THE UNIVERSITY OF MANITOBA

EXAMINING THE RELATIONSHIP BETWEEN RECREATION PARTICIPATION AND QUALITY OF LIFE AMONG RESIDENTS OF A LONG-TERM CARE FACILITY: COUNTERACTING LONELINESS, DEPRESSION, AND BOREDOM

BY

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A Thesis Study
Submitted to the Faculty of Graduate Studies
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For the Degree of

Of

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Acknowledgement

I would like to dedicate this thesis to my mother; thank you for your unconditional love, support and generosity.

- Dr. Yoshi Iwasaki, my advisor; thank you for your patience, guidance, understanding, and invaluable advice. I could not have done this without you.
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Thank you.

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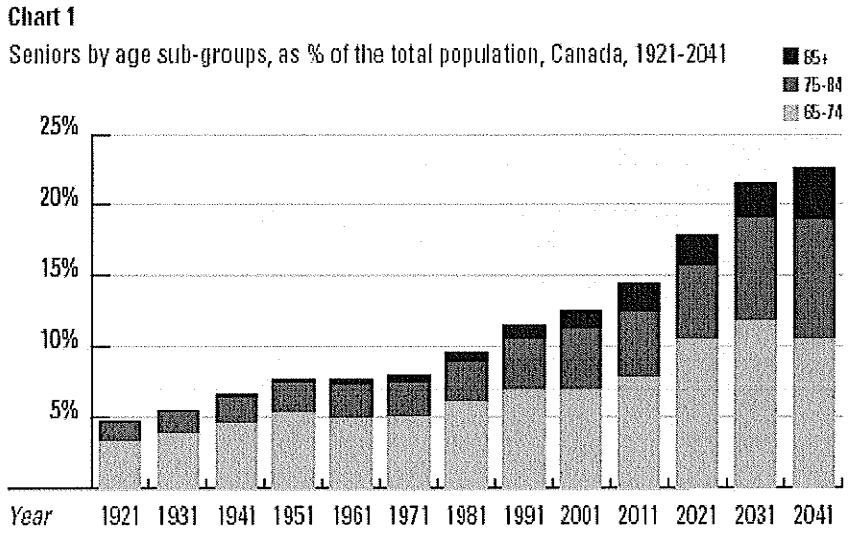
ABSTRACT: The purpose of this research was two-fold: one was to explore and highlight the significance of *recreation* in facilitating the *quality of life* (QOL) among older adults living in long-term care facilities. Second was to examine the potential of *recreation* in counteracting loneliness, depression, and boredom among them. More specifically, this study focused on testing a mediational model of recreation – QOL relationship. In this study recreation involvement referred specifically to the frequency of participation in programs organized and delivered by recreation facilitators, such as outings (community based activities); centralized programs (e.g., bingo, carpet-bowling, club-entertainment and shuffle-bowling); small group programs (e.g., mental fitness, reminiscing, and gardening); physical programs (exercise); and self generated activities (e.g., solitary and socializing with others). Using a survey format, the participants ($\underline{n}$ = 75) responded to Ferrans and Powers' (1985) "Quality of Life Index – Nursing Home Version," as well as measures that assessed loneliness, depression, and boredom. A series of regression analysis were used to test the mediational hypothesis. While a strong significant relationship was found between depression and quality of life, indicating that residents with lower degrees of depression had a higher quality of life, the findings did not, however, show any other statistically significant relationships. It is hoped that this study may be used as a reference for future studies to better understand the quality of life of nursing home residents, and the role of recreation in improving their QOL.

CHAPTER I

INTRODUCTION

Due to declining birth rate and increasing life expectancy, the proportion of Canada's seniors' population is growing rapidly. In fact, Canada's current seniors' population is about 3.6 million; this population has more than doubled from 5% of the total population in 1921 to 12% in 1998. By 2041, this is projected to increase to 23%



(Statistics Canada, 2001).

In the context of this study, 'seniors' refer to those individuals with a chronological age of sixty-five and older. This definition is broad and encompasses an age group with varied lifestyles, aging effects, historical effects, and due to Canada's multicultural population, cultural effects (Seedsman, 1994).

Consequently, as the Canadian population ages, the need to provide personal care homes (PCH) will also increase. Statistics Canada projects that in 2031, 3.1% of the total population will require some form of long term health care. The number of Personal Care Homes in Manitoba has increased by 1.1% from 1998 to 2001.

The numbers of licensed beds have increased, during the same time period, from 9,141 to 9,586 (Manitoba Health Annual Statistics 1998-1999 & 2000-2001).

Due to this increasing demand for a PCH, social policy professionals need to legislate appropriate guidelines regarding the health and wellness of older adults living in a PCH. For example, a system of *multidisciplinary* approach should be mandated. The multidisciplinary approach is a method of providing a more holistic and efficient level of care (Singleton, Markrides & Kennedy, 1986). One of the major advantages of implementing a multidisciplinary approach is, "patient will benefit because all specialties will be working toward one goal," (Singleton, et al., 1986, p. 58) that is, the overall well-being of the patients/residents. The core concept of this approach is to deal with a common issue, i.e., improving the residents' quality of life (QOL), by using multiple professions that complement each other in providing the optimal level of care that incorporates the physiology, psychology, social, emotional health, cognition (Cella, 1994), and self-esteem of a person (Reitzes, Mutran & Verrill, 1995). O'Morrow (1974) states that "it is a way of making a greater and more integrated range of services available because of a recognition that one profession cannot meet all diversification of needs" (p.48). Since it is increasingly becoming evident that participation in recreational activities can be viewed as a treatment or therapeutic intervention (Kincaid, 1977), the role of recreation as a key component of a multidisciplinary approach in PCH settings should be given due attention.

Therefore, the core purpose of this research is to examine the relationship between recreation and QOL for residents of PCHs . It is hoped that by highlighting the need for recreational services and grasping the significance of the trend toward an aging society,

and by better understanding the needs and personal characteristics of this population, social policy planners will be in a better position to plan and mandate programs that would be conducive to the deliverance of the optimal care. For example, they need to plan for:

- a well established recreation department complemented with trained professionals to provide a variety of socially, physically and intellectually stimulating recreational activities that would meet the social, psychological and physical needs of PCH residents; and
- provide educational services to inform the public about the therapeutic effects of recreation, not only for older adults, but for the general public.

By incorporating recreation into overall care, residents' social, spiritual and psychological needs can also be met holistically, and caring for the whole person will be achieved (Seedsman, 1994). For example, research has demonstrated that by incorporating recreational activities into overall care, residents can feel less depressed (Johnson, 1999), bored (Turner, 1993), and lonely (Hicks, 2000). Dupuis and Smale (2000) found that stimulating, purposeful recreational activities in a PCH can decrease loneliness, depression and foster independence, and consequently can improve residents'quality of life. Since it appears that depression, loneliness and boredom are three of the most prevalent psychological conditions that residents of a PCH experience (Andrews, Gavin, Begly, Brodie & Lawton, 1994; Pedlar, Dupuis & Gilbert, 1996), the objective of this research, therefore, is to examine the relationship between recreational activities and QOL in counteracting depression, loneliness, and boredom among PCH residents.

Definition of Terms

Myers (1989) defined depression as a psychological state involving feelings of low esteem, despondence, negative mood, self-criticism, guilt and suffering. It may be accompanied by changes (high or low) in appetite, sleep, food, or sex. On the other hand, Thomas (1996) suggested that boredom is experienced when an individual's life lacks variety and spontaneity. Also, Esman (1979) asserted, "boredom is a complex mental phenomenon incorporating both affective and cognitive components" (p.425).

Loneliness is defined as a highly subjective and complex feeling elicited by situational and personal factors (Rodger, 1989), for example, "a situation experienced by the individual as one of an unpleasant or unacceptable discrepancy between the amount and quality of social relationships as realized, compared to the relationships as desired" (De Jong Gierveld, & Van Tilburg, 1995, p.161).

Living in a Personal Care Home

A PCH is considered to be a *Long Term Care Facility* that provides care for those individuals who could no longer live independently at home. A personal care home provides a safe, protective, and supportive environment that assists with daily living activities for individuals who are diagnosed as needing 24 hour surveillance, medical and /or nursing care, and assistance with meals (Canadian Institute for Health Information, 2000).

Historically, a PCH was a medically oriented facility. Residents having met their basic, daily personal and medical needs would spend majority of their hours in a passive state of being (Kane, 2003). Some of the passive behaviours most exhibited in a PCH, for

example, are: sitting, staring at their environment, feeling bored and lonely, watching television, or retreating to their rooms to sleep during the day.

In 1963, in an effort to improved quality of life/care in personal care homes, a regulation respecting Care Facilities under the Public Health Act Regulation P210-R6 was legislated. Section 35 of Regulation P210-R6 stipulated that "reasonable and adequate recreational and diversional activities shall be provided by every Care Institution for the residents thereof and the residents should be encouraged to use those facilities to the fullest extend possible" (Manitoba Regulations, 49/63). This act caused sweeping changes in the overall regulation of personal care homes; it was the force that caused the medical model to change to a model of care that emphasized quality of care for the residents. The core focus of Regulation P210-R6 was to restore dignity and independence, and to assure that personal care homes were providing an improved quality of care for their residents and that recreational activities were to be included as a component of quality of life in a personal care home.

To ensure the adequate deliverance of recreational activities in a PCH, the following requirements were mandated (Manitoba Regulations, 1963):

- Lounges, recreation, dining, library, sitting rooms, reading rooms, and other activity areas shall be provided on a minimum basis of sixty square feet per bed, and;
- Licensee of each Care Institution and Personal Care Home shall provide programs for constructive use of leisure time, as well as recreational and social activities that will sustain the residents contact with the community.

Quality Of Life Among Residents Of A Personal Care Home

Despite the legislation of Regulation P210-R6, most PCHs continue to be medically oriented with providing the best Quality of Care (QOC) taking precedence over providing QOL. The physical and social environment of most PCHs mimic that of a hospital where routine, sterile wings, and lack of privacy, social contact and individuality are the culture. Such a culture in a PCH can deaden the human spirit (Kane et al., 2003).

A PCH should be driven not only to promote and provide the best medical care, but also to incorporate social and psychological elements of living. It should be made clear that although quality of care does contribute to QOL, other elements of daily living such as individuality, dignity, meaningful activity and spiritual well-being that facilitate QOL should also be viewed as crucial and a necessary aspect of delivering the ultimate care at a PCH (Haberkost, Dellmann-Jenkins & Bennett, 1996).

The concept of QOL is broad and elusive. However, most scholars have come to agree that at its most fundamental level, it is a *multidimensional* and *subjective* concept (Cella, 1994). It is multidimensional because it encompasses a range of domains of a person's life, while it's subjective because it measures life experiences and personal satisfactions.

Using expert opinions, focus groups and literature reviews Kane et al. (2003) identified 11 QOL domains relevant to PCH life. These are: functional competence, autonomy, comfort, individuality, dignity, privacy, security, meaningful activity, enjoyment, relationships and spiritual well-being. Recreational programs can potentially improve and maintain QOL in a PCH by contributing to each of the 11 domains identified as fundamental to the residents' QOL, as being illustrated as follows:

Functional Competence – Functional competence refers to the extent to which a resident feels independent within the confines of a PCH, regardless of their physical and cognitive limitation. Recreational activities can provide an opportunity for the residents to maintain and use their functional capabilities and independence; thus, these activities may help them maintain their social, intellectual and physical capabilities which, in turn, may preserve and extend their independence and functional competence (Brill, Jensen, Koltyn, & Morgan,1998).

Autonomy – Autonomy refers to the extent to which a resident perceives themselves to be making decisions regarding their life at a PCH. The recreation department can play a crucial rule in helping residents feel a greater sense of autonomy and independence by giving them the opportunity to choose and even initiate activities (Duncan-Myers & Huebner, 2000). Lilly and Jackson (1990) suggested that engaging in appropriate recreational activities is crucial for the residents of a PCH to feel adjusted to every day life in the facility and regain independence, control and autonomy.

Comfort – Comfort refers to being free from physical pain and discomfort, including joint pain, chronic headache, constipation and other related illnesses. Research has shown that 75% of the residents "forgot" about their pain during recreational activities (Pickering et al., 2001). Furthermore, Fitzsimmons (2001) argued that in addition to reducing pain, certain therapeutic recreational activities could also alleviate depression and anxiety and promote relaxation.

Individuality – Individuality refers to being able to maintain one's self-identity and individuality; to be perceived as a person and not a job to be done. Recreational activities can promote a continued sense of self through providing valued activities that the resident

had enjoyed in the past. Outings to the community which help the resident keep connected to the outside world can further enhance their sense of self and continued identity (Pedlar, Dupuis, & Gilbert, 1996).

Dignity – Dignity refers to having one's dignity as a human being respected and not compromised. However, appropriate recreational activities can be utilized to provide an avenue for a resident to feel competent, needed, wanted and respected, thus indirectly enhancing their dignity. Appropriate recreational activities that focus on enhancing a resident's abilities can serve to increase their competence and a sense of accomplishment, thus facilitating their dignity (Dupuis & Smale, 2002).

Privacy – Privacy refers to experiencing a sense of privacy--being able to spend time alone or privately in the company of loved ones if one wishes. Recreation facilitators can acknowledge a resident's need for privacy by respecting their wish to be left alone with their loved ones or their need for solitude (Dupuis & Smale, 2002).

Security – Security refers to feeling safe and secure in one's environment. Residents need to be able to trust that they are living in a place where rules of life are clear and understood and people are well intended. Freely choosing to engage in valued and familiar recreational activities can help a new resident adjust to their new environment, thus facilitating to feel more secure and safe (Geiger & Miko, 1995).

Meaningful Activity – Residents of a PCH need to perceive that there are opportunities to engage in meaningful, stimulating activities that would complete their days. Of course, what is meaningful will depend on the physical and cognitive status of the resident. Meaningful recreational activities can provide enjoyment for residents and a sense of purpose in life (McGuire, Boyd, & Tedrick, 1999).

Enjoyment – Enjoyment is an attribute most of us aspire to in our lives; therefore, the same should also be a priority for residents living in a PCH. Recreational activities can provide enjoyment and a sense of purpose to a resident's everyday life.

Relationships – Relationships of love, friendship, or even rivalry make life more meaningful and worth living. In a PCH, group social recreational programs can provide an avenue for the residents to maintain their family ties and meet, socialize and establish new meaningful relationships, thus giving them a sense of belonging (Pedlar, et al., 1996).

Spiritual Well-Being – Spiritual well-being refers to the perception of having the freedom to practice one's choice of religion and express their spirituality. Not only has spirituality been associated with health outcomes (Fetzer Institute, 1999), but the arrangement of religious services, walks and hymn sing-a-long by a recreation department can also meet the resident's need for spirituality (Heintzman, 2000).

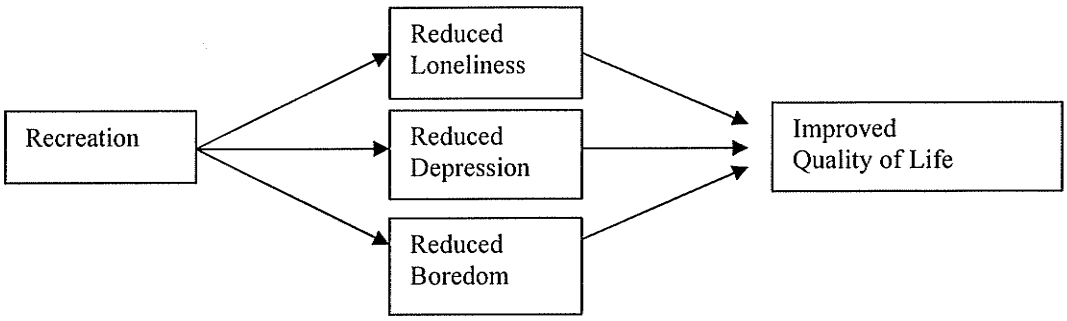
When residents of a PCH engage in a recreational activity, the activity is likely to be performed for its own sake, which is to do something that gives an opportunity to experience satisfaction and pleasure and to express one's potential, talents, and capacity, thus giving an opportunity to be oneself (Neulinger, 1974). Avery (1997) stated that "when people see themselves as succeeding and capable they become happier and more positive, and receptive to care" (p.168). In conclusion, recreational opportunities in a PCH can improve residents' QOL by facilitating social, intellectual, physical, spiritual and psychological well-being.

Purpose of Study

Having left a life of independence and free will, for many people, entering a PCH, an environment that is governed by rules and regulations, can be one of the most frightening experiences in their lives. Residents enter an environment where caring for their illness often takes precedence over caring for the *whole person*. As a result, residents may feel alienated, bored, and lonely and may ultimately fall into depression.

Both the literature review and my personal experience through working at a PCH highlight the importance of recreation for the residents of a PCH. The provision of recreational activities in a PCH can buffer the monotonous, regimented, and often non-stimulating routine in a resident's life. Consequently, it is important for the recreation department to deliver enjoyable activities which provide a buffer against loneliness, boredom, and depression, thus leading to improved QOL. Therefore, it was hypothesized that depression, loneliness and boredom might mediate the association between recreation and QOL among residents of a long term care facility (see Figure 1, P. 12). More specifically, this hypothesis predicted that recreation participation might be negatively associated with depression, loneliness and boredom (i.e., mediating variables), which are then negatively associated with QOL among the residents.

Figure 1: Hypothesized model of Recreation—Quality of Life relationship.



CHAPTER II

LITERATURE REVIEW

Since the Regulation P210-R6, the important role of recreation in improving QOL has been increasingly recognized. This section entails a review of relevant literature illustrating the benefits of recreation in improving QOL through counteracting loneliness, depression and boredom among residents of a PCH.

Wright (1986) stated that, "there are two things that no one is fully prepared for: the first is being a parent, and the second is being old" (p. 3). He further argued that by making the journey more of an adventure and by providing knowledge and hope, we should be able to eliminate the fear associated with aging. It should be noted that this fear, however, becomes intensified for those older adults that are obligated to reside in a personal care home. Not only are they facing the challenges of the aging process, but they are also confronted with the challenges of entering an alien environment.

When an individual is admitted to a personal care home, they enter a new chapter in their lives—a chapter that holds many uncertainties, isolation, loss of independence and restrictions. Thomson (1999) stated, "residents make a transition from a life constructed by personal choices and freedoms to a condition that ranges from loss of choice to complete dependency" (p.2). Their lives become regimented around the rules, policies and regulations of the institution. Singleton, Markrides and Kennedy (1986) argued, "the institutional routine frequently forces the individual to conform to a specific lifestyle---one determined by the institution" (p.58). Thompson (1999) also noted that, "residents don't always feel like people, and may instead feel more like 'a job to be done' "(p.3).

Similarly, Goffman (1961) stated that an individual "comes into the establishment with a concept of himself made possible by certain stable social arrangements in his own world. Upon entrance he is immediately stripped of the support provided by these arrangements" (p. 14).

Since recreational activities play a major role in the formation of one's self-image, it becomes an important tool for the older adults. For example, recreation 'is at least potentially able to replace the role of work in the formation of the self-image of older adults. As such, recreational activities play a significant role and therefore should be made mandatory in long term care facilities' (Bongquk, 2001, p. 2). Also, recreation for older adults becomes a tool for identity affirmation, as well as self-actualization (Csikszentmihalyi & Kleiber, 1991).

Erik Erikson (1963), in his discussion of Psychological Development, asserted that the final stage, *integrity* vs. *despair,* is what older adults experience. During this stage, the elderly person, keenly aware of their mortality, reflects on life and either experiences fulfillment – integrity – or a sense of failure – despair (Myers, 1989). Russell (1985) reported that with older adults, life satisfaction is positively correlated with "positive feeling experienced in daily life" (p.7). It is, therefore, crucial for health care providers to create an environment for the residents of a personal care home, that reduces loneliness, depression, and isolation, and fosters independence and enhances quality of life during this highly reflective period.

Although someone in a depressed state may not want to engage in recreational activities and would be difficult to be motivated, research evidence suggested that

recreational activities are an important tool to elevate mood which can create the force to recover from a depressed state (Leitner & Leitner, 1996).

Lack of recreational activities that are psychosocially and physically stimulating can lead to a negative cycle of self-fulfilling prophecy (Berger, 1989). Figure 2 illustrates that as the aging individual progressively incorporates feelings of old, loneliness and depression, as is associated with residents of any institution, in their self concept, she/he begins to participate less and less in recreational activities and, thus embark on this negative cycle.

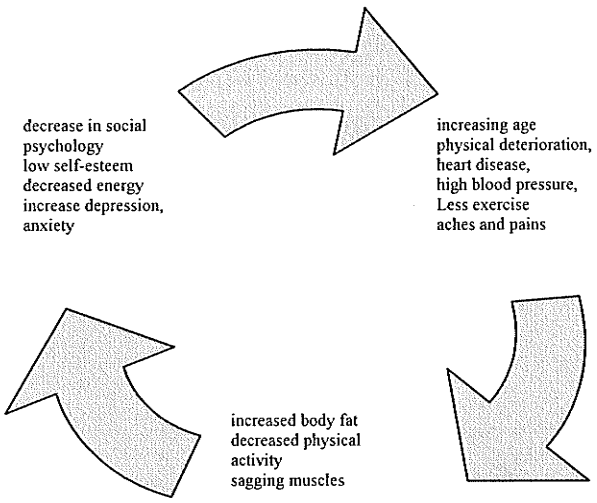


Figure 2: The exercise aging cycle [Source: Berger, 1989:43]

A secondary analysis of data from a longitudinal twin study by DeCarlo (1973) revealed that successful aging was significantly associated with regular recreation participation. Factors such as cognitive types of activities were found to be significantly related to physical health. Also, Kelly (1982), in his studies of leisure and roles in later

life, suggested that in late life, leisure plays an instrumental role in resumption of role status. Similarly, Pedlar, Dupuis and Gilbert (1996) argued that "valued leisure pursuits may act as a catalyst in the resumption of valued role status for older adults."

Pedlar et al. showed in their case study of Eric, who lived in a long-term care facility, the resumption of role status he experienced through recreational activities. They have found that lack of stimulating recreational/leisure activities could lead to lack of opportunities for self-actualization. Eric, shortly after being admitted to a PCH, began to progressively feel depressed, took on a more dependent role and began to identify himself as "handicapped." The cause of Eric's poor psychological health identified was lack of recreational/leisure opportunities that he could engage in, especially woodworking. Eric, in the past, had greatly enjoyed woodworking and its absence became to have a detrimental effect on him.

However, upon the administration of the woodworking, a recreational activity, Eric noted, "the thing is I don't have to wait for anybody to help me there (at the woodworking shop). I can do it myself. That makes a difference" (p.270). The researchers argued that by engaging in a stimulating recreational activity, the subject, Eric, was able to demonstrate his talent and ability to build--an activity that was significantly missed from his life as a result of his age and deteriorating health. Consequently, Eric's perception of self was changed from a "handicapped" to a capable man.

Lawton (1994) found that a positive relationship existed between participation in recreational activities and overall psychological well-being. Subjects with high levels of such participation were less depressed, anxious and shy.

Andrews, Gavin, Begley and Brodie (2003) showed that depression and mental illness in older adults is associated with social isolation and loneliness. They further demonstrated that even if a resident receives visits from family members on regular basis, non-family social interactions, such as ones provided by the recreation department, are also important for a resident's subjective sense of well-being and happiness.

Weiss (1990) stated that appropriate recreational activities that provide the optimal social, psychological and physical challenge can give the participant a feeling of accomplishment and independence, which could lead to a sense of general well-being. Michael & Leitner (1996) argue that, "recreation is the only significant, direct predictor of quality of life in old age" (p.8). Moreover, with greater participation, less hostility was also evident as was demonstrated by Lawton (1994)--especially in spectator sports and field trips.

Voelkl, Fries, and Galecki (1995) have also demonstrated the important role recreation plays in enhancing the quality of life for older adults residing in long term care facilities, and further argue that involvement in recreational activities helps residents retain a sense of control and independence.

Participation in such programs is also beneficial in helping to reduce stress and learned helplessness and hopelessness, often exhibited among institutionalized older adults (Salamon, 1986). Learned helplessness is a process whereby an individual experiences no control over the events of their lives. Research has proven that learned helplessness can lead to feelings of loneliness and ultimately depression (Myers 1989).

Loneliness

According to Weiss (1973), there are two types of loneliness: emotional loneliness and social loneliness. Lack of a personal, intimate relationship with another person results in an emotional loneliness. Loss of a significant other, for example, spouse, children, siblings, or friends, due to separation, divorce or death can cause emotional loneliness. Social loneliness is experienced by individuals who have lost their network of friends--a group of friends the individual was part of and shared common activities, goals and interests.

Emotional and social loneliness may be felt when an individual has moved to a new environment such as a new college or residence. For most frail seniors, residential relocation, either to a PCH from their private home or transferring from one PCH to another, is a common phenomenon and as such, the experience of emotional and social loneliness becomes a common occurrence. While most healthy individuals living in the community can independently seek desired social activities and derive fulfillment, frail residents of a PCH, due to their significant cognitive and/or physical limitations may not be able to independently seek out and engage in a desired social activity to curtail their loneliness or to derive fulfillment (Bondevik & Skogstad, 1996).

Rodgers (1989) showed the existence of a high correlation between loneliness and physical incapacity, perception of poor health, dependence and pain. Furthermore, Bondevik and Skogstad (1996) stated that "people who lack social relationships have frequently been found to be vulnerable to a variety of emotional problems" (p. 182). Thus, the provision of recreational activities in a PCH may contribute to the well-being of

residents by providing an opportunity for the establishment of social companionship and intimacy.

McNeil (1995) also stated that experiences of loneliness and isolation can lead to 'sub-clinical unhappiness,' which means an individual's refusal and/or rejection of receiving or seeking assistance for worsening health related problems. Thus, the individual enters a self-deprecating cycle in which decreased physical and social activity leads to increased loneliness, which if not addressed, could lead to depression.

Depression

Depression is amajor problem among older adults; it is considered as one of the most prevalent and debilitating mental disorders among the geriatric population (Fernandez, Mutran, Reitzes, & Sudha, 1998). In fact, researchers have found a positive correlation between growing old and symptoms of depression (Baker, Okwumabua, Philipose, & Wong, 1996). Late life depression can be a result of a change in a physiological condition, a consequence of life stressors, a side effect of medication, a result of alcohol abuse, or the result of repressed grief (Krach, DeVaney, DeTurk, & Zink, 1996).

Guerrero-Berroa and Phillips (2001) noted that the "consequences of depression are quite serious… and that one third of the older adults die within one year of being hospitalized for depression" (p. 15). Moreover, research has also found a relationship between depression and the inability to perform activities of daily living (ADL) (O'Connor, Aenchbacher, & Dishman, 1993).

However, research suggests that regular physical activities can reduce depression. In fact, a survey found that 85 percent of primary care physicians recommended physical

activity such as aerobics in treating depression (O'Connor et al, 1993). Berger and Hecht (1989) stated that active older adults are happier, have higher self-esteem, and experience an improved quality of life as compared to inactive older adults.

Several studies have shown, as reported by Riddick and Keller (1992), that problem of depression and boredom can be reduced, if not completely alleviated, through recreational activities. Such activities as reminiscing, mental aerobics, and trivia have shown to reduce depression. Activities such as entertainment, sing-a-longs, pet therapy, exercising and / or dancing were found to facilitate social interaction, thus reducing loneliness. This finding was also consistent with Creely, Wright, and Berg's (1982) study. They found that active participation in socially motivated programs, such as community outings and social gatherings, relieve feelings of loneliness and boredom.

Boredom

Boredom, which affects most residents of a PCH is aggravated when experienced in large doses. For these residents, boredom may lead to a life engulfed with emptiness and void of any gratification, and due to their ill state of physical and/or psychological health, they may be unable to fill with activities (Esman, 1979).

Still (1957) lamented that boredom – the psychosocial disease of aging can lead to illness and even death if not prevented. Vodanovich, Vernor, & Gilbride (1991) have found a significant positive correlation between boredom and depression ($r = .44$), hopelessness ($r = .41$), and loneliness ($r = .53$). They assert that boredom, if untreated, can also lead to such harmful behaviours as ' substance abuse, eating disorder, gambling, and excessive cigarette smoking…however, individuals who remain active in instrumental

activities of daily living and leisure and social activities demonstrate fewer disturbing behaviours and require less help with basic self-care' (p.39).

Turner (1993) has also stated that boredom can lead to apathy, illness and even death, and further has argued that delivering stimulating recreational activities that are age appropriate, can alleviate, if not prevent, boredom. These activities can provide the stage for socialization and establishment of normal and meaningful relationships. Two studies conducted by Turner, have demonstrated that the majority of the residents / patients, 83.% and 82% enjoyed the activities, while 100% and 88% said that the activities relieved boredom.

The provision of recreational activities seems to be vital to the overall well-being of institutionalized older adults. Appropriate and well planed recreational activities that incorporate social, psychological, mental and physical needs of the older adults residing in a long term care facility, may enhance quality of life through its beneficial effects on reducing loneliness, boredom and depression. Recreational programs should not only be considered as a recreational or social activity that the residents of a long term care facility should be encouraged to participate, but the programs should also be considered as a means to help the residents maintain their autonomy, independence, self-respect and quality of life (Pickering, Deteix, Eschalier & Dubray, 2001).

CHAPTER III

METHODOLOGY

This methods section entails information concerning the subjects, instruments, study procedures and analytical methods used to investigate the purpose of the study.

Setting and Sample

Ninety five residents from Beacon Hill Lodge, Charleswood Care Centre, Parkview Place, Poseidon Care Centre and Heritage Personal Care Home in Winnipeg, Manitoba that met the inclusion criteria were asked to participate in this study. Seventy nine of these residents agreed to participate (response rate of 85 %). During the study, however, two participants did not complete the questionnaires, one participant was admitted to a hospital and one participant passed away resulting in a final sample of 75 subjects (36 females-48%, 39 males-52%; mean age of 76.4) with an age range of 52 to 99 years, Eligibility was based on the following criteria:

- Being a resident for at least 6 months. This criterion was established to factor in the adjustment period. This time frame is arbitrary and was determined by the researcher. However, a 6 month adjustment period has been used in other past studies including an exploratory study examining the relationship between loneliness, helplessness and boredom of residents of a veterans home (Slama & Bergman-Evans, 2000).
- Being cognitively intact as determined by the Mini-Mental State Examination test. This instrument is widely used around the world and is designed to assess

orientation, memory, attention, language, construction and other cognitive abilities, particularly within geriatric and neurology settings (Zarit, 1997).

- Ability to speak and read English as determined by the Social Worker.

The above criteria were determined through a medical record review of each subject. The subjects' medical records, which entail physical, psychological and social assessments completed by a multidisciplinary team, was reviewed by the researcher for the purposes of selection criteria. Approval to review medical records was obtained from the Education/Nursing Research Ethics Board (refer to *appendix A*), which is organized and operates according to the Tri-Council.

After getting consent from the administrators of each PCH, the researcher approached those residents that met the inclusion criteria and explained to them the objective of the research. The residents were also informed that their participation was voluntary and that they could terminate their participation at any given time during the study without any negative consequences. Those residents that were willing to participate were asked to sign a consent form (refer to *appendix B*).

Procedure

The variables measured were quality of life, recreation, depression, loneliness, and boredom. The data was collected at all five PCHs, and the written questionnaires (refer to *appendix C*) were administered individually by the researcher to each of the subjects in their private rooms.

Measures

Quality of Life. "Quality of Life Index Nursing Home Version" developed by Ferrans and Powers (1985) was used to measure QOL of residents of a PCH. It has been

used in other studies and has shown good reliability and validity. This instrument is a two-part scale which measures the satisfaction response and importance response for each item—for example, "How satisfied are you with your health? How important to you is your health?" The scale consists of 33 items. A six-point likert scale [1 (very dissatisfied/very unimportant) to 6 (very satisfied/very important)] was used. Overall score was determined by following the step by step procedure outlined by Ferrans and Powers. In step one, the satisfaction response had to be centred by subtracted 3.5 from each item, which produced a response of –2.5, -1.5, -.5, +.5, +1.5, and +2.5. In step two, each satisfaction response had to be weighted with its corresponding importance response by multiplying the centred satisfaction response by the raw importance response. In step three, a preliminary sum for the overall (total) score was calculated by adding together the weighted responses obtained in step two for all of the items. To prevent bias due to missing data, each sum obtained in step three was divided by the number of items answered by that subject. To eliminate negative numbers for the final score, 15 was added to every score. This procedure produced the final overall (total) QOL score with a possible range of 0 to 30. This Index has been shown to have good psychometric properties, including test-retest reliability of 0.85 and alpha reliability of 0.91, (Tseng and Wang, 2001).

Recreation. In this study recreation involvement referred specifically to the frequency of participation in programs organized and delivered by recreation facilitators, such as outings (community based activities); centralized programs (e.g., bingo, carpet-bowling, club-entertainment and shuffle-bowling); small group programs (e.g., mental fitness, reminiscing, and gardening); physical programs (exercise); and self generated

activities (e.g., solitary and socializing with others). A recreation flow sheet (*Appendix B*) was used to monitor the type and frequency of participation in recreational activities.

Depression. Geriatric Depression Scale (GDS-15) which is a validated measure of depression in seniors was used (Sewitch1, McCusker, Dendukuri and Yaffe, 2004). The GDS-15 has been validated as a measure of depression defined by both the ICD-10 and DSM-IV (Almeida and Almeida, 1999) on medical in- and out-patients (Norris JT, Gallagher D,Wilson A,Winograd CH., 1987; Lyons JS, Strain JJ, Hammer JS, Ackerman AD, Fulop G., 1989) and in home and clinical environments (Lesher and Berryhill, 1994). The cutpoint of 5 and greater is considered to indicate clinically meaningful depression (Lesher and Berryhill, 1994).

Loneliness. To assess loneliness, a 20-item UCLA Loneliness Scale (Version 3), with a 4-point scale ranging from always (4) to never (1) (total score ranging from 20 to 80) was employed (Russell & Cutrona, 1991). UCLA-LS has been used in numerous studies with elderly individuals with reported coefficient alphas ranging from .89 to .94, and concurrent and discriminant validity has been established (Slama & Bergman-Evans, 2000).

Boredom. To measure boredom, the question "Do you often feel bored?" was extracted from the Geriatric Depression Scale (GDS) (Yesavage & Brink, 1983). This method has been employed in other studies (Slama & Bergman-Evans, 2000).

Analysis

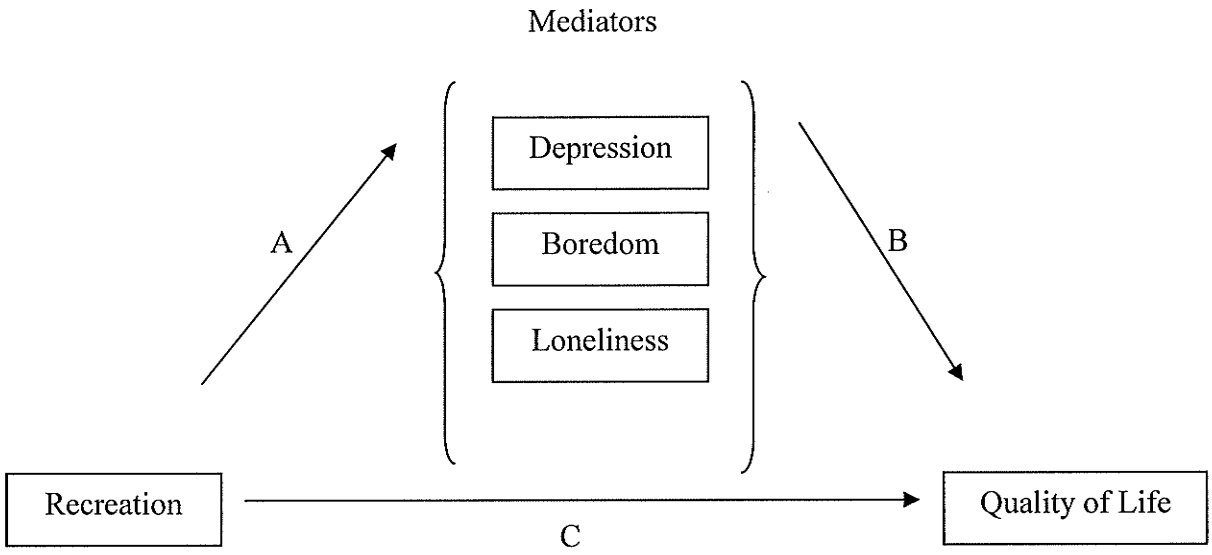
SPSS for Windows statistical package was used. First, descriptive statistics such as frequency, mean, and standard deviation of variables were examined. Prior to regression analysis, Pearson correlations among the variables was examined to test simple

correlations among the variables. A series of regression analyses was then used to test the mediational model (refer to *Figure3*) by following Baron and Kenny (1986) guideline.

The mediational model tested consists of three paths linking Recreation to Quality of Life (Path C), Recreation to each of the mediators (i.e., Depression, Boredom, and Loneliness) (Path A) and each mediator to Quality of Life (Path B). To test for mediation, first, regressing the mediator variables: depression, boredom and loneliness was run on recreation (as the predictor variable). Second, regressing quality of life on recreation was run; and finally, regressing quality of life, on both, recreation and the mediator variables was tested.

Full mediation will hold when: (a) the effect of recreation on the mediators is significant, (b) the effects of the mediators on quality of life are significant, (c) the effect of recreation on quality of life is significant, and finally (d) the effect of recreation on quality of life becomes non-significant when the effects of the mediators are taken into account.

Figure 3: Mediational Model



CHAPTER IV

RESULTS

It was hypothesized that through the mediating effects of depression, loneliness and boredom, recreation might be associated with greater quality of life among older adults living in a long-term care facility. This chapter presents the results of a series of regression analyses used to test the hypothesized mediational model. Selected descriptive statistics on all of the variables examined and the results of Pearson correlations among these variables are presented first.

Descriptive Statistics of the Variables Examined

An overall mean score of 21.7 was found for QOL (maximum score = 30) indicating that the residents had a relatively good quality of life. No significant differences were detected between males and females ($M_{\text{males}} = 21$; $M_{\text{females}} = 22$,) which can be seen in Table 1 (page 32).

The mean score reported for recreation participation was 118.25 [1] (for a 6 month period) with females reporting significantly a higher participation rate than males ($M_{\text{males}} = 107$; $M_{\text{females}} = 130$). With a reported mean score of 4.81[2] (of a possible 0 – 15, scores greater than 5 indicating clinically meaningful depression), 47% of the residents reported probable depression. No significant differences in depression scores were detected between males and females.

Loneliness appeared to be the most prevalent among the three variables examined (i.e., depression, boredom and loneliness) with 75% of the residents reporting that they

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[1] The values for recreation represent the frequency of participation (i.e., the number of times) in organized recreational activities for a period of 6 months for each resident.

[2] This value was obtained by summing the number of responses with values of 5 or greater (indicating probable depression) and then dividing the sum by the total number of responses.

feel lonely. The range of responses was 42 to 68 (with a possible range of 20 to 80), with a mean score of 53.97. Scores greater than 35 indicated probable loneliness. Once again, there was no significant difference reported between males and females. Boredom, however, appeared to be more prevalent among males than females. Sixty-two percent of males reported feeling bored as compared to only 47% of females, while this gender difference was found as statistically significant. In total, 55% of residents reported that they felt bored.

Also reported in *Table 1*, are the descriptive statistics of specific QOL questions including "the amount of pain that you have," "the activities available to you"and"the things you do for fun". The mean score for "how satisfied are you with amount of pain that you have" was 22 (maximum score = 30), indicating that most residents were relatively satisfied with the amount of pain that they had. Similarly, the mean score for "how satisfied are you with the activities available to you" was also 22 (maximum score = 30), indicating that most residents were relatively satisfied with the activities available to them. The mean score for "how satisfied are you with things you do for fun" was 20 (maximum score 30), suggesting that most residents were moderately satisfied with things they did for fun.

Correlation Coefficients among the Measures

Correlation coefficients were computed among all five measures. The results of the correlational analyses, presented in Table 2 (page 33), show that 3 of the 10 correlations were statistically significant. The greatest correlation was found between quality of life and depression ($r = -.79$, $p < .005$). Other statistically significant correlations were found between depression and boredom ($r = .59$, $p < .005$) and between

quality of life and boredom ($r = -.44$, $p < .005$). However, the correlation of quality of life with recreation and loneliness tended to be lower and nonsignificant. Since the highest correlation (-.79) was below the cutoff value of .90 (Tabachnick & Fidell, 1989), it is safe to presume multicollinearity was not a factor.

Regression Analysis

Four regression models were created and tested to examine the hypothosized mediational model (Figure 3, p. 27). The mediational model tested consisted of three paths linking recreation to each of the mediators (depression, boredom, loneliness) (Path A), each mediator to quality of life (Path B), and finally recreation to quality of life (Path C).

In the first model, path A was tested to see if recreation (as the predictor variable) had an effect on the mediator variables, depression, boredom and loneliness. In the second model, path B was tested to see if the mediators had an effect on quality of life. In the third model, path C was tested to see if recreation (as the predictor variable) had an effect on quality of life, and the fourth and final model tested whether depression, boredom, and loneliness significantly predicted quality of life, while controlling the effect of recreation. Full mediation holds when: (a) the effect of recreation on the mediators is significant, (b) the effects of the mediators on quality of life are significant, (c) the effect of recreation on quality of life is significant, and finally (d) the effect of recreation on quality of life becomes non-significant when the mediators are taken into account.

Model 1. Effect of recreation on depression, loneliness, and boredom

Model 1 (Table 3, p.34) showed that the effect of recreation on depression

(beta = -.19) and boredom (beta = -19) was only marginally significant, respectively (p = .09). The relationship between recreation and loneliness was not found to be statistically significant.

Model 2. Effects of the mediator variables on quality of life

Model 2 (Table 3) where the mediators were hypothesized to predict quality of life, indicated that only depression (beta = -.80) significantly predicted quality of life (p = .00). The effects of boredom and loneliness were both found to be nonsignificant.

Model 3. Effect of recreation on quality of life

Model 3 (Table 3) showed that recreation (beta = .13) did not significantly predict quality of life.

Model 4. Effects of recreation, depression, loneliness, and boredom on QOL

Model 4 (Table 3) was to determine whether the direct effect of recreation on quality of life is significantly reduced when the mediating effects of depression, loneliness, and boredom are taken into account. Although the effect of recreation (beta = -.01, p = .92) in Model 4, which also included the hypothesized mediating variables, was smaller than its effect (beta = .13, p = .27) in the third regression model above (which did not include these three mediating variables), the results did not provide evidence for the mediating model hypothesized (Figure 3, p. 27).

In summary, the only statistically significant effect ($p < .05$) found from the series of regression analyses was: the role of depression in negatively predicting quality of life. This effect/role was found to be very strong and evident even when all the other variables (i.e., recreation, loneliness, and boredom) were taken into account. On the other hand, the effects of recreation on depression and boredom, respectively, were shown to be only

marginally significant ($p < .10$). Contrary to the hypothesis, recreation did not significantly predict quality of life directly. However, the results do imply the potential that recreation might indirectly predict higher quality of life through negative association with depression.

Table 1. Descriptive Statistics of the Variables

Variables	Mean	Standard Deviation	Skewness	Mean	
				Men	Women
Recreation	118.25	115.43	1.84	107*	130*
Depression	4.81	3.23	.99	4.85	4.78
Loneliness	53.97	5.63	.16	55	52
Boredom	.55	.50	-.19	.62*	.47*
QOL	21.07	5.83	-.78	21	22
QOL Questions:					
Amount of Pain	22	7.62	-.80		
Activities Available	22	6.76	-.94		
Things you do for Fun	20	8.25	6.77		

Note. QOL was measured by 6-point Likert scale (possible range = 0 – 30); Loneliness was measured by 5-point Likert scale (possible range = 20 – 80); Depression (possible range = 0 – 15) and Boredom were measured by yes/no responses.

* General differences were statistically significant at .05 level.

Table 2. Pearson Correlations Among Measures

Variables	QOL	REC.	DEP	LON
Recreation	.13			
Depression	-.79 *	-.19		
Loneliness	-.26	.11	.26	
Boredom	-.44*	-.19	.59*	.33

* Using the Bonferroni approach to control for Type I error across the 10 correlations, a p-value of less than .005 (05/10=.005) was required for statistical significance.

Table 3. Results of Regression Analyses in testing the Mediational Model (N = 75)

Regression Model	R^2	F	Beta	p
Model: 1 (3 separate regressions in predicting each of the mediator variables: depression, loneliness, and boredom)				
Depression	.04	2.85	-.19	.09
Loneliness	.01	.84	.11	.36
Boredom	.04	2.83	-.19	.09
Predictor: Recreation				
Model: 2				
Predictors:	.62	38.72		.00
Depression			-.80	.00
Loneliness			-.07	.34
Boredom			.05	.60
Dependent variable: Quality of Life				
Model: 3				
Predictor:				
Recreation	.02	1.25	.13	.29
Dependent variable: Quality of Life				
Model: 4				
Predictors:	.60	28.6		.00
Recreation			-.01	.92
Depression			-.80	.00
Loneliness			-.10	.38
Boredom			-.05	.61
Dependent variable: Quality of Life				

CHAPTER V

DISCUSSION

The present study was designed to explore the potential role of recreation participation in facilitating quality of life among residents living in long-term care facilities. It was hypothesized that through recreation's mediating role in possibly reducing depression, loneliness and boredom, residents' quality of life would be enhanced. Contrary to the hypothesis, the findings did not show a strong relationship between recreation and quality of life. However, a very strong association was found between depression and QOL; depressed residents were found to experience lower QOL than non-depressed residents.

This finding parallels many previous studies concerning geriatric depression. For example, Doraiswamy, Khan, Donahue, and Richard (2002) have shown a similar finding in their study in which depressed residents of a PCH were found to be less vital and less satisfied with their general health and appearance. Also, Small and colleagues (1996) reported that QOL was negatively influenced by medical comorbidity in geriatric depression, while Mazumdar and colleagues (1996) found that residents who recovered from depression after acute treatment had higher QOL scores than those who did not recover. Thus, the results from this study and other previous studies provide empirical evidence for a strong linkage of depression to lower QOL among residents of a PCH. Depression appears to be a common disorder among many PCH residents. Lichtenberg, Gibbons, Nanna, and Blumenthal (1993) reported that the rate of depression is 3-12 times greater among residents of a PCH than older adults living in the community.

As mentioned earlier, the results did not support the hypothesized relationship between recreation and QOL. This seems surprising, considering the fact that residents are living in an institution like environment where their daily lives are regimented around rules and regulations of the facility, and where autonomy, independence and free choice are difficult (though not impossible) to be exercised. This is why recreation, which was assumed to help residents gain a sense of independence, autonomy or free choice, was hypothosized to predict greater QOL.

The following sections explain why such a relationship was not found. For instance, during the course of this study, it became salient that personal attributes may have played a major role. Some residents preferred to be "left alone" when asked if they would like to join an activity, as one resident explained, "I am a loner. I have always been like this, this is who I am." In other cases, residents were found apathetic, excusing their current state of life as "part of life." According to Continuity Theory (one of the Social Theories of Aging) the older person adjusts to old age, not by developing new hobbies or roles, but by continuing with the roles they have already played (Atchley, 1980). In addition, in an anthropological study, Gubrium (1993) found that the residents' evaluation of quality of care varied depending on the personality type of the resident. Consequently, future research is needed to further explore the relationship between participation in recreational activities and QOL, by giving attention to personality attributes.

Although a significant relationship between recreation and quality of life was not found, this result is consistent with findings of McGuinn and Mosher-Ashley (2000) study in which no evidence was found to support the relationship between participation in recreational activities and current life satisfaction. However, their study did find a

relationship between recreation participation and the residents' degree of involvement to enter a personal care home. Residents who took an active part in the decision process to enter a PCH were found to have a positive attitude toward the personal care home and were more involved and active in seeking and participating in recreational activities.

Likewise, in a qualitative study, Nay (1995) found that the residents who were given a choice, even if only in decision making, experienced more control, and as a result, were found to be more positive and receptive to care and other activities at the PCH. Once again, future research is needed to further understand the relationship between quality of life and recreation by taking into account the degree of the resident's involvement in the decision making process.

Past studies have also shown the importance of family involvement in influencing residents' quality of life (Andrews, Gavin, Begley and Brodie (2003). In the present study, the researcher observed that residents who had frequent visitations by family and friends seemed less inclined to join recreational activities. Invitations to participate in an activity were often declined partly due to either waiting for a phone call or a visitation from a loved one. This finding appears consistent with Jou, Yang, and Chuang's (1998) study, which found that residents with high social support from family and friends reported higher quality of life scores. Family involvement could also explain the lack of relationship found between recreation and loneliness. Miedema and Tatemichi (2003) found that even if the contact was limited but maintained over the phone, the parent – child relationship was found to be important and was related significantly to lower degree of loneliness among residents. Similarly Bondevik and Skogstad (1996) found that residents with frequent contacts with siblings and friends reported less loneliness as

compared to residents with fewer contacts. Therefore, one could speculate that, in the present study, the active involvement of family and friends could have reduced the need for residents to seek recreational activities. However, further research is necessary to examine whether residents' social support from family and friends influences their QOL and their decision to participate in recreational activities.

Analyzing the frequency of recreation participation and not considering quality of recreational programs may also have confounded the results. The recreational programs that were offered to the participants were determined, organized and delivered by the recreation department and not by the residents. In studies in which the residents chose the type of activity they wanted to engage in, recreation participation was found to be positively associated with the residents' quality of life (Pedlar, Dupuis & Gilbert, 1996).

Although high prevalence of pain in nursing home residents is a challenging problem (Pickering, Deteix, Eschalier & Dubray, 2001), in the present study, however, with a mean score of 22 (maximum score = 30), most residents reported that they were moderately satisfied with the amount of pain they had. This leads to the assumption that, in the present study, pain did not appear to be a factor in acting as a deterrent to recreation participation among the residents. This observation is in contrast with the findings of Pickering et al.'s (2001) study in which they found pain to act as an obstacle to participation in activities by nursing home residents. Besides the intensity of pain, they further found that the daily experience of pain and the anticipation of pain itself prevented most of the residents from participating. Therefore, further qualitative research, which involves in-depth analysis of the lived experiences of each resident, including pain and recreational experiences is needed to better understand the relationship between pain and

frequency of recreation participation. More specifically, we need to focus on how pain acts as a deterrent to recreation participation, and how recreation can be utilized as a treatment modality.

In spite of the fact that no empirical evidence was found to suggest participation in recreational activities significantly predicted greater quality of life, a marginally significant negative correlation was detected both between depression and recreation, and between boredom and recreation. That is, residents with a higher reported frequency of recreation participation were found to be less bored and depressed though at a marginal level. Future studies are needed to go beyond the frequency of participation (which will be discussed more in detail in the limitation section), as was simply the case in the present study, and to factor in the effects of personal attributes, family involvement and experiences of pain, which were not considered in the present study. Particularly, it is desirable to conduct a longitudinal study that examines quality of life in a personal care home from date of admission and then intermittently, for example, every 2 months thereafter, for a period of one year, where such variables as family involvements, social support, pain, and quality of recreational activities available are further scrutinized in more detail. This approach can provide us with the data on predictors and fluctuations of quality of life in a personal care home in a more comprehensive manner.

An Exploratory Analysis

As an exploratory analysis, the findings between males and females were examined. One interesting finding was that female residents reported greater levels of involvement in recreational activities than did male residents, which is consistent with McGuinn and Mosher-Ashley's (2000) finding. They have suggested that women, in

general, are more social than men are, thus more likely to join in activities. Higher levels of recreation participation by female residents could also be attributed to the fact that since women constitute the bulk of the population in a PCH, most of the activities are geared toward them. For example, large group activities such as baking, arts/crafts, tea parties and even reminiscing are perceived to attract more female residents than male residents. Due to a higher percentage of female residents, the recreational needs of male residents might not be given greater attention.

Despite higher female recreation participation, however, quality of life scores were relatively the same between males and females. According to the researcher's observation, male residents were found to be more accepting, albeit with scorn, of their predicament; they found solace in their belief that things could be worse. This did not seem to be the case for women. The researcher observed that women were more aggressive and vocal about their need to be socially engaged; and since they were more vocal, a greater attempt was made by the recreation facilitators to meet their needs. Therefore, female residents were found to be less bored as compared to male residents. Once again this may be due to women, in general, being more social and seeking opportunities to alleviate their boredom.

Implications

It is hoped that this research provides some insight for social policy makers and health practitioners to view PCHs, not as a hospital where the focus is on diagnosis and fighting the disease from primarily a negative perspective, but as a home where a resident, not a patient, lives (Thomas, Acton, Wyk and Burnjam, 1997). Dealing with the whole person in a holistic way, not simply treating the condition appears to be important.

Clearly, it is the health care system's responsibility to meet a resident's medical, physical and psychosocial needs.

Some studies have shown recreational activities in meeting the social needs of the residents, thus improving their QOL (Kane, 2001). The present study, however, did not provide evidence for a strong relationship between frequency of recreation and quality of life. In a PCH it appears that the type of activity engaged in as well as experiences gained through participation are more important than simply the frequency of participation. Nevertheless, the findings do beg the question: How does the role of personality fit in the recreation – quality of life relationship? Further research is needed to examine the complexity of personality in relation to recreation and quality of life of residents in a PCH. The need for further research was eloquently stated by Howe (1987):

> Theories, as frameworks for research, provide maps for understanding the social and personal landscape of the human experience. At this point in understanding leisure and aging, the routs are incomplete and the roads are rough with wrong turns and dead ends. But the maps do give direction; they allow for relative determination of where one has been and where one is going, or if, indeed, one has been lost. The task of mapmaking will never be complete but will remain a challenge and a goal to those who chart the dynamics of aging and leisure (p. 460).

Further efforts should be made to examine the physiological and psychosocial characteristics of people as they progress across the life span to help improve the lives of individuals in a PCH.

Limitations

There were several limitations that may have contributed to the study outcomes. First, this study was limited to those participants who gave their consent, were able to read and write English and who were cognitively alert. Therefore, generalizations made on the basis of this study are limited to cognitively alert, English speaking residents who had been living at a PCH for a period of six months. According to Kane et al. (2003), there is evidence to believe that QOL is a different phenomenon among residents that have come to stay for a short period, long period or have been admitted near death. Future research is necessary to examine the differences.

Second, social desirability is believed to have confounded the results. Because the researcher who is an employee of one of the PCHs administered the questionnaires, it is possible that the respondents, out of eagerness, might have given desirable responses.

Third, the complexity of the 6 point Likert responses for the QOL questionnaire might have been too puzzling for some respondents. Because of this complexity, it is possible for the respondents to have given an arbitrary answer. Also, as stated earlier, focusing on frequency of recreation participation may have proven to be too simplistic for this study. Recreation participation is a multidimensional phenomenon where "frequency" is only one of many dimensions (Lawton, 1994). Therefore, future studies should focus not only on the frequency of participation, but also on the type and quality of recreational programs, the residents' experiences during these programs, their motives for participation, and the meanings of recreation from their perspectives.

For example, during the study it was found that not all residents hold a favourable opinion of recreation, as pointed out by one resident, "recreation is the devil's work."

Through further discussions with the residents, the researcher found that this, for some residents, was due to the fact that most of them came form a period that chronicled WWI & II, and the Great Depression. During this time hard labor was the norm, thus leaving little time for recreational activities. Therefore, it is imperative for future studies to understand the residents' perspectives about recreation.

Type and quality of recreational activities should also be considered. The activities/programs that the residents most favour and seem to enjoy should be given attention, not simply the frequency of arbitrary programs delivered by the recreation department (as was the case in this study). In this study, one of the major limitations was the fact that the recreational programs were determined by the recreation department at the facility and not by the residents. By providing and delivering recreational activities that the resident has specifically chosen to participate, a stronger relationship between recreation and QOL may have been identified.

Conclusion

A common perception held by the general public is that QOL in long term care is very poor. Despite government regulations and findings offered by research, most personal care homes resemble that of an institution. Most elements of a resident's life such as getting up, getting dressed, and consuming meals tend to be predetermined and controlled by a higher authority without offering a sufficient level of autonomy and independence among the residents.

Lack of individuality and privacy, and tendency for boredom, depression and isolation experienced by most of the residents in this study are congruent with the findings of Fiveash (1998) and Goffman (1961). A personal care home should foster a nurturing

home-like environment in which residents' dignity, autonomy and free choice are not compromised. Since recreation can provide a wide variety of benefits to the residents of a PCH, quality recreational programming should be delivered to meet their physical, psychological, social, cultural and spiritual needs. The provision of recreational activities can help to maintain a resident's self respect, dignity and autonomy as well.

Stimulating and meaningful recreational activities need to be developed and delivered by professional staff with proper education in gerontology and recreation from an interdisciplinary perspective. Government should take an active role in ensuring that competent recreation facilitators are employed and adequate recreational activities are offered at all PCHs. Through further research and education, recreation can be perceived as an important means utilized to enrich the lives of the residents.

REFERENCES

Almeida, O.P., Almeida, S.A., (1999). Short versions of the geriatric depression scale: a study of their validity for the diagnosis of a major depressive episode according to ICD-10 and DSM-IV. *International Journal of Geriatric Psychiatry*,14, 858–865.

Andrews, G. J., Gavin, Begly, Brodie, D. A. & Lawton, (1994). Towards a more place-sensitive nursing research: an invitation to medical and health geography. *Nursing Inquiry:* 9 (4), 221-232.

A portrait of Seniors in Canada, 1997 *Statistics Canada publication* (Catalogueno.89-519-XPE).

Baker, F.M., Okwumadua, J., Philipose, V., & Wong, S. (1996). Screening African-American elderly for the depressive symptoms: A preliminary investigation. *Journal of Geriatric Psychiatry and Neurology,* 9, 127-132.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology,* 51, 1173-1182.

Berger, B. G. & Hecht, L. M. (1989). Exercise, aging, and psychological well-being: The mind-body question. In Ostrow, A. C. (Ed.). *Aging and motor behaviour,* pp. 117-157. Indianapolis: Benchmark Press.

Berry & Feldman (1991). Multiple regression in practice / William D. Berry, Stanley Feldman. Newbury Park, Calif.: Sage Publications, c1985.

Bongquk, J. (2001). Social Psychological Determinants of Life Satisfaction in Older Adults. *Doctoral Dissertation: Indiana University.*

Brill, P.A., Jensen, R.L., Koltyn, K.F., Morgan, L.A., et al. (1998). The feasibility of conducting a group-based progressive strength training program in residents of a multi-level care facility. *Activities, Adaptation & Aging,* 22(4), 53-63.

Buettner, L. L. (2001). Therapeutic Recreation in the Nursing Home: Reinventing a Good Thing: State College, PA : Venture Pub., 1995.

Canadian Institute for Health Information, 2000 *Development of National Indicators and a reporting System for Continuing Care (Long Term Care Facilities).*

Cella, D. (1994). Quality of life: Concepts and Definitions. *Journal of Pain and Symptom Management,* 9 (3), 186-192.

Creecy, R. F., Wright, R., & Berg, W. E. (1982). Correlates of loneliness among the black elderly. *Activities, Adaptation, & Aging,* 3 (2), pp. 9-16.

DeCarlo, T. (1973). Recreation Participation Patterns and Successful Aging: *Journal of Gerontology, Vol. 29.*

De Jong Gierveld, J. & Van Tilburg, T. (1995). Social relationships, integration and loneliness. *Living Arrangements and Social Networks of Older Adults.* Free University Press, Amsterdam.

Doraiswamy, P. M., Khan, Z. M., Donahue, R. M. J. & Richard, N. E. (2002). The Spectrum of Quality of Life Impairments in recurrent Geriatric depression. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences,* 57 (2), M134-7.

Duncan-Myers, A.M., & Huebner, R.A., (2000). Relationship between choice and quality of life among residents in a long-term-care facility. *The American Journal of Occupational Therapy,* 54(5), 504-508.

Dupuis, S.L & Smale, B.J.A., (2000). Bittersweet journeys: Meanings of leisure in the institution-based caregiving context. Journal of leisure research, 32(3), 303 - 340.

Esman, A.H. (1979). Some Reflections on Boredom. *Journal of the American Psychoanalytic Association,* 27 (2), 423-39.

Felce, D. & Perry, J. (1995). Quality of Life: It's Definition and Measurement. *Research in Developmental Disabilities,* 16 (1), 51-74.

Fernandez, M.E., Mutran, E.J., Reitzes, D.C., & Suda, S. (1998). Ethnicity, gender, and depressive symptoms in older workers. *The Gerontologist,* 38(1), 71-79.

Fetzer Institute. (1999). Multidimensional measurement of religiousness/spirituality for use in health research. Kalamazoo, MI: John E. Fetzer Institute.

Fitzsimmons, S (2001). Easy rider wheelchair biking. A nursing recreation therapy clinical trial for the treatment of depression. *Journal of Gerontological Nursing,* 27(5), 14-23.

Fiveash, B. (1998). The experience of nursing home life. *International Journal of Nursing Practice,* 1998, 4: 199-174.

France, C. E. & Powers, M. J. (1985). Quality of life index: development and psychometric properties. *Advance in Nursing Science,* 8(1), 15-24.

Gabrium, J. (1993). *Speaking of Life.* Hawthorne, NY: Aldine de Gruyter.

Geiger, C.W., & Miko, P.S. (1995). Meaning of recreation/leisure activities to elderly nursing home residents: A qualitative study. *Therapeutic Recreation Journal,* 29(2), 131-138.

Goffman, E. (1961). Asylums. New York: Doubleday & Co. *http://www.gov.mb.ca/health/index/html*

Goodman, M. (1983). "I am here to die:' a look at the function of therapeutic recreation in nursing homes. *Therapeutic Recreation Journal,* 17(3): 14-9.

Guerrero-Berroa, E., & Phillips, R.S.C., (2001). Depression. *Journal Of Psychological Nursing,* 39(1), 15-20.

Haberkost, M., Dellmann-Jenkins, M., & Bennett, J. M. (1996). Importance of Quality Recreation Activities for Older Adults Residing in Nursing homes: Considerations for Gerontologists. *Educational Gerontology*, 22:735-745.

Heintzman, P. (2000). Leisure and spiritual well-being relationships: A qualitative study. *Loisir et societe/Society and Leisure,* 23(1), 41-69.

Hicks, T. J. (2000). What Is You Life Like Now? *Journal of Gerontological Nursing* 15-19.

Iso Ahola, E. (1980). Perceived control and responsibility as mediators of the effects of therapeutic recreation on institutionalized aged. *Therapeutic Recreation Journal,* 14(1): 36-43.

Johnson, C. D. (1999). Therapeutic Recreation Treats Depression in the Elderly: *Home Health Care Services Quarterly*, Vol. 18(2).

Kane, R. A. (2001). Long-Term Care and a Good Quality of Life. *The Gerontologist,* 41 (2), 293-end of article.

Kane, R. A. (2003). Definition, Measurement, and Correlates of Quality of Life in Nursing Homes: Toward a Reasonable Practice, Research, and Policy Agenda. *The Gerontologist,* 48 (2), 28-36.

Kane, R. A., Kling, K. C., Bershadsky, B., Kane, R. L., Giles, K., Degenholtz, H. B., Liu, J., & Cutler, L. J. (2003). Quality of Life Measures for Nursing Home residents. *The Journals of Gerontology. Series A, Biological sciences and Medical sciences,* 58 (3), 240-8.

Keysor, J.J. & Jette, A. M. (2001). Have We Oversold the Benefit of Late-Life Exercise. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences,* 56 (7), M412-23.

Kunter, B. (1956). Five Hundred Over Sixty: A community Survey on Aging. New York: Russell Sage Foundation.

Lawton, M. P. (1994). Personality and affective correlates of leisure activity participation by older people. *Journal of Leisure Research,* 26 (2), pp. 138-157.

Leitner, M. J. & Leitner, S. F. (1996). Leisure in Later Life, Second Edition: The Haworth Press.

Lesher EL, Berryhill JS. 1994. Validation of the Geriatric Depression Scale—Short Form among inpatients. *Journal of Clinical Psychology,* 50, 256–260.

Lilley, J., & Jackson, L. (1990). The value of activities: Establishing a foundation for cost-effectiveness---A review of the literature. *Activities, Adaptation and Aging,* 14 (4), 5-20.

Lyons JS, Strain JJ, Hammer JS, Ackerman AD, Fulop G., (1989). Reliability, validity, and temporal stability of the Geriatric Depression Scale in hospitalized elderly. *International Journal of Psychiatry Med.,* 19, 203–209.

Manitoba Health Annual Statistics. www.mb.gov.stats

Manitoba Regulations (1963). *The Manitoba Gazette*, 92 (26), 197-198.

Mazumdar, S., Reynolds, C.F., Houck, P.R., Frank, E., Dew, M.A., Kupfer, D.J. (1996). Quality of life in elderly patients with recurrent major depression: a factor analysis of the General Life Functioning Scale. *Psychiatric Research,* 63: 183-190

McGuinn KK, Mosher-Ashley PM. (2000). Participation in recreational activities and its effect on perception of life satisfaction in residential settings. *Activities,-Adaptation-and-Aging*, 25 (1), 77-86.

McGuire, F.A., Boyd, R.A., & Tedrick, R.E., (1999). *Leisure and aging: Ulyssean living in later life* (2nd ed.). Champain, IL: Sagamore Publishing.

Meeberg, G. A. (1993). Quality of Life: a concept analysis. *Journal of Advanced Nursing,* 18, 32-38.

Myers, D. G. (1989). Psychology, Second Edition: Worth Publishers, Inc.

Neulinger, J. (1981). The Psychology of Leisure. Springfield, Ill: Charles C. Thomas.

Norris JT, Gallagher D,Wilson A,Winograd CH. 1987. Assessment of depression in geriatric medical outpatients. The validity of two screening measures. JAGS 35, 989–995.

O'Connor, P. ., Aenchbacher, L. E. & Dishman, R. K. (1993). Physical activity and depression in the elderly. *Journal of Aging and Physical Activity,* 1 (1), pp. 34-58.

Oleson, M., Heading, C., Shadick, K. M., & Bistodeau, J. A. (1994). Quality of life in long stay institutions in Englang: nurse perceptions. *Advanced Nursing,* 20, 23-32. Paper presented at the Annual Scientific Meeting of the Gerontological Society, New Orleans. (ERIC Document Reproduction Services No. ED 263 514).

O'Morrow, G. S. (1974). Team Practice and the Therapeutic Recreation Specialist. *Expanding Horizons in Therapeutic Recreation II,* editor J. D. Kelly, University of Illinois: Urbana Champaign. Older Adults. *Doctoral Dissertation: Indiana University.*

Pearson, A., Hocking, S., Mott, M. & Riggs, A. (1993). Quality of care in nursing homes: from the resident's perspective. *Journal of Advanced Nursing,* 18, 20-24.

Pedlar, A., Dupuis, S.L., & Gilbert, A., (1996). Resumption of role status though leisure in later life. *Leisure Sciences,* 18, 259-276.

Pickering, G., Deteix, A., Eschalier, A. & Dubray, C. (2001). Impact of pain on Recreational activities of nursing home residents. *Journal of Aging: clinical and experimental research,* 13 (1), pp. 44-8.

Reitzes, D. C., Mutran, E. J., & Verrill, L. A. (1995). Activities and self-esteem: Continuing the development of activity theory. *Research on Aging,* 17 (3), pp. 260-277

Riddick, C. C. & Keller, M. J. (1992, March). Efficacy of recreation on influencing the social psychological health of elders. *Parks and Recreation,* pp. 20-24.

Rodger, B.L. (1989). Loneliness. Easing the pain of the hospitalized elderly. *Journal of Gerontological Nursing,* 15(18), 16-21.

Russell, D. & Cutrona, C.E. (1991). Social support, stress, and depressive symptoms among the elderly: Test of a process model. *Psychology and Aging*, 6, 190-201.

Russell, R. V. (1985, November). Correlates of life satisfaction in retirement.

Salamon, M. J. (1986). A protocol for recreation and socialization programs for the aged. *Avtivities, Adaptation & Aging.* 8 (3/4), pp. 47-56.

Seedsman, T. A. (1994). The Physio;ogical, Psychological and Social Effects of Exercise and Recreation for Older Adults: Lincoln Gerontology Centre. La Trobe University, Melbourne, Australia.

Sewitch M. J., McCusker J., Dendukuri, N., and Yaffe M. J. (2004). Depression in frail elders: impact on family caregivers. *International Journal of Geriatric Psychiatry,* 19, 655-665.

Singleton, J. F., Makrides, L., & Kennedy, M. (1986). Role of three professions in long term care facilities. *Journal of Activities, Adaptation & Aging,* 9(1), 57.

Slama, C.A. & Bergman-Evans, B. (2000). An Exploration of Loneliness, Helplessness, and Boredom of Residents of a Veterans Home. *Journal of Psychosocial Nursing,* 38(12), 37-43.

Small, G.W., Birkett, M, Meyers, B.S., Koran, L.M., Bystrisky, A., Nemeroff, C.B. (1996). Impact of physical illness on quality of life and antidepressant response in geriatric major depression. *Journal of American Geriatric Society*, 44: 1220-1225.

Thomas, W.H. (1996). *Life worth living.* Acton, MA: VanderWyk & Burnham.

Thompson, D. (1999). Vulnerability in Aging. http://www.bcifv.org/resources/newsletter/1999/winter/vulnerability_in_aging.html

Tseng, S.Z.& Wang, R.H. (2001). Quality of Life and Related Factors among Elderly Nursing Home Residents in South Taiwan. *Journal of Public Health Nursing,* 18 (5), 304.

Turner, P. (1993). Activity nursing and the changes in the quality of life of elderly patients: a semi-quantitative study. *Journal of Advanced Nursing,* 18 (11), pp. 1727-33.

Turner, P. (1993). Activity nursing and the changes in the quality of life of elderly patients: a semi-quantitative study. *Journal of Advanced Nursing,* 18 (11), 1727-33.

Vodanovich, S.J., Verner, K.M., & Gilbride, T.V. (1991). Boredom proneness: Its relationship to positive and negative affect. *Psychological Reports*, 69, 1139-1146.

Voelkl, J. E., Fries, B. F. & Galecki, A. T. (1995). Predictors of nursing home residents' participation in activity programs. *The Gerontologist,* 35, pp. 44-51.

Weiss, J. C. (1990). The "Feeling Great!" wellness program for older adults. *Activity, Adaptation & Aging,* 12 (3/4), pp. 1-199.

Wright, G. O. (1986, May). Adventures of Aging. Paper presented at the National Association of Social Workers National Conference on Women's Issues, Atlanta. (ERIC Document Reproduction Service No. ED 292 012).

Yesavage, J.A. & Brink, T.L. (1983). Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research*, 17(1), 37-49.

Young, K.J. & Longman A.J. (1983). Quality of life and persons with melanoma: a pilot study. *Cancer Nursing,* 6, 219-225.

Zarit (1997). Journals of Gerontology Series B: Psychological Sciences and Social Sciences, Vol 52, Issue 6 P294-P302

APPENDIX A

APPROVAL CERTIFICATE

19 July 2004

TO: **Mariam Omar** (Advisor Y. Iwasaki)
Principal Investigator

FROM: **Stan Straw, Chair**
Education/Nursing Research Ethics Board (ENREB)

Re: **Protocol #E2004:056**
"Examining the Relationship between Recreation and Quality of Life among Residents of a Long Term Care Facility: Counteracting Loneliness, Depression and Boredom"

Please be advised that your above-referenced protocol has received human ethics approval by the **Education/Nursing Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note that, if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.

APPENDIX B

RECREATION FLOWSHEET

Non - Participation - Chart in Black		Participation - Chart in Black	
C = Cancelled	X= Not Ready	Staff initials	NAME:_____
B= Bed/Sleeping	R = Refused		ROOM NUMBER:_____
A= ADL	F= Family/Visitor		MONTH:_____ YEAR:_____
S= Sick/Hospital	O= Other Program		

EMOTIONAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	COMMENTS
Initial Assessment																																
On Floor Music																																
Music with Len																																
St.John Pet Therapy																																
Humane Society																																
1:1 Visits - Conversation																																
Reading																																
Music																																
Nails & Things																																
Sensory																																
Casual Visits <5 mins.																																
Other:																																
CREATIVE																																
Baking/Cookies to Go																																
Gardening																																
Art/Crafts																																
Art Therapy																																
Beautiful Nails																																
Program Planning Meeting																																
Other:																																
PHYSICAL																																
Carpet Bowling																																
Games																																
Movin' & Groovin'																																
Body Shop Exercise																																
Sports Night																																
Shuffle Board/Bowling																																
Vol. Shuffle Board/Bowling																																
Walks																																
Other:																																

SOCIAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	COMMENTS
Tea Party																																
On Floor Ice-Cream																																
Women's Club																																
Sing-a-long																																
Club Entertainment																																
Club Night																																
Birthday Party																																
Dining In																																
Dining Out																																
Day Outing																																
Patio Program																																
Special Event																																
Other:																																
INTELLECTUAL																																
Cards/Puzzles/Games/Trivia																																
Cribbage																																
Mental Fitness																																
Reminiscing																																
Discussion Group																																
Movies/Travelogue																																
Library Cart																																
On Floor Bingo																																
Bingo																																
Volunteer Card Bingo																																
Resident/Family Council																																
Book Club																																
Current Events																																
Other:																																
PASTORAL CARE																																
Church Service																																
Pastoral Visits																																
Memorial Service																																
On Floor Worship																																
On Floor Memorial																																
Sharing Circle																																
Other:																																

FURTHER COMMENTS:

TOTALS:
PARTICIPATION:_____
NON-PARTICIPATION:_____
PASTORAL :_____
TOTAL:

APPENDIX C

UCLA Loneliness Scale (Version 3)

Instructions: The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by writing a number in the space provided. Here is an example:

How often do you feel happy?

If you never felt happy, you would respond "never"; if you always feel happy, you would respond "always."

NEVER	RARELY	SOMETIMES	ALWAYS
1	2	3	4

____ 1. How often do you feel that you are "in tune" with the people around you?
____ 2. How often do you feel that you lack companionship?
____ 3. How often do you feel that there is no one you can turn to?
____ 4. How often do you feel alone?
____ 5. How often do you feel part of a group of friends?
____ 6. How often do you feel that you have a lot in common with the people around you?
____ 7. How often do you feel that you are no longer close to anyone?
____ 8. How often do you feel that your interests and ideas are not shared by those around you?
____ 9. How often do you feel outgoing and friendly?
____ 10. How often do you feel close to people?
____ 11. How often do you feel left out?
____ 12. How often do you feel that your relationships with others are not meaningful?
____ 13. How often do you feel that no one really knows you well?
____ 14. How often do you feel isolated from others?
____ 15. How often do you feel you can find companionship when you want it?
____ 16. How often do you feel that there are people who really understand you?
____ 17. How often do you feel shy?
____ 18. How often do you feel that people are around you but not with you?
____ 19. How often do you feel that there are people you can talk to?
____ 20. How often do you feel that there are people you can turn to?

Items 1, 5, 6, 9, 10, 15, 16, 19, and 20 should be reversed. Higher scores indicate greater degrees of loneliness.

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. Journal of Personality Assessment, 66, 20-40.

Ferrans and Powers
QUALITY OF LIFE INDEX©
NURSING HOME VERSION - III

PART 1. For each of the following, please choose the answer that best describes how ***satisfied*** you are with that area of your life. Please mark your answer by circling the number. There are no right or wrong answers.

HOW *SATISFIED* ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. The amount of pain that you have?	1	2	3	4	5	6
4. The amount of energy you have for everyday activities?	1	2	3	4	5	6
5. Your ability to take care of yourself without help?	1	2	3	4	5	6
6. The amount of control you have over your life?	1	2	3	4	5	6
7. Your chances of living as long as you would like?	1	2	3	4	5	6
8. Your family's health?	1	2	3	4	5	6
9. Your children?	1	2	3	4	5	6
10. Your family's happiness?	1	2	3	4	5	6
11. Your sex life?	1	2	3	4	5	6
12. Your spouse, lover, or partner?	1	2	3	4	5	6
13. Your friends?	1	2	3	4	5	6
14. The emotional support you get from your family?	1	2	3	4	5	6
15. The emotional support you get from people other than your family?	1	2	3	4	5	6

(Please Go To Next Page)

HOW *SATISFIED* ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
16. Your ability to do things for family and friends?	1	2	3	4	5	6
17. How useful you are to others?	1	2	3	4	5	6
18. The amount of worries in your life?	1	2	3	4	5	6
19. The room(s) you live in?	1	2	3	4	5	6
20. The community setting you live in?	1	2	3	4	5	6
21. The activities available to you?	1	2	3	4	5	6
22. Not having a job (if unemployed, retired, or disabled)?	1	2	3	4	5	6
23. Your education?	1	2	3	4	5	6
24. How well you can take care of your financial needs?	1	2	3	4	5	6
25. The things you do for fun?	1	2	3	4	5	6
26. Your chances for a happy future?	1	2	3	4	5	6
27. Your peace of mind?	1	2	3	4	5	6
28. Your faith in God?	1	2	3	4	5	6
29. Your achievement of personal goals?	1	2	3	4	5	6
30. Your happiness in general?	1	2	3	4	5	6
31. Your life in general?	1	2	3	4	5	6
32. Your personal appearance?	1	2	3	4	5	6
33. Yourself in general?	1	2	3	4	5	6

(Please Go To Next Page)

PART 2. For each of the following, please choose the answer that best describes how ***important*** that area of your life is to you. Please mark your answer by circling the number. There are no right or wrong answers.

HOW *IMPORTANT* TO YOU IS:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. Having no pain?	1	2	3	4	5	6
4. Having enough energy for everyday activities?	1	2	3	4	5	6
5. Taking care of yourself without help?	1	2	3	4	5	6
6. Having control over your life?	1	2	3	4	5	6
7. Living as long as you would like?	1	2	3	4	5	6
8. Your family's health?	1	2	3	4	5	6
9. Your children?	1	2	3	4	5	6
10. Your family's happiness?	1	2	3	4	5	6
11. Your sex life?	1	2	3	4	5	6
12. Your spouse, lover, or partner?	1	2	3	4	5	6
13. Your friends?	1	2	3	4	5	6
14. The emotional support you get from your family?	1	2	3	4	5	6
15. The emotional support you get from people other than your family?	1	2	3	4	5	6

(Please Go To Next Page)

HOW *IMPORTANT* TO YOU IS:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
16. Taking care of family responsibilities?	1	2	3	4	5	6
17. Being useful to others?	1	2	3	4	5	6
18. Having no worries?	1	2	3	4	5	6
19. The room(s) you live in?	1	2	3	4	5	6
20. The community setting you live in?	1	2	3	4	5	6
21. The activities available to you?	1	2	3	4	5	6
22. Having a job (if unemployed, retired, or disabled)?	1	2	3	4	5	6
23. Your education?	1	2	3	4	5	6
24. Being able to take care of your financial needs?	1	2	3	4	5	6
25. Doing things for fun?	1	2	3	4	5	6
26. Having a happy future?	1	2	3	4	5	6
27. Peace of mind?	1	2	3	4	5	6
28. Your faith in God?	1	2	3	4	5	6
29. Achieving your personal goals?	1	2	3	4	5	6
30. Your happiness in general?	1	2	3	4	5	6
31. Being satisfied with life?	1	2	3	4	5	6
32. Your personal appearance?	1	2	3	4	5	6
33. Are you to yourself?	1	2	3	4	5	6

Figure 9. **Geriatric Depression Scale: 15-question form (GDS-15)**

1.	Are you basically satisfied with your life?	yes/NO
2.	Have you dropped many of your activities and interests?	YES/no
3.	Do you feel that your life is empty?	YES/no
4.	Do you often get bored?	YES/no
5.	Are you in good spirits most of the time?	yes/NO
6.	Are you afraid that something bad is going to happen to you?	YES/no
7.	Do you feel happy most of the time?	yes/NO
8.	Do you often feel helpless?	YES/no
9.	Do you prefer to stay at home, rather than going out and doing new things?	YES/no
10.	Do you feel you have more problems with memory than most?	YES/no
11.	Do you think it is wonderful to be alive now?	yes/NO
12.	Do you feel pretty worthless the way you are now?	YES/no
13.	Do you feel full of energy?	yes/NO
14.	Do you feel that your situation is hopeless?	YES/no
15.	Do you think that most people are better off than you are?	YES/no

Scoring: Answers indicating depression are in capitals. Each scores one point. This scoring guidance should not be seen by the patient.
Scores greater than 5 indicate probable depression.