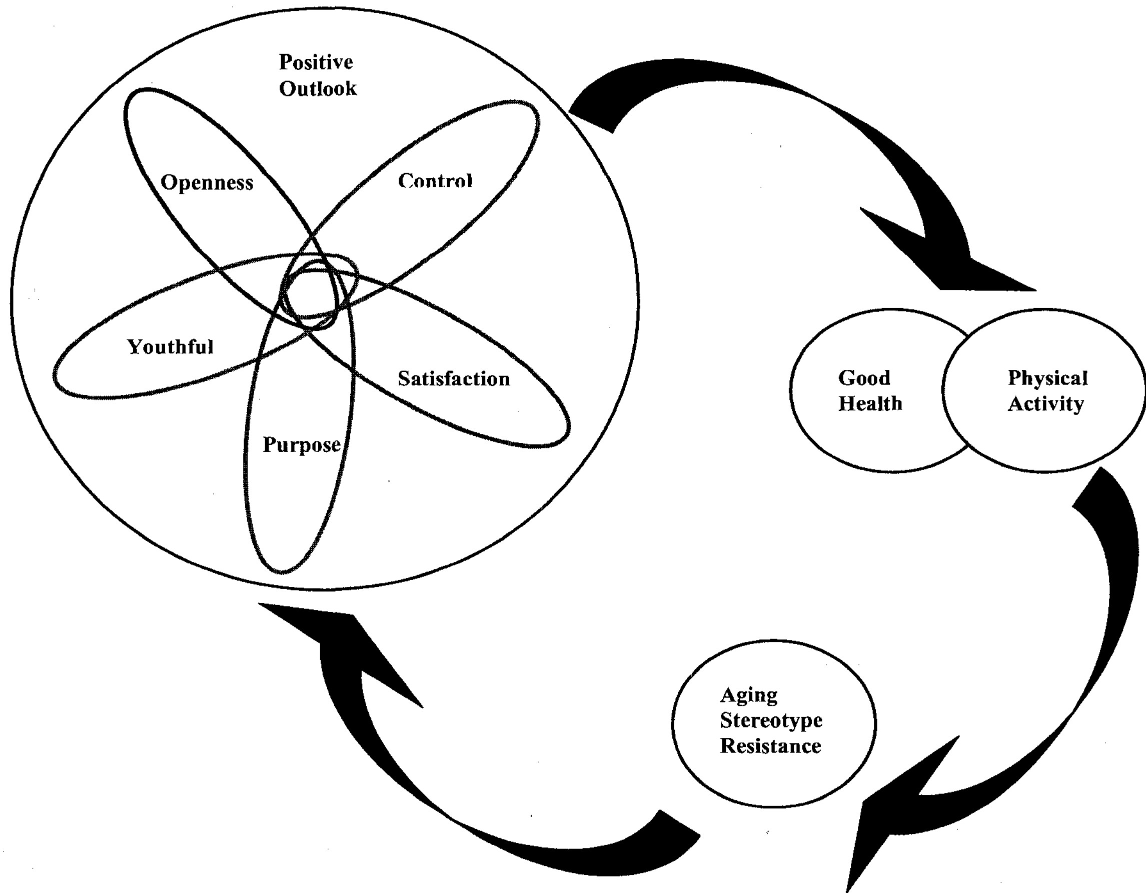
Discussion

Research Question 1: Function of Physical Activity

Physical Activity as a Valuable Endeavour

Physical activity was very important to most of the participants. Whether they were physically active for health benefits or for fun, and regardless of whether they

Figure 1. Theoretical model of positive outlook and physical activity in older adulthood.



enjoyed or disliked their chosen activities, all of the participants described numerous physical, mental and, for most, social benefits of being physically active. Although not all of the participants described social benefits, other researchers (e.g., Dionigi, 2007; Michaels Miller & Iris, 2002) have found socializing and social support to be benefits of physical activity. Negatives about physical activity were considered minor or worth it by participants of the current study. They felt that physical activity should be a priority in everyone's lives and that one must know the benefits of physical activity in order for it to become a priority. All of the participants had the goal of remaining physically active over the years to come and most emphasized health benefits as the reason for this goal. Indeed, how much one values their goals and the expected outcome of the activity (e.g., physical condition, good health) influences how strongly one sustains their goals (Brandstadter & Rothermund, 2002). Although most expected a gradual decline in their health as they got older, they also expected to experience better health than the average older adult because of being physically active. The perceived positive influence of physical activity on older adults' physical, mental and social well-being is supported by past research (Stathi, Fox & McKenna, 2002).

O'Brien Cousins (2003) found that physically active seniors were lifelong habitual exercisers or had a triggering event that drove their decision to be physically active. Similarly, most of the participants in the current study had been physically active throughout their lives and a few had become physically active later in life, between their thirties and sixties. A health scare, their own or that of a loved one, fear of becoming a burden or the increase in free time that accompanied retirement triggered a commitment to increased physical activity for these participants. Childhood mastery experiences with

physical activity predict self-efficacy for exercise (O'Brien Cousins, 1997). Participants in the current study tended to maintain their past patterns of physical activity. For example, those who played sports as youths or young adults, tended to play sports as older adults. Those who had been runners, or played a sport that involved a lot of running, now jogged or walked and those who had switched from one activity to the next continued to try new activities and revisit previous ones. More recent experiences of physical activity also impacted self-efficacy. Olivia described how making small physical improvements and the social support she received from her classmates helped her recovery from heart surgery. This experience continued to serve as a source of self-efficacy and reminder of her ability to exercise control over her health.

Most of the participants described instances of needing and using various sources of motivation to keep physically active. As such, these physically active older adults showed that they are not super-humans who always feel like exercising, but rather that they experience lags in motivation at times but manage to overcome these barriers. Participants who expressed dislike for physical activity seemed to rely more heavily on developing a habit of physical activity and on multiple sources of motivation than those who considered physical activity the fun part of life. Generally, participants saw themselves as responsible for their own adjustment as they aged.

Interaction: Positive Outlook and Physical Activity

The data suggest an interaction between positive outlook and physical activity, with instances of positive outlook impacting physical activity and physical activity impacting positive outlook. Positive thinking or optimism has been linked to increased physical activity by other researchers (e.g., Kavussanu & McAuley, 1995; O'Brien

Cousins, 2003; Ruthig & Chipperfield, 2006; Stathi et al., 2002). Results of the current study support those of Stathi, Fox and McKenna (2002) who found that physical activity influenced the subjective well-being of active older adults. Specifically, the developmental, physical, mental and social domains of well-being were positively impacted by physical activity, partially due to the maintenance of a positive attitude. The interaction between positive outlook and physical activity was evident in all the components of positive outlook; open to possibilities, feeling youthful, satisfaction and feeling fortunate, having a purpose in life and meaningful use of time and exercising control of aspects one's life.

Participants were open to trying new things and described themselves as "risk takers", "goers" and "adventurous". The physical aptitude participants gained from being physically active led to further opportunities to try new activities, including physical activities. Physical activity promoted feelings of youthfulness, as many participants felt healthier and better able to do things than others their age and were often judged to be younger than their age. Most participants enjoyed the physical activities they engaged in and looked forward to leisure time physical activities (e.g., hiking, kayaking, seasonal team sports). Physical activity also gave participants a sense of accomplishment and satisfaction from feeling physical improvements and knowing they were taking care of their health. Thus, physical activity itself was considered a meaningful use of their time. It also gave them an opportunity to set and achieve goals. Challenging oneself through physical activity has been identified as one motive for being physically active in past research (Michaels Miller & Iris, 2002). Purpose in life was indirectly influenced by physical activity, as participants were healthy and physically able to do the things they

wanted to (e.g., help others).

Finally, the main way that positive outlook and physical activity interacted was through the ability to exercise control over one's life. Participants saw physical activity as a choice that they made to be healthy and they gained positive mastery experiences which, along with the health benefits they experienced due to their activity, fostered self-efficacy, furthered perceptions of control, independence and positive self-image. Similarly, Dionigi (2007) found that being physically active empowered participants because it served as a way to "take charge" of their lives and maintain their independence, which positively impacted their mental health. In order to take the initiative to seek out physical activity, one must possess adequate self-efficacy for physical activity. Research has found that self-efficacy predicts exercise behaviour (Kavussanu & McAuley, 1995; Netz et al., 2005) but also that physical activity enhances self-efficacy (e.g., Dionigi, 2007; Netz et al, 2005).

While perceived well-being also predicts self-efficacy for exercise (O'Brien Cousins, 1997), two of the participants in the current study were experiencing recent illness or injury at the time of the interview which was impacting the intensity and type of physical activity they were currently doing (e.g., walking instead of running). However, this did not seem to negatively impact their self-efficacy for physical activity. They both described plans to "work up to" their previous activity level. As such, their self-efficacy for physical activity remained intact despite changes to their health. According to Michaels Miller and Iris (2002), the increased sense of control that accompanies physical activity may help those with a chronic illness take an active role in self-care and disease management. Ruthig and Chipperfield (2006) found that optimists in poor health

exercised more than pessimists in poor health and that optimists had greater perceived control than pessimists. Participants used physical activity to structure their day and keep busy. Some also used physical activity to relieve boredom. Being physically active helped them maintain their functional health and enabled them to do the things they wanted to do (e.g., house maintenance, dancing).

Participants emphasized the importance of setting goals and expectations that are realistic, attainable and flexible. Participants were prepared to adapt their regular activities according to the environment (e.g., on vacation, bad weather) and described how they had altered their activities and expectations for activity over the years and daily, based on how their bodies felt. At other times they pushed through minor pains or feelings of fatigue to complete their activities. Like Bryant Corbett and Kutner (2001), I found that some of my participants expressed some frustration in not being physically able to do the activities they used to do at the same level while others felt that this was a normal part of aging. However, most of the participants in this study seemed to be able to accept age-related changes without distress. Goals that are perceived as attainable are more likely to result in behavioural change whereas goals that are perceived as unattainable will likely be downgraded instead (Brandstadter & Rothermund, 2002). Most participants set physical activity goals for themselves and life goals that included physical activity (e.g. going on a hiking trip, kayaking while camping) but others relied less on planning and more on habit. Trackwidow explained that "*every* day I'm out for an hour" walking, even when on vacation and that "however well I feel I just keep rolling". Setting and following specific action-based physical activity goals is an important part of engaging in physical activity (O'Brien Cousins 2003).

There was significant overlap between the core concept of positive outlook and the concept of successful aging (Rowe & Kahn, 1987). However, unlike Rowe and Kahn, who defined successful aging as having little or no disability or disease, participants in the current study considered themselves to be in good health despite having chronic illnesses. They emphasized the need to "deal with the cards you get", make the best of things and do what they could. Although similar to successful aging, positive aging (Hill, 2005) maintains that one does not have to be disease free to be aging well. Positive aging is characterized by using one's resources to plan for and deal with decline, developing flexibility throughout the lifespan in order to adjust and solve problems, focusing on the positives rather than the negatives of aging and making lifestyle choices to protect one's well-being. Lifestyle choices included actions to preserve functional abilities, continue personal growth and maintain social relationships. As such, the current research supports the concept of positive aging, with its assumption that people can modify their own aging experience. Researchers have identified positive outlook as part of healthy aging (Bryant, Corbett & Kutner, 2001), quality of life (Gabriel & Bowling, 2004) and older males' definition of successful aging (Tate, Lah & Cuddy, 2003). Positive outlook was also deemed important to health for those with chronic illness (McWilliam et al, 1996) and health promotional strategies (Michaels Miller & Iris, 2002).

It is important to note that both individual factors, including one's physical and psychological resources, and social circumstances impact the range and types of options available, the perceived accessibility of those options and one's ability to act on them (Hendricks & Hatch, 2006). The idea that one's thoughts, behaviours, emotions and

environment all contribute to motivation and subsequent actions and selection of environment (Bandura,1989) is not new. Those with a positive outlook may view negatives associated with physical activity as minor, not let setbacks impact them greatly and seek out the means to stay motivated. A recent newspaper article in the Windsor Star (Macaluso, 2008) lent additional support to the theory generated from the current study. The 95 year old woman highlighted in the article engaged in regular physical activity and spoke about trying to be positive and continuing to learn and saw physical activity as important because of her knee and shoulder problems. Like many participants of the current study, she engaged in physical activity to help her health problems (knee and shoulder problems), had a history of physical activity and took other actions to promote her health. However, the exact relationship between physical activity and positive outlook cannot be established with this exploratory study. As such, further research may determine the specifics of the link between positive outlook and physical activity.

In summary, physical activity plays a large and multi-dimensional part in the lives of physically active older adults. Most adults in Canada are not adequately physically active and inactivity levels tend to increase as age increases (Statistics Canada, 2008). The older adults who participated in this study were able to maintain a physically active lifestyle and a positive attitude despite an array of barriers. Generally, many participants showed resilience (e.g., "work through problems", "make the best of things") when faced with obstacles or the unexpected. Although people with illness, disability or chronic illness are particularly vulnerable to reduced levels of physical activity (Health Canada, 2002), having chronic illnesses did not stop participants in this study from being physically active. Similarly, O'Brien Cousins (2003) found that active seniors were not

barrier free but rather they challenged negatives with positives. Participants in the current study faced barriers such as negative others, aging stereotypes, wavering motivation, gender, illness and injury. They drew on past experience, kept the benefits of physical activity and positive outlook in mind, found sources of motivation and set goals for themselves. They were prepared for distractions and compared themselves favourably to the average older adult to overcome the barriers. Participants defied aging stereotypes and negative people through physical activity and physical abilities. In addition to the health benefits and independence gained through physical activity, self-esteem and self-image are enhanced and one gains a sense of accomplishment, self-efficacy and control over one's life.

Physical activity is a means of empowerment for older adults. The interaction between positive outlook, physical activity and good health is extensive, with each contributing to and enhancing the other. Valuing physical activity does not mean that disability or frailty signifies failure. Rather, adapting and doing what one can to retain one's physical activity in the face of adversity will allow for optimal health.

Research Question 2: Physical Activity and Aging Stereotypes

Aging Stereotypes and Social Comparison

Participants believed that aging stereotypes did not affect them or were not relevant to their lives but did affect the physical activity and general attitude towards health and aging of others. Participants felt different than the "the average older person" and described themselves as more physically active, healthier, younger looking and better "able to do things" than others their age. Participants compared themselves to the stereotypical older adult. Specifically, they made downward social comparisons to the

average older adult, who was presumed to be inactive. This had a self-enhancement effect (expectation to fare better than peers). However, it is not irrational for the older adults who participated in this study to expect better health than the average older adult because the majority of older adults are not physically active and inactivity is a cause of many health problems for older adults (NACA, 2004; PHAC, 2003). Interestingly, participants made downward comparisons to inactive older adults yet most participants also believed that those who were currently inactive could and should start being physically active and genuinely hoped that they would. Although not quite externalization (believing others are more like you than they are), participants' categorization of us (active older adults) versus them (inactive older adults) seemed to be flexible.

Although the contamination hypothesis is commonly applied to the study of aging stereotypes and ageism (e.g., Levy, 1996; Levy et al., 1999; Rothermund & Brandtstadter, 2003), negative aging stereotypes did not seem to contaminate the self-views of participants in the current study. This is not surprising given that conditions for the activation of aging stereotypes are the relevance of the stereotype to the individual's self-image (Levy) and whether one identifies with the older adult category (Angus, 2006). While many of the participants identified with the older adult category, they did not feel that aging stereotypes applied to them because their physical activity set them apart from the "normal old person". Thus, subcategorizing oneself may protect one from aging stereotypes. In addition, fully assessing the impact of negative aging stereotypes on the participants would have required other research methods to assess aging stereotypes at an unconscious level.

Resistance and Defiance of Aging Stereotypes

Not only does physical activity serve as protection against the impact of negative aging stereotypes by making aging stereotypes less personally relevant, being physically active also reduced the impact of negative aging stereotypes by creating opportunities and the means to resist and counter aging stereotypes. Participants felt youthful, healthy and physically able to do the things they wanted to do, which helped them reject limitations based on aging stereotypes and actively defy the aging stereotypes they encountered. Similarly, Michaels Miller and Iris (2002) found that older adults used physical activity to defy elderly stereotypes. Participants said they ignored or avoided negative people and ignored negative aging stereotypes.

Some participants indicated that one's awareness of aging stereotypes depends on whom one associates with. Some participants explained that their friends were physically active, like them. It may be that physically active older adults encounter less negative age stereotyping and age-based discrimination both because they look younger than they are and because they associate with other physically active older adults who share similar attitudes towards aging and similar experiences. Like in other studies (e.g., Dionigi, 2007; O'Brien Cousins 2003), participants noted that the people they engaged in physical activity with provided motivation. Participants were inspired by physically active people older than they. Participants were motivated not to be like others who were inactive and in poor health. It may also be that participants, although aware of negative aging stereotypes, held mostly positive aging stereotypes.

Changing Role in Society and Aging Stereotypes

Aging stereotypes impacted some participants in the form of mandatory

retirement. Some participants felt forced into retirement before they were ready and spoke about the difficulty they experienced. Price (2003) found that having a strong self-concept, which can include finding new roles to replace past work roles, and living an active lifestyle, has a positive impact on adjustment to retirement. The relationship between role loss and adjustment to retirement is influenced by age identification, self-esteem (Fry, 1992) and the meaning attached to the work role (Fry; Simpson & Carroll, 2008). Some participants had found new roles that they got great joy from after retiring while others were on the verge of retirement and were not sure how it would impact their lives. All participants felt that their desire to be physically active was a constant in their lives despite changes to other aspects in their lives. Bryant Corbett and Kutner (2001) found that attitude was enhanced by having something to do and feeling capable. As such, physical activity may aid adjustment to retirement.

In addition, many participants, particularly those who had looked forward to retirement, enjoyed the freedom they obtained through retirement to do what they wanted when they wanted. For many, physical activities were included in the things they wanted to do. Some became more physically active once retired because of the increased availability of free time. Some participants alluded to the changing attitude towards aging and old age due to increases in longevity, activity, health and independence and that they did not want to spend their years left doing nothing. It is anticipated that leisure will assume a bigger part in the lives of older adults because of changing retirement patterns and increased health and longevity (Settersten, 2006). The number of healthy, educated and skilled older adults is increasing (Moen & Spencer, 2006).

Some participants noted that women become so accustomed to looking after

others first, following their prescribed social role, that they may not be in the habit of seeing to their own health needs. In Canada, female seniors are less physically active than male seniors (NACA, 2006). The female participants in the current study tended to engage in less vigorous activities than the males and score lower on the PASE. Some participants noted the impact of sexism and ageism but felt that cultural norms of inactivity for women were changing. They believed this change would lead to more women being active as older adults. This change may take time, as people carry the age and gender norms from their past with them as they age (Moen & Spencer, 2006).

In summary, the findings indicated that physical activity and positive outlook interact and impact one's resistance to aging stereotypes. Being physically active served as protection against negative aging stereotypes, provided the means and opportunities to resist and break aging stereotypes and aided adjustment to changes experienced as one ages. The potential for negative beliefs about aging to impede one's physical activity can be overcome by having realistic and factual expectations about aging, rejecting and defying aging stereotypes, engaging in physical activity and associating with those who hold positive views of aging. In turn, the confidence gained from successfully resisting aging stereotypes can reinforce one's commitment to remaining physically active.

Limitations

Measures

In addition to the limitations of the PASE previously noted in the Method section (lack of frequency and duration information for non-leisure time activities, potential for external factors to impact scores because activity is measured over "the past seven days"), I encountered further limitations. Some participants found the example exercises

(e.g., hunting, bowling, doubles tennis) in the PASE confusing, which may have impacted responses. I also found that, in some cases, the interviews were necessary to make sense of answers. For example, a participant wrote the name of her exercise class and I would not have known how to code the activity if she had not happened to describe what she did in the class during her interview. In addition, it can be difficult to determine the actual amount of time spent being physically active, for example, during "two hours of dancing" or "one hour at the gym". In addition, for the demographic questions, some participants expressed difficulty answering ethnicity, race and SES questions and three chose not to answer the annual income question.

Sample

In addition, the sample differed from the average older adult in Canada in terms of education and income. All of the participants had completed high school or the equivalent in another country (1 participant) and 71% of male and 33% of female participants were university graduates. In 2004, 47% of male and 52% of female senior citizens in Canada had not completed their high school diploma and only 13% of male and 6% of female seniors had a university degree (Statistics Canada, 2007a). Nine of the participants were above the median 2004 income (NACA, 2006) and one was about average. Research has found that decreased physical activity accompanied retirement for those who worked in manual occupations (Berger, Der, Mutrie & Hannah, 2005), partially due to being socialized into a work activity mentality, which does not value leisure physical activity (Witcher, Holt, Spence & O'Brien Cousins, 2007). Participants ranged from working class to upper middle class but no participants had held manual occupations. Higher SES is linked to higher probability of being physically active

(Statistics Canada, 2007a). Although physical activity level decreases as one ages (Statistics Canada, 2008), only preliminary exploration of this was possible because the oldest participant was eighty-four.

The percentage of visible minorities in the sample reflected that of the older adult population in Canada and the one participant who was a visible minority shared the views of the majority. However, older adults are not a homogenous group and future research should consider how visible minorities, immigrants, the physically impaired, those with low SES or education level, and those of advanced age may offer different perspectives on physical activity. As I was seeking the perspectives of highly active older adults, it is not surprising that my sample contained fewer people who fit the characteristics of those less likely to be physically active. Due to the exploratory nature of the study and the more limited scope of a graduate thesis, a broad sample was deemed less important than illuminating the views of a distinct group of older adults; those on the higher end of the physical activity spectrum. However, in a larger scale study, inactive older adults and those without a positive outlook could be included as participants.

Validity

Although interpretations and conclusions were sent to participants to help ensure construct validity (whether constructs actually occurred or were created by the researcher) and face validity (did the theory make sense to participants?), only two of the thirteen participants provided feedback. Both participants agreed with my interpretations and did not ask to add anything. One participant said she felt "proud to have been part of [the] study", that I had "follow[ed] up thoroughly and appreciatively" and requested to share the synthesis with her exercise class instructor. The lack of feedback from the

remaining eleven may indicate that themes that emerged from the data were representative of their experiences as well but I cannot be sure. Perhaps participants did not agree with my interpretations but refrained from providing feedback. As most of the participants led very busy lives at the time of the interview, another possibility is that they just did not have time to respond. As such, the validity check did not work as well as I had hoped. However, the use of participants' actual words adds transparency. During their interviews, several participants expressed interest in what the other participants said and felt that research that could help people become or stay physically active was needed and valuable.

Study Implications

The current study has practical implications for promotional strategies for physical activity in older adulthood and results support a growing research area in optimism and physical activity. The results demonstrated that positive outlook, with its inter-connected components, is largely responsible for older adults' physical activity. Positive outlook, good health and resistance to aging stereotypes are aspects that promotional strategies for physical activity should focus on. Social cognitive domains, including self-efficacy and positive beliefs about physical activity and aging, impact physical activity and should be considered in promotional strategies. Physical activity must be regarded as important. Thus, the many physical, mental and social benefits of physical activity and the negatives of inactivity require emphasis. Self-efficacy for physical activity must be fostered through mastery experiences accumulated throughout the lifespan. Perceived improvements due to physical activity act as reinforcement (Michaels Miller & Iris, 2002) and should be noted and accentuated. A supportive

environment will aid the development of self-efficacy. Several participants described the ideal environment as one in which people of all ages, shapes and sizes exercise together and encourage each other.

The results indicated that positive outlook and physical activity mediated the impact of aging stereotypes. As such, realistic expectations of aging (Ory, 2003), positive images of aging, including active seniors, and factual information about physical activity should be used to combat negative aging stereotypes and get people moving. O'Brien Cousins (2003) found that inactive older adults had more negative than positive thoughts about physical activity. Beliefs about what constitutes physical activity must be expanded and the different types of exercise (e.g., endurance, flexibility, strength and balance training) with their different benefits should be pointed out. In addition to leisure activities, productive physical activities, such as walking to the grocery store or doing yard work, should be promoted (Witcher et al., 2007). People should be encouraged to participate in activities that they enjoy and, when starting a new activity, give themselves time to gain enough proficiency at the activity to make it enjoyable. The needs of the individual must be taken into consideration when determining the appropriate type and amount of activity for someone. Multiple factors (e.g., experience with physical activity, fitness level), and not just age, should be considered. Activities should be challenging enough to be motivating and enjoyable but what is challenging or motivating to one person may not be so for another.

In addition, the timing of promotional initiatives should also be considered. Initiatives aimed at younger adults will increase the likelihood that people will reap as many benefits as possible from their physical activity and develop a habit of physical

activity. Initiatives should also target possible risk periods for inactivity in one's life and populations at higher risk for inactivity and offer practical suggestions for overcoming barriers. Potential areas for future research include identifying the risk periods for inactivity and determining how self-efficacy and perceived health can be improved. The use of negative aging stereotypes as motivation for physical activity may be another area for potential research.

The aim of the current study was to contribute the knowledge base regarding physical activity for older adults. The importance of positive outlook and good health for physical activity was evident. Physical activity can be much more than a means to maintain a healthy body. Vital to mental and social well-being and positive outlook, it can empower the older adult to overcome the many barriers that arise as one ages in a culture that values youthfulness.

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Appendix A

Letter of Information

LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH

Leading a Physically Active Lifestyle in Older Adulthood: The Impact of Aging Stereotypes

You are asked to participate in a research study conducted by Megan Wing, who is a graduate student from the Applied Social Psychology Department at the University of Windsor. The results of this research will be used for Megan's M.A. thesis under the supervision of Dr. Kathryn Lafreniere of the Psychology Department

If you have any questions or concerns about the research, please contact Megan Wing at (519) 982-6475; e-mail: wingl@uwindsor.ca or Dr. Kathryn Lafreniere at (519) 253-3000, ext. 2233; e-mail: lafrenl@uwindsor.ca

PURPOSE OF THE STUDY

The purpose of this research is to examine the role of physical activity in the lives of older adults and the effect of aging stereotypes. Megan's background in sport stimulated her interest in this topic.

PROCEDURES

If you volunteer to participate in this study, you will be asked to do the following things:

- Answer a demographic question form.
- Be interviewed to find out about your experiences in relation to physical activity and aging stereotypes.
- Complete a questionnaire about your physical activity.

Participation will take approximately 2 hours of your time.

Once the interview data has been analyzed, you will be contacted by the researcher and given a summary of conclusions and interpretations, with anonymous quotations as

examples, to review. You will be asked to check that your experiences have been captured accurately and given the opportunity to add to or remove any of your passages.

POTENTIAL RISKS AND DISCOMFORTS

There are no serious expected risks associated with participating in this study, although you will be asked some questions of a personal nature. If you have any questions about this study, you are free to ask at any time.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

You will be able to share your experiences about the experience of aging and being physically active. You will receive a health and physical activity information package.

PAYMENT FOR PARTICIPATION

You will be given a gift card worth $15.00 for participating in this study.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

With your permission, the interview will be audio-taped and transcribed to assist with data analysis afterwards. Upon successful defence of the thesis, tapes will be erased. You will be asked to pick a false name or pseudonym in order to protect your identity. You will be identified with only the pseudonym and all information that might identify you directly will be removed from the transcript. These steps will help ensure your confidentiality.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. If you chose to, you may check over your transcript to add or remove passages.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE PARTICIPANTS

Upon completion of the research project, you will receive a summary of the research findings. The summary will be available on line at www.uwindsor.ca/kathy

SUBSEQUENT USE OF DATA

This data will not be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario N9B 3P4; telephone: 519-253-3000, ext. 3916; e-mail: lbunn@uwindsor.ca.

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

______________________________ ____________________

Signature of Researcher Date

Appendix B

Demographic Information Form

Demographic Information

Name:______________________________

Place of birth:_________________________

Date of birth:________________

Language most used:___________________

Gender (M/F):_____

Ethnic background (e.g. Irish, Italian, etc.):____________

Racial background (eg. Caucasian, Asian, etc.):

____

Education:

Highest Level____________________________

Emphasis/specialty (if any)___________________

Current relationship status (please circle):

1. Single
2. Married
3. Separated/Divorced
4. Widowed
5. Common-law
6. Other, please describe______________________

Past relationship status (please circle all that apply):

1. Married
2. Separated/Divorced
3. Widowed
4. Common-law
5. Other, please describe______________________

Current residence status (e.g. private house alone or with partner, adult child, or other relative, retirement home, etc.):

____

Occupation (if any):

Current____

Past____

Socio-economic background (please circle):
1. Working class
2. Lower-Middle class
3. Middle class
4. Upper-Middle class
5. Upper class
6. Other, please describe___________________________

Total annual household income after taxes (please circle):
1. Less than $20,000
2. $20,000 - $29,999
3. $30,000 - $39,999
4. $40,000 - $49,999
5. $50,000 - $59,999
6. $60,000 - $69,999
7. $70,000 - $79,999
8. $80,000 - $89,999
9. $90,000 - $99,999
10. $100,000 or more

Health Status:

Please rate your general health (circle one)
1. Excellent
2. Very Good
3. Good
4. Fair
5. Poor

Please rate any change to your general health (circle one)
1. Much better than one year ago
2. Somewhat better than one year ago
3. The same as one year ago
4. Somewhat worse than one year ago
5. Much worse than one year ago.

Health History:

Health Problem	Treatment Sought	Status

Appendix C

Interview Protocol

Introduction to the Study:

Hello, my name is Megan and I am a student in the Applied Social Psychology programme at the University of Windsor. I am undertaking a project that will look into the area of physical activity in people around your age and I really appreciate your interest in participating. I'd like to go through the consent form, which will also outline what we will do today.

Introduction to the Interview:

I appreciate you sharing your thoughts with me today. If you are not clear about what I mean with a certain question, please ask and I will try to explain myself more clearly. If you want to add anything later on in our talk, please feel free to do so. I may look away from time to time just to make sure the recorder is still working but I will be listening to what you are sharing with me.

Most interviews take about 90 minutes, but if we go over or under that time it's fine. I would like you to continue until you feel your thoughts have been completed. Are you ready to begin?

Warm Up:

1) Could you tell me a little about yourself, such as your normal routine on most days?

2) What are some of the physical activities you usually do?

- When, where, and for how long?
- Do you do these alone or with someone else?
- How did you get involved in these activities?

- What effect does this activity have on you?
- Have you always been physically active?

3) How do you *define* physical activity?

- Have you always been physically active?
- Have there been any changes over the past 2 years in the physical activity you do?

4) Can you describe the benefits of physical activity that you have experienced?

5) What things help you stay motivated to be physically active?

- Where do you get your information about physical activity?
- Do you have any role models that you look up to for being physically active?

Main Questions:

6) Could you tell me about the *role* that physical activity has played/ plays in your life?

- How important is it to you?

7) Could you tell me about what you expect getting older is going to be like?

- And why do you expect this?
- What has contributed to your beliefs?

8) Can you describe how (if at all) your expectations about getting older have changed over the years, from the time you were a young adult?

9) Have you found differences between your experiences and your expectations about growing older?

- How do you think you developed your expectations about aging?
- What information did you use?
- When did you develop them?

10) How have any attitudes or beliefs about aging affected your life either positively or

negatively?

- Are you aware of commonly held beliefs about aging and have they affected you?
- How about the beliefs about aging held by people you know?
- How have these beliefs affected your participation in physical activity?

11) Do you think there are any beliefs or attitudes that hold back other people of your age from participating in physical activities?

12) What do you think would be the most ideal environment or situation to motivate and encourage individuals in your age group to become or stay physically active?

- What do you know about physical activities in others of your age group?

Wind down:

13) Is there is anything that you would like others to know about the experience of aging and being physical active and about how to deal with the existence of aging stereotypes in society?

Appendix D

Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

Leading a Physically Active Lifestyle in Older Adulthood: The Impact of Aging Stereotypes

You are asked to participate in a research study conducted by Megan Wing, who is a graduate student from the Applied Social Psychology Department at the University of Windsor. The results of this research will be used for Megan's M.A. thesis under the supervision of Dr. Kathryn Lafreniere of the Psychology Department

If you have any questions or concerns about the research, please contact Megan Wing at (519) 982-6475; e-mail: wing1@uwindsor.ca or Dr. Kathryn Lafreniere at (519) 253-3000, ext. 2233; e-mail: lafren1@uwindsor.ca

PURPOSE OF THE STUDY

The purpose of this research is to examine the role of physical activity in the lives of older adults and the effects of aging stereotypes. Megan's background in competitive sport stimulated her interested in this topic.

PROCEDURES

If you volunteer to participate in this study, you will be asked to do the following things:

- Answer a demographic question form.
- Be interviewed to find out about your experiences in relation to physical activity and aging stereotypes.
- Complete a questionnaire about your physical activity.

Participation will take approximately 2 hours of your time.

Once the interview data has been analyzed, you will be contacted by the researcher and given a summary of conclusions and interpretations. Your comments from the interview may be quoted and used as examples to support conclusions and interpretations but your name will not be included. You will be asked to check that your experiences have been captured accurately and given the opportunity to add to or remove any of your passages.

POTENTIAL RISKS AND DISCOMFORTS

There are no serious expected risks associated with participating in this study, although you will be asked some questions of a personal nature. If you have any questions about this study, please feel free to ask at any time.

POTENTIAL BENEFITS TO PARTICIPANT AND/OR TO SOCIETY

You will be able to share your experiences about the experience of aging and being physically active. You will receive a health and physical activity information package.

PAYMENT FOR PARTICIPATION

You will be given a gift card worth $15.00 for participating in this study.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.
With your permission, the interview will be audio-taped and transcribed to assist with data analysis afterwards. Upon successful defence of the thesis, tapes will be erased. You will be asked to pick a false name or pseudonym in order to protect your identity. You will be identified with only the pseudonym and all information that might identify you directly will be removed from the transcript. These steps will help ensure your confidentiality.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study,

you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. If you chose to, you may check over your transcript to add or remove passages.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

Upon completion of the research project, you will receive a summary of the research findings (expected completion June 2007).

This summary will also be available on line at www.uwindsor.ca/kathy

SUBSEQUENT USE OF DATA

This data will not be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario N9B 3P4; telephone: 519-253-3000, ext. 3916; e-mail: lbunn@uwindsor.ca

SIGNATURE OF RESEARCH PARTICIPANT

I understand the information provided for the study "Leading a Physically Active Lifestyle in Older Adulthood: The Impact of Aging Stereotypes" as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

____

Name of Participant

____________________________________ ____________________

Signature of Participant Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

______________________________ ____________________

Signature of Researcher Date

Appendix E

Audio Consent Form

CONSENT FOR AUDIO TAPING

Research Participant's Name:

Title of the Project: Leading a Physically Active Lifestyle in Older Adulthood: The Impact of Aging Stereotypes

I consent to the audio-taping of interviews.

I understand these are voluntary procedures and that I am free to withdraw at any time by requesting that the taping be stopped. I also understand that my name will not be revealed to anyone and that taping will be kept confidential. Tapes are filed by number only and stored in a locked cabinet.

I understand that confidentiality will be respected and the viewing of materials will be for professional use only.

______________________________ ____________________

(Signature of Research Participant) (Date)

VITA AUCTORIS

NAME: E. Megan Wing

PLACE OF BIRTH: Vancouver, BC

DATE OF BIRTH: November 1st, 1975

EDUCATION: David Thompson Secondary School, Vancouver, BC
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