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Preserving Self: Physical Activity, Resiliency, and the Frail

A Grounded Theory Study

by

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Preserving Self: Physical Activity, Resiliency, and the Frail A Grounded Theory Study" submitted by Marianne Rogerson in partial fulfilment of the requirements for the degree of Master of Science.

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Abstract

The purpose of this study was to identify the relationship between physical activity and resilience among frail community dwelling older adults. Theory development was accomplished by using grounded theory methodology. Fifteen participants from an Adult Day Support Program (ADSP) were interviewed. By asking the question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?" a theory was generated. The complex strategies used by participants to manage the aging process have been named 'preserving self'. This process is developed through the interdependent relationship between physical self and resilient self. The findings of this study contribute to the scientific community by providing a greater understanding of both importance of physical activity to functional independence and resilience among frail community-dwelling older adults.

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Dedication

To my husband Doug – thanks for the support and encouragement. Without you I would be lost.

To Janine and Daniel – you enrich my life.

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Chapter One: Introduction

Inactivity is common among all Canadians but the frail elderly represent the most sedentary segment of Canadian society (ACSM, 2000; Dishman, 2001; Grant, 2001; Health Canada, 1999; Health Canada, 2002; O'Brien Cousins, 2001). Frail individuals are defined as those who "perform light housekeeping, pass all the basic activities of daily living (BADLs) such as dressing, feeding themselves, personal hygiene, and preparing food but may have difficulty with some of the instrumental activities of daily living (IADLs) and may be homebound" (Spirduso, Francis & McRae, 2005 p. 269). The frail are of concern to fitness practitioners because our population is aging. By the year 2051 it is projected that 25.4% of Canadians will have reached the age of 65, and 20.9% of this group will be over the age of 85. Since frailty tends to increase with age, the anticipated increase in the number of older frail adults and lack of interest in physical activity among this group is of growing concern to those who plan and deliver physical activity programs (ACSM, 2000; Health Canada, 2002; Nied & Franklin, 2002).

There is ample research to support the numerous physical, psychological, and social benefits associated with moderate amounts of physical activity (Chodzko-Zajko, Shepphard, Senior, Park, Mockenhaupt, & Bazzarre, 2005). While many studies have focused on the health benefits for high functioning community living seniors, and very frail seniors living in long term care facilities, few studies have focused on physical activity from the perspective of community-dwelling frail seniors (Tudor-Locke, Myers, Jacob, Jones, Lazowski, & Ecclestone, 2000).

Eakin (2001 p. S32) suggests the list of "what we don't know and needs to be done" in the area of physical activity is long and challenging for special populations such as the frail. However locating the frail population is a complicated process (Marx, Cohen-Mansfield, & Guralnik, 2003). Many tend to be homebound, rarely leave their homes except for emergencies, and are less likely to volunteer to participate in research on physical activity (Health Canada, 2002). Tudor-Locke et al. (2000) suggest that as many as 50% of those over the age of 85 leave their homes less than once a month. Homebound seniors are more likely to live alone, have mobility limitations, and are at a high risk of falling (Tudor-Locke et al. 2000).

Since identifying the community-dwelling frail is difficult, little research exists on topics such as physical activity across the lifespan (Baumgarten, Lebel, Laprise, Leclerc, & Quinn, 2002; Reever, Mathieu, Dennis, & Gitlin, 2004; Warren, Kerr, Smith & Godkin, 2003; van Beveran, & Hetherington, 1998). In addition to a dearth of research investigating physical activity and the frail, there is also an absence of research devoted to the identification of the emotional strengths of this population (Kivnick & Murray, 2001). Most of the research on this group has concentrated on problems and losses associated with aging (Eakin, 2001; Katzmarzyk, Gledhill, & Shephard, 2000; O'Brien Cousins, 2001). Fortunately there appears to be a paradigm shift underway from a problem-oriented approach to a nurturing of strengths within the helping professions (Richardson, 2002). Researchers are becoming more interested in the positive aspects of aging, and beginning to assess and observe behaviour from a resilience perspective as an alterative paradigm to the disease model (Henry, 2001).

Research on resilience is not new, and a myriad of definitions exist for the term (Miller, 2003). However, the meaning of resilience is problematic because researchers, clinicians, and laypersons already have an inherent meaning of the word. Despite the lack of agreement on the definition of the term, the bulk of the research has focused on children and adolescents who have overcome severe life conditions, and little is known about the concept as it applies to community-dwelling frail older adults (Allen & Hurtes, 1999; Felten, 2000; Greene, 2002). Greene (2002) suggests that the lack of research on resilience and the frail is because the popular image of the frail older adult does not fit the current image of resilience.

Remaining within the community has been identified as important to older adults (Chapman, 2005). Therefore it is essential that practitioners investigate how resilience affects this choice. From the existing research it is well documented that functional independence is influenced by regular physical activity participation (Carbonnell, 2003). In the resilience research it has been shown that people who possess and develop certain traits are able to bounce back from risk and stressors (Felten, 2000). What appears to be lacking from the research is an investigation of how physical activity and resilience together influence the aging process.

The purpose of this exploratory research is to examine the relationship between physical activity and resilience among community-dwelling frail elderly who currently attend an ADSP. In addressing issues in the statement of purpose, the question in this study becomes "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?"

Chapter Two: Literature Review

This chapter presents a review of relevant research literature divided into four sections. The first section addresses the concept of resilience. The second section provides a general overview of the literature dealing with physical activity and older adults who are at least 65 years of age. The third section addresses the research pertaining specifically to physical activity and the frail. This subset of the population is treated separately to illustrate their unique needs (Happ, Williams, Strumpf, & Burger, 1996). The fourth section provides a review of adult day support programs (ADSPs). This section is included since the sample was selected from an ADSP.

Before the literature review is presented it is important to state that grounded theory methodology was selected for this study. Grounded theory is first and foremost about the data, and any literature on the topic is given secondary importance. Originally Glaser & Strauss (1967) suggested the literature review should not be conducted until after data collection. The purpose of delaying the literature review was to prevent the researcher from being influenced by existing theory. However, Strauss & Corbin (1990, 1998) recognized that literature could usefully be reviewed prior to data collection. In accordance with grounded theory as described by Strauss & Corbin (1990 p. 50), the purpose of the literature review is to provide background information rather than to "start with 'received' theories or variables because these are likely to impede or inhibit the development of new theoretical foundations." A second and third literature review will be provided in subsequent chapters.

Resilience

Richardson (2002 p. 308) states "Resilience emerged through the phenomenological identification of characteristics of survivors, mostly young people living in high risk situations." Richardson (2002) identified three waves of resilience inquiry. The first wave, resilient qualities, attempts to identify what characteristics mark those who will thrive in the face of risk or adversity. The second wave, the resilience process, is the process of coping with change in such a way that the person identifies, and builds protective factors. The third wave, innate resilience, is described as the identification of motivational forces within individuals and groups and the creation of experiences that foster the activation and utilization of the forces. The author suggests that disciplines such as philosophy, physics, psychology, Eastern medicine, and neuroscience lend insights into the nature of resilience.

Barnes (1999 p. 146) suggests that resilience is an abstract concept that is fluid and multifaceted, and states, "the goal in resilience research is not to develop a list of static risk and protective factors but to look at how experiences are mediated by context and developmental level. The focus shifts from individual traits to interactional processes that must be understood in ecological and developmental context."

The concept of resilience has received considerable attention over the past few years, and currently there is a myriad of definitions for this multidimensional concept with little consensus about the definition (Cohen, Slonim, Finzi, & Leichtentritt, 2002; Luthar, Cicchetti, & Becker, 2000). Some of the more common definitions of resilience:

- "The (or an) act of rebounding or springing back; rebound." "Historically resilience was a term used to describe a pliant or elastic quality of a substance or organ." Oxford Dictionary (1933 p. 1059)
- "Resourceful adaptation to changing circumstances and environmental contingencies" (Block & Block, 1980 p. 48)
- "Capacity for recovery and maintained adaptive behavior that may follow initial retreat or incapacity upon initiating a stressful event" (Garmazy, 1991 p. 459)
- "The human capacity to face, overcome, and be strengthened by experiences of adversity" (Grotberg, 1996)
- "Resilience is a global term describing a process whereby people bounce back from adversity and go on with their lives" (Dyer & McGuinness, 1996 p. 277)
- "Ability to spring back after adversity, comparing notions of resilience as a trait to that of resilience as a process" (Jacelon, 1997 p. 105)
- "The ability to transform disaster into a growth experience and move forward" (Polk, 1997 p.1)
- "Searching for meaning in therapy and coping" (Miller, 2003 p. 241)

Just as there are many definitions of resilience, numerous ways of researching this topic have developed (Langer, 2004). Health Canada, in a series of web publications, identified resilience as it relates to health promotion. Health Canada suggests that commonalities appear in the many definitions of resilience. These include competence and coping in the face of significant adversity and risk, development and growth over time, the match between characteristics of the individual or groups of individuals (families, communities), the role of protective factors within the individual or group and the impact of social, economic, political and cultural factors on the resilience of individuals or groups. These theoretical issues in the definition of resilience can be collapsed into human systems, optimum health and functioning, risk, protective factors, and time (http://www.hc-sc.gc.ca/ahc-asc/pubs/drugs-drogues/resiliency/implication-promotion_e.html Retrieved from the World Wide Web March, 2005).

Siebert suggests that everyone is born with the potential to develop five levels of resilience:

- Maintaining your emotional stability, health and well-being
- Focus outward: good problem solving skills
- Focus inward: strong inner "selves"
- Well-developed resilience skills
- The talent for inventiveness

The first level is essential to sustaining your health and your energy. The second level focuses on the challenges that must be handled. It is based on research findings that problem-focused coping leads to resilience better than emotion-focused coping. The third level focuses inward on the roots of resilience—strong self esteem, self-confidence, and a positive self-concept. The fourth level covers the attributes and skills found in highly resilient people. The fifth level describes what is possible at the highest level of resilience (http://www.resiliencycenter.com/articles/5levels.html retrieved from World Wide Web September 09, 2005).

Early researchers concentrated on the identification of the traits of resilience. The bulk of the research has examined childhood resilience (Howard & Johnson (2000). Wolin & Wolin (1993) include the characteristics of insight, independence, creativity, humour, initiative, relationships, and values orientation. Mrazed & Mrazek, (1987) include maturity, information seeking, positive anticipation, healthy relationships, decisive risk-taking, conviction of being loved, altruism, and optimism/hope. Rak & Patterson, (1996) identified problem solving skills, optimism, ability to gain positive attention, autonomy perception of life as meaningful, proactively, and interest in novel experiences.

Fine (1991) suggests that resilience occurs in all walks of life. Only recently has research on resilience attempted to understand this subject within the elderly. Walter-Ginzburg, Shmotkin, Blumstein, & Shorek, (2005) examined gender differences, and similarities in health among elderly Israelis. Their findings suggest that men and women are resilient. However; there were gender differences in physical activity participation levels. Physical activity, religion and improvements of activities of daily living factored in mortality rates.

Nakashma & Canda, (2005) examined resilience factors and processes among terminally ill older adults. Older adults tapped into their existing inner and external strengths, beliefs, practices, interpersonal skills, and relationships with family and friends to assist them with the last stage of life. Adults identified their inner strengths through their storytelling of past resilience. Many individuals report growing positively from negative experiences (Tebes, Irish, Vasquez, & Perkins, 2004). Developing an understanding of the positive potential at the end of life is essential for end-of-life care.

Recreation has the potential to influence resilience (Cooper, Estes, & Lawrence, 2004; Allen & Hurtes, 1999; Martinek & Hellison, 1997). Sherrill (2004) suggests that the professions of physical education and recreation are interrelated. Both professions are guided by the belief that physical activity should be fun, enjoyable and satisfying. Both professionals can be used as a vehicle to enhance resilience.

Werner & Smith (1983) add an additional dimension to resilience research through their longitudinal study of children born to 'at risk' parents in Kauai in 1955. As the study participants enter their fifties (Werner & Smith, 2001) there is an increased

understanding of resilience over the life span. One of the major objectives of the midlife study is to identify how protective factors linked across time provide the participants with an escape from the difficulties they had encountered as children and young adults. To date identified protective factors include mother's caregiving competence, child's autonomy, social maturity, scholastic competence, self efficacy, and emotional support from members of the extended family and friends.

Research on resilience is slowly expanding to include middle age populations. Leipert & Reutter (2005), researched Canadian women living in British Columbia's north. Participants ranged in age from early 20's to late 50's. This study examined the needs of women living in remote northern communities. This is one of the first attempts to study how northern living affects women's health.

Greene (2002) suggests that the concept of resilience has gained increased attention but does not fit the popular image of the frail older adult. Since there has been little research that links resilience and old age, there is little known about whether resilience continues into old age. Bonano (2004 p.20) "suggests there are multiple pathways to resilience and that resilience is more common than is often believed."

Physical Activity and the Older Adult

Persons over the age of 65 generally have a positive attitude toward physical activity; however, 50% of older persons who are not physically active have no intention of starting an activity program (ACSM 2000; Conn, Tripp-Reimer, & Maas, 2003; Dishman, 1994; Dishman, 2001; Gillis, Grossman, McLellan, King, & Stewart, 2002; Health Canada, 2002; Jones & Jones, 1997; Seefeldt, Malina, &Clark, 2002). This has

left researchers and practitioners alike asking questions such as "If older adults know that physical activity is beneficial, why are participation rates so low? What are the barriers that prevent or inhibit physical activity participation (Bocksnick & Hall, 2001; Dishman, 2001; Grant, 2001; Tudor-Locke et al. 2000)?"

Efforts to understand why some older adults are, or are not, physically active have resulted in the identification of a number of barriers. Capturing the physical activity interests of older adults is a complicated process since older adults represent cohorts with great diversity (Health Canada, 2002). Spirduso et al. (2005) suggests that practitioners may be more effective in the identification of barriers if they develop programs that use a functional classification system:

- Physically elite. This group competes in sporting events, high-risk, and power sports.
- Physically fit. Individuals in this category perform endurance sports, games, and moderate physical work. The group exercises regularly but do so primary for personal health reasons.
- Physically independent. The person in this group performs light physical work, shops, enjoy hobbies such as gardening, walking, golf, social dance; and can pass instrumental activities of daily living (IADL). This person tends to refrain from regular exercise.
- Physically frail. This group performs light housekeeping, passes all the basic activities of daily living (BADL) such as dressing, feeding themselves, personal hygiene and preparing food but may have difficulty with some of the IADLs, and may be homebound.
- Physically dependent. This group cannot pass some or any of the BADLs. (p.264).

Barriers

Health Canada (2002) has identified societal cohort norms to be a major factor affecting physical activity participation among Canada's older population determining what types of activities are considered appropriate. For example, while it has been shown

that activities such as gymnastics are safe for many older adults, the belief that this activity is reserved for the young prevents many older adults from participating in the activity. Also, Health Canada (2002) identified that the phrase "no pain, no gain" is permanently etched into the minds of all Canadians but many older adults do not understand that physiological benefits can be achieved by moderate levels of activity. Confusion over activity type, intensity, and duration has misled many seniors into believing they are already active, and do not require any additional physical activity interventions.

Booth, Bauman, & Owen (2002) reported six prominent barriers in their sample of 402 older adults. Participants believed they were already active enough and consequently felt that additional physical activity was not necessary. A number of seniors believed their injury or disability prevented them from participating in physical activity despite the evidence to support the contrary. Poor health, feeling too old, and believing they did not have enough time to exercise, were the remaining major barriers to physical activity participation.

Lees, Clark, Nigg, & Newman (2005) designed focus groups to identify barriers to exercise behavior among 57 older adults. In total the researchers conducted six focus group interviews. Three of the group interviews were comprised of exercisers and three with non-exercisers. Their findings suggest that a lack of time to exercise, physical ailments such as feeling faint, and the inability to change from a sedentary to active lifestyle were the most significant barriers.

Community programs play an important role in physical activity options for older adults. It appears that the majority of community programs tend to be organized to adequately meet the needs of the physically elite, physically fit, and physically independent (Johnson, Shanthi, Myers, Scholey, Cyarto, & Ecclestone, 2003; Tudor-Lock et al. 2000). These groups tend to be healthier, younger, have greater access to services such as transportation, and consequently more physical activity options than older adults with health and mobility problems. While there are few community classes designed for the physically dependent, this group usually resides in long term care facilities where physical activity programming is becoming increasingly common (Johnson et al. 2003; Spence & Poon, 2000; Spence & Weiss, 2001). The physically frail appear to have the fewest community physical activity programming options (Johnson et al. 2003; Worm, Vad, Puggaard, Stovring, Lauritsen, & Kragstrup, 2001).

Class format is an influential factor in physical activity choice. The majority of senior centres offer class based exercises as the only format choice (Mills, Stewart, Sepsis, & King, 1997). This format is not enjoyable to some older adults, and those who preferred to exercise on their own were less likely to join a class (Cress et al. 2005; Eakin, 2001; Mills, Stewart, Sepsis, & King, 1997).

Interventions

Appropriate interventions must follow the identification of significant barriers at both the population and individual level if physical activity participation rates are to increase (Conn, Isaramalai, Bans-Wallace, Ulbrich, & Cochran, 2003). Health Canada (2002) provides a number of suggestions designed for fitness practitioners (FPs):

- FPs need to respond to the diverse nature and needs of a given older adult population and recognize the uniqueness of the individual
- Older adults represent a diverse group spanning some four decades. Therefore FPs need to provide various types of approaches to program design and development
- Many seniors share barriers such as inadequate transportation but many barriers are unique to the individual. FPs must determine what is a common barrier of all older adults but also what barrier is unique for the individual
- FPs must share program information and critically evaluate past and current interventions to identify what works.
- Older adults must be included in the development and implementation of programs if FPs want to design and provide enjoyable and sustainable programs

Health Canada provides numerous free publications for older Canadians. The most popular publication that addresses the issue of physical activity among the elderly is called *Physical activity guide for older adults* (1999). This publication provides numerous suggestions to assist older adults to begin or maintain a physically active life style as well as addresses many of the misconceptions about the dangers of physical activity.

Cohen-Mansfield, Marx, & Guralnik (2003) identified several motivators for exercise among a sample of people age 74-85. Of the sample, 32% identified feeling better/improved health, 14% suggested someone to exercise with, 12% preferred an organized program, 9% expressed more time, 7% did not know, 5% identified good weather and 24% had other reasons. Based on the findings, Cohen-Mansfield et al. (2003) suggest that an array of interventions is required. Practitioners need to individualize approaches to first identify the barriers that are unique to the individual and then design the intervention that addresses the barriers.

Kolt, Driver, & Giles (2004) studied 815 Australian men and women between 55 and 93 years to determine why older Australians participate in sport and exercise. The findings suggest that the most highly reported motives for participation were to keep healthy, liking the activity, to improve fitness, and to maintain joint mobility. Differences for participation in exercise and sport were based on gender, education level, and occupation. The gender gap in physical activity participation is due to factors such as differences in educational and socioeconomic status. Men typically achieve higher educational levels than women and subsequently hold more professional occupations. Higher education and professional occupations are predictors of greater physical activity participation rates. Women's lower educational levels and lower socioeconomic status contributes to less physical activity participation.

Morey, Dubbert, Doyle, MacAller, & Crowley, (2003) examined predictors, and patterns of adherence to a six month home based exercise program among 112 sedentary adults aged 65-90. Adherence to an exercise program is an important issue as individuals move from a supervised to a non-supervised setting. Since many older adults stop physical activity participation once the intervention is completed, an understanding of adherence factors is critical (Dishman, Washburn, & Shoeller, 2002). Morey et al. (2003) concluded that participants who started with a high level of participation showed consistent participation over the course of the program. Adherence or non-adherence to an exercise program is established early in the intervention process.

O'Brien Cousins (1997) reported that personal estimates of women's ability to exercise in late life are based on self-evaluations of wellness, current age, as well as

former competencies gained during girlhood. Elderly womens perceptions about physical and psychological well being were the most important explanations for expectations about their ability to undertake fitness exercise in late life. Confidence in their movements as children was also a strong and independent predictor of self-efficacy variance. Older women judge their efficacy for exercise based on their understanding of their ability as defined by perceived health, chronological age, and previous skills.

O'Brien Cousins (2001) interviewed 32 older women classified as active, semi active or inactive. The results suggest that among active women, activity was triggered by situations such as declining fitness levels, low bone density, more free time, and fears of inadequate health care. Semi active women had doubts about the appropriateness of being active. Inactive women experienced triggers but seemed firmly committed to a less active lifestyle by reminding themselves that retirement requires no commitments, that exercise is not needed if you are healthy, that exercise is not appropriate if you are not feeling well, and that being very busy is a substitute activity and serving others is less selfish.

Resnick (2000) explored six factors that influence adherence to an exercise program: beliefs about exercise, benefits of exercise, past experiences with exercise, goals, personality, and unpleasant sensations associated with exercise. Adherence is a complicated process. Participants, who adhered to a walking program, believed in their ability to perform the task, recognized the benefits of the program, enjoyed the activity, and articulated an inner motivation to perform the activities.

Increasingly primary care physicians are encouraged to take an active role in prescribing exercise for their elderly clients (Eakin, Glasgow, & Riley, 2000; Chakravarthy, Joyner, & Booth, 2002). Eakin et al. (2000) summarized the literature dealing with the delivery of an exercise prescription and found poor compliance by physicians. Physicians cite being too busy, not understanding the appropriate prescription, and failure to be reimbursed as primary reasons for non-compliance. Nied & Franklin (2002) suggest that physicians play a key role in motivating older patients, and advising them regarding their physical limitations and/or co-morbidities. The researchers suggest that physicians should begin this process by focusing on individual patient goals, concerns, and barriers to exercise.

The identification of interventions is complicated by the complexity of the older adult population. Although great strides have been made in the identification of interventions, low participation rates indicate that much needs to be done to completely understand the reasons for physical activity participation among this population (Dishman, 2001; Health Canada, 2002).

Physical Activity and the Frail

Identification of the frail older adult is complicated by the social construction of frailty (Kaufman, 1994; Stephenson, Wolfe, Coughlan, & Koehn, 1999;Wilson, 2004). In western society, frailty is linked to the concept of independence (Stephenson et al. 1999). Secker, Hill, Villeneau, & Parkman (2003 p.3375) suggest the concept is equated with a "lack of reliance on others but for older people the concept has a broader meaning that

includes the capacity for self-direction, not being indebted to others and being able to look after oneself."

Selecting assessment tools for the frail must include overall function, degree of fragility, risk, and endurance (Carr, Emes & Rogerson, 2003; Chin A Paw, Dekker, Feskens, Schouten, & Kromhout, 1999; Farrell, 2004). Spirduso et al. (2005 p. 269, 270) suggests that frailty should be examined from the perspective of functional ability:

> Frailty is a condition or syndrome that results from a multi-system reduction in reserve capacity to the extent that a number of physiological systems are close to, or past, the threshold of symptomatic clinical failure. As a consequence, the frail person is at increased risk of disability and death from minor external stressors. (p. 269)
>
> The four basic components of frailty are: musculoskeletal functions, aerobic capacity, cognitive and integrative neurological function and nutritional reserve. (p. 270)
>
> The physically frail elderly can perform the activities of daily living but have debilitating disease or condition that physically challenges them on a daily basis. They may be unable to execute a few of the instrumental activities of daily living such as shopping, laundering and mopping but with some assistance, either human or technological, they can live independently. Many are largely homebound; that is meals are brought to them by volunteers or city services groups, and their homes may be periodically cleaned by others. Elderly persons in the physically frail category walk a fine line between independent and dependent living, and in many cases their level of physical function is the ultimate determiner of their lifestyle. (p. 270)

Eakin (2001) suggests a need for an increase in research to identify physical activity interventions that would be effective for special populations such as the frail elderly. Tailoring research is important for the following reasons. First, frail older adults frequently have one or more chronic diseases. They are more likely to have lived with the disease for a number of years; consequently the condition is often in an advanced state. Second, the majority of the frail are women over the age of 85. This group is extremely

sedentary. Finally, physical activity studies tend to recruit healthier younger seniors. In many cases it is not possible to generalize results from a younger healthier group to a group of frail older adults (Best-Martini & Botenhagen-Digenova, 2003; Eakin, 2000; Chin A Paw, de Jong, Stevens, Bult, & Schouten, 2001).

Chin A. Paw et al. (2001) developed a 17 week program to improve mobility and performance among frail community dwelling adults since frail older adults are more likely to experience mobility limitations. The program was conducted in senior centres and a seniors housing complex. The researchers found it time consuming to find participants. Despite the challenges involved in recruitment, the researchers encourage perseverance in including frail because this group is less likely to volunteer as research subjects.

Worm et al. (2001) examined the effects of a multi-component exercise program on basic daily functions and muscle strength in community-dwelling frail older people. This randomized, controlled study showed a significant improvement in balance, muscle strength, walking function, and self assessed functional ability on frail community dwelling older adults compared with the control group.

Guralnik, Leveille, Volpato, Marx, & Cohen-Mansfield, (2003) targeted the non-disabled but at-risk older adult. The research team acknowledged participants often self-select to engage in a study. This self-selection process tends to draw participants who have higher levels of motivation and have access to services such as transportation. To correct this problem, Guralnik et al. (2003) performed a trial in which the exercise intervention was randomly assigned. The research team thus proposed to identify the

population at risk and select appropriate participants rather than have the participants self-select. They conclude that there are many benefits for at-risk older adults but social and psychological factors have a large impact on adherence.

Johnson et al. (2003) conducted one of the few Canadian studies for home-based community-dwelling frail individuals. Ontario Home Support Workers were trained in an exercise protocol and in turn instructed select clients to perform ten simple progressive exercises every week for a period of four months. Clients who participated in the program over the four month period showed significant improvements on the timed up-and-go test, sit- to-stand test, 6 minute walk, as well as in balance, confidence, and well-being.

Adult Day Programs and Participants

Currently there is a lack of standardization of social programs at either the provincial or federal level. Consequently, activities are determined by program administrative staff (Costanza, Rustico, & Pescatello, 2002). van Beveren & Hetherington (1995) suggest that professionals require practical information on development, implementation, and measurement of program activities because program participants are not homogeneous. Professionals require information in order to identify and address the needs of this special population.

Increasingly the community dwelling frail, who in the past might have resided within long term care, are remaining within the community. Terms such as 'aging in place', 'healthy aging' and 'successful aging' are increasingly common in the older adult research literature (Chodzko-Zajko, 2000). While each term has a slightly different

definition, there is agreement that the terms are multidimensional, and encompass physical, functional, psychological, and social health (Inui, 2003; Phelan, Anderson, LaCroix & Larson, 2004; Ritchie, 2003).

'Aging in place' refers to one's ability to stay living independently in one's home. To ensure that Albertans are healthy and independent as they age, the government has developed a nine point action plan that includes: healthy aging, continuing care services, coordinated access, supportive housing, home care and community care, regeneration of long-term care facilities, planning to meet the needs of special populations, comprehensive care for those with complex and multiple needs and an provision for an adequate number of skilled health care workers (Alberta Health & Wellness, 2000 p. 2). While the trend toward aging in place has been applauded by many, quality of life for older frail adults is dependent on a supply of community services (Health Canada, 2002). For some frail individuals, long term care is the most appropriate placement (Pruncho, & Rose, 2002). However other older adults would prefer to avoid long term care placement.

One program designed to provide community support for older frail adults is the adult day support program (ADSP). The primary goal of ADSPs is to "involve aiding social and physical functioning, providing respite for families and helping people remain living in their own homes in the community" (Weeks, 1998 p. 3). ADSPs have been in existence in Canada since 1959 when the first known Canadian program opened its doors in Toronto, Ontario (Weeks, 1998). However, the first program in Alberta did not begin operation until 1973 (Warren et al. 2003). Although the number of ADSPs has increased in the past two decades (Ritchie 2003; van Beveran & Hetherington, 1995, 1998), the

total numbers are low and the majority operate on a relatively small scale (Warren et al. 2003).

ADSPs are categorized as medical or social in nature. Both types of programs provide supervised and structured activities (Zarit, Gaugler, & Jarrott, 1999). Programs with a medical focus are patterned after an acute care hospital model, and offer a variety of health care services such as physiotherapy, occupational, and rehabilitation therapy. Clients typically stay for short periods of time, and discharge is dependent on the medical condition (Warren et al. 2003).

Social programs are more likely to emphasize entertainment, and recreation activities. A typical day in a social program includes current events discussion groups, crafts, games, physical activity, and lunch. Clients who attend social programs tend to stay for longer periods of time. It is common for participants to attend for a number of years. Most clients attend one or two days per week, and usually do not leave a program unless their health deteriorates or they move into long term care (Leitsch, Zarit, Townsend, & Greene, 2001; Lachs, & Boyer, 2001). The typical ADSP participant is female, lives in her own home, is married or widowed, is in her 70's, has some post-secondary training and attends an average of 1.7 days per week (Weeks, 1998). Across Canada gender varies by province but females represent over 50% of ADP participants in all provinces.

Research on ADSPs is limited (Dabelko, 2004). van Beveren & Hetherington, (1998) suggest that existing studies have been evaluative in make-up with less focus on descriptive and conceptual information (van Beveren & Hethington, 1998). Since one of

the goals of ADSPs is to provide respite for families, a number of studies are devoted to this topic (Baumgarten et al. 2002; Gaugler, Jarrott, Zarit, Stephens, Townsend, & Green, 2003; Reever et al. 2004; Warren et al. 2003; Zarit et al. 1999).

Gaugler et al. (2003) interviewed caregivers to determine if service subscribers would report reduced exhaustion, fatigue, feeling trapped and psychological distress such as depression or anger. Their findings suggest that caregivers who took advantage of the programs reported a reduction in emotional and psychological distress.

Warren et al. (2003) interviewed caregivers from 14 different ADSPs in Alberta. Their research suggests that adult day programs may help caregivers to continue in the caregiving role thus enabling the adult day program client to remain within the community.

Zarit et al. (1999) found that in order to relieve caregiver stress, the program needs to provide services that adequately meet the needs of the caregivers. Many caregivers used ADSPs as a transition to placement in long-term care for their loved ones. Many caregivers, who could benefit from the services, did not take advantage of the programs because they did not know of the programs existence, or felt the program, would be more disruptive than helpful. Caregivers who took advantage of the programs for extended length of time reported positive outcomes.

To date a small number of studies have dealt with the effect of the program on the participant. Ritchie (2003) interviewed rural British Columbia ADSP participants. Participants believed that successful programs address culturally sensitive issues, acknowledge the independence of the spirit, provide holistic assessment of the person

that identify the individual's strengths and recognize the self-sufficient orientation of the older person. Participants felt that ADSPs also served a political purpose and provided a venue for their voices to be heard.

The four areas reported in this literature review include resilience, physical activity and the older adults, physical activity and the frail and adult day programs and participants. To date the resilience literature has focused primarily on the needs of children and adolescents, and the subject of resilience among the frail is poorly understood. The subject of physical activity and older adults is well researched but physical activity participation levels remain low. Physical activity and the frail is an area of study that is less well developed than physical activity among healthier seniors. Finally adult day support program research lacks research into the physical activity needs among its participants. At this time it appears that the research literature poorly explores the relationship between physical activity and resilience among community dwelling frail. Therefore this study attempts to answer the question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?"

Chapter Three: Method of Inquiry

In order to answer the question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?" a qualitative methodology was chosen. This study begins with an overview of grounded theory, continues with rationale for using grounded theory, description of grounded theory method and concludes with a description of the application of grounded theory to this study.

Overview of Grounded Theory

The grounded theory method developed in 1967 by Barney Glaser and Anselm Strauss rests on the foundation of symbolic interactionism. The creation of this method was inspired by a sense that the established methods of the time were failing to fit the situations being researched. Glaser & Strauss (1967 p. 4) believed that grounded theory could help to forestall the "opportunistic use of theories that have dubious fit and working capacity". The deficiencies in existing methods motivated a 'bottom-up' approach that represented an alternative to the positivistic approach. Instead of beginning the research with a theory in mind, Glaser & Strauss (1967) advocated an approach where the developing theory should be 'grounded' in social reality through the words and actions of the participants.

Grounded theory is a qualitative approach. Mason (2004 p.3) defines qualitative research as engaging, and with massive potential but not without its challenges. "Qualitative research is difficult to define but attempts to find some common elements, and suggests that qualitative research is grounded in a philosophical position which is

broadly interpretive, based on methods of data generation that are flexible and sensitive to social issues, and based on analysis, explanation, and argument building which involves understanding of complexity, detail and context." The fact that qualitative research "cannot be 'pigeon-holed' and reduced to a simple and prescriptive set of principles" becomes both its greatest asset and its greatest source of criticism (Mason, 2004, p. 3). Qualitative research was selected for this project because of the broad nature of the research question. A general question is enriched if the researcher has the opportunity to observe people in their natural environment, and to follow up on interesting data.

By his own admission, Glaser (1995) suggests that grounded theory has made little inroad into many academic fields beyond the social sciences, and refers to grounded theory as a 'minus-mentoring' methodology. A minus-mentoring methodology has few teachers trained in grounded theory, and researchers often have not been fortunate to have the 'mentoring experience', therefore must learn grounded theory from his books. This has resulted in some problems. In an analysis of grounded theory studies, Becker (1993) suggests that many studies that have labelled themselves to be grounded theory studies have in fact been descriptive in nature and failed to develop theory. Glaser (1995) also has identified numerous researchers who have modified grounded theory and failed to remain true to the original methodology. By adhering to Glaser's (1995) approach to grounded theory a researcher is less likely to limit a study at the descriptive stage and more likely to elevate the research to the level of theory.

Glaser (1995) reassures us that grounded theory is a simple method, and encourages the researcher to persevere with the method. He suggests that this method is capable of making a worthwhile contribution to the research community and states "grounded theory stands on its own as a method which yields a full range of techniques from entering the field, data collection to the final writing stage (1995, p. 4).

In addition to the guidance provided by Glaser & Strauss (1967), this researcher also relied on more recent thinking by Strauss & Corbin (1990, 1998), and Charmaz (2006) to assist with coding procedures such as open coding, focused coding, and memos. The additional resources provided useful, practical tools that assisted the researcher in organizing, and analyzing data since it identified some common misunderstandings about grounded theory, and provided additional explanations of the guidelines.

It should be noted that there are differences between the original method proposed by Glaser and Strauss (1967), and the work developed by Strauss & Corbin (1990, 1998), and Charmaz (2006). Strauss & Corbin (1990) moved the method toward verification and the use of technical procedures. Despite Glaser's objections to the changes, Strauss & Corbin (1990, 1998) successfully advanced the use of grounded theory among graduate students. Charmaz (2006 p. xii) attempts to "offer a set of guidelines for constructing grounded theory, correct some common misunderstandings about grounded theory, point out different versions of the method, provide sufficient explanation for budding scholars, inspire beginning and seasoned researchers to embark on grounded theory studies." Charmaz (2006) was selected as the primary source for guiding this study.

Rationale for Using Grounded Theory

Grounded theory has been found to be useful despite different underlying principles between Glaser & Strauss (1967), Strauss & Corbin (1990, 1998), and Charmaz (2006). Grounded theory has permeated certain fields such as the health sciences. Its strength lies in its ability to get "beyond 'conjecture and preconception' to the underlying processes of what is going on in substantive areas" (Glaser, 1995 p. 4). Each researcher must decide which method most appropriately guides the research question at hand (Greckhamer & Koro-Ljungberg, 2005). While researchers such as Alvesson & Skoldberg (2000) have not appraised grounded theory positively, researchers such as Stebbins (2001) have found grounded theory to be an acceptable choice for exploratory research.

Hammersley (1989) suggests that grounded theory has the tendency to develop the same theories over and over based on the directive of Glaser & Strauss (1967) to avoid the literature review prior to commencement of the research. This criticism was avoided by this researcher since a comprehensive literature review was conducted prior to the collection of data.

Grounded theory was selected for this study for five reasons. First, the frail elderly have received little attention, especially the frail who participate in ADSPs, therefore a qualitative approach was selected to generate as many new ideas as possible (Stebbins, 2001; Glaser & Strauss, 1967). Second, exploratory research allowed the researcher to make generalizations that lead to a detailed understanding of subjects such as physical activity and resilience among community dwelling frail older adults

(Stebbins, 2001). Third, the philosophy of grounded theory appealed to the researcher. While many theories deliberately attempt to position themselves out of the reach of emerging researchers, Glaser & Strauss (1967 p.11) make a point of putting the novice at ease by stating "it does not take a genius to generate a useful grounded theory." Thus the researcher begins to believe in her ability to contribute to the scientific community in a meaningful and innovative way. An uncritical reliance on pre-existing research instruments could prevent the examination of an issue from a new direction. Fourth, it was important to this researcher to know that the knowledge produced would be useful to those who participated in the study. From the researcher's work as a fitness practitioner in the ADSP the researcher was aware of the many 'voices' that intentionally or unintentionally silenced the frail. Children speak for their parents, doctors speak for their patients, and administrators speak for their clients but rarely are the frail permitted to speak freely about their important issues. Since the purpose of grounded theory is to develop theory generated from the data, it provides an opportunity for voices to be heard. The researcher's vision for this project was to provide the participants with an opportunity to express what they thought in their own words, an opportunity for them to identify their relevant issues, and an opportunity to express potential solutions with the intention of changing policy. Finally, research that is carried to the level of theory has the potential to make a substantial contribution to an area of study (Stebbins, 2001). Grounded theory permitted the participants to discuss relevant issues considered most important. Hutchinson (1986 p. 129) writes "It is up to us to accept the challenge of

strange and difficult ideas and to abandon the complacency of converting all that is novel into clichés of the familiar."

Grounded Theory Method

Grounded theory has its own guidelines for sampling, data collection, data analysis, and theoretical sensitivity. Each concept will be described within this section to acquaint the reader with the process of constructing grounded theory.

Sampling

Sample selection is a fundamental component of every research project. Glaser & Strauss (1967) suggest that sampling should be aimed toward theory construction and not toward population representativeness. Sampling within the grounded theory method can be described as purposive, systematic, or serendipitous (Charmaz, 2006). Purposive sampling requires the researcher to deliberately approach participants believed to be directly related to the phenomenon in question. Systematic sampling involves listing potential participants, and then approaching them one by one to determine if they wish to participate in the study. Finally serendipitous sampling is less structured and relies on chance encounters in the research setting, or referrals (Charmaz, 2006). Sampling concludes when theoretical saturation is achieved (Charmaz, 2006).

Data Collection

Charmaz (2006) suggests that the researcher let the problem guide the research method selection process. There is no end to the choices, options or decisions available in data collection. To impose one type of technique discounts the complexity of the research environment. Strauss & Corbin (1998) suggest interplay between qualitative and

quantitative methods as one option. However, quantitative methods such as questionnaires restrict the flow of data. Instead Glaser & Strauss (1967), Strauss & Corbin (1998), and Charmaz (2006) suggest an open approach to design is acceptable as long as the objective remains the identification of evolving theory.

Data Analysis

Data analysis in grounded theory centres on the constant comparative method (Charmaz, 2006). The constant comparative method is achieved by way of coding. The constant comparative method involves comparing codes within the same interview. Once the researcher is convinced that nothing additional can be obtained, the analysis is concluded. At this point the researcher now begins to work methodically through the second interview to identify codes. Once the researcher believes nothing new can be obtained from the second interview, the researcher compares the codes from first and second interview to identify similarities and differences. This process continues with additional interviews until no new codes emerge.

Coding means categorizing segments of data with a short name that simultaneously summarizes and accounts for each piece of data. "Codes show how you select, separate, and sort data to begin an analytic accounting of them" (Charmaz, 2006, p. 43). Coding generates the basis of analysis. Grounded theory coding consists of at least two phases:

1) the initial phase involving naming each word, line, or segment of data

2) a focused selective phase that uses the most significant or frequent initial codes to sort, synthesize, integrate, and organize large amounts of data.

Charmaz (2006) identifies three levels of coding. The first step in coding is called initial coding, and at this stage the researcher is open to any number of possibilities. By comparing data with data, participants express their views. During this phase the researcher is continuously asking questions such as: "What are these data a study of?" "What do these data suggest?"

Charmaz (2006) provides a number of suggestions to assist the researcher with the coding process: remaining open; staying close to the data; keeping the codes simple and precise; constructing short codes; comparing data with data and moving quickly through the data. Whether you choose to code each word, each line or segment of data, 'constant comparative methods' are used to establish analytic distinctions and to make comparisons.

The second phase of coding is called focused coding. "Focused coding means using the most significant and/or frequent earlier codes to sift through large amounts of data. "Focused coding requires decisions to determine which initial codes make the most analytic sense to categorize data incisively and completely" (Charmaz, 2006, p. 57). By comparing data to data focused codes are developed.

The third type of coding, axial coding, "relates categories to subcategories, specifies the properties and dimensions of a category, and reassembles the data you have fractured during initial coding to give coherence to the emerging analysis" (Charmaz, 2006, p. 60). Criteria for selecting a category include centrality (in that all other categories were related to it), frequency (appearance in the data), and consistency (relationship of the subcategories is consistent to the core category). Finally the name of

the category must be sufficiently abstract in order to lead to the development of a more general theory (Charmaz, 2006).

Problems in coding can be avoided by refraining from forcing the data into preconceived codes and categories. Also, the researcher must refrain from forcing her personal views on the interview data. Every researcher holds preconceptions that have the potential to influence and Charmaz (2006 p. 68) provides a number of questions to safeguard against imposing them.

- Do these concepts help you understand what the data indicate?
- If so, how do they help?
- Can you explicate what is happening in this line or segment of data with these concepts?
- Can you adequately interpret this segment of data without these concepts?
- What have they added?

Theoretical memo writing is "the pivotal intermediate step between data collection and writing drafts of papers. Memo-writing constitutes a crucial method in grounded theory because it prompts you to analyze your data and codes early in the research process" (Charmaz, 2006, p. 72). Memos form the core of grounded theory. By following up on questions raised during the data analysis the researcher pushes forward. Memo writing helps to identify incomplete categories during this critical stage.

Theoretical Sensitivity

Theoretical sensitivity includes theoretical sampling, theoretical saturation, and theoretical sorting.

Theoretical sampling seeks pertinent data to develop an emerging theory. The main purpose of theoretical sampling is to elaborate and refine the categories constituting your theory. "You conduct theoretical sampling by sampling to develop the properties of

your categories until no new properties emerge (Charmaz, 2006, p. 96)." Theoretical sampling directs you in the right direction. The purpose of theoretical sampling is to obtain data to help you explicate your categories. Theoretical sampling involves starting with data, constructing tentative ideas about the data, and then examining these ideas through further empirical inquiry. Memo-writing leads directly to theoretical sampling. Theoretical sampling is strategic, specific and systematic.

Saturating theoretical categories implies that "when gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of these core theoretical categories" (Charmaz, 2006, p. 113). Theoretical saturation is not the same as merely hearing the same stories over and over. Glaser (2001 p. 191) states "Saturation is not seeing the same pattern over and over again. It is the conceptualization of comparisons of these incidents, which yield different properties of the pattern, until no new properties of the pattern emerge. This yields the conceptual density that when integrated into hypotheses makes up the body of the generated grounded theory."

Theoretical sorting gives the researcher a means of creating and refining theoretical links. "Grounded theory sorting gives you a logic for organizing your analysis and a way of creating and refining theoretical links that prompts you to make comparisons between categories" (Charmaz, 2006, p. 115).

Method of Inquiry: Grounded Theory

The research question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?" served to guide the

method of inquiry for this study. Upon approval from the Office of Medical Bioethics (Appendix D) the researcher began the study.

Sampling

A Calgary site was selected for this study based on its representativeness of social ADSPs within the Calgary community. Since ADSPs are funded by the Calgary Health Region, approval was requested and subsequently received from the Adult Research Committee (Appendix E). The program manager of the selected ADSP was contacted prior to the study to explain the project, and also to request her participation in participant selection. The manager provided a list of potential participants to be interviewed for the project. This selection was necessary to eliminate participants with cognitive impairments as well as individuals too frail to participate in the study.

Purposive sampling was selected for this study since the researcher had been employed at the ADSP for over two years. It was important to interview previous clients as well as those who had never worked with the researcher in order to achieve theoretical saturation.

Recruitment

Pre-interview contact

Once a name was selected, the researcher went to the ADSP participant and introduced herself. An ethics-approved letter of introduction (Appendix A) was given to the individual, the project was explained, and the researcher answered questions about the project. If the participant wished to participate in the study, a date for the interview was selected. Interviews were scheduled on a day when the participant normally attended the program.

Data Collection

Each participant was escorted to a nearby quiet and private facility for the interview. An ethics approved consent form (Appendix B) was read and signed. One copy of the consent form was retained by the researcher and a signed copy was given to the participant. Interviews began with a recap of the purpose of the interview.

The researcher began each semi-structured interview with the first question outlined in the interview guide (Appendix C) but encouraged participants to also talk about topics that were important to them. At various times, the researcher used open questions, paraphrasing and summarizing to clarify ideas and encourage additional dialogue.

Data Transcription

Interviews were audio-taped and transcribed verbatim using Microsoft Word software. Non-verbal communication such as laughter, sighs, pauses and crying were also recorded in the transcripts. The copies of the transcripts were stored as follows:

- one copy on the hard drive of the researchers personal computer
- one memory stick stored in the researchers home office
- one paper copy of each transcript was stored in a locked filing cabinet in the researchers office at the University of Calgary.

Data Analysis

Conceptual categories

Each participant's interview was analyzed utilizing the procedure of initial coding. Coding is the beginning process of category building and involves breaking down the data into units that represent a specific fact or event (Charmaz, 2006). The process was accomplished by reading the transcript line by line and continuously asking the question: "What do these data represent?" Codes were developed to represent the substance of what was said by each participant.

An analysis of the interview for the first participant proceeded; recurrent themes and patterns were identified through codes. The emerging codes were then arranged using colour coded cue cards and then arranged in clusters according to how similar they were in meaning. Thus, clusters of concepts and tentative category titles for the first participant were developed. Subsequent transcripts were studied and coded; familiar codes were placed into existing categories and the researcher deliberated over whether or not 'new' codes could be subsumed into existing categories. If they could not, new categories were created in order to accommodate the information provided by the new codes and clusters of concepts.

Linking the categories

The researcher used both theoretical memo writing and focused coding in order to link the categories. Memos that posed questions about potential relationships between

developed codes and existing categories were recorded on both the computer and on paper. Eventually paper became the medium of choice for recording memos. Physically being able to touch the memos and sort through them was helpful for category linking and eventually, theory development. This process allowed the researcher to view the data in alternate forms and to point out potential gaps in the understanding of a particular phenomenon. A number of questions kept being asked during coding:

- Which conditions lead to the process?
- What particular strategies are enacted in order to enable the process?
- In what context are these strategies employed?
- What are the consequences of employing the identified strategies?

A theory grounded in the words of the participants eventually was identified after constant interaction with the data during analysis. The theory was checked and rechecked against the data. In addition, several participants, fellow classmates and the supervisor were consulted about the appropriateness of the theory.

Maintaining Theoretical Sensitivity

Several methods were used throughout the research process to enhance theoretical sensitivity. One of the mandates of conducting research from a grounded theory perspective involves entering into the research process with as few pre-existing notions as possible (Glaser, 1978). Also of great importance is the process of identifying already existing ideas and values concerning the research topic. Hence, the researcher's own preconceptions about older adults, physical activity and resilience were examined. From the researcher's experience in both the professional and private spheres, it is concluded that physical activity plays an important role in the lives of older adults. Secondly, from

the researcher's academic experience, physical activity falls along a continuum. Changes in health status influence physical activity participation.

Issues of Trustworthiness

Strauss & Corbin (1990, 1998) suggest that the standards of credibility, transferability and dependability be utilized to evaluate trustworthiness. Reproducing social phenomena can be difficult because it is nearly impossible to replicate the original conditions under which data were collected or to control all the variables that might possibly affect findings. In qualitative work given the same theoretical perspective of the original researcher, following the same general rules for data gathering and analysis, and assuming a similar set of conditions, other researchers should be able to come up with either the same or a very similar theoretical explanation about the phenomenon under investigation. The same problems and issues should arise (Strauss & Corbin, 1998).

Credibility

Charmaz (2006 p. 182) provides a number of questions to assist with credibility:

- Has your research achieved intimate familiarity with the setting or topic? Are the data sufficient to merit your claims?
- Have you made systematic comparisons between observations and between categories?
- Do the categories cover a wide range of empirical observations?
- Has your research provided enough evidence for your claims to allow the reader to form an independent assessment?

Compliance with Ethical Standards

A consent form, approved by the Medical Bioethics office of the University of Calgary was obtained from each participant. Participants were informed of the confidentiality of the study and that only the researcher would have access to the audio-

tapes and personal information. Following transcription each audio-tape was destroyed and each participant was provided with an identification number. Each participant was informed that the researcher's supervisor would only have access to transcripts identified by an identification number. Transcripts will be destroyed following the completion of a manuscript and it is anticipated that this will be completed by January 2007.

Chapter Four: Results

This chapter provides a discussion of the grounded theory of the researcher's analysis. This analysis developed from the 15 interviews gathered from ADSP participants. See Table 1 for characteristics of participants.

Of the15 participants interviewed, thirteen of the interviews were conducted at a nearby library that was easily accessible from the ADSP. Two interviews were conducted at a seniors centre because of poor weather. Following a brief recap of the study, permission to audio-tape the interview was requested, a consent form was read and signed by both the participant and researcher and the interview commenced. Interviews consisted of semi-structured questions and lasted approximately one hour. Upon completion of the interview participants were thanked for their participation. Each person was escorted back to the ADSP. One person declined to be interviewed.

The results of the analysis show that older frail participants describe changes in health as the basic problem associated with the aging process. Participants use a number of complex strategies to manage the aging process. The strategies have been identified as a basic social process that runs throughout the interviews. This process is termed preserving self.

Preserving self demonstrates the power and resourcefulness of older adults. This process unfolds through an interdependent relationship between two major categories: physical self and resilient self. Subcategories and properties are associated with each of the major categories and throughout this chapter an analysis of the theoretical connections among categories that comprise the grounded theory will be explored. The

categories that form the theory are illustrated by the words of the participants, thereby grounding the theory in the data.

Table 1

Characteristics of Participants

Age	Gender	Educational Background
68	Female	College graduate
70	Female	Some high school
73	Male	Technical diploma
73	Male	Some high school
77	Female	High school graduate
78	Male	Post secondary
79	Female	High school graduate
80	Female	High school graduate
78	Female	Elementary school
82	Female	High school graduate
83	Male	Some high school
84	Male	Some high school
86	Female	Technical diploma
86	Female	Teacher's certificate
86	Female	High school graduate

Physical self

The first major category identified within the data was identified as 'physical self'. The physical self is the first of two interdependent categories contributing to the basic social process of preserving self. During the interviews two subcategories were identified with physical self: boundless resource and bounded resource. See Table 2 for the complete list. These subcategories and their properties will be fully described.

When asked, "What do you think of when I use the phrase physical activity?" it became immediately apparent that the subject of physical activity is complicated by a lack of standardization of definitions. Some participants drew a distinction between the terms physical activity and exercise while others used the terms physical activity and physical ability interchangeably. Some participants considered sports such as baseball an example of exercise, and walking to work a form of physical activity. Others did not use the term exercise but considered all activity, whether it was recreational or work related, to be a form of physical activity. For clarity, the term physical activity will be used throughout this paper since every participant believed that movement and energy expenditure was associated with the term.

Boundless Resource

The boundless resource of the physical self was identified with the early years. Youth was associated with an infinite amount of energy that enabled the person to be physically active. It was considered a time when physical activity came easily, and a time when the resources of the body were often taken for granted. Participants rarely, if ever, thought about their health during this stage of life unless they experienced an accident.

Table 2

Categories and Properties Comprising the Physical self

Categories	Properties
Boundless Resource	Inexhaustible quantity
	Timeless resource
Bounded Resource	Questioning
	Accommodation
	Risk

Participants believed the energy of youth could be drawn upon at any time. Properties of inexhaustible quantity and timeless resource were identified from the data.

Inexhaustible quantity

The inexhaustible resource of physical activity was identified early in life through discussions of unstructured and structured activities. Running, jumping, hop scotch and skipping were defined as unstructured. These activities were identified with the concept of freedom, and usually associated with free time. Structured activities included baseball, basketball, hockey, and tennis and were associated with school. This inexhaustible quantity of energy carried over into the early adult years although by the late teenage years almost all the participants had disengaged from structured physical activity. The physical activity associated with youth was slowly replaced with the physical activity of employment, and raising a family. The concept of freedom was replaced by the concept of responsibility. One participant summed it up when she said she felt like she could 'soar like a bird':

> As a child I was always running, jumping, getting into mischief. I played sports in school and I was good at them. Then when I got older and I got married I felt strong too. When I counted the cows in the corral, there were 15 and I had never milked a cow in my life. My husband had to go out into the field....No electric stove, hard water, so I carried water from the creek to the house. Come Sunday 30 relatives would come and I fixed the dinner. I did everything. In those days you just did it.

Another participant's experiences could be described as maverick for a young woman in the 1950's. This woman took a 'head on' approach to a physical challenge:

> I went to work in a hunting camp in the north. We went there and it was quite an adventure. We had to get horses across the river. The mosquitoes were bad and I couldn't swim but I did it somehow. I did the cooking, baking everything. So many mouths to feed and the food had to be good. Those hunters expected the best and they didn't care how you did it.

Yet another realized that a spirit of cooperation was necessary in order to maintain the inexhaustible quantity:

> I had this railroad job and that was very physical. We would drive spikes. It takes 3 hits with a 30 lb hammer to drive one spike. My co-worker would hit the first spike. Then I would hit the 2nd a little bit. He would hit the 3rd time and the spike would be all the way down. I wouldn't have survived without him because it was such hard physical work and at first I did not have the strength to do it myself. Eventually I got the hang of it and I could drive spikes by myself.

Timeless resource

Participants did not see any end to the power of the physical self at this time.

> After my baby was born I looked after the house and baby. At that time I felt physically strong. To clean the floors I always got down on my hands and knees. Then I could lift anything I wanted. I felt I could do anything and I felt it would last forever.

The perception that their physical energy was a timeless resource brought much laughter. Participants enjoyed reminiscing about this time in life. One participant said "if I knew then what I know now, I might have done things differently." In hindsight participants realized how naïve they were at this time of life. During this phase, there is little concern with the physical self because physical activity is so effortless. This time in life is seen as carefree, limitless, and infinite. It was also described as a time with few outstanding negative memories. Since this stage was considered to be relatively uneventful, participants described it as a time when the details seemed to be lost to their memory. One participant said "I know some negative things happened but I just can't remember most of them."

Bounded Resource

The start of midlife was impossible to pinpoint for all participants but everyone agreed that a significant change in physical activity was associated with this stage of life. The majority of participants had disengaged from most strenuous forms of physical activity by midlife. In many cases technology helped to eliminate or reduce physical activity. Some participants were still actively engaged in very physical jobs such as warehouse work and farming but there seemed to be less energy to devote to the jobs. Participants began to observe some significant changes in their bodies. They found that injuries took longer to heal, fatigue levels came earlier and recovery times were increasing in length. However, it was chronic disease that was identified as the most significant marker of physical activity participation in midlife. With the diagnosis of chronic disease came the realization that the boundless resource of youth could not be summoned at will. The body was slowly changing. The old methods of dealing with fatigue required new strategies of adaptation. The three major properties of questioning, accommodation, and risk were identified from the data.

Questioning

Midlife was associated with a number of unresolved questions in the area of changing health, and physical activity. Chronic disease was described as an invisible invader in the body. Some participants chose to hide their disease from family and friends due to embarrassment, while other participants held out hope that the chronic disease would reverse itself eventually but everyone questioned why this had happened, and in particular why had this happened at this point in life. For most of the participants the

chronic disease occurred later in life but one participant knew something was 'different' from a very early age:

> I used to trip a lot when I was a kid. My parents thought I was not very coordinated and never gave it a second thought. I had some nasty falls over the years but because I was young they weren't much really. I always thought there was something wrong but I learned to manage and tried to avoid the things that made me fall. But then they came back in a worse way in my 50's. This time they seemed to be worse and it took me longer to get over them. Now I know I had this condition my whole life.

Another participant recalled how her family questioned medical advice and eventually decided to ignore the medical advice:

> The doctors told my parents that I had a heart murmur and wouldn't be able to do anything. My parents didn't try to keep me from being active but the doctors wanted that. I did what I could and pretty much what I wanted. When I lived with my grandparents (I was about 3 years old) I learned to do things like chop wood from them. I just did it.

Another participant adjusted as much as possible then began to question what would become of his body in the future:

> I had a few operations. They were successful and then I got back on my feet. I used to walk about ½ mile a day to the shopping centre. Then one day I noticed my knee started to pain and doctor said I had arthritis. Still I kept going on but then one day I couldn't walk because it hurt so much. It pains all the time. Some day's I just don't know what to do.

Accommodation

Accommodation strategies designed to address physical activity changes due to chronic disease continued to evolve and be refined as one moved into late life. For most participants, the strategies were becoming increasingly complex. Participants recalled needing assistive devices in order to maintain mobility, and medical procedures were increasingly common. Heart disease, hypertension, arthritis, and diabetes were common. Physical activity was becoming increasingly difficult.

Accommodation was defined as 'making the best of what you've got' and was identified as a time when participants came to terms with changes in physical activity due to changes in health. At first the accommodations were minor and infrequent but as the years went by greater accommodations, and new strategies were essential. Participants discussed the shift from more active to less active lifestyles.

Gender played a role in accommodation strategies. Women were required to accommodate for the changing health of their spouse and also to accommodate their own changing health. Women felt that they carried the major responsibility for caregiving and were primarily responsible for the identification of accommodation strategies. This in turn led to some feelings of anxiety. In contrast, the men felt they did not have to bear the responsibility for accommodation strategies solely and identified friends and family as an important source of assistance.

One female participant did not gain this benefit:

> I looked after my in-laws for over 30 years. They both died at home. It was very hard to look after my own family and take care of them. My own health suffered because of it, and I never completely recovered from the responsibilities. I never got back to the same point where I could physically do many of the things I used to do.

Caregiving responsibilities, in later life, were identified by the women as placing additional physical demands on their bodies. As they cared for sick relatives and friends they were constantly reminded of the fragile state of the body they were caring for but also the fragile state of their own bodies.

In spite of the many challenges associated with physical activity participation, participants were willing to restructure life and make adjustments. Many participants decided to slow down, and consciously chose types of physical activity that were less

stressful. Walking was identified as the preferred aerobic activity during mid life and continued to be preferred as one aged:

> There were no locomotion's at that time so I had to walk about 45 minutes to and from work. I didn't have a car and there wasn't any bus service. In those days you didn't live too far from work. I walked everywhere.

However not everybody wanted to be physically active. One participant's dislike of physical activity was evident from a very early age despite medical advice that regular physical activity would improve her quality of life. This dislike of physical activity continued into mid life. As one participant recalled:

> We were living on the farm. Mom would get up and feed the horses, we'd have breakfast and then we would start on these exercises that had been given to me at the hospital. I didn't like them. I didn't like the exercises and my dad made a fuss about me having to do them. So my Mom would wait until he left the house and we'd do them. Eventually I got so that I could walk but I never liked the exercises and when my mom said that I was old enough to do them on my own, I stopped doing them. I should have kept exercising all my life. I was about eight and my mom said that I was old enough to do the exercises on my own but I didn't and as I got heavier I couldn't do things and now here I am in a wheelchair. The exercises should have carried through. I didn't like them and I didn't do them. I should have carried through. I was stubborn.

While participants rarely thought about accommodation strategies in youth, in midlife they were beginning to identify the changing needs of the physical self:

> I get a stroke when I was in my early 50's." I spent nearly 8 months in the hospital. At first I couldn't walk, talk. I had to teach myself to do these things. Everything that once was old was now new. Now in my 70's I am 70% good.

Most participants tried not to dwell on their impairments but looked for ways to accommodate the changes and move on. As one 86 year old participant commented:

> If I could run around the block I would do it any day but I can't do that anymore. Exercise is good and essential for people. I use a walker at home. I am afraid to fall.

For the persons with MS or Parkinson's, the diagnosis of the disease came before symptoms were so severe that there was any significant limitation to physical mobility. Some participants remembered to the minute the day they were told the diagnosis of the chronic disease. For some the diagnosis set in motion ideas about accommodation. Others made few changes since the chronic disease was usually manageable in those early days. Accommodation strategies were relatively minor, and there were few changes necessary in the area of physical activity. For most participants there came a time when greater accommodations were necessary. This usually occurred at a time when the disease could not be ignored.

Risk

Participants identified a number of risk factors that influenced physical activity participation. Risk was strongly associated with late life and one risk factor in particular dominated, ageism, was identified within the interviews. Participants believed that ageism constrained physical activity participation by identifying appropriate and inappropriate interventions. Participants believed they were directed toward low level activities such as shuffleboard based on their age. Participants felt they were constantly reminded of their frailty and cautioned about the danger of injury if they participated in more strenuous types of activities. One participant said he felt sports were considered an inappropriate behaviour unless it was enjoyed in the role of a spectator.

Although participants considered themselves to be much stronger physically than society wished to admit, they were eager to receive professional advice on appropriate physical activity interventions. When asked if primary care physicians encouraged

physical activity participation, only one participant felt that this professional provided an understandable exercise prescription. The majority had not received any advice on physical activity, and felt the doctor was reluctant to discuss this issue with them. Despite the evidence suggesting two to three minutes of verbal advice on the importance of regular physical activity is effective in increasing activity levels among the sedentary; it appears that doctors are reluctant to provide this advice for frail patients.

Participants identified the ADSP physical activity program as providing the physical activity knowledge that was not forthcoming from the primary care practitioner. One male participant commented that regular physical activity participation was credited for slowing the progression of chronic disease:

> I come here two days a week – Monday and Wednesday. I do the exercises here and I always feel better after. I come back here on Monday I am very stiff and I don't feel so good but after I do the exercises again I feel I have more energy.

In conclusion, two subcategories, boundless resource and bounded resource, were identified with the physical self. Each subcategory provides insight into physical activity participation, and as one advances in age different strategies are required to manage physical activity. The transition from boundless resource to bounded resource was identified with changes in health status. Midlife was identified as the time when chronic disease was identified as the primary reason for changes to physical activity participation. Participants questioned the changes in physical activity but eventually worked to identify accommodation strategies that would contribute toward the physical self. Late life was identified as a time when risk was identified as the major influence on physical activity participation. The principle risk factor identified by participants was identified as ageism.

This force prevented or impeded healthy aging by dictating appropriate and inappropriate physical activity interventions.

Participants felt that as one ages, and as health changes, increasingly complex strategies are required to maintain physical activity. Participants also suggested that individuals who can implement successful physical activity strategies strengthen the physical self. This in turn contributes positively to the success of the process of preserving self. In contrast, participants felt that older adults with few physical activity options were less likely to exert a positive influence on the physical self. Subsequently those individuals had positive less control over the process of preserving self.

Resilient Self

The second interdependent process instrumental in preserving self was identified as the resilient self. During the interviews the resilient self was discussed separately from the physical self thereby developing it as a distinct and significant category. Four subcategories were identified within the resilient self. The subcategories are described as community support, social support, spirituality and turning points. Properties related to each of the subcategories are also discussed. See Table 4 for a complete description.

Most participants recognized the term resilience. Several participants felt they knew intuitively what resilience meant but could not find the appropriate words to describe the concept. However, when words such as 'coping', 'getting by', 'working through hard times' were mentioned by the researcher, participants defined what resilience meant in their own words. See Table 3 for the definitions of resilience in the words of each participant. Every definition has a personal dimension embedded within

the words. Some of the definitions are very specific to the individual and relate to programs such as the ADSP while others definitions could be considered more abstract.

Participants were divided as to whether resilience was learned or innate but all believed that resilience could be better understood. Those who believed that resilience was learned primarily attributed their mothers with helping to teach them about resilience. Participants, who believed that resilience was innate, believed that everyone has some natural resilience although the amount varied from person to person. Whether resilience was innate or learned, participants suggested that it was important that each person maximize their potential and make the most of their life. Discussion of the resilient self was almost completely absent from the discussion of youth; however, the resilient self began to play a larger role in midlife. An appreciation of the resilient self continued to increase as one entered late life.

Table 3

Definitions of Resilience in the Words of Each Participant

Female	Life is what you make it. If you follow your dreams you will accomplish things.
Female	I get through the tough times because I am stubborn. You can be worrying about what you can't do but it can't take you over.
Female	I keep telling myself that I can do something and eventually I can do it.
Female	I think that being strong physically and mentally helps you in problem solving. This really helps you to get by in life.
Male	Being physically strong helps you. It allows you to do the things you want to do.
Female	Keeping physically fit is important for your mental health too. If you let your body get run down you will have trouble with your mind.
Male	If you are in difficult time – sit and think quietly how to get out of it. There is always a way. If you get puzzled take someone's advice but you will always find a way. I believe you should try to do good things in life.
Male	Resiliency is self confidence and a positive attitude. I sometimes go toward the negative but then I catch myself and try to go toward the positive. Sometimes I try to throw people off. They might be down and expect that you are the same but I throw the person off with a happy outlook. Also, luck plays a big part. Try to meet the expectations of others and try to meet the standards that they have set for you. All my life I have challenges in life. Always try to accomplish something but I always had a challenge on the horizon. Too many people give up. You have to keep putting challenges in place for yourself.
Female	The program helps me to meet the challenges in life. I always feel happy when I am here and when I leave I start to look forward to the next time. I take advantage of the opportunities here.
Female	Work helps me get through tough times. As my health has changed the work is not so physical anymore but more mental. I try to help others by being a friend, listening and maybe trying to do little things. Volunteering has become my work. It is not so physical, because I cannot do that anymore) but it still is work in a different way. You need to work to feel like you are doing something.
Male	When I have a problem I tell myself that this will pass eventually. I tell myself about all the hard times that I had in the past. I got through them. I have been a fighter my whole life and I will fight my way through this too. I can't give up now.
Female	Faith in the Lord. The bible is my source of resiliency.
Female	You need to keep your mind and body active.
Female	As you get older you live in the past. The trick is to not do that so much but to work on planning for the future. This is resilience.
Male	I talk to my wife when I have a problem. Together we work on it. Working together helps us to get by in life.

Table 4

Categories and Properties Comprising the Resilient Self

Categories	Properties
Community Support	Trust
	Surveillance
Social Support	Family Support
	Reciprocity
Spirituality	Perceived Control In Life
	Source of Strength
Turning Points	Life Transitions
	Events

Community Support

The first subcategory identified within the resilient self is labelled as community support. Trust and surveillance are the two properties associated with this category.

Community support was extremely important to the participants all through life but particularly in late life. As the years went by changes in family status, mobility, and health made everyone reliant on the community for different services. Health services were identified as the most important community support network throughout life. As young people health services consisted of immunizations, and hospitalization for accidents. In midlife health services became increasingly important as participants dealt with their changing health status. In late life health services were identified as crucial to healthy aging because they not only provided medical treatment but also served as a link to other services.

Participants identified home care nurses as the most important health service providers. Most participants enjoyed friendly relationships with the nurses. Several participants identified home care nurses who provided the required services but failed to establish a bond with the client. The home care nurse relationship was identified as intensely personal since this individual sees one at their most vulnerable times. The constant change among staff served as a source of frustration and loss. Participants who considered their community support networks to be strong identified a long term relationship with their health care provider as critical to the aging process.

Trust

Participants described trust as a double edged sword. In order to remain independent within the community, participants were often required to place their trust in total strangers. This trust required a leap of faith but also contributed to acute levels of anxiety at times. In most cases, as expressed by a participant, trusting the health care worker proved to be a positive experience:

> My illness is pretty rare and at times I feel very alone. The nurse she suggested that I join a support group so that I could talk to other people who are like me. Now I belong to a support group and we meet every 2nd month. I went to one of their conventions too. When I saw that others had the same thing and they were getting by too, it helped me. There I feel connected.
>
> I was on my own, my husband had died. I was very lonely. Then one day the home care nurse said maybe I should try to get out. At first I didn't want to come. I felt that it wouldn't be for me but the ADSP have become my family. I'm glad the home care nurse suggested it.

However, the relationships were not always positive, and one participant found it necessary to confront health care workers:

> The doctors and nurses at the hospital frustrated me. They didn't know what was wrong but they never really listened to how I was feeling. They looked at their test results and came to a decision but I knew that was wrong. They wouldn't listen. Finally I had to tell them I wanted to go to another hospital. They didn't like that but I had to stand up for myself.

Participants felt that community support had changed over the years and that as they were aging they were involved less and less in the activities of the community. Trust in health care professionals was essential for these participants. They needed the health care system and wanted relationships that were long term with individuals such as home care nurses. However, the reality was short term relationships and the participants found

they were often in the process of having to build a trusting relationship with a new professional all too frequently.

Surveillance

Surveillance was considered the 'not so nice' side of community support and was not confined to late life. One participant found herself in the midst of a social services nightmare when she and her husband tried to adopt a baby when they were in their early 30's:

> The social service department seemed to be always spying on us and trying to see how we were living our lives. They made decisions that seemed to come out of nowhere and I couldn't get them to explain how they made their decisions. It seemed very unfair. We weren't allowed to participate in things that were having a big effect on us. I always took responsibility for my kids while others did not. Yet when it came time to get some help from the agency they saw us as poor parents and my neighbours didn't help to set them straight.

Surveillance was also identified as a family issue. At times participants thought their grown children interfered in their lives and asked others to monitor their parents to the degree where it was considered surveillance and not concern. Participants were aware that professionals were often assessing their cognitive and physical ability in late life. This led on occasions to the employment of selective strategies that showed independence and strength. At times they felt they had to be on guard and avoid unfavourable assessment since this could lead to a loss of independence. Participants often viewed their relationships with professionals cautiously. At times recommendations from professionals were not exactly what the participant wanted or expected but changing health status required some degree of flexibility. However in many cases participants felt they were asked to accommodate to a greater degree than professionals.

Social Support

The second subcategory associated with the resilient self is identified as social support. Two properties family support and reciprocity are discussed within this section.

Family support

Family was identified as the primary source of social support. Second in importance to family was the ADSP staff. The third major source of social support was identified as friends.

Maintaining family support did not necessarily have to be face to face or frequent contact. Close ties could be maintained with minimal contact. Sending Christmas cards was considered an acceptable way to maintain the ties. Contact with brothers, sisters, and children were maintained through the telephone since many participants could not or chose not to write letters. One participant made use of the Internet to communicate with relatives in another country.

The affordability of new technologies also provided additional opportunities to stay in touch. One participant used the internet to send emails to grandchildren across the country, while another used internet technology to reduce the cost of long distance telephone calls. Both technologies provided less expensive and faster contact with family. Participants identified changing health status, limited mobility, and death of family members as major reasons for social network changes.

Some participants felt that the ADSP staff played a significant role in social support. Since ADSP participants attend the program regularly and many attend for many years, there is an opportunity to develop long and trusting relationships. Most participants

expected to be treated well when they joined the program but were surprised by the level of caring and concern demonstrated by the staff. Some participants felt that the ADSP staff filled a void that previously had been filled by family support.

Participants described friends as important in early life. However, midlife and particularly late life saw a decrease in the importance of friends and a great importance placed on family. There was little discussion of friends by this group. Partly this was due to limited mobility among the participants, the death of close friends and inadequate or costly transportation costs. Only one of the 15 participants talked about a close relationship with a friend outside of the ADSP, and co-incidentally this person was also the most ambulatory of all the people interviewed:

> I am close to one person who lives in my apartment building. We go out every 2nd Sunday and we go out for dinner.
>
> My children still tell me a lot about their lives. I wish I could be closer to my daughter. I feel bad that we're not closer. I wasn't brought up in a home where everybody was kissing everybody and yet I like it. I like a hug and I hug my children.
>
> My children help me get through the tough times. They are all on the same level when it comes to affection.

Every participant addressed the subject of loneliness when discussing family support. Loneliness was defined as 'something missing' from their lives. Loneliness was a difficult concept for both men and women to describe yet each knew the physical and emotional feelings associated loneliness. Participants identified several different types of loneliness such as chronic loneliness, situational loneliness and temporary loneliness.

Chronic loneliness was defined as loneliness that does lasts for a long time. In particular one participant felt that she experienced chronic loneliness because of a

physically abusive partner. She described feeling lonely within the marriage because she could not develop a friendship with her husband. Additionally she also felt lonely in the company of others. She felt she could not take the chance to establish friendships with others in the community since they might discover the secret she was protecting. Situational loneliness was associated with the death of a spouse, child, sibling, or close friend. Generally participants were able to work through this stage although the transition time varied from person to person. The amount of time needed to work through this type of loneliness varied but one participant felt it took on average two years to deal with the loneliness. Temporary loneliness was identified by everyone, and included examples such as a husband leaving to find temporary work, and loss of friendships due to retirement. Participants worked through temporary loneliness by keeping themselves extra busy, counting the days until the loneliness would be over, or replacing work acquaintances with acquaintances from other activities such as volunteering. Participants used a number of different strategies to work through each type of loneliness.

Reciprocity

While social support is most often viewed from a positive perspective, there can be a negative component. For example, with family support there is a sense of obligation. If one family member does something for you, it is your duty to do something for that member in the future. It is not uncommon for family members to expect 'pay back' at some point. The time and date is often unknown and this can add a considerable amount of stress. However there is no guarantee that the 'pay back' will occur when it is most needed.

One participant discussed how she would often look after her nieces and nephews. However one day when she needed someone to look after her children, her sister declined to return the favour. This resulted in feelings of abandonment as she recalled:

> I used to have all the kids at my place. I would do things with them. The kids liked to come to my place. Then one day I was sick and I needed someone to help me but nobody would help me out.

Upon reflection this participant believed the failure of her sister to reciprocate a kind deed was due to a disciplinary action. This participant believed that children should respect one another and she did not tolerate bullying from one of the children. One time she reprimanded one of the children for this behaviour. She believed that this action had resulted in the lack of reciprocity.

Spirituality

The third subcategory associated with the resilient self is identified as spirituality. Two properties, perceived control in life and source of strength, are discussed within this section.

Perceived control in life

Some participants expressed a deep commitment to God and to their religion. Trusting in God provided a sense of personal control. Participants believed that religion provides the person with a set of moral guidelines. Each person has the opportunity to choose how they will live life. Participants also felt that religion provides a way to view the world and more importantly it provides a way to make sense of the world. Some participants admitted to an estrangement from religion in their younger years but were finding time to reconnect with religion in their later years. Reconnecting with God was

considered important, but poor health and transportation problems prevented church attendance. Some participants did not believe they needed to attend church in order to keep their faith in God. For several participants God and religion provided tools to get through the many stages of life but in particular assisted them with the changes associated with aging. Participants identified what God and religion had given them:

> If you live according to the Bible you will be saved. I believe in the Bible. I don't think God wants to punish but is giving a reminder to think about what you are doing.
>
> I believe in the Bible. I pray and I have lots of people praying for me. I was in the hospital but they didn't know what was wrong with me. I prayed to the Lord and almost immediately I got the diagnosis. The Lord did that for me.
>
> I am alive today because of the Lord helped me through though times. I'm alive today because of my prayers and the prayers of others. I had many operations and God helped me through each one of them. In turn I pray for my children and I see the results of those prayers.
>
> God has helped me. During the fire when I was at risk of losing my home, I pray to God to change the direction of the wind and the wind changed. I pray to God and thank him.

Some participants believed that religion is restrictive but others believe that religion empowered them and considered spiritual guidance to be a form of resilience. For some, spirituality gained momentum in later life. For others the connection with the spiritual self remained constant over the life course.

Source of strength

Most participants expressed a belief in God, and belonged to a church, but there were several participants who considered themselves to be spiritual and did not belong to any religious denomination. One participant summed up his beliefs about inner strength:

> I am not a religious person. I just tell myself to hang in there. I give myself mental encouragement. I never ask God to fix things for me. I will do that on my own. But I like to feel God's presence.

One participant also discussed how he did not consider himself a religious man but a spiritual man. While some of the participants would pray to God and ask for specific answers or help with specific issues, one participant mentioned that he never asked God to intervene in any specific matter but felt the reassurance of God's presence in his life. The major difference between the people who belonged to a religious denomination and those who did not belong to any particular church was their approach to various life challenges. People who believed in God and belonged to a religious denomination prayed directly to God for assistance with their problems. They also believed that God immediately intervened to assist them. The participants who considered themselves spiritual but not religious tended to rely on themselves for solutions to problems. These participants did not ask God to intervene and solve their problems but instead looked to their own resources, family and friends for solutions to problems.

Turning Points

The final subcategory associated with the resilient self is defined as turning points. The two properties associated with turning points include life transitions and events.

Life transitions

Life transitions define a time in life when roles change. During the course of the interviews participants identified a number of life changing situations: asking parents for consent to marry, immigration, graduation from high school, first job, getting married,

birth of child, death (child, parents or spouse), moving to a new city, leaving an abusive relationship, death of a spouse, buying a house, menopause, diagnosis of chronic disease, moving to a smaller home, grey hair, changing body shape, going to war, and receiving an advanced degree. In their opinion these life transitions were particularly influential, and significant.

Events

Not every life transition represents a significant event however; the participants identified several areas that they perceived to be particularly important: moving away from home, immigration, retirement, and death of loved ones. Moving away from home was significant because it represented the transition from childhood to adulthood. In this study all the participants left home to marry, attend school, or find a job. None of the participants identified negative emotions associated with the event. None of the participants felt that they were forced to leave home but believed it was a natural progression in life. Gender played a role in relocation. The women in this study did not leave home unless they had a trusted acquaintance in the new location that could assist with finding a job or finding a place to live. One participant summed this up:

> I came to Calgary because I had an aunt and a friend who lived here. I thought I could get a job. I decided to stay because the weather is better.

On the other hand, men moved to further their education or to find employment and were not overly concerned about knowing someone to help them find a place to live or find a job. Two of the male participants sum up their early experience of leaving home:

> After high school I worked clerical office jobs. Then I took university and I had to go to a different place for that.

> I joined the army and went overseas because of the war. I was in the army first and I was there for four years.

Leaving home was filled with excitement for one woman since it provided an opportunity to escape an isolated farm life. Moving to a big city brought many thrills but it also brought a darker side of life. While in this big city she met her future husband. As far as her parents were concerned, once she left the family home, it was expected that she would be able to deal with adult challenges. After being married a short time, she came to the realization that she had independence but also had responsibility. Responsibility came in a most unexpected way. Instead of living 'happily ever after' she found herself in an abusive relationship:

> When I got married that's when my problems came. I never thought I would end up in a bad marriage. Once I thought about leaving but I didn't want my children to be shamed and I stayed.

Some participants came to the realization that they were on their own and if they didn't carry the wood, chop the wood, make the fire, cook the meals; it was not going to get done. Although participants did not feel that their parents had shielded them from the responsibilities of adulthood and marriage, some felt that their new responsibilities brought out dormant qualities of resilience.

> It was a big change for me (moving from the city to the farm) I married a farmer. Big change especially with the baby and diapers and no running water. Neighbours said "how do you do it?" .... I didn't think I was doing anything special but the neighbours did.

Immigration was a major event for four of the participants. The age of immigration varied from six to seventy and the reasons for immigration were similar since everyone wanted a better life; however, their immigration stories were all unique. One participant chose Canada in order to be closer to family, two participants decided to

immigrate to Canada to avoid persecution and imprisonment and one immigrated to Canada to secure employment. Immigration evoked many powerful memories and their stories of the experience were vivid, animated and emotional. For one woman, the experience had occurred over 80 years previously but she recalled vividly the details of the experience.

This participant recalled that the family was already under tremendous stress because a corrupt political system had attempted on one previous occasion to incarcerate her father. The community, recognizing the impending danger for this family, rallied together to provide the funds necessary for migration. This woman told the story:

> The people are lining along the aisles of the church. We are at the pew. An English lady said "hold out your apron" (she motioned what to do because I could not understand English) and as we walked down the aisle, they (people in the church) threw money into my apron. I'll never forget that day.

One participant described living in constant fear. Bloodshed was everywhere, bodies were tossed into the river but the native born population was unable to flee the civil war. Then an opportunity arose and citizens were permitted to leave the country only if they left all financial assets behind as one man recalled:

> For a time you could not leave if you were a citizen but then even if you were a citizen you could leave. Things were very bad. Many killings. So we decided to leave. We were helped by the United Nations and sent to a camp. Everybody got a ticket free and we left only with a change of clothes. The UN helped us. They gave us ticket money and we went to Austria. We stayed in a camp for one year. Eventually I said I like to go to Canada. After 2 weeks we were given visa to go to Canada.

Two participants voluntarily selected to immigrate to Canada but at very different ages. One participant came to Canada as a young woman of twenty-two. She lived in Europe while her husband came to Canada to establish a life for them. Immigration was

important because there was limited employment opportunity at that time. As soon as the visa was processed she joined her husband and a sister. The sister had immigrated at an earlier date and could speak English. The sister became a conduit between the old and new cultures.

Another participant had of immigrating to Canada. He was now 70 years old and his daughter mentioned that it was time to retire and maybe he should join her in Canada:

> I heard from people that the weather is adverse. I didn't like to come. But I had a son who was looking to take over the business. Health wise I was okay. Eventually I said okay. She sponsored me and it took six months. Then they gave me the visa. If my daughter wasn't living here I would not come."

On the whole, participants spoke fondly of the immigration experience although at times they felt frightened, felt disheartened by language and employment barriers, and missed the families left behind. However; they also felt a degree of control over their lives that they had not experienced to the same degree in the native country. Participants recalled making a conscious and significant effort to make the best of the change. One participant stated that in some ways her life changed very little upon immigration particularly in the area of employment. Employment helped to ease the transition from one country to another. She explains:

> Before I left Europe I worked several jobs and I always kept myself busy. I am very active when I came to Canada. I had three jobs always. So I never had time for anything else. I never had time to be bored.
> I never had that.

Participants who worked outside of the home mentioned retirement as a major event in their lives but women and men addressed the subject differently. Women did not spend as much time talking about retirement as the men and women tended to see their

work outside of the home less positively. Several women described their paid employment as the major contributor to their current physical problems. One woman recalled her work experience as a housekeeper.

> The houses were getting so big and I just couldn't do it anymore. One lady she was very fussy and I couldn't do it. Now they (housecleaners) don't do what I did. I did everything but my health was not good. I have very bad arthritis now because I did those jobs.

Men spoke at length about retirement. Men felt that retirement was a natural progression although for one of the men, a stroke was the reason for leaving the job prematurely. If the stroke had not occurred, he would have continued his employment. Also, the men tended to see their work as more than just jobs but as careers and for one participant retirement was part of a natural family progression.

> My son was looking after the business and he needed to be on his own so I retired. I was 70; I was still in good health – some minor health problems but nothing serious. I decided it was time for me to retire.

The death of a loved one was a major event for all the participants. All had experienced the death of a parent, spouse and or the death of a child. The day the death occurred was permanently etched in their minds and even many years after the event caused many of the participants to become emotional as the memories came flooding back. The two widowers did not talk at great length about the death of their wives. The women, in contrast, talked about the death of their husbands at great length. The women openly discussed how they struggled with feelings of loneliness, and feeling guilty about being left behind. Women identified this stage as intensely personal. While most of the women deeply missed the companionship of their spouse, the participant in the abusive relationship expressed widowhood in terms of liberation. One participant spoke

pragmatically about the grieving process, "it takes two years to work through the death of a loved one." The death of a loved served as a catalyst for change in a number of cases. An empty house was identified as unhealthy and participants recognized it was important to become involved in the community. The ADSP served to accomplish this need.

In conclusion, this section identified the four subcategories and properties associated with the resilient self. While the entire results section was divided into the physical self and the resilient self for discussion purposes, it is important to note that participants see the two categories as interacting interdependently throughout life. Figure 1 illustrates the interconnection between the two categories, how this interaction changes over the life course and how the process of preserving self changes over time.

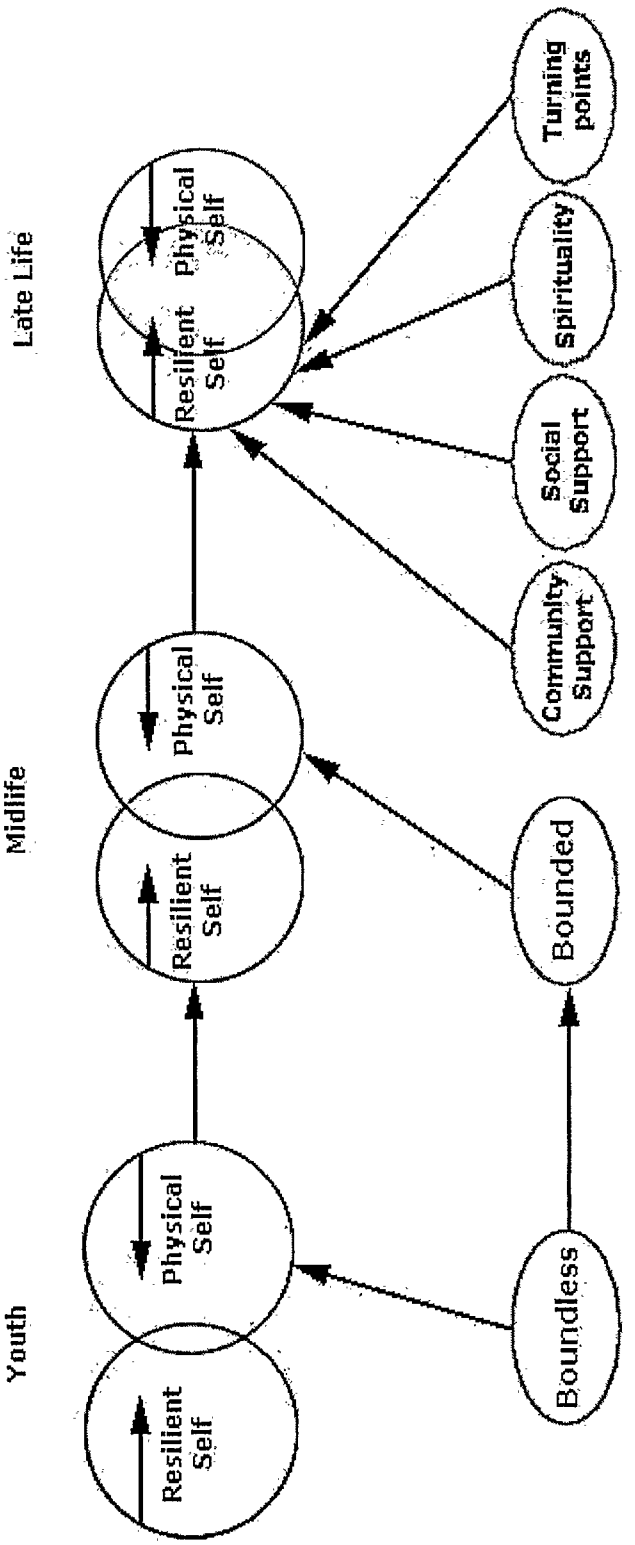

Figure 1: *Process of Preserving Self*

Summary

Preserving self is a lifelong process that is influenced by an interdependent relationship between the physical self and the resilient self. Although it is intuitively obvious that one cannot separate the body into the physical self or the resilient self, it became evident throughout the interviews that participants viewed healthy aging as a process viewed through two separate lenses. This should not to be confused with a mind/body dualism. Instead it was a way for participants to make sense of the aging process and was considered a practical way of discussing the aging process. Participants clearly felt that a holistic approach to the aging process was superior to a mind/body split.

Throughout the interviews it was evident that the physical self is influenced by physical activity. Physical activity strategies change over the lifespan and are influenced by factors such as health, ability, and interests but fall into two categories considered to be boundless resource or bounded resource. Every participant identified changes in health as the major challenge associated with aging. The changes required a number of adaptive strategies. Specific solutions were dependent on the individual and influence the process of preserving self.

The physical self was identified as strong and capable during youth. Little consideration is given to preserving self since there are few physical problems associated with this time of life. However, as one gets older, the feelings of the unbounded resource are slowly replaced with feelings of a bounded resource. The progression, in most cases, is slow and gradual until some pivotal experience makes the person consciously aware of the change. Typically this insight is due to the diagnosis of chronic disease or the disease

reaching a stage where it requires additional management techniques. Late life requires additional adaptive strategies based on changes to health. The later years require physical activity strategies that were identified as complex and at times anxiety producing.

The resilient self also undergoes changes over the life course, and different strategies become effective at different times. In youth, little consideration is given to the resilient self. Midlife and late life is seen as time of increasing reliance on the resilient self. The community, social support, spirituality, and turning points contribute to the resilient self. However, it is physical activity that is identified as a significant contributor to the resilient self. Without physical activity the person is limited in their ability to develop the factors that strengthen the resilient self. The process of preserving self is influenced by the interdependent relationship between the physical self and resilient self.

The resilient self is enriched by community support, social support, spirituality, and significant turning points but it is physical activity that permits one to enjoy these parts of life. Physical activity enables the individual to engage with the community, sustain social and spiritual relationships, and manage significant turning points.

Common to both the physical self and the resilient self is physical activity. Physical activity enables the individual to maintain functional fitness. Physical activity enables one to fulfil emotional and spiritual needs. It is the successful interplay between the physical self and the resilient self that contributes to the process of preserving self.

The research question guiding this study "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?" resulted in the recognition of the increasing importance of physical activity in late life but also the

challenges associated with maintaining physical activity levels. Participants are fully aware of the interdependent relationship between the physical self and resilient self. Participants recognize that continuing to be physically active is crucial to the aging process. Participants also recognize that a number of community supports are necessary to assist with physical activity. The ADSP program was identified as an important community service that enabled one to enrich both the physical self and resilient self.

Chapter Five: Summary and Discussion

This chapter integrates major findings of the research project along with existing work in the field. In accordance with grounded theory methodology, relevant literature is examined where appropriate to place the findings in context, and to validate the findings of the research (Charmaz, 2006; Chenitz, 1986). A brief overview of the study, theoretical implications for practitioners, theoretical implications for kinesiology, future research, and limitations of the study are also presented.

Overview

The study set out to answer the question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?" Fifteen community dwelling frail who attend an ADSP agreed to be interviewed. Grounded theory methodology was selected by the researcher for its focus on social processes. The analysis and interpretation of each transcript yielded the basic social process identified as preserving self. Preserving self is a lifelong process whereby an individual moves through a complex interdependent relationship between two major categories defined as physical self and resilient self. The strategies of preserving self are not always successful and frequently require refinement and reordering. Hence in developing the process of preserving self it became evident that it is an iterative process and the strategies for achieving healthy aging are continually modified.

It should be noted that the basic social process of preserving self is not unique to this study. Morse & O'Brien (1995) identified this concept in their analysis of 19 spinal cord injury individuals by interviewing and analyzing data from participants ranging in

age from 18 – 47. This study however focuses on analyzing data from a much older population thereby grounding the data from a late life perspective. This study also captures and identifies the linkages and interplay between physical activity and resilience.

Physical Self Summary

Participants identified youth, midlife, and late life as stages of the physical self that required different physical activity strategies in preserving self. Participants spoke enthusiastically about physical activity and youth. They enjoyed sharing stories of strength, and many felt that their physical strength would remain unchallenged forever. Participants recalled rarely thinking about physical limitations during this period since physical activity was considered to be an unbounded resource that was a timeless and inexhaustible quantity. One participant said "in youth you don't think about physical activity because you always have it." Health Canada (2002) suggests that children and adolescents have few health related issues, and the participant's descriptions support this research.

In midlife physical activity participation started to change as the physical body changed. The free-spirited attitude toward the physical self that was evident in youth began to decrease. Participants recognized that new strategies were required. Participants identified two properties questioning and accommodation associated with the subcategory of bounded resource. Participants began to ask themselves questions such as "Why did this happen to me?, What is going to happen to me?, What changes do I have to make in my life?" While the questioning never totally disappeared, accommodation strategies were developed and tested over the years. One participant mentioned "In your

fifties you start to think about physical activity because it seems to be slipping away but you are still not too worried about it." Chronic disease was identified as the greatest impediment to physical activity in midlife. The majority of participants were diagnosed with a chronic disease in their mid to late fifties. Health Canada (2002) suggests that the average age for the diagnosis of a chronic disease is currently 55.

Late life was identified as the stage of life with the greatest number of challenges associated with maintaining physical activity and healthy aging. At this stage participants were consciously aware of the physical self. They began to look for additional strategies to keep the body strong. Just at a time when it is the most difficult to be physically active, participants realized that physical activity was increasingly important to healthy aging. Collins & Smyer (2005) support the claims of the participants and suggest that late life is a time of physical loss due to chronic disease. It is also a time when physical differences between individuals become more apparent. However, the way the person views an event is important. The authors suggest that older adults employ different strategies in response to loss by re-assessing goals to coincide with changes in health. During this time of life certain domains are re-evaluated in order to minimize loss.

Participants acknowledged that maintaining physical activity in late life was increasingly difficult for a number of reasons; however one major risk factor, ageism, was considered particularly influential. Family, friends, and professionals frequently cautioned against certain activities in old age. The participant wanted to be physically active but families and friends expressed their concern about increasing risk at their age. Fraser & Richman (1999) suggest that risk is typically divided into specific and non-

specific factors. Specific risk factors are unique to the individual and include examples such as the failure to take medication to control hypertension, failure to adhere to a special diet to control diabetes, insufficient funds at the end of the month to pay the rent or purchase nutritious foods. Non-specific factors include family conflict, career failure, peer rejection, poverty, racism, and ageism.

Participants frequently cited examples of a lack of respect toward older adults. Calasananti (2005) suggests that societies organize on the basis of age, and then use age to establish identities and assign power. Jones & Rose, (2005) suggest that ageism has three constituent elements:

- prejudicial attitudes toward the aged, toward old age, and toward the aging process
- discriminatory practices against the elderly, particularly in employment, but in other social roles as well
- institutional policies and procedures that perpetuate stereotypical beliefs about the elderly, reduce their opportunities for a satisfactory life, and undermine their personal dignity. (p. 25)

Ageism was evident when a number of participants voiced an interest in playing sports in late life but were cautioned that less vigorous activities were more appropriate for their frail bodies. O'Brien Cousins (2005) suggests that ageism plays a key role in physical activity participation among older adults. Typically older adults do not participate in more vigorous physical activities despite the numerous health benefits. For example few older adults participate in sporting events, and usually do not expect themselves to be involved in sporting events except as spectators. On the rare occasions when older adults participate in sporting events it is usually in activities such as bowling, curling, fishing, darts, billiards, and shuffle board. Vigorous activities are reserved for

children and young adults and are considered socially inappropriate for older adults. Older adults who decide to engage in activities such as snowboarding or gymnastics often are identified as 'crazy' or 'superhuman'.

Participants recognized the need for appropriate physical activity advice and identified primary care physicians as an important source of this information. Medical practitioners are generally held in high regard by older adults and their suggestions have the potential to influence physical activity (Eakin, 2000; Hirvensalo, Heikkinen, Lintunen, & Rantanen, 2003). However, most primary care practitioners did not provide physical activity advice for their older clients even when asked to provide this information. Physicians cite a number of reasons for not providing physical activity advice such as: shortage of time, lack of knowledge about appropriate prescription, failure to be reimbursed for dispensing this information and a shortage of reliable and credible fitness professionals to receive referred clients. Increasingly primary care physicians are required to see more patients due to a shortage of family practitioners, and in order to accommodate the increased demand, practitioners must spend less time with each patient. The research suggests that typically practitioners deal with only the immediate complaint, and do not address issues such as an exercise prescription (Booth, Gordon, Carlson, & Hamilton, 2000).

The present study, and the examination of the physical self, identifies that community dwelling frail hold the perception that physical activity is important across the lifespan. However, maintaining physical activity levels becomes increasingly difficult due to chronic disease. Participants identified a number of social forces that prevent or

inhibit physical activity participation. The greatest non-physiological related risk to physical activity participation was identified as ageism. Overall ageism was considered an insidious force that slowly eroded self esteem, motivation and self confidence.

Resilient Self Summary

The resilient self was crucial to the process of preserving self. The resilient self develops over the life course. Participants recognize that resilience exists in youth but begin to attach greater importance to the concept in midlife. By late life participants expressed that resilience was absolutely essential to the aging process and healthy aging. Resilience was defined as a resource that could be used and replenished over the life span. In youth participants rarely relied on the resilient self, at least consciously, to help them get through difficult times. As the years went by participants identified a greater reliance on their supply of resilience. The resilient self was considered to mature over the life course and this maturity was strengthened through four subcategories identified as community support, social support, spirituality, and turning points.

Community support was identified as the first major subcategory associated with the resilient self. Within this category, the health care system was identified as the most important community support structure. Participants wanted long term, trusting relationships with health care providers but often had to accommodate transient relationships in order to remain living in their own homes. Researchers such as Scharlach, Damron-Rodriguez, Robinson & Feldman (2000) suggest a critical shortage of skilled practitioners interested in working with older adults compromises the development of these long term relationships.

While participants considered long term relationships with health care providers essential they also expressed that services need to be tailored to the needs of the individual. Wen, Cagney, & Christakis (2005) suggest that the quantity of community services is important but older adults also consider the quality of treatment, the practicality of the information and the identification of their unique situation as critical components of community support.

The second major subcategory within the resilient self was identified as social support. Social support networks were considered important across the life course. Participants identified family/friends as crucial to the maintenance of the resilient self and important contributors to social support. Families and friends helped one get through the difficult times by providing financial support, emotional support and relief from loneliness. A traumatic event, such as the death of a loved one, often reunited parents with children and friends with friends. Extending the social support network was identified as critical as one gets older since the death of friends, mobility, and functional limitation place restrictions on existing relationships. For some, technology was the tool used to bridge the gap between friends and re-establish connections. For most of the participants the ADSP was identified as a 'ready made' social support network that served to fill an emotional void.

Participants recognized that social support was important to healthy aging. Participants believed that a strong social support network helped to reduce depression, keep one's mind active, and contributed to an overall sense of well being. Researchers such as Collins & Smyer (2004); Finchum (2005); Miller, Smerglia, & Bouchet, (2004)

and Winterstein & Eisikovits (2005) suggest that support from families and friends is important to emotional and physical health.

Participants acknowledged the numerous positive benefits associated with social support but also indicated that social support had a negative side as well. Family often came to the aid of other family members but not without expecting services in return. Research by Putnam (2002) supports the participant's observations that there can be a negative component to social support. Participants identified reciprocity as a crucial component to a healthy social support network and this observation is supported by Ha, Carr, Utz, & Nesse (2006).

At times participants felt pressured into providing services that surpassed the level of service originally received. However, most participants felt that the level of services traded among family members was fairly equal over the years and this feeling contributed to a feeling of security. Martin, Rogers, Cook, & Joseph (2004) support this observation and suggest that high reciprocity among families and friends contributes to feelings of security.

Spiritually is the third major subcategory identified within the resilient self. Some participants identified strongly with organized religion while others identified with a spiritual inner self that was not connected to any religious denomination. Belief in a supreme being helped participants to make sense of health issues, loss, disability and loneliness. Fiori, Hays, & Meador (2004) support participants observations and list numerous physical and psychological benefits associated with religion/spirituality such as stress buffer, protective factor against high blood pressure, positive effect in functional

status, relaxation and aiding in problem solving. Hahn et al. (2004) found that participation in religious activities acted as a protective factor for depression. Knowing a person's spiritual history may provide insight into their physical and mental health (Hahn et al.2004).

Turning points, the fourth major subcategory identified within the resilient self, provides an opportunity for participants to nourish and educate the resilient self. Participants suggested that turning points challenge a person's problem solving and coping strategies. Participants found re-telling stories of turning points helped them to recognize their resilience. Major turning points were identified as leaving home for employment school or marriage, family violence, and death of a loved one and usually had a major influence on a person's life. Turning points were usually identified with stress or adversity and the amount of distress varied with the event.

Turning points are defined as "change in direction in the life course" and Wheaton & Gotlieb (1997, p.5) suggest that turning points can be either universal or conditional. Universal turning points apply to almost everyone while conditional turning points exert different effects on the individual. Conditional turning points are the most common. Turning points need not be dramatic events but usually produce change that is more than a temporary detour (Rumbaut, 2005). Turning points are knowable only after the fact (Fiori et al. 2004; Wheaton & Gotlieb, 1997).

Forming a household was discussed by every participant. Bernhardt, Gahler, & Goldscheider (2005) suggest that forming a household of one's own is viewed as a sign of maturity and independence and participants concurred with this research. Young adults

who leave home to establish a union, to attend school or to form a household of their own suffer fewer negative consequences than young adults who leave for other reasons. Gender and generational issues involved in forming a household are beyond the scope of this study. However, King et al. (2003) suggest that turning points such as forming a household can have a protective factor and contribute to resilience.

While most life transitions were mentioned briefly in passing there were several that participants described in detail and with great clarity. One woman's significant turning point occurred when her husband died. This woman lived with abusive husband for her entire married life. His death liberated her from the abuse. The subject of abuse is poorly researched in the elderly population (Iecovich, Lankri, & Drori, 2004). Winterstein & Eisikovits (2005) suggest that living with an abusive partner can enhance feelings of loneliness, and in cases the women develop a sense of martyrdom. Women often chose to remain in an abusive relationship for the children. In return for this self sacrifice, it is assumed that adult children will reciprocate and care for their aging mother. This is not always the case; however in this situation, the children maintained a strong bond with their mother. Telonidis et al. (2004) suggest that disabled women who become widowed show a significant level of resilience despite the stress of the event.

Every participant had to deal with the issue of death. Several participants discussed the death of parents or siblings. However it was the death of a spouse that resulted in the greatest display of emotion by participants. Miller, Smerglia, & Bouchet, (2004) suggest that the death of a spouse is a stressful event. Loss of a spouse influenced health/health problems. Years of widowhood and functional ability were significant

factors in the adjustment to widowhood. While society tends to brand the elderly as lonely (Winterstein & Eisikovits, 2005), the participants worked through the loneliness and made plans for the future.

Participants spoke at length of the resilient self. Resilience has its roots in psychological and human development theory, and the term has been used to describe an individual's ability to manage or cope with adversity. Resilience was defined as a dynamic and fluid process by participants and this observation is supported by Barnes (1999).

Participants considered community support, social support, spirituality and turning points to be protective factors that strengthened the resilient self. Participants considered that resilience matured as one experienced different situations. Perkins & Jones (2004) suggest that protective factors vary from person to person but influence problem solving skills, organization patterns, communication, and the individual's ability to understand their situation.

It appears that community dwelling frail recognize that the resilient self must be nourished and strengthened along the life continuum. Participants identified that community support, social support, spirituality and turning points contribute to this nourishment. This is not to imply that this is a straightforward or easy process. In fact personal growth was often associated with anxiety, sadness and fear. Participants recognized that the amount of positive benefit obtained from each of the categories is dependent on an individual's ability to use the skills obtained and an individual's ability to apply the skills to other areas of one's life. Participants were in agreement that

sustained physical activity across the lifespan and particularly in late life was the essential factor that enabled one to nourish the resilient self. As one participant stated 'physical activity allows you to do the things you want to do'. Participants also perceived that resilience was absolutely essential to the aging process.

Upon revisiting the research question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?", this study found very positive perceptions toward physical activity and toward resilience. Participants clearly identified that physical activity is essential to maintain one's functional ability. Participants also identified that physical activity helped one to maintain resilience since it enabled the individual to engage with family, utilize community services, satisfy spiritual needs and work through challenging life issues. Together physical activity and resilience enable one to address changes associated with healthy aging.

Theoretical Implications for Practitioners

This model illustrates that the process of preserving self is essential to healthy aging. Healthy aging is a multi-dimensional concept that requires both physical activity and resilience. Participants identified appropriate programs and qualified practitioners as essential to preserving self.

Since participants identified appropriate programs as essential, it is important that practitioners design a variety of programs to meet the diverse demands of this population. Some individuals enjoy group activities while others prefer individualized programs, therefore a variety of program options must be developed. Kinsel (2005) suggests that

practitioners identify strengths in their clients when doing assessments and develop appropriate interventions accordingly.

Establishing networks among allied health professionals is essential to physical activity interventions. Doctors and nurses generally are held in high regard by their patients. By establishing networking relationships, primary care physicians are in a position to encourage patients to seek physical activity interventions from qualified practitioners.

Recently a number of recreation facilities have examined the relationship of physical activity and resilience among youth, and a number of programs have been designed (Allen & Hurtes, 1999; Cooper et al. 2004). Practitioners need to examine the models and develop models suitable for the frail. Kulig (2000) suggests the development of intervention programs that can enhance resilience for older adults requires further investigation.

Typically the frail are identified as consumers of precious health care resources (Health Canada, 2002) and the frail are accused of failing to make a meaningful contribution to society. Bonano (2004) suggests that resilience is more common in the population than previously thought. Therefore it is up to practitioners to recognize client's strengths.

Chronic disease was identified as the major barrier to physical activity and subsequently healthy aging. Health Canada (2002) suggests that interventions targeted directly to those with recent diagnosis are likely to result in higher adherence and

retention rates. Practitioners are uniquely positioned to address these needs and deliver appropriate physical activity programs.

Participants identified ageism as a major social force that affects both the physical self and the resilient self; therefore it is important that practitioners learn to recognize this non-specific risk at both the societal and individual level. At the individual level practitioners need to recognize their personal attitudes toward aging. At the societal level, practitioners need to identify how ageism is perpetuated at the individual, group and community level.

In the process of preserving self, participants move from indifference, to enquiring, to connection with physical activity. The identification of these changing attitudes toward physical activity is important since they indicate the need for specific strategies at specific times along the life continuum. Since the identification of barriers is crucial to the development of effective interventions, this research suggests that older adults employ different strategies at different points in time. Effectively identifying the attitude toward physical activity is important for service delivery.

Theoretical Implications for Kinesiology

Attracting a sufficient number of practitioners to work with older adults, and specifically community-dwelling frail older adults is a significant challenge. In 1997 John Burt called on kinesiology to elevate modern society by working to improve the functional status of the elderly population. Burt (1997) suggested kinesiology address this issue through greater integration with the community, and by addressing directly those issues that prevent older adults from obtaining the benefits associated with regular

physical activity. Since participants identified the shortage of qualified fitness practitioners as a significant barrier to healthy aging, it is important for kinesiology faculties to interest their students in older adult fitness.

Attracting students to this area of study and eventually career development, requires that the subject of ageism be addressed (Burbank, Owens, Stoukides, & Evans, 2002; Charbonneau-Lyons, Mosher-Ashley, & Stanford-Pollock, 2002; Hendricks, 2005). O'Brien Cousins (2005) suggests that ageism directly influences younger adult's attitudes toward older adults and these attitudes ultimately affect their career choices. Although it is unknown how many kinesiologists currently work with older adults, faculties such as social work, medicine and sociology are increasing alarmed at the looming shortage of practitioners interested in working with older adults (Arber & Ginn, 1991; Eakin et al. 2001; Lowenstein, 2005; Overdorf, 2004; Wells & Taylor, 2001).

Infusing a particular concept such as ageism into the curriculum, particularly at the core curriculum level, is one way to ensure that all students gain an understanding of this critical issue. However, professional staff must be sensitive to the issue as well. Greene, Dezendorf, Lyman, & Lyman (2005) suggest that ageism is pervasive and that teaching and research staff must also receive professional development and training in this area. Some suggestions for successful interventions include the following:

- ensuring strong support from academic administration for professional development and training;
- selecting respected senior faculty who will endorse the interventions, and act as role models
- providing incentives for staff to implement changes
- adopting a lifespan approach for all curricula
- conveying a clear vision of what is needed
- providing networking opportunities to encourage team building

- securing support from the professional community outside of academia

Integrating with the community is essential since it provides students with opportunities to connect with older adults in the community. The ADSP involved in this research project routinely accepts kinesiology students for practicum placements. However, the program can absorb only a small number of students and more practicum placement sites are required. Students with practicum experience generally have very positive attitudes toward this population (Schigelone & Ingersoll-Dayton, 2004). However, the number of placements for students in similar environments is small compared to the growing need for exposure of students to an increasingly aging population.

Limitations of the Study

The limitations of the study are largely affected by the time constrictions faced by the researcher. The findings of the project are based on one interview per participant, and the small sample size of 15 was used to build the grounded theory in which 'preserving self' was the core category. Not all participants talked about each of the six subcategories, and not all categories were conceptually rich. The credibility of this research may be affected by the lack of development of some categories. A larger sample size and additional interviews would help to fill out the development of the grounded theory in the future. The small sample size likely had an affect on the applicability of the results although participants were well represented from each of the four quadrants of the city. While all the participants in this study identified physical activity and resilience as important concepts in the aging process, without further investigation it would be unwise

to conclude that all participants who attend Adult Day Programs draw the same conclusions.

The sampling for this study was purposive, and participants knew in advance that the researcher was interested in the topic of physical activity. In some cases the researcher had worked for over two years with the participants. Over the course of this time the opportunity was given to discuss many subjects and participants knew the researcher's opinions on a number of health related issues. Stephenson et al. (1999) suggest that the gender of the researcher may influence the content of the data. Their findings suggest that women who were interviewed by a female were more likely to focus on the family but when interviewed by a male, female participants spend almost twice as much time talking about education. Their research suggests that some of the findings on concepts such as independence, age, and gender in the current literature may stem from interviewer gender bias.

The findings may also be influenced by a participant's ability to recall events. Each participant was asked to recall events that had taken place many years previously. Accuracy of descriptions must be considered while evaluating the dependability of the grounded theory since there is no way to validate information. It is also possible that participants re-interpreted events to please the researcher. This challenge is not unique to this study and future research is required within the field of qualitative research to address this issue.

Consideration for Future Research

It is evident from this study that at least three areas of research are needed. First, it appears that ADSPs can positively affect participants in a number of ways. A common theme running throughout the data was the role of the ADSP in positively contributing to both the physical self and the resilient self by providing physical activity programs, community support, social support, spiritual support and a sense of purpose.

Community support was identified as essential to the aging process. The complexity of modern society was described as overwhelming at times. Mobility and transportation issues made getting out into the community difficult and participants were grateful for the advocacy role filled by the program. Participants stated that when they needed advice ADSP staff served as a rich resource of information in the areas of housing, legal advice, and financial assistance. Participants found the ADSP to be financially affordable, and those with limited means were subsidized by the Health Region. In addition, participants suggested that it was not simply enough to have services available within the community. For them it was essential that the programs provide the types of services identified as important for the individual. Healthy aging is dependent on a number of accessible and affordable services, and community support in the form of ADSPs has been identified as a valuable resource for community dwelling frail.

Participants felt that ADSP staff relationships extended far beyond professional relationships and were a form of social support. The ADSP served to extend participants shrinking social networks by providing an instant friendship network. Participants identified that it becomes harder to make friends as one gets older, and the opportunity to

meet new people was essential. Health education, while commonly identified as a community support, was identified also as a form of social support. Participants appreciated that the knowledgeable nursing staff could provide information specific to their condition. Glucose monitoring, blood pressure monitoring and information about medications helped participants to manage their conditions. Participants recognized that health education was available in the community but considered the information to be of a generic quality and the information did not necessarily address their specific needs. However, the long term relationship with the ADSP staff provided a personal connection to their specific needs.

Participants suggest that recognition of their spiritual needs was critical to the development of the resilient self in late life. Although the ADSP program is non-denominational, it recognizes and respects people from all religious backgrounds. For example one Muslim participant was encouraged to participate in social activities organized by the Muslim community. Spirituality was identified as important to the individual, and the ADSP assisted this person with strengthening spiritual ties. Spirituality is also demonstrated in other ways such as memorial services for volunteers, and the Remembrance Day ceremony. The underlying philosophy of respect is evident within the Centre and participants identified the ability to express their spirituality as critical to their identity.

The acceptance into an ADSP was described as a major turning point by several men and women within the program since it provided a sense of purpose. Sense of purpose varies from person to person but is often associated with specific roles such as

parenting or career. However, these roles were not foremost in the lives of participants, and many struggled to find meaningful roles in late life. Several participants explained that the ADSP provided a sense of purpose because there was a sense of reciprocal expectation between participant and program staff. Once a participant was accepted into the program there was a sense of commitment in the form of regular attendance. Failure to attend on a designated day solicited a telephone call, and the only acceptable reason for non-attendance was medical in nature. In essence there was a verbal contractual arrangement between participant and program. Participants defined this sense of expected behaviour as a motivational force. At a time in life when little is expected of a person, the commitment to regularly attend the day program served as a marker for obligation. More research is needed to identify how programs can be developed to address these needs.

There is a need for policy makers to determine how procedures such as admittance to an ADSP affect the lives of community dwelling frail. At this point in time admission is at the discretion of certain health professionals. There is a shortage of ADSPs and long waiting lists restrict access for many potential clients. The number of community dwelling frail is anticipated to increase significantly in the near future. Therefore it is essential that policy makers address this issue immediately.

Second, additional studies in grounded theory methodology are needed to develop a grounded theory that represents more fully the experiences of all frail adults. Researchers might focus on speaking with participants who believe that physical activity does not play a role in resilience. The stories of larger samples should be examined to build the grounded theory. It is also important to hear the stories of participants from

many different ethnic backgrounds and diverse socioeconomic backgrounds so that their stories can be heard. Future research should be conducted by interviewers unfamiliar to the participant, as well as of the opposite sex from the participant.

The frail elderly represent a marginalized segment of the older population. Those older adults with mild cognitive impairments represent another poorly understood population. Many individuals with mild cognitive impairment have difficulty with spatial orientation but can recall past events with great clarity (Kolanowski, & Rule, 2001). Their stories of physical activity and resilience are yet to be heard. With proper screening and additional support it would be an important topic for further investigation within yet another marginalized population. The subject of resilience is poorly understood as it applies to frail community-dwelling participants. There is much work to do be done to understand how factors such as motivation affect resilience.

Finally, the use of the term 'frail' is problematic within this study since it is a culturally-constructed term (Wilson, 2004). Participants did not ask the researcher to delete the term or remove the term frail from the study title, however; one participant mentioned that she did not consider herself to be frail despite fitting the researcher's definition of frail. At one point the researcher considered substituting the term 'experienced self' for frail. While the substitution may have been received more favourably by study participants it would have created a number of issues for the researcher. At this time the term 'frail' is well entrenched in the research literature. The use of another term would have complicated the literature review. Future research is needed to recognize and respect how older adults wish to identify themselves.

Summary

Glaser (1998) suggests that too many researchers embark on grounded theory for one study, develop their theory, and then fail to build on their existing research. Theory development is a complex process, and building on existing research would likely result in more substantive theories evolving into formal theories.

The present study was built on the question "What are the perceptions of community dwelling frail toward physical activity and resilience during the aging process?" Through data collection and analysis the process of preserving self was found to be critical to healthy aging. Preserving self consists of an interdependent relationship between the physical self and resilient self. This relationship exists throughout life. However its significance takes on greater importance as one approaches late life. At some point the participant identifies that regular physical activity participation is the vital link that serves to strengthen this interdependent relationship. The success of preserving self depends on how well the person understands the role of physical activity in maintaining this interdependent relationship and on how well the person understands how to integrate physical activity strategies.

It is the goal of this researcher to avoid the 'one study' category. This study has provided some answers to the perceptions of aging by community dwelling frail such as the importance of physical activity in late life, and the importance of ADSPs in sustaining resilience. This study also raises new questions. For example how can communities assist all frail adults to build resilience and how can faculties such as kinesiology encourage students to work with older adults? In order to move this study toward a formal theory it

is important to investigate these questions. This present study has set the stage for additional data collection and additional data analysis in order to further understand the areas of physical activity, resiliency and the frail.

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Appendix A

Letter of Introduction

Hello,

My name is Marianne Rogerson. I am a graduate student in the Faculty of Kinesiology at the University of Calgary and the purpose of this letter is to inform you of your potential participation in a research project.

Physical activity is considered to be an important component of healthy aging. While there has been considerable research that investigates physical activity participation of certain groups of seniors, to date there have been few studies that investigate physical activity among Adult Day Support Program (ADSP) participants.

This research aims to provide ADSP participants with an opportunity to discuss their physical activity patterns over the life course. Since little information is known about the physical activity preferences of ADSP participants, this information will assist fitness professionals and the research community in program planning.

Your participation in this project is voluntary, however; if you decide to participate I will be requesting an interview with you in the near future. This interview will take between 30 – 60 minutes and will be conducted at the [redacted] on a day when you normally attend the program.

Thank you for taking the time to meet with me.

Yours truly,

Marianne Rogerson

UNIVERSITY OF CALGARY
KINESIOLOGY

Appendix B

Informed Consent

TITLE: **Physical Activity Participation and the Frail Elderly: Does resiliency make a difference?**

SPONSOR: **This study is not sponsored or funded by any company.**

INVESTIGATORS: **Marianne Rogerson, Principle Investigator.**

Dr. Claudia Emes, Co-Investigator (Supervisory Committee)
Dr. Robert Stebbins, Co-Investigator (Supervisory Committee)

This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, please ask. Take the time to read this carefully and to understand any accompanying information. You will receive a copy of this form.

BACKGROUND

Physical activity is considered to be an important component of healthy aging. While there is considerable research that investigates physical activity participation of certain groups of seniors, to date there have been few studies that investigate physical activity preferences among Adult Day Support Program participants.

This qualitative research will use an open-ended exploratory approach and involves participants who attend the [redacted] Adult Day Support Program. Approximately 30 randomly selected participants will be asked to participate. This research is not a continuation of any previous study.

Each participant will be asked to participate in a private interview with the principle investigator. During this interview the topics of physical activity and resiliency will be discussed. Each interview is expected to last between 30 – 60 minutes.

WHAT IS THE PURPOSE OF THE STUDY?

The purpose of this study is to examine physical activity preferences of Adult Day Program participants over the lifespan, to identify any life events that influenced physical activity

participation, and to identify the degree to which resiliency influences physical activity participation.

WHAT WOULD I HAVE TO DO?

Each participant will be asked to participate in an interview with the Principle Investigator. This interview will last between 30 – 60 minutes and will include discussions about physical activity preferences over the life course, body image perception and resiliency.

You will be requested to participate in one interview. The interview will be conducted on a day that you normally attend the [redacted] program. This interview will be conducted in a quiet room that eliminates background noise as well as provides privacy for the participant. It is anticipated that all interviews will be completed by December, 2005.

With your permission, the interview will be audio taped so that there is an accurate record of your interview.

WHAT ARE THE RISKS?

There are no likely side effects or risks associated with this study. However, in the unlikely event that you should experience any negative emotions from this research, the [redacted] has a Social Work Department. This department operates Monday to Friday from 8:30 to 4:30. In addition, there is a distress line that is available. Each participant will be provided with contact information and assisted with contacting the department if the need arises.

ARE THERE ANY REPRODUCTIVE RISKS?

There are no reproductive risks associated with this study.

WILL I BENEFIT IF I TAKE PART?

If you agree to participate in this study there may or may not be any direct benefit to you. The information received from this study may help to provide better physical activity programming for adult day support participants.

It is hoped that through this study physical activity practitioners as well as researchers will gain a greater understanding of the physical activity needs of ADSP participants as well as an increased understanding of the topic of resiliency among frail older adults.

DO I HAVE TO PARTICIPATE?

Participation in this study is voluntary and you do not have to participate.

If you decide to participate in the study, you may refuse to answer any question(s) during the course of the interview or you may terminate the interview at any time by asking the principle investigator to stop the questioning or interview.

WHAT ELSE DOES MY PARTICIPATION INVOLVE?

Your participation in this research is limited to one interview.

WILL I BE PAID FOR PARTICIPATING, OR DO I HAVE TO PAY FOR ANYTHING?

You will not be paid for participating in this research and you will not be required to pay for participating. Your interview will be conducted on a day when you normally attend the [redacted] program.

WILL MY RECORDS BE KEPT PRIVATE?

Every effort will be made to keep your records private. Once the interview is completed you will be assigned an identification number. This identification number will be stored separately from your personal information on a password protected computer within a locked filing cabinet. This identification number will be used on the audio tape and transcribed data. The principle investigator is the only person who will have access to personal information as well as identification numbers. Co-investigators will not have access to any personal information.

Audio tapes will be erased immediately after transcription is completed. Transcribed data will be stored in a locked filing cabinet on a password protected computer. Upon approval of the final thesis all transcribed data will be shredded. This is anticipated to occur in May, 2006.

Your responses will be held entirely confidential and will be used for research purposes only. When information is summarized into a research report, your comments (if quoted) will be qualified anonymously. Your name or information that could be used to identify you personally will not be revealed.

SIGNATURES

Your signature on this form indicates that you have understood to your satisfaction the information regarding your participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time without jeopardizing your health care. If you have further questions concerning matters related to this research, please contact:

Dr. Claudia Emes (403) 220-7019

Or

Dr. Robert Stebbins (403) 220-5827

If you have any questions concerning your rights as a possible participant in this research, please contact Pat Evans, Associate Director, Internal Awards, Research Services, University of Calgary, at 220-3782.

Participant's Name	**Signature and Date**
Investigator/Delegate's Name	**Signature and Date**
Witness' Name	**Signature and Date**

The University of Calgary Conjoint Health Research Ethics Board has approved this research study.

A signed copy of this consent form has been given to you to keep for your records and reference.

Appendix C

Interview Guide

Client History:
Name: _____
Gender: _____
Day and year of birth: _____
Place of birth: _____
Highest Level of Education: _____
Marital Status: _____

Physical Activity:

1. How do you define physical activity? Is there a difference between physical activity and exercise? Yes/No. If yes, how do they differ? Which term do you prefer and why?

2. Physical activity (exercise) is part of life from the day we are born. What has physical activity (exercise) meant to you over the years – (i.e. what types of activities have you done?).

3. Has the meaning of physical activity changed over the life course? If so, how?

4. Please identify what you believe influenced (or continues to influence) physical activity?

Resiliency

5. In your opinion, what contributes to people's ability to bounce back or get through challenging situation? Can you think of a particular word, or phrase, that describes this ability?

   a) Have you been able to apply this insight into your own life? If so, how and when?
   b) In your opinion what contributes to a person's ability to get through the difficult times?

Appendix D

FACULTY OF MEDICINE | UNIVERSITY OF CALGARY

2005-08-30

OFFICE OF MEDICAL BIOETHICS
Room 93, Heritage Medical Research Bldg
3330 Hospital Drive NW
Calgary, AB, Canada T2N 4N1
Telephone: (403) 220-7990
Fax: (403) 283-8524
Email: omb@ucalgary.ca

Dr. C. Emes
Faculty of Kinesiology
University of Calgary
KN B 234
Calgary, Alberta

Dear Dr. Emes:

RE: Physical Activity Participation and the Frail Elderly: Does Resiliency Make a Difference?

Grant ID: 18631
Student: M. Rogerson

The above-noted research proposal, including the Thesis Proposal, the Consent Form (Revised Version, dated August 28, 2005) and the Interview Guide (Revised Version, dated August 28, 2005) has been submitted for Committee review and found to be ethically acceptable.

Please note that this approval is subject to the following conditions:
(1) access to personal identifiable health information was not requested in this submission;
(2) a copy of the informed consent form must have been given to each research subject, if required for this study;
(3) a Progress Report must be submitted by 2006-08-30, containing the following information:
- i) the number of subjects recruited;
- ii) a description of any protocol modification;
- iii) any unusual and/or severe complications, adverse events or unanticipated problems involving risks to subjects or others, withdrawal of subjects from the research, or complaints about the research;
- iv) a summary of any recent literature, finding, or other relevant information, especially information about risks associated with the research;
- v) a copy of the current informed consent form;
- vi) the expected date of termination of this project.

(4) a Final Report must be submitted at the termination of the project.

Please note that you have been named as a principal collaborator on this study because students are not permitted to serve as principal investigators. Please accept the Board's best wishes for success in your research.

Yours sincerely,

Christopher J. Doig, MD, MSc, FRCPC

Chair, Conjoint Health Research Ethics Board

CJD/km

c.c. Adult Health Research Committee Dr. B. MacIntosh (information) Research Services Ms. M. Rogerson (Student)
Office of Information & Privacy Commissioner

Appendix E

Foothills Medical Centre
1403 29 Street NW
Calgary, Alberta, Canada T2N 2T9
website www.calgaryhealthregion.ca

calgary health region
Foothills Medical Centre

07 September 2005

Dr. Claudia Emes
Faculty of Kinesiology
University of Calgary

Dear Dr. Emes:

Re: #18631 – Physical Activity Participation and the Frail Elderly: Does Resiliency Make a Difference?

Thank you for submitting an application regarding the above project for review by the Adult Research Committee of the Calgary Health Region (CHR). This will confirm that the committee has granted institutional approval for this project, and that the CHR has granted approval under Sections 53 and 54 of the Health Information Act. **This approval is contingent on approval by the Conjoint Health Research Ethics Board.**

It is understood from your submission that your study will be entirely funded through external sources and that the CHR will be reimbursed for all research costs associated with this project. **To facilitate a smooth startup of your project, please notify affected departments in the Region well in advance of your intent to initiate this study.**

Please accept the committee's best wishes for success in your research.

Yours sincerely,

Elizabeth MacKay, MD
Acting Chair, Adult Research Committee

cc: Dr. B. MacIntosh, Conjoint Health Research Ethics Board, Ms. M. Rogerson