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The Experience of Menopause As reported by Sedentary Women

April Elizabeth Ann Rietdyk
Walden University

Walden University

COLLEGE OF HEALTH SCIENCES

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April Rietdyk

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Dr. Amany Refaat, Committee Chairperson, Public Health Faculty
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David Clinefelter, Ph.D.

Walden University
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Abstract

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Proposal Submitted in Partial Fulfillment

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Abstract

Limited research exists on the experiences of sedentary women as they transition through menopause. This gap creates difficulty for public health practitioners as they strive to develop resources, implement programs, or influence policy change at the community level for this group of marginalized women. Keeping women healthy throughout the aging process, including menopause, improves their quality of life and decreases the impact aging has on the health care system. This phenomenological study, through in-depth interviews, provided the opportunity for sedentary women to share their thoughts and experiences of menopause. Thirteen sedentary women between the ages of 40 and 60, experiencing at least one sign of menopause and residing within a rural community in Canada, participated in the study. Analysis of the data generated themes to support and describe their experience of menopause. For this group of sedentary women, menopause signaled a significant life change, impacted by a number of internal and external forces over which they articulated varying levels of control. How women reacted to this life change and their perceived amount of control determined whether they described their menopause experience as positive or negative. While the thought of increasing their physical activity level was not appealing, there was a desire for support in numbers. If women were speaking openly about menopause, more opportunities would exist for aging women; participants desired to improve the menopause transition for all women not just women in their circle of friends. Women helping other women, improved public health programs and services, and potential policy change that encourage healthy choices at the group and community level can result in positive social change for menopausal women.

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Dedication

I am dedicating my dissertation to menopausal women around the globe. May you find health, happiness, peace, and understanding, through menopause and the second half of your lives.

Acknowledgments

Words can never express the gratitude I feel towards the people who have stood by me over the years. First, to my husband and life-long friend, Paul, I could not have done this without your support, encouragement, and never fading ability to emanate perseverance despite insurmountable odds. To my children, Kaitlyn, Jared, and Evan, the three of you have grown beautifully into adulthood; each in your own unique way, and our family is stronger for it. Kaitlyn, your love for the arts shines through in everything you do; never stop living your dream. Jared, your calm and gentle demeanor creates a bond between you and everyone you meet; never stop taking the time to care. Evan, your headstrong passion for creating and building things from nothing always makes me laugh; stay true to yourself and you will go far. Amanda, your smile has been a welcomed addition to our family and I have watched you grow into a beautiful young woman. Breanna, thank you for my beautiful grandbaby Eleanor; babies have a way of putting everything into perspective, especially when things get crazy in our lives. I could not ask for a better family to have shared this journey with.

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Chapter 1: Introduction to the Study

Introduction

The global population is expected to reach over seven and a half billion by the year 2020; half will be women and more than one billion women will be between the ages of 40 and 60 years (U.S. Census Bureau, 2009). By the year 2020, the United States will be home to almost 50 million women at menopausal age, greater than the entire projected population of one of its closest neighbors, Canada (U.S. Census Bureau, 2009). Life expectancy for women around the world ranges from the low 40s in many developing countries to over 80 years in North America (U.S. Census Bureau, 2009). By the time a woman has transitioned through natural menopause, she has reached the status of midlife and begins to face the reality of aging. For North American women, the average age of natural menopause is 52 years, with a normal range of 42-60 years (North American Menopause Society, 2009). In North America, the potential now exists for a woman to live almost half of her life after the transition through menopause, something her great grandmother likely thought was impossible.

As women age, the probability of experiencing poor health increases. At least 77% of Canadian women over 45 years of age indicate they suffer from a chronic disease that affects their quality of life, including cancer, cardiovascular disease, respiratory disease, diabetes, mental illness, or arthritis (Statistics Canada, 2006). With chronic diseases also accounting for a significant portion of direct health care costs, and the Canadian population aging, it has become imperative to find ways to minimize the impact chronic diseases pose for women, communities, and the country as a whole (Edwards &

Mawani, 2006). Major risk factors for chronic diseases include an unhealthy diet, physical inactivity, tobacco use, age, and heredity (Public Health Agency of Canada, 2009). The World Health Organization (2005) estimated that without action on identified risk factors, deaths from chronic disease will increase 17% by 2015. It is unavoidable that aging women will eventually reach menopause, a transition also affecting, either positively or negatively, their quality of life and health care use (Avis et al, 2009; Bolge, Bakrishan, Kannan, Seal, & Drake, 2010; Elavsky, 2009). Sedentary women, by virtue of their physical inactivity, increase their risk of chronic disease. This risk, coupled with aging and any health changes resulting from menopause, creates a group of women potentially at risk of poorer health outcomes than their younger, physically active counterparts. Little attention has been paid to how sedentary women experience the transition through menopause. Discussed further in chapter 2, the gap created by the lack of research on sedentary menopausal women provides an opportunity to hear from women as they transition through this important life event. Improvements sedentary women make in their lifestyle choices have the potential to affect their aging processes in positive ways.

This chapter includes an introduction to an inquiry into the experiences of sedentary women transitioning through menopause. It begins with background information on menopause, followed by the problem statement, nature and purpose of the study including the research questions, a proposed conceptual framework, operational definitions, limitations, assumptions, and delimitations. It concludes with the significance

and social change implications of this study regarding the experiences of sedentary women transitioning through menopause.

Background

How women transition through menopause is depends on many factors. Menopause is more than a single life event; it occurs over time, and all women experience it differently. Many face the symptoms of menopause positively and virtually pain free; for others, the transition brings debilitating side effects, affecting the activities of daily living. Symptoms range from mild insomnia to bed-soaking night sweats, and from mild forgetfulness to depressive episodes (Bromberger et al., 2003; Seibel, 2003). Treatment choices made while transitioning through menopause include hormone therapy; diet, fitness, and lifestyle changes; and alternative and homeopathic remedies (Amato & Marcus, 2003; Lange-Collett, 2003; North American Menopause Society [NAMS], 2006). A woman's genetic make-up influences how she ages; inherited and nonmodifiable, it is out of her control. However, lifestyle habits, those that are modifiable, will affect her physical and emotional health throughout life, including the aging process. For many women these habits form early in life; for others, the threat of impending age and the health changes that accompany aging elicit behavioral changes that can range from a greater awareness of dietary and fitness needs to engaging the advice of alternative therapy providers (NAMS, 2006; Society of Obstetricians and Gynecologists of Canada, 2009). How sedentary women experience the transition through menopause, including their support sources and coping techniques, provides valuable insight into this group of aging women.

How the phenomenon of menopause is discussed and treated has changed dramatically over the last several decades. Until the current century, the public discussion of menopause was limited because few women lived past the cessation of menses (Naftolin, Whitten, & Keefe, 1994). Donaldson (1994) presented menopause as an evolutionary way of limiting the number of offspring women care for, believing that fewer children increases children's survival rates. The study of menopause and the treatment of women transitioning through menopause changed radically with the initial results of the Women's Health Initiative Study, a 15-year longitudinal study involving 160,000 participants (Manson et al., 2003; National Institute of Health, 2003). In the early 1900s, hormone therapy was the treatment of choice, enabling women to avoid or delay the adverse effects of menopause (Naftolin, Whitten, & Keefe, 1994). Following the Women's Health Initiative study, discussed further in chapter 2, concerns of cancer and stroke resulted in a dramatic decrease in hormone therapy use, and women began seeking alternative ways to cope with the adverse symptoms associated with menopause (Manson et al., 2003).

Current reviews, some published as recently as January 2009, on the Women's Health Initiative Study have prompted several leading professional organizations to rethink their position on the use of hormone therapy during menopause (NAMS, 2008; Obstetricians and Gynecologists of Canada, 2009). After further examination of the original findings, several organizations determined that hormone therapy use by women transitioning through menopause was safe in as low a dose as needed to achieve symptom relief, and for the shortest length of time required (NAMS, 2008; Society of Obstetricians

and Gynecologists of Canada, 2009). Women who used hormone replacements in the past and stopped using them because of the initial health concerns, may now face the option of using them once again to achieve menopausal symptom relief. The potential for confusion and uncertainty exists for women, their families, and their health care providers.

The media coverage surrounding the initial release of the Women's Health Initiative results coincided with an increase in popular literature dedicated to menopause. Women were now able to obtain information on menopause from their medical practitioners, at the library or bookstore, or in the checkout line at their local grocery store. Despite copious amounts of available literature on menopause, popular and research-based, and literature on the importance of physical activity throughout the lifespan, little information is available specifically addressing sedentary women's questions, concerns, and experiences regarding the transition through menopause. For the purpose of this inquiry, sedentary women do not participate in any type of physical activity outside of the normal activities of daily living required for independent living (Varo et al, 2003). An extensive review of the literature follows in chapter 2.

Problem Statement

The phenomenon of menopause will not disappear, nor should it. Discussion of menopause now occurs openly among medical practitioners, honestly in homes throughout the country, and often with humor during office encounters. Physical activity and other lifestyle habits are beneficial to health and wellbeing, for the young and old alike (Public Health Agency of Canada, 2003). As life expectancy in North America

increases, women will spend significantly more years postmenopausal, assuming the average age of menopause remains constant (Amato & Marcus, 2003; Lange-Collett, 2003; NAMS, 2006). The problem this study addresses is that, although there is copious quantitative menopausal research and modest qualitative research on the experience of menopause, there is a negligible amount of inquiry that focuses on how sedentary women experience the transition through menopause. Until sedentary women have the opportunity to share their thoughts and experiences of their menopause transition, primary care practitioners, public health professionals, and individuals within a woman's circle of support are unable to encourage healthy lifestyle choices. A knowledge deficit exists for sedentary menopausal women, their families and supports, and the professionals who care for them during this potentially tumultuous life stage. The resulting knowledge deficits are barriers for public health practitioners as they plan and implement public health programming and services, aimed at assisting women to remain healthy throughout the aging process.

Nature of the Study

Rowe and Kahn (1997) described successful aging for men and women alike as a multidimensional process encompassing the constructs of physical and emotional well-being, remaining disease free, and one's engagement with life. Menopause is part of aging; whether a woman transitions through menopause successfully as part of this aging process is also multifaceted. The objective of this phenomenological inquiry was to understand the experiences of sedentary women as they transitioned through menopause. A phenomenological method of inquiry provides the opportunity for sedentary women

transitioning through menopause to voice their attitudes; physical, emotional, and cognitive symptoms; coping techniques including their use of hormone therapy; and their individual perspectives on menopause.

Research Questions

This study addressed two main questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? The following subquestions support the primary questions:

1. How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?
2. What signs and symptoms of menopause do sedentary women experience?
    a. Physically
    b. Emotionally
    c. Cognitively
3. What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?
4. How does the use of hormone therapy by sedentary women affect their experience of menopause?
5. Whom do sedentary women turn to for support during their transition through menopause?

Purpose of the Study

The purpose of this qualitative study was to understand the experiences of sedentary women as they transition through menopause. Themes derived from women's

experiences will assist sedentary women and their health care providers as they work together to navigate through this important life stage. Keeping aging sedentary women as healthy and engaged with life as possible benefits women, their families, their communities, and the medical system supporting them. Information gleaned from the women's experiences will support future community public health programming and subsequent policy changes necessary to ensure continued positive social change for this group of marginalized, older, sedentary women.

Conceptual Framework

Every woman who lives long enough, sedentary or not, will experience the phenomenon of menopause; it is essential to study the physical, psychological, and cultural aspects surrounding the transition through menopause to gain understanding into this important life event. It is also imperative to examine the coping techniques and social supports available, and how sedentary women use both during their transition through menopause. Successful transition through menopause will depend on a woman's overall health; the physical, emotional, and cultural aspects of menopause experienced; and her ability to buffer these experiences with coping techniques and support networks. The conceptual framework for this study paralleled Rowe and Kahn's (1997) model of successful aging discussed earlier in this chapter, while addressing the Nature of the Study. Figure 1.1 illustrates the conceptual framework for this inquiry.

Each of the factors depicted in the conceptual framework impact the experience of menopause with varying weights for each woman. Some women will experience few physical symptoms; they may never seek medical support, or experience social isolation.

Others may find their menopausal transition physically difficult, search for numerous coping techniques, and suffer from various chronic diseases. Some of the factors may change, or vary in significance, depending on the phase of menopause a woman is experiencing. The cultural view of menopause may vary significantly within each woman's social environment. Women transitioning through menopause determine each factor's importance and the right balance of each factor for their own life situation. Successfully transitioning through menopause is as multifaceted as menopause itself.

Figure 1. Conceptual framework.

Operational Definitions

Alternative therapy: Any form of therapy such as acupuncture or herbal supplements, used in place of conventional medicine typically prescribed by a physician,

nurse practitioner, or other regulated health professional (National Center for Complementary and Alternative Medicine, 2007).

Chronic disease: Non-communicable diseases with unknown etiology and multiple risk factors. Diseases typically result in some degree of impairment, last over an extended period, and may be preventable. Examples include cardiovascular disease and cancer (Public Health Agency of Canada, 2006).

Complementary therapy: Any form of therapy such as massage or yoga, used along with conventional medicine typically prescribed by a physician, nurse practitioner, or other regulated health professional (National Center for Complementary and Alternative Medicine, 2007).

Diseases associated with aging: Diseases typically associated with aging include cardiovascular disease, cancer, osteoporosis, and diabetes. Heredity and lifestyle habits significantly affect the chance of developing a disease associated with aging (NAMS, 2006).

Depression: For the purpose of this study, depression refers to a mental disorder characterized by a loss of interest in life, low energy, poor concentration, unbalanced sleep and appetite, and feelings of low self-worth (World Health Organization, 2009).

Early Menopause: Cessation in menstruation that occurs prior to a woman's 45th birthday, however caused. It is also known as premature menopause or premature ovarian failure (NAMS, 2006).

Estrogen: One of the main hormones secreted by human females; combined with progesterone, the two hormones regulate menstruation and menopause (Society of Obstetricians and Gynecologists of Canada, 2006).

Headaches: For the purpose of this study, a headache is any head pain or discomfort, however caused (stress, tension, migraine, hormone, or sinus).

Hormone therapy: Drugs prescribed by a medical practitioner to alleviate or subdue the signs and symptoms of menopause including estrogen therapy and estrogen combined with progesterone therapy (North American Menopause Society, 2006).

Hot flashes: Also called a hot flush, a hot flash is a vasomotor episode of intense body warming beginning in the chest and radiating upwards to the neck and face, often accompanied by sweating and skin redness (Weir, 2004).

Libido Changes: The level of sexual desire changes in both sexes with aging. Women transitioning through menopause may notice changes in sexual desire related to painful intercourse, diseases of aging, or physical limitations in themselves or their partner (NAMS, 2006). For the purpose of this study, libido changes are changes from a woman's previous level of sexual desire.

Memory and concentration changes: There is a gradual decline in cognition associated with aging. For the purpose of this study, memory and concentration changes are a change in memory or concentration that causes a concern for the menopausal woman (Society of Obstetricians and Gynecologists of Canada, 2006).

Menopause: The permanent end to a woman's menstrual cycle and reproductive capacity, it begins twelve months following her last period (North American Menopause Society, 2006).

Menstrual changes: For the purpose of this study, menstrual changes are any change in a women's typical menstrual cycle.

Mood swings: Mood swings are sudden uncontrollable changes in mood often between happiness and sadness (Canadian Mental Health Association, 1993).

Natural menopause: Cessation of menses, for a period of at least one year, without evidence of a chemical cause such as chemotherapy, or a physical cause such as a hysterectomy (NAMS, 2006).

Night sweats: Night sweats are hot flashes that occur during sleep (Society of Obstetricians and Gynecologists of Canada, 2006).

Osteoporosis: One in four women over the age of 50 has osteoporosis, a disease characterized by a low bone mass and the weakening of bone diagnosed by a primary health care practitioner. It is not an arthritic disease (Osteoporosis Canada, 2009).

Painful sexual intercourse: Reduced estrogen at menopause results in decreased vaginal lubrication and increased vaginal dryness often causing painful sexual intercourse (Society of Obstetricians and Gynecologists of Canada, 2006).

Perimenopause: The 2 to 8-years prior to menopause when fluctuating hormones cause menstrual changes and some of the symptoms experienced during menopause (NAMS, 2006).

Physically Active: For the purpose of this study, women are physically active if they participate in 30 minutes of moderate physical activity, such as walking, biking, weight training, or yoga, on most days of the week (Public Health Agency of Canada, 2003).

Post-menopause: This timeframe encompasses all of the years a woman remains alive after transitioning through menopause (NAMS, 2006).

Pre-menopause: Is a woman's entire reproductive life prior to transitioning through menopause (Society of Obstetricians and Gynecologists of Canada, 2006).

Primary Health Care Practitioner: A licensed individual who provides care to patients and clients, within the five domains of primary health care including, health promotion, disease prevention, curative care, rehabilitative care, and supportive care (Way, Jones, Baskerville & Busing, 2001).

Sedentary lifestyle: For the purpose of this study, sedentary women do not participate in any type of physical activity outside of the normal activities of daily living required for independent living (Varo et al., 2003).

Skin, hair and dental changes: Fluctuating hormones during menopause and the aging process create noticeable changes to a female's skin, hair, and teeth. Skin becomes wrinkled and dry, hair often thins and turns grey, and teeth loosen in receding gums (NAMS, 2006).

Sleep disturbances: Also known as insomnia. Most adults require 6-9 hours of sleep each night to feel well rested and alert during their waking hours (NAMS, 2006). For the purpose of this study, sleep disturbances occur when women feel they are not able

to sleep long enough, on a regular basis, to maintain their activities of daily living without becoming fatigued.

Social supports: For the purpose of this study, social supports are individuals and community agencies providing a positive atmosphere, and an effective barrier against adverse life events (Centre for Addiction and Mental Health, 2008).

Urinary incontinence: The involuntary leaking of urine from the bladder due to a number of conditions including but not limited to, muscle atrophy or urinary tract infection (NAMS, 2006).

Weight gain: A reduction in overall muscle mass associated with aging results in a slowing of the metabolism and eventual weight gain unless counteracted by lifestyle changes (Public Health Agency of Canada, 2003). For the purpose of this study, weight gain occurs when it results in an unintentional increase in clothing size.

Scope of the Study

Assumptions

Based on the findings of previous researchers of menopause and my background and experience, four assumptions exist regarding this inquiry. The first assumption was that sedentary women transitioning through menopause would not only agree to share their experiences about the transition through menopause but also want to share them. This assumption is based on qualitative studies in which menopausal women openly discussed wellness and aging (Mackey, 2007), hormone therapy usage (Holt-Waldo & Stephenson, 2007), and gendered beauty ideas (Dillaway, 2005). As the researcher in this

inquiry, I assumed that women genuinely desire to help other women transition through menopause by sharing their own experiences.

Second, enough sedentary women transitioning through menopause were available to participate in the study. The current demographics existing in the municipality where the inquiry occurred helped to support this assumption. The most recent census data indicate that 28% of the municipal population is within menopause age and 29.5% of individuals over 12 years of age are not physically active on a regular basis (Statistics Canada, 2007). While almost 30% sounds high, further age and gender breakdowns were not available. I assume that enough physically inactive female individuals residing in the community are also within menopausal age and meet the study inclusion criteria outlined in detail in chapter 3.

Third, collectively, sedentary women will verbalize similar behavioral characteristics, demographics, and menopausal experiences. A number of researchers conducting studies with homogeneous groups of women on various topic areas and menopause, discovered consistent or similar findings within identified groups. Thorton, Sykes, and Tang (2004) studied the effects of Tai Chi on blood pressure in a group of Chinese women from one community. In other studies, the factors prompting the use of complementary medicine found similar characteristics in women who use this coping strategy to assist with the symptoms of menopause (Daley et al., 2006; Gollschewski, Anderson, Skerman, & Lyons-Wall, 2005). A number of researchers investigated women from a variety of cultural groups; some examined symptoms specifically (Hall, Callister, Berry, & Matsumura, 2007), and others inquired into complementary therapy use (Bair et

al., 2002; Hunter et al., 2000). I believed women with similar characteristics, such as a sedentary lifestyle, would express similar experiences regarding their transition through menopause, unique and different from other groups of women.

Fourth, despite similar characteristics and demographics, sedentary women will survive menopause with a wide variety of coping strategies. Studies abound on the techniques used by women to cope with the symptoms associated with menopause; from walking programs (Fahlman et al., 2000) and the use of black cohosh (Pakzad, Boucher, Krieger, & Cotterchio, 2007) to window coverings for improved sleep (Youngstedt et al., 2004) and hormone therapy (Welton et al., 2004). I assumed women would identify numerous coping techniques used during menopause and be willing to share their coping technique experiences with others.

Limitations

Three potential limitations existed within this inquiry. First, I acknowledged that the results were subject to my interpretation; there was a potential for others to form alternative interpretations of the data. Second, the qualitative nature and purposeful sampling technique used decreased the generalizability of the findings beyond local sedentary menopausal women. Finally, despite a defined set of core questions for the in-depth interviews, control over the direction each interview was limited to the openness of the participant and the skill of the interviewer.

Delimitations

As stated previously, menopause is a phenomenon that affects every woman who lives past middle age. The experiences of all women transitioning through menopause is

both important and worthy of exploring. However, in an effort to narrow the scope of this inquiry, the study was limited to sedentary menopausal women from a small rural community. An extensive literature review revealed limited qualitative research with sedentary menopausal women and, as such, a gap in the literature emerged.

This inquiry further restricted the interviews to menopausal sedentary women residing in the small rural municipality. In the event a satisfactory sample size was unavailable from within the community, purposeful sampling would have continued into neighboring municipalities. Finally, a one-on-one interview format, completed face-to-face with the participant, was the only interview technique used for this study. This method provided privacy to the participants and assisted in maintaining analogous surroundings throughout the life of the study.

Significance of the Study

Over 45 million American women face the realities of menopause and many will spend a significant part of their life as a post-menopausal woman (Northrup, 2006). In Canada, despite having only 5.5 million menopausal women in 2005, by the year 2026, a quarter of the population will be women over 50 (Society of Obstetrics and Gynecology, 2009). Throughout North America, menopausal women form a substantial portion of the population; discovering new ways to keep them healthy has the potential to affect the health care system by improving services and programs. Perhaps most importantly, providing the opportunity for women to share their experiences about such an important event in their lives, compels them to be part of the solution, assisting women to age and transition through menopause successfully. Enabling women to share has the potential to

improve confidence and self-esteem in study participants. Demonstration of social change is apparent through this and the impending positive impact for other sedentary women transitioning through menopause.

This study provided an opportunity for sedentary women to share their experiences of menopause and what impact their health and lifestyle choices have made on this transition. While literature and research abound on the subject of menopause, very little research exists that provides a forum for women to share what the experience of the menopause transition has been like for them. This gap in the literature presents an opportunity to expand the knowledge available regarding the transition through menopause with the intention that public health programs, community services, and holistic treatments are better able to service women and their supports standing by them through this life stage.

Summary

This phenomenological study examined the lived experiences of sedentary women as they transition through menopause by exploring women's attitudes, behaviors including coping techniques, and perspectives on menopause. This exploration used one-on-one in-depth interviews with sedentary women residing in a small rural community in Canada. As the population ages across the globe, more women will transition through menopause. Any information gleaned from the inquiry that impacts the aging process for women in positive ways will be a benefit to women, their families, and the community, thus demonstrating positive social change. Any improvements made to services received

by sedentary menopausal women in the community as a result of this inquiry will contribute to sustainability of this positive social change.

The following chapter includes a review of the current research, popular literature, and electronic resources on menopause. In chapter 3, a detailed description of the methodology including participant selection criteria, data collection, and the coding procedure for data analysis. Findings from the in-depth interviews along with the identification of patterns, relationships and themes, and accuracy confirmation of the data follow in chapter 4. The final chapter concludes with my interpretation of the data; suggestions for future practice and subsequent research; and implications for social change.

Chapter 2: Literature Review

Introduction

This literature review includes discussion of research and literature findings relevant to the two primary research questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? The review includes literature from peer-reviewed journals, information discovered on Internet sites dedicated to menopause, and popular published literature including books and magazines devoted to menopause and aging. Review of the last two information sources provided context on the popular information readily accessible to women transitioning through menopause. Literature that addressed the vasomotor and somatic symptoms associated with menopause, women's chosen coping techniques, the use of hormone replacement therapy during menopause, women's attitudes and beliefs towards menopause, diseases of aging, and physical activity level and its impact on the menopausal transition was reviewed. The review begins with a discussion of various historical perspectives on menopause and aging. It concludes with an examination of Rowe and Kahn's (1998) model of successful aging as supporting literature aiding in the development of the suggested conceptual framework introduced in chapter 1 and referred to for exploring sedentary women's experiences of the menopause transition.

An electronic search of Walden University Library; Athabasca University Alumni Library; PublicHealthOntario.ca, Ontario's Public Health Information Exchange; NurseONE, The Canadian Nurses Portal; and the members-only section of the North American Menopause Society website, revealed published literature pertinent to the topic

of menopause. These five systems provided access to the following electronic search engines CINAHL, ProQuest, JAMA, MEDLINE, Nursing & Allied Health, Ovid Nursing Journals, PsycINFO, SocINDEX, Cochrane Database, and PubMed. Each search used the key word menopause accompanied by one of the following terms, physical activity, sedentary lifestyle, hormone replacement therapy, complementary and alternative therapies, coping techniques, support system, diet and nutrition, aging, physical and psychological symptoms, disease, assessment scales, and qualitative research. The searches included two limiters, peer-reviewed scholarly journals, and publication dates between 2000 and 2010. The key words used were not limited to author, abstract, or citation only, thus including articles in which the key words were located anywhere within the document. A separate search for a historical perspective on menopause used the same search terms. The only change occurred within the search limits, allowing the inclusion of articles written on menopause from 1950 to 2000.

The first literature search results included 135 research articles that met the search criteria and assisted with addressing the research questions. However limited, of special interest were qualitative studies with a focus on sedentary women transitioning through menopause. Only 10 articles used a qualitative methodology (Ballard, Elston, & Gabe, 2005; Dillaway, 2005; French, Smith, Holtrop, & Holmes-Rovner, 2006; Hall, Callister, Berry, & Matsumura, 2007; Hepworth, Paine, Miles, Marley, & MacLean, 2002; Holt-Waldo & Stephenson, 2007; Mackey, 2007; Morris & Symonds, 2004; Welton et al., 2004; Will & Fowels, 2003). Ten quantitative inquires addressed sedentary lifestyles of menopausal women (Asbury, Chandrruangphen, & Collins, 2006; Asikainen et al., 2006;

Church, Earnest, Skinner, & Blair, 2007; Daley et al., 2007; Elavsky & McAuley, 2007; Hagberg et al., 2000; Harris et al., 2003; Hunter et al., 2000; Lemonine et al., 2007; Moreau, Gavin, Plum, & Seals, 2006). Finally, one article focused on sedentary women from a qualitative paradigm (Jeng, Yang, Chang, & Tsao, 2004). The literature search revealed three articles that specifically addressed menopause in Canadian women (Bailis & Chipperfield, 2002; Pakzad, Boucher, Krieger, & Cotterchio, 2007; Tannenbaum and Mayo, 2003). The historical search revealed an additional twenty-six articles pertinent to the research questions.

A search of the Internet, using the search engine Google.ca and the key word menopause, revealed thousands of sites containing women's health information with specific reference to the topic of menopause. A limited number of sites focused specifically on menopause; these sites were often associated with national menopause agencies such as the Australian Menopause Society, the British Menopause Society, Menopause Canada, and the North American Menopause Society. Finally, in an effort to understand information publicly available to women, a review of popular literature occurred at the local public library, a local bookstore, and electronic book purchasing sites.

After reading and reviewing the literature generated from the identified search techniques, I attempted to group the articles and studies together by secondary topics outside of the primary topic of menopause. The fifteen topic areas initially identified created information that was unmanageable, scattered across too many themes, and difficult to record in a synchronized fashion. For example, the initial topics of yoga and

menopause, herb and supplement use during menopause, and massage therapy, fit well together into one theme of alternative therapies and chosen coping techniques used during the menopause transition. The grouping of topic areas shaped six distinct themes evolving from the literature search, physical and emotional symptoms associated with menopause, alternative treatments and chosen coping techniques to address the symptoms of menopause, hormone therapy (HT), thoughts and feelings towards menopause and aging, physical activity, and diseases associated with aging. Each of these issues requires individual attention within this literature review however, physical and emotional symptoms are intertwined throughout every theme; they are discussed independently and along with each of the subsequent themes on menopause. Before addressing each area in detail, a review of historical perspectives on menopause occurs. After discussing each of the generated themes in more detail, a brief review of the literature on sedentary menopausal women and various menopause measurement instruments follows. Finally, Rowe and Kahn's (1998) Model of Successful Aging is discussed with attention to why this model was chosen over other health behavioral models.

Historical Perspective of Menopause

Menopause is not a new phenomenon. However, as mentioned in chapter 1, the face of menopause changed dramatically with the abrupt discontinuation of the Women's Health Initiative (WHI), due to an increase in health risks for some of the participating women (Manson et al., 2003). The literature search completed for this dissertation originally included articles and research papers from 2000 to 2010. In order to obtain a historical perspective on the research conducted prior to the WHI, a subsequent search

occurred that included the years 1950 through 2000. The potential exists for information, issues, and concerns prior to the WHI to be of significance, making the information obtained from this historical search relevant to the current research. The search techniques used for the brief historical analysis on menopause mirror those discussed previously.

Eighteen historical articles, with significance to the present inquiry, support and concur with the majority of findings within the research published after 2000. Themes generated from the historical search included physical and emotional symptoms associated with menopause and diseases associated with aging (Broadhead, Blazer, George, & Tse, 1990; Busch, Zonderman, & Costa, 1994; Carlson, & Stieglitz, 1952; DeSouza, Stevenson, Davy, Jones, & Seals, 1997; Kaplan et al., 1998; Maddox, 1999; Nicol-Smith, 1996; Rubin, & Quine, 1999; Snowdon et al., 1989; Sonnenschein et al., 1999). Physical activity and smoking were also addressed (Burnette, Meilahn, Wing, & Kuller, 1998; Fitgerald, Singleton, Neale, Prasad, & Hess, 1994; Kaufman, Slone, Rosenberg, Miettinen, & Shapiro, 1980; Ryan, Pratley, Goldberg, & Elahi, 1996; Summers, Lustyk, Heitkemper, & Jarrett, 1999; Zhang, Feldbblum, & Fortney, 1992). Three themes identified in the post 2000 literature on menopause, thoughts and feelings towards menopause, alternative treatments, and chosen coping techniques, were absent in the historical literature search. Two articles of interest included Naftolin, Whitten, and Keefe, (1994) and Donaldson, (1994) that describe their perspectives on the evolution of menopause.

Physical and Emotional Symptoms Associated with Menopause

Inquiries focusing on the physical and emotional symptoms associated with menopause included a 10-year longitudinal study on psychological distress that followed over 3,000 women in which researchers concluded that psychological distress during this time was unlikely to be associated with menopause (Busch, Zonderman, & Costa, 1994). While the sample size was large and potentially generalizeable, the researchers made no causal connection between menopause and psychological distress experienced by women during the transition through menopause. Maddox (1999) used Orem's theory of self-care (Clark, 1986) to assess 25 women and their voiced emotional views of menopausal health. Maddox also concluded that women and their health care providers think very differently about the meaning of health; with women placing more emphasis on spiritual, social and emotional wellness as true indicators of health. In 1952, Carlson and Stieglitz discussed the physiological changes occurring during aging, focusing on mental changes, balance concerns, and increasing obesity as the metabolic systems begin to slow down and nutritional demands change. A systematic review of 43 journal articles on menopause and depression, completed by Nicol-Smith (1996) was unable to ascertain if menopause caused depression concluding that more research was required. From the articles reviewed within the historical review, only DeSouza et al. (1997) examined any aspects around sedentary women, focusing on cardiovascular symptoms and activity levels. In a small cross sectional study, DeSouza investigated cardiovascular disease in 31 sedentary and 20 physically active women concurring with the post 2000 inquiries that physical

activity improves health status in menopausal women. None of the historical papers reviewed address specific physical and emotional symptoms of menopause.

Diseases Associated with Aging

Authors of very different papers addressed diseases associated with aging in menopausal women. Kaplan et al., (1998) conducted a case control study of 334 women using medical charts and pharmacological reviews of prescribed medication use to determine if hormone replacement therapy increased cardiovascular disease in diabetic women. A self-reported questionnaire, completed by almost 20,000 women, investigated a link between early menopause and overall health (Snowdon et al., 1989). Despite the large size, recruitment of participants occurred from one religious group in one US state. The researchers controlled for confounding variables of age, lifestyle habits, reproductive history and hormone replacement use, ultimately determining an association between the early onset of menopause and overall mortality. Breast cancer risk and its relation to a woman's hip waist ratio indicated that excessive weight was a risk factor for breast cancer in a study of 150 postmenopausal women (Sonnenschein et al., 1999). In the final paper, authors reviewed a mixed methods study regarding women's expectations of hormone replacement therapy and their self-identified symptoms at menopause, determining that many women experienced negative menopausal symptoms despite hormone therapy use (Rubin & Quine, 1999).

Physical Activity and Menopause

In four papers, authors focused on an aspect of physical activity in menopausal women; all four inquiries concluded, as did the post 2000 studies on fitness during the

transition through menopause, that physical activity during menopause is important to overall health (Fitgerald et al., 1994; Ryan et al., 1996; Summers et al., 1999; Zhang, Feldbblum, & Fortney, 1992). Sample sizes ranged from 13 in a randomized control trial by Ryan et al. (1996) that focused on resistance training and weight loss programs on insulin dependency in menopausal women to a cross sectional study on physical activity and bone mineral density of 352 women by Zhang, Feldbblum, and Fortney (1992). Fitgerald et al. (1994) completed one of the only research papers discovered in the literature search that addressed ethnicity and menopause. Interestingly, African American menopausal women were less active than Caucasian women despite having similar knowledge regarding the benefits of physical activity (Fitgerald et al., 1994).

Smoking and Menopause

The final two papers were the only papers found where authors addressed smoking and menopause within the pre and post 2000 search criteria. Kaufman et al. (1980) concluded from a cohort of 656 women that smoking women transitioned through menopause earlier than nonsmokers did. Burnette et al. (1998) reviewed smoking cessation, subsequent weight gain, and the resulting changes in cardiovascular risk, concluding that the benefits resulting from quitting outweighed the cardiovascular risks associated with any subsequent weight gain. The author's conclusions in these two studies have limited impact on this inquiry however, it is important that smoking status be discussed as a potential confounding variable in future research on sedentary women transitioning through menopause.

Naftolin, Whitten, and Keefe (1994) shared their evolutionary perspective on menopause while Donaldson (1994) questioned how the phenomenon of menopause arose. While not research papers, these two documents provided a unique perspective on historical information regarding menopause. Donaldson (1994) argued from an evolutionary perspective that menopause became necessary as children's lives lengthened and the need for longer periods of childcare arose, subsequently facilitating the need for fewer children. In contrast, Naftolin, Whitten, and Keefe (1994) are of the opinion that no evolutionary reason for menopause exists, stating that the signs and symptoms of menopause mimic those seen immediately following childbirth in spite of the fact that the body does not need to recover from pregnancy, labor, or delivery.

Embarking on a qualitative inquiry into the experience of sedentary women transitioning through menopause requires information and knowledge from all available sources, past and present. The historical data reviewed provided background information into the perceptions and resources women transitioning through menopause may have received, or been exposed to, through family, friends, healthcare workers or medical practitioners. Historical research on the transition through menopause acknowledged that women experience physical and psychological changes as they age, some of which affect them in negative ways. Healthy lifestyles are important including adequate physical activity and smoking cessation to improve overall health status. Historical literature supported the concept that if a woman reaches middle age, menopause becomes inevitable. The literature also supported the importance of how the views of menopause have changed over time.

Current Themes on Menopause

Physical and Emotional Symptoms

Hot flashes and night sweats are described throughout the literature as the first noticeable and most complained about vasomotor symptoms of menopause, accounting for the majority of women's visits to primary care practitioners (Morris & Symonds, 2004; Singh et al., 2007). Singh et al. (2007) conducted a telephone survey of 607 women of whom 71% were experiencing physical and emotional symptoms. Physicians were the most common source for menopause information identified by study participants. Cohen, Soares, Vitonis, Otto, and Harlow (2006) in a longitudinal prospective cohort study of 460 women transitioning through menopause identified an increased risk of depression in women experiencing vasomotor symptoms. The authors used self-reported questionnaires, followed women for five years, and identified an increased risk of depression the earlier these women transitioned through menopause. Bromberger et al. (2003) and Bromberger et al. (2001) obtained similar results in both of their research inquiries. In the first study, authors investigated physical and emotional symptoms in a cross-sectional multisite study of 3,302 women; the second, using a cohort of women within a larger study, authors researched women with similar demographics and as identified in the earlier studies, found increased rates of depression in women transitioning through menopause at an earlier age.

The articles identified by the search focusing specifically on physical and emotional symptoms, outside of the other themes, generated predominately descriptive statistics. While the studies provide insight into symptoms experienced by women

transitioning through menopause, the authors made no correlation made between lifestyle habits, coping and treatment choices made by menopausal women, or the impact these symptoms have on a woman's life. Furthermore, studies where researchers concentrated specifically on the symptoms associated with menopause did not address the symptoms experienced by sedentary women transitioning through menopause.

Alternative Treatments and Coping Techniques

The use of alternative treatments by women during menopause range from the practice of yoga, to homeopathic remedies aimed at alleviating menopausal symptoms (Bair et al., 2002; Daley et al., 2006; Golischwski, Anderson, Skerman, & Lyons-Wall, 2005). Cherrington et al. (2003) suggested that alternative therapy use through the menopause transition tended to be in younger, more educated women, and those exhibiting physical symptoms associated with menopause. In a separate study, researchers found that historical alternative therapy use at study baseline was the strongest indicator of continued or increased use during menopause (Bair et al., 2002). A further study attempted to compare alternative therapy with conventional therapy utilizing existing patient records from seven clinics. Unfortunately, only one of the clinics was an alternative therapy clinic. All of these studies used retrospective cohort methodology; none assessed the reasons behind alternative therapy use or documented women's experiences working with alternative therapy practitioners.

A cross sectional inquiry by Keenan, Mark, Fugh-Berman, Browne, and Kaczmarczyk (2003) compared the severity of menopausal symptoms and the use of conventional or alternative therapies as part of the larger Behavioral Risk Factor

Surveillance System. The researchers determined that the severity of symptoms recalled, increased in women who used both alternative and conventional therapy. Despite the inquiry's sample size of 2,065 women, the study design included women who transitioned through menopause decades prior; requiring women to recall treatment choices and the symptoms they experienced during menopause transition years before actual study participation. One qualitative inquiry attempted to understand the use of alternative therapy by menopausal women (Will & Fowels, 2003). While the researchers did not look specifically at sedentary women or delineate race, social class, or other demographic characteristics, they did allow 19 women to share their experiences of menopause and their chosen coping techniques.

Three Canadian studies discovered in the search addressed alternative therapies and coping techniques used by menopausal women. One consisted of a self-administered 22-page questionnaire inquiry into the use of alternative nutritional supplements by menopausal women in Ontario (Pakzad, Boucher, Krieger, & Cotterchio, 2007), a second was a longitudinal study on aging in Manitoba (Bailis & Chipperfield, 2002), and Tannenbaum and Mayo (2003) assessed women's health priorities. In the first study, 800 women agreed to participate, however only 478 women completed and returned questionnaires. The Ontario women participating in the study disclosed a frequent use of alternative therapy despite a large number of women not sharing this treatment choice with their primary care practitioner (Pakzad et al., 2007). In the second study, researchers assessed collective self-esteem in a cross section of 1,267 women participating in a larger study on aging in Manitoba (Bailis & Chipperfield, 2002). Researchers found that women

with greater self-esteem exhibited fewer chronic health conditions and demonstrated a higher level of perceived health than women with lower self-esteem.

In other studies on alternative therapies, researchers examined the use of diet and nutritional supplements by menopausal women; two were randomized control trials (Nettleton et al., 2004; Tice et al., 2003). While a relationship between supplement use and menopausal symptom reduction was not consistent, the research supports the need for further inquiries into nutritional supplement use by women transitioning through menopause.

Sedentary women are absent from many studies focusing on alternative therapy. By definition, sedentary women do not participate in physical activities such as yoga or Tai Chi. However, other alternative therapy options such as nutritional supplements and homeopathic remedies, chosen by sedentary women transitioning through menopause, deserve inquiry and represent a gap in the literature that is worthy of future investigation.

Hormone Therapy

Hormone therapy (HT) was the treatment of choice for women experiencing menopausal symptoms until the abrupt discontinuation of the estrogen plus progesterone hormone therapy arm of the Women's Health Initiative (WHI) study on July 2, 2002 (US Department of Health and Human Services, 2002). The voluntarily stoppage was triggered by an increase in the potential risk of invasive breast cancer and deep vein thrombosis in women participating in specific treatment arms of the study (US Department of Health and Human Services, 2002). The release of the WHI results spawned a flurry of activity as women tried to find alternative ways to cope with the

symptoms of menopause and researchers began to investigate women's continued use of hormone therapy (French, Smith, Holtrop & Holmes-Rovner 2006; Ness, Aronow, Newkirk, & McDanel 2005).

Pharmaceuticals used during menopause are predominately hormone replacements; however women have used other drugs, including antidepressants and antihistamines, to help alleviate menopausal symptoms (Antoine, Carly, Pastijin, & Rozenberg, 2007). There was limited research on alternative pharmaceuticals found during the literature search therefore the focus here will remain on HT usage during the transition through menopause. The study of HT lends itself well to experimental design, including randomized control trials; many of the studies reviewed involved blinded control groups, placebos, and interactions between HT and other treatment techniques (Greenspan, Resnick, & Parker, 2003; Maure et al., 2005; Waters et al., 2002).

In many of the hormone replacement studies, authors attempted to ascertain the relationship between HT and many serious physical and emotional illnesses. Diseases included osteoarthritis (Greenspan, Resnick, & Parker, 2003; Maure et al., 2005; Von Muhlen, Morton, Von Muhlen & Barrett-Connor, 2002) and cardiovascular disease (Cushman et al., 2004; Waters et al., 2002). As well as cancer (Chen, Weiss, Newcombe, Baltow & White, 2002; Crouchley, Wylie & Khong, 2006; Lacey et al., 2002; Li et al., 2003; Rebbeck et al., 2006), and urogenital abnormalities (Heinemann & Reid, 2005; Hendrix et al., 2005). Stephens, Pachana, Bristow (2006) examined emotional health and the use of HT; concluding that HT had a positive impact on mood even when accounting for other emotional enhancing activities as confounding variables.

Five of the studies described in the preceding paragraph were experimental designs with double blinding and placebo use (Cushman et al., 2004; Greenspan, Resnick, & Parker, 2003; Heinemann & Reid, 2005; Hendrix et al., 2005; Waters et al., 2002). Cushman et al. (2004) reported an increase in deep vein thrombosis in women using HT. Greenspan, Resnick, and Parker (2003) studied 373 women prescribed HT and alendronate for osteoporosis. Improved bone mineral density was most significant in women taking both medications however, when each were taken alone, the drug alendronate improved outcomes better than HT. Finally, Hendrix et al. (2005) studied over 25,000 women, describing an increase in urinary incontinence in women on HT. None of the randomized control trials examined HT use in sedentary women.

The inquiries focusing on HT and cancer discussed previously, the authors presented results that demonstrated increased risks of cancer in women taking HT. Rebbeck et al. (2006) and Li, Stanford and Daling (2000) used population control techniques concluding that a relationship existed between HT use and an increased risk of breast cancer. Crouchley, Wylie, and Khong (2006) and Lacey et al. (2002) used cohort studies, also determining a relationship between past HT use and breast and ovarian cancer respectively. Conversely, Chen et al. (2002) found an increase in breast cancer risk only in current HT users. None of the studies on HT use, did authors demonstrate results where benefits outweighed the risks of HT use in menopausal women. Limitations occur in research; many of which form the starting point for further study into the phenomenon. The studies on HT use during menopause were no exception with many

researchers acknowledging limitations openly (Chen et al., 2002; Hendrix et al., 2005; Von Muhlen, Morton, Von Muhlen & Barrett-Connor, 2002).

Public advisories of the WHI study results and termination of the one hormone replacement arm of the initiative occurred via a press release from the National Heart, Lung, and Blood Institute, National Institutes of Health on July 9, 2002. Monitoring of the participants' health outcomes continued post termination through the participation in several ongoing studies. Ockene et al. (2005) monitored 8,405 women following the discontinuation of HT. Women who experienced symptoms at the WHI baseline had their symptoms reoccur when they stopped their HT use. Heiss et al. (2008) continued to monitor over fifteen thousand women who participated in the hormone therapy component of the WHI. They found that women in this group continued to have an increased risk for breast cancer and cardiovascular concerns, as well as the disappearance of the hip-fracture benefits associated with HT following HT discontinuation.

The literature search revealed several studies assessing women's experiences using and/or discontinuing the use of HT following the release of the WHI results in 2002 (French, Smith, Holtrop & Holmes-Rovner, 2006; Mishra et al., 2006; Ness, Aronow, Newkirk, & McDanel, 2005). In two of these studies, researchers found women continuing to use HT to alleviate the symptoms of menopause despite the risks associated with HT use found in the WHI study (French et al., 2006; Ness et al., 2005). Mishra et al. (2006) found a decrease in HT use especially in lower educated women and those with lower socio-economic status. The researchers concluded that women's decisions regarding HT use related to their personal knowledge, the experiences of their family,

and their primary care practitioner's preferences. Of note, Hepworth et al. (2002) completed a qualitative study into the willingness of 21 menopausal women to participate in future studies on HT of which, eighteen advised the researcher they would refuse. The authors of the qualitative studies found in this literature review did not specifically address sedentary women and their experiences of transitioning through menopause, they did however, provide important information on women's perceptions of HT use. It is important to note that the age of transition through menopause varies widely. Studies on menopause also vary; making it difficult to generalize findings from one menopausal group to another.

Thoughts and Feelings towards Menopause and Aging

The literature search revealed six studies where the primary desire was to ascertain women's thoughts and feelings towards menopause and aging (Bailis & Chipperfield, 2002; Dillaway, 2005; Elston & Gabe, 2005; Mackey, 2007; Morris & Symonds, 2004; Tannenbaum & Mayo, 2003). Bailis and Chipperfield (2002) developed a collective self-esteem scale and administered it in a cross sectional analysis to 1,868 women. The study's authors determined that the participants' perceived loneliness contributed to their perceived health. Dillaway (2005), and Morris and Symonds (2004) conducted qualitative research into women's feelings regarding gendered beauty ideas during menopause and the medicalization of menopause respectively. The researchers found that women participating in the first inquiry desired to maintain their appearance despite transitioning through menopause. Participants of the other study shared their concerns regarding the use of medications, often prompted by their physicians, at the first

sign of menopause discomfort (Morris & Symonds, 2004). In two studies (Elston & Gabe, 2005; Mackey, 2007) the researchers conducted in-depth interviews of women, investigating thoughts on aging and being well at menopause. The authors used purposeful and snowball sampling with sample sizes of 18 and 32 in that order. The conclusions and practice recommendations resulting from the studies examining women's thoughts and feelings towards the transition through menopause vary; however, all studies conclude that women require information and support during the transition through menopause. These studies were predominately qualitative with small sample sizes. In spite of this, they researchers provided rich understanding and meaning on women's reflections of menopause. None of the studies reviewed addressed the thoughts and feelings of sedentary menopausal women.

Physical Activity

The study of exercise and its impact on the transition through menopause is extensive and well documented in the literature. Focus groups, interviews, quantitative questionnaires about current physical activity habits, and randomized control trial interventions are a few of the methodologies found in this search. Overall, exercise has been associated with a reduction in the frequency and severity of menopausal symptoms; improved body mass index, bone mineral density, and muscle strength; and overall increased fitness levels of women transitioning through menopause (Madden, Levy, & Stratton, 2006; Nassis & Geladas, 2003; Paillard et al., 2004; Whitcomb, Whiteman, Langenberg, Flaws, & Romani, 2007; Yves, Perry, Patrick, Banks, & Morley, 2007). A

review of these inquiries into physical activity and menopause provides relevant context before an examination of the limited research addressing sedentary menopausal women.

In seven of the inquiries discovered during the literature search, the authors focused predominately on physical activity and some of the symptoms associated with menopause (Aiello et al., 2004; Elavsky & McAuley, 2007; Li & Holm, 2003; Sunsern, 2002; Thurston, Joffe, Soares, & Harlow, 2006; Whitcomb et al., 2007; Wilbur, Miller, McDevitt, Wang, & Miller, 2005). Some of the researchers concluded that physical activity either increased the severity and frequency of hot flashes or had no significant impact (Aiello et al., 2004; Whitcomb et al., 2007; Wilbur et al., 2005). In another study, the author ascertained that vasomotor symptoms decreased with physical activity but only in depressed women (Thurston, Joffe, Soares, & Harlow, 2006). In a fifth study, the researchers found fewer symptoms in active women although the authors admit that results were not statistically significant (Li & Holm, 2003).

These studies were quantitative; limitations included small sample sizes (Elavsky & McAuley, 2007; Wilbur et al., 2005), self-reported data (Thurston, Joffe, Soares, & Harlow, 2006; Whitcomb et al., 2007), and purposeful sampling (Sunsern, 2002). Conversely, Aiello et al. (2004) completed a randomized control trial of 173 women randomized into a yearlong physical activity program. Despite the limitations and strengths of the aforementioned studies, researchers found no confirmation or recommendations, with many of the studies finding that physical activity improved some symptoms of menopause and exacerbated others.

Bone mineral density and the relationship to physical activity during menopause was assessed by researchers in seven of the studies (Bergstrom, Freyschuss, & Landgren, 2005; Cui et al., 2002; Kelley, Kelley, & Tran, 2002; Milliken et al., 2006; Nassis, & Geladas, 2003; Snow, Shaw, Winters, & Witzke, 2000; Uusi-Rasi, Sievanen, Heinonen, Beck, & Vuori, 2005). Nassis and Geladas (2003) used purposeful sampling, recruited from exercising women, and despite findings concurrent with other studies, researchers did not account for menopause status and the exercise patterns assessed were self-reported. Bergstrom, Freyschuss, and Landgren (2005) and Snow et al. (2000) completed two randomized control trials, both reporting a positive impact on bone mineral density in exercising menopausal women despite small sample sizes. Milliken et al. (2006) used multiple regression to analyze self-reported depressive and vitality questionnaires from 320 menopausal women. Their findings suggest the importance of including psychological factors when assessing bone mineral density. Kelley, Kelley, and Tran (2002), in a meta-analysis, examined thirteen trials where the primary outcome analyzed was bone mineral density before and after an exercise intervention. The researchers concluded that exercise has a positive impact on lumbar bone mineral density in menopausal women. Not surprising, there were no studies identified in this literature review that studied sedentary women and the impact of an exercise intervention on their bone mineral density.

The examination of body mass index, muscular strength, and fitness levels of menopausal women occurred in fourteen of the studies focusing on physical activity in this age group. In seven studies, the authors randomized women into exercise

intervention and control groups with sample sizes ranging from 17 to 535. In all seven studies, the authors found a positive impact of physical activity on the transition through menopause with the interventions lasting from twelve weeks to five years (Asbury, Chandrruangphen, & Collins, 2006; Figueroa et al., 2003; Kalapotharakos et al., 2005; Madden, Levy & Stratton, 2006; Paillard et al., 2004; Simkin-Silverman, Wing, Boraz & Kuller, 2003; Taaffe et al., 2005). In contrast, da Silva, Costa-Paiva, Pinto-Neto, Braga, and Morais (2005) completed a cross sectional study of 162 women to examine the impact of regular activities of daily living on self-rated fitness levels. They concluded that habitual activities such as gardening and cleaning showed no improvement in self-rated fitness levels.

The remainder of studies used a cohort design, sample sizes ranging from 40 to 3,300. As with the majority of studies discussed previously, researchers found a positive impact of physical activity on the overall transition through menopause (Evenson et al., 2002; Furukawa et al., 2003; Krumm, Dessieux, Andrews, & Thompson, 2006; Thorton, Sykes, & Tang, 2004; van Poppel & Brown, 2008; Yves, Perry, Patrick, Banks, & Morley, 2007). Finally, Asikainen, Kukkonen-Harjula, and Miilunpalo (2004) conducted a systematic review of twenty-eight randomized control trials, concurring with previously discussed studies within this literature review, that women transitioning through menopause benefit from physical activity.

Diseases Associated with Aging

A limited number of studies addressed chronic diseases associated with physical activity and aging. In two large randomized control trials, n=535 and n=508, with

significant lengths of intervention, 5-years and 18-months respectively, authors discovered positive changes in cardiovascular disease risk from lifestyle changes and education (Simkin-Silverman, Wing, Boraz, & Kuller, 2003; Kuller et al., 2006). Manson et al. (2002) as part of the larger Women's Health Initiative found an improvement in fitness levels resulted in a decrease in cardiovascular disease. Kemmler et al. (2007) in a non-randomized, prospective controlled study also found a positive impact on osteoporosis in exercising women.

Several studies addressed aging issues such as cardiovascular disease, osteoporosis, and various types of cancers in relation to hormone replacement therapy (Turner, Wallace, Perry, & Blecker, 2004; Von Muhlen, Morton, Von Muhlen, & Barrett-Connor, 2002), diet and nutrition (Goodman-Gruen & Kritz-Silvertein, 2001; Lukaczer et al., 2005), weight (Robbins et al., 2007), and education (Schousboe et al., 2005). The specific impact of weight, height, and body mass index on the diseases of aging was the topic of numerous studies. Juntunen et al. (2003) assessed the impact of weight on hypertension in menopausal women, however this population based, prospective study used self-reported weights of 9,485 women and did not account for hypertension prescription use. Li, Stanford, and Daling (2000) conducted an interesting population-based case control study to examine the impact of the age when women reached their maximum adult height and the risk factors associated with diseases of aging concluding that the older a women was when she reached her maximum height, the lower her risk of breast cancer.

Eliassen, Colditz, Rosner, Willet, and Hankinson (2006) and Eng et al. (2005) examined the impact of weight on the risk factors associated with breast cancer. Both research groups found an increase in breast cancer risk with a weight gain during the transition through menopause. Both inquiries had large sample sizes, with the researchers following women for extended lengths of time. Finally, Robbins et al. (2007) studied and determined eleven factors that increased women's hip fracture risk including weight and height. One of the more in-depth inquiries was a systematic review conducted by Stampfer and Colditz (2004) that examined the impact of hormone replacement therapy on the risk of cardiovascular disease. In this inquiry, the researchers reviewed 30 studies, none being randomized control trials and only 12 identified as statistically significant. The researchers concluded that the use of hormone replacement therapy decreased the risk of some cardiovascular diseases (Stampfer & Colditz, 2004). Authors of the studies within this review examined the length of hormone replacement use, age at menopause onset, or other factors such as smoking and physical activity.

Menopause and Sedentary Lifestyles

Research papers focusing on sedentary women tended to identify women within a group of participants subjected to some type of fitness intervention. In none of the articles reviewed, did authors assess the experiences of sedentary menopausal women transitioning through menopause. In five randomized control trials, the researchers examined the impact of walking on the fitness levels of, and health benefits to sedentary menopausal women (Asbury, Chandrruangphen, & Collins, 2006; Asikainen et al., 2006; Church, Earnest, Skinner, & Blair, 2007; Elavsky & McAuley, 2007; Madden, Levy, &

Stratton, 2006). Sample sizes ranged from 23 (Asbury et al., 2006) to 464 (Church et al., 2007). In all of the randomized control trials reviewed, the authors declared various positive impacts of physical activity on the study participants. Despite similar results, recruitment and demographics of study participants varied widely among the research assessed.

Elavsky and McAuley (2007) recruited volunteers into their research through the offer of a free fitness program. Despite randomization of participants into various interventions, not all menopausal women would equally volunteer for such a study. Lemoine et al. (2007) used a convenience sample, recruiting forty study participants from a group of pre and postmenopausal women referred to a weight reduction program by their family physicians. Despite the small sample size, recruiting strategy, and similar results between the intervention groups, the researchers concluded that an intervention consisting of diet and walking increased physical capacity and lowered body fat consistently in active and sedentary menopausal women.

Other methodologies found in the review included a cross sectional analysis on the impact of iron intake on bone mineral density in 242 sedentary women (Harris et al., 2003) and a qualitative grounded theory inquiry of women who became physically active after menopause (Jeng, Yang, Chang, & Tsao, 2004). A matched cohort comparison of African American and Caucasian menopausal sedentary women, while small, found significant body mass composition and energy expenditure differences in the sample studied. The impact of race on menopause warrants further inquiry (Hunter et al., 2000). Finally, in a mailed questionnaire to 1,206 sedentary women of various weights,

researchers found greater satisfaction and fewer menopausal symptoms in women with a normal body mass index compared to women with higher than normal body mass indices (Daley et al., 2007). These studies provide a limited amount of background data on sedentary women, supporting the need for both quantitative and qualitative research into the lives of sedentary women transitioning through menopause.

Menopause and Quality of Life

The North American Menopause Society (2006) has identified menopause as a normal part of the aging process yet many researchers find significant impacts from menopausal symptoms on a women's quality of life. Bolge et al. (2010) reviewed nighttime awakenings resulting from menopause symptoms and the negative impact these awakenings had on women's quality of life. The resulting sleep deprivation also negatively affected work productivity and healthcare utilization. In a longitudinal study of over 3,000 women aged 42-52 years, researchers found reduced daily physical functioning in women using hormone therapy to alleviate menopausal symptoms (Avis et al., 2009). Beutel, Glaesmer, Decker, Fischbeck, and Brahler (2009) demonstrated a reduced quality of life as women age, with the need for personal health and social connections as key to improving satisfaction across the lifespan. Three studies specifically reviewed the importance of physical activity, menopause, and quality of life as women age (Ashbury, Chandrruangphen, & Collins, 2006; Elavsky, 2009; Vallance, Murray, Johnson, & Elavsky, 2010). In all three inquires, researchers determined that continued physical activity throughout the lifespan had a positive impact on self-worth and subsequent quality of life. Vallance et al. (2010) further recommended the need for

public health physical activity programs specifically designed for menopausal women, as an important and effective way to ensure continued behavior change as women age. Women who are physically active across the lifespan benefit from the positive attributes of physical activity, one of the factors identified as improving a woman's quality of life; sedentary menopausal women, by virtue of their inactivity, do not. Addressing the reasons behind women's lifestyle choices assists public health practitioners working to improve the quality of life for aging menopausal women.

Menopause Measurement Tools

Four papers examining menopause focused specifically on measurement tools used to assess symptoms associated with menopause. Travers, O'neill, King, Battistutta, and Khoo (2005) examined the Greene Climacteric Scale in order to provide normative data for further analysis. In This self-reported measurement tool assesses 21 factors in 4 specific categories, psychological symptoms, somatic symptoms, vasomotor symptoms, and sexual desire. Researchers concluded that the Greene Climacteric Scale was a reliable tool for assessing and managing the symptoms of menopause (Travers et al., 2005). In two separate yet connected studies, researchers assessed the effectiveness of the Menopause Rating Scale (Heinemann et al., 2005; Heinemann et al., 2004). Conducted in nine countries, with close to ten thousand participants, researchers found good reliability and tool effectiveness when measuring menopause and treatment success.

Finally, Zollner, Acquadro, and Schaefer (2005) completed a literature review of eight instruments including the Greene Climacteric Scale and the Menopause Rating Scale. The intent was to assess how the tools measured a woman's quality of life during

and after menopause. While the researchers concluded that all of the tools adequately measured the menopausal transition and associated symptoms, none assessed the impact of the symptoms associated with menopause on a woman's transition through this life change. For the purpose of this inquiry into sedentary women's transition through menopause a simple demographic questionnaire was used. A review of measurement tools provided valuable insight into characteristics and concepts previously measured on menopause and the menopause transition.

Popular Literature on Menopause

Today, menopausal women have copious amounts of popular literature available to them at local bookstores and libraries, through on-line media purchasing websites, and from organizations specializing in menopause. Reviewing the popular literature on menopause provided the opportunity to appraise information readily available to women during the transition through menopause. For the purpose of this literature review, twelve published books; three on-line menopause handbooks, two American and one Canadian; and a popular magazine for women over forty, received further review.

Seven of the books reviewed were guides for assisting women through menopause (Beck, 2008; Jones, 2006; Minkin & Wright, 2004; Phillips, 2005; Taglia, 2006; Teaff & Wiley, 1999; Wingert & Kantrowitz, 2006). Three of the books focused on menopause and hormone replacement therapy (Ojeda, 2003; Parker-Pope, 2007; Simpson & Bredesen, 2006). Jean-Murat (1999) authored the book *Menopause Made Easy*: *How to Make the Right Decisions for the Rest of Your Life* and Northrup (2006) wrote about *The Wisdom of Menopause: Creating Physical and Emotional Health and Healing*

During the Change. The majority of these books are very long, many over 500 pages in length. Some books are written in a very serious and medical style (Minkin & Wright, 2004; Northrup, 2006) while others, like *Menopause for Dummies* (Jones, 2006) and *Is it Hot in Here or Is it Me? The Complete Guide to Menopause* (Wingert & Kantrowitz, 2006) are lighthearted in the approached used.

Despite differences in opinions and styles of the authors, the topics presented are similar in each book ranging from the signs and symptoms of menopause, how to cope with the changes, hormone replacement therapy, and medical follow-up, to healthy aging. All of the books reviewed require English literacy skills and the desire to read as a way of increasing knowledge regarding menopause. French and Spanish versions of many books were available electronically and through retail bookstores, in Canada and the United States. Due to my language skills, these versions were not part of the review.

The North American Menopause Society (NAMS) publishes and updates menopause information for women, families, and medical practitioners. Health texts, Menopause Best Practice Guidelines, and patient information for distribution are available for medical practitioners to purchase through the organization's website. Women can electronically access several free publications available for reading on-line or in downloadable print format. Two publications *Early Menopause Guidebook 6th Edition* (NAMS, 2006) and *Menopause Guidebook 6th Edition* (NAMS, 2006) are 72 and 64 pages in length respectively. Both guides cover specific menopause topics in detail, including menopause basics, the changing body, postmenopausal health, hormone therapy, achieving optimal health, and additional resources (NAMS, 2006). These two

electronic resources on menopause are also available in Spanish and French from the NAMS website. Both resources have chapters, separating information into smaller sections, with textboxes highlighting important points or recommended checklists. It is worth noting that the writers do not provide sources for the information presented and additional resources listed in the guide are items also produced by the North American Menopause Society.

The Society of Obstetricians and Gynaecologists (SOGC) of Canada produced the Canada Menopause Consensus Report in a special supplement of the Journal of Obstetrics and Gynaecology (2006). The report targets medical practitioners providing information on the following topics: menopause definitions, menopause and aging, urogenital concerns, sexual concerns, mood and memory, therapeutics, complementary and alternative medicine, specific medical conditions, cardiovascular disease, and cancer (SOGC, 2006). A panel of experts, using peer-reviewed journals, determined the recommendations provided in the document. Recommendations and all supporting references are included at the end of each chapter. The Society has produced *The Menopause Handbook* (2006) a companion guide to the menopause consensus; the guide is available electronically for distribution to women transitioning through menopause. *The Menopause Handbook* (2006) covers the information discussed in the physician best practice guide in an easy to read format. It includes both general and specific recommendations from the consensus report (SOGC, 2006).

More magazine launched the first United States issue in October of 1996 (More.com), following with a Canadian edition in March of 2007 (More.ca). *More*

magazine targets women over 40-years of age with an estimated circulation of 1.2 million in the United States and 140,768 after one year of publication in Canada (More.ca). Both editions cover topics important to women over forty including current events; fashion, beauty, and travel; health and fitness; and celebrity profiles on female celebrities over forty. While other magazines dedicated to older women may be available, the unique nature of this magazine, with two editions published specifically for Canadian and American women in their respective countries, made it ideal to review for an inquiry into Canadian menopausal women.

Today, aging women have the ability to view more information on menopause than their mothers might have thought possible. This information, along with guidance from family, friends, and health care professionals, provides the context into which women potentially frame their menopause experience. The popular literature reviewed concurs in thoughts and recommendations with the majority of research examined as part of this literature search. This research inquiry focuses on women's experiences through menopause, popular literature influences this experience, it is significant and warrants acknowledgement. It is important to note that throughout the popular literature reviewed, sedentary women transitioning through menopause received little acknowledgement.

The Phenomenological Approach

One can never assume to know, understand, or appreciate the meaning of the experiences of others, nor assume that the experience will be the same for all. Phenomenology allows the researcher to bring understanding to a phenomenon that might otherwise remain unknown to an outsider (Barritt, Beekman, Bleeker & Mulderij, 1983).

Phenomenology provides a forum for individuals participating in the inquiry to share their thoughts, feelings, and experiences; it provides the potential for improving participants' current situation through mutual understanding (Barritt et al, 1983; Burch, 2002). It provides the possibility to do more than simply describe the phenomenon; the researcher has the opportunity to share research findings with the intention of knowledge transfer into the real world (Conklin, 2007).

Moustakas (1990) described phenomenology as a way of investigating and describing the essence of a phenomenon. Individual participant experiences are viewed collectively with other participants, the data collected is analyzed as a group and experiences portrayed as such. These collected experiences provide the opportunity for researchers to describe a phenomenon as one experience. Describing the experiences in the context of the phenomenon under study is implicit in empirical phenomenology (Moustakas, 1994). Creswell (2007, p. 236) explained phenomenology as a method of depicting the experiences of a specific group of individuals as intentional human beings capable of conscious thought, and then condensing these experiences into the spirit of the phenomenon. Phenomenology attempts to describe the phenomenon in such detail it appears to individuals reading about or experiencing the phenomenon as if experiencing it for the first time (Creswell, 2007).

Edmund Husserl, often portrayed as a champion for phenomenology, (Conklin, 2007) described epoché or bracketing as the reason for distinguishing phenomenological research from other forms of qualitative inquiry (Husserl, 1999). In the course of phenomenological inquiry, as described by Husserl (1999) and Lubcke (1999), the

researcher attempts to view the phenomenon under inquiry without distractions, prejudgment, or preconceived notions. This inquiry aims to hear women's voices, to listen to their stories, and to encourage them to share their experience of the transition through menopause.

The literature review revealed research papers on menopause that used a variety of methodologies, both quantitative and qualitative. Quantitative methodologies answered several research questions about menopause. Madden, Levy, and Stratton (2006) conducted a randomized control study to ascertain the effect aerobic activity would have on heart rate variability in menopausal women; the study had dependant and independent variables and was searching for cause and effect relationships. Tannenbaum and Mayo (2003) completed survey research on a cohort of menopausal women to determine if their perceived health care was actually the health care they received. A telephone survey assessed women's sources of menopause information, presenting the results as nominal data, no ranking of data occurred (Singh et al, 2007). These studies represent a sample of the quantitative research found through the described search techniques, all seeking to answer the inquiries' proposed hypotheses.

In this phenomenological study, no attempt to prove or disprove a hypothesis was made; it was an in-depth look at the phenomenon of menopause, and how sedentary women experience this phenomenon, no search for cause and effect existed, thus a qualitative methodology became the methodology of choice. Several other studies uncovered during the literature search used several different qualitative techniques. Dillaway (2005) used an exploratory inductive approach to assess menopausal women's

reactions to their changing bodies. To gain a greater understanding of women's use of complementary therapies during menopause, Will and Fowels (2003) conducted focus groups with 19 women. Paquette and Devine (2000), with a naturalist paradigm, identified dietary trajectories in menopausal women based on social cognitive theory. All of the research inquiries revealed during the literature search attempted to gain a greater understanding of an issue related to menopause. None aimed to describe menopause as a phenomenon on its own. Further review of phenomenology as the methodology of choice for this inquiry follows in chapter 3.

Rowe and Kahn's Model for Successful Aging

In 1998, John W. Rowe, M.D. and Robert L. Kahn, Ph. D. published *Successful Aging,* results from the MacArthur Foundation Study of Successful Aging (Rowe & Kahn, 1998). The MacArthur Foundation Study was a compilation of numerous ongoing research projects with a cohort of 1,189 healthy, functioning seniors. The inquiries occurred from 1988 to 1996 (National Institute of Health, nd). Extrapolated from the results of the MacArthur Study, Rowe and Kahn (1998) defined successful aging as more than a comparison of health and illness as they had originally articulated in 1987 (Rowe & Kahn, 1987). According to Rowe and Kahn (1998), successful aging includes being physically and mentally healthy, remaining disease free, and continuing to be engrossed with life. Rowe and Kahn (1998) also used the MacArthur Foundation Study results in an attempt to dispute six of myths about aging. The myths include, old people are not healthy, they cannot learn new things, it is too late for health changes to have any benefit,

healthy aging is dependent on genetics, the elderly are not interested in sexual activity, and seniors are not productive members of society (Rowe & Kahn 1998).

While the MacArthur Foundation Study is one of the best-recognized examinations of aging, Rowe and Kahn's model of Successful Aging is not without criticism (Bowling & Iliffe, 2006). Strawbridge, Wallhagen, and Cohen (2002) compared Rowe and Kahn's model of successful aging with self-rating and determined that despite physical disabilities or chronic health problems, many individuals rated themselves as successfully aging. In many cases, Rowe and Kahn's model did not classify individuals with disabilities or chronic health problems as aging successfully (Strawbridge, Wallhagen, & Cohen, 2002). Bowling and Iliffe (2006) compared five models of successful aging on 999 seniors, concluding that a multidimensional model best predicted aging adults' perceived quality of life. The multidimensional model included assessment of physical functioning, mental functioning, social functioning, economic functioning, and environmental issues such as crime and air quality (Bowling & Iliffe, 2006). The last two areas identified in the multidimensional model are not part of Rowe and Kahn's model of successful aging.

Rowe and Kahn's (1998) model of successful aging has received criticism for not identifying the importance of spirituality in the aging process. Crowther, Parker, Achenbaum, Larimore and Koenig (2002) believed that utilization of the model of successful aging developed by Rowe and Kahn (1998) would improve with the addition of a factor addressing positive spirituality. While not supported with further primary scientific inquiry, Crowther et al. (2002) suggest spirituality, religion, aging, and health

are related. The authors firmly believe that an understanding of the importance of spirituality is required for the successful promotion of health and wellness during the aging process (Crowther et al., 2002).

Rowe and Kahn's (1998) model of successful aging provides a basis from where to build a conceptual framework to study menopause in sedentary women. The conceptual framework used in this inquiry provides a foundation to assess sedentary women's transitions through menopause. The proposed conceptual framework for this inquiry has numerous factors supporting the various themes on menopause identified within the literature. It includes coping techniques, lifestyle habits, medical support, physical and psychological symptoms of menopause, social supports, physical wellness, environmental factors, and spirituality. The transition through menopause is a significant part of the aging process. Sedentary women's experiences of menopause may provide insight into their perceptions of menopause as an illness or as a normal part of aging and the subsequent impact on successful aging.

Summary

This literature review included a description of research and literature findings relevant to the main questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? The review presented and discussed research literature from peer-reviewed journals, information discovered on Internet sites dedicated to menopause, and popular published literature including books and magazines devoted to menopause and aging. Literature was reviewed that addressed the vasomotor and somatic symptoms associated with menopause, women's chosen

coping techniques, the use of hormone replacement therapy during menopause, women's attitudes and beliefs towards menopause, diseases of aging, and physical activity level and its impact on the menopausal transition. A discussion of various historical perspectives on menopause also contributed to the understanding of menopause in the literature. The review concluded with an examination of Rowe and Kahn's (1998) model of successful aging as one way to explore the concept of successful aging.

Through the literature review a gap within the research on menopause was identified. While copious amounts of knowledge, statistical information, and popular literature are available on menopause, the research existing on sedentary women transitioning through menopause is limited. The gap increases when one attempts to locate qualitative information on the experiences of sedentary women transitioning through menopause. This inquiry into the experiences of sedentary women transitioning through menopause will address some of this gap. It will aid public health practitioners with future development of programs and services aimed at assisting sedentary women to healthier aging. Finally, it will provide sedentary women transitioning through menopause the opportunity to have their voices heard. Chapter 3 addresses how this inquiry into sedentary women's menopausal transition unfolds.

Chapter 3: Research Method

Introduction

This study provided an opportunity for sedentary women to share their experiences of menopause and the impact their health and lifestyle choices have made on their menopause transition. Themes derived from participant's experiences will assist sedentary women and their health care providers as they work together to navigate through this important life stage. Keeping aging sedentary women as healthy and engaged with life as possible, benefits them, their families, their communities, and the supporting medical system. The study addressed two primary questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? The inquiry was an in-depth look at the phenomenon of menopause as experienced by sedentary women. Several sub-questions supported the primary questions:

1. How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?
2. What signs and symptoms of menopause do sedentary women experience?
    a. Physically
    b. Emotionally
    c. Cognitively
3. What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?

4. How does the use of hormone therapy by sedentary women affect their experience of menopause?
5. Whom do sedentary women turn to for support during their transition through menopause?

As stated in chapter 1, by the year 2020, Canada will be home to close to 5 million women between the ages of 40 and 59 (US Census Bureau, 2009). In the municipality, a small rural community in Canada, 55,500 residents are female and 29,535 of them are over the age of 40. The potential currently exists for 28% of all municipal residents to be experiencing some phase or impact of menopause, not including the partners, family, and friends supporting menopausal women (Statistics Canada, 2007). In addition, only 29.5% of municipal residents over 12 years of age rate themselves as physically active during their leisure time, potentially leaving a large number of adult women remaining inactive despite the benefits of physical activity. Unfortunately, more than half of residents have an unhealthy body mass index (Statistics Canada, 2007). Warburton, Nicol, and Bredin (2006) reviewed 152 studies on physical activity and concluded unequivocally that physical activity has positive health benefits, further encouraging the prescribing of exercise as therapy for the prevention of many chronic diseases. The large number of community menopausal women, half potentially inactive, warrants further investigation into how they encounter the transition through menopause. The experiences of these women will assist other women as they prepare for their own transition through menopause. Public health practitioners will also benefit from the increased knowledge as they design public health programs for menopausal women.

This chapter includes a detailed review of the methodology and research methods used in this inquiry, taking into account the rationale for the chosen research approach. Areas covered include my role as the researcher, and a detailed description of the target population, participant selection, and sampling strategy. The research design, including data collection methods and management, data analysis, and synthesis of the data follows. Ethical considerations and an examination credibility and dependability of the study findings were addressed are also elements of this chapter.

Research Methodology

Qualitative Research

Qualitative researchers endeavor to uncover the meaning individuals or groups of individuals place on a social issue, problem, or phenomenon (Creswell, 2007 p. 37). While there are several distinct qualitative research designs described in the literature, the designs have many similar characteristics. Most qualitative research takes place in the study participants' environment with the researcher often becoming closely involved within the study (Creswell, 2007; Moustakas, 1990; Moustakas, 1994). In qualitative inquiries, the researcher uses an inductive approach to produce findings from extensive observations. The research is interpretive and developing, often providing first-time explanations for the researcher's observations, and the thoughts and feelings shared by the participants (Ulin, Robinson, & Tolley, 2005). Moustakas (1990) described the passion of heuristic research as a closely-controlled commitment to discovering the meaning of human experiences.

Moustakas (1994) and Creswell (2007) identified phenomenology as a qualitative research approach, along with grounded theory, ethnography, hermeneutics, and narrative research methodologies, with phenomenology used to describe the meaning of an experience as felt by the study participants. Phenomenology is the most effective way to answer the research questions identified at the beginning of this chapter and obtain the in-depth, personal, and rich nature of information required to support the research questions. Quantitative data or causality was not the desired outcome of this inquiry; independent and dependent variables did not exist in the confines of the research questions. The development of a new theory on menopause or the conducting of extensive observations of women actually transitioning through menopause as would occur in grounded theory or ethnography studies was not the intent of this inquiry (Creswell, 2007, p. 62-73).

A phenomenological approach allowed for gaining a better understanding into the experiences of sedentary women transitioning through menopause. Through in-depth, one-on-one interviews, participants shared wisdom and understanding of their menopause transition. Moustakas (1994, p. 13) described phenomenological research as a method of describing a phenomenon, reflecting on the descriptions, and analyzing them in order to shed light on the true essence of the experience under study. In this inquiry, an attempt was made to find relationships in women's experiences, deriving meaning on the experience of menopause for sedentary women in a small rural town in Canada. This inquiry aimed to describe the women's experiences transitioning through menopause; it was not searching for an explanation or cause for these experiences.

Other qualitative methodologies, including grounded theory, ethnography, hermeneutics, and narrative research methodologies are reasonable methodologies to study menopause. Grounded theory would be an appropriate choice if the inquiry aimed to study the process or action of the menopause transition instead of the experience (Creswell, 2007, p. 78). Ethnography warrants extensive research time in the field, with the researcher immersing within the culture of the inquiry (Creswell, 2007, p. 79). Despite menopausal women sharing characteristics that describe them as a culture in their own right, the transition through menopause lasts years, making an ethnographic study impractical. Narrative research in this inquiry would explore the experience of one woman transitioning through menopause making it harder to elicit social change implications for larger groups of aging women. If a researcher planned to interpret historical or literary accounts of the menopause transition, instead of encouraging women to share their experiences, hermeneutics might be an appropriate choice (Moustakas, 1990, p. 9). Following review of each technique, phenomenology remained the methodology of choice.

Role of the Researcher and Research Assistant

I assumed the role of primary investigator conducting all of the face-to-face interviews and all other data collection activities. This included responsibility for all information obtained during the interviews and ensuring the data was stored in a secure format and location. I also assumed the role of analyzing and verifying the data prior to writing the final dissertation report. The research assistant was present to ensure all equipment was functioning properly; she met and greeted participants, and assisted with

interview transcription. The research assistant is a trained certified administrative assistant.

As stated earlier, the municipality has a population of just over 100,000 people, with approximately a quarter of the population being women experiencing some phase of menopause. As a 50-year old female resident of the community under inquiry and the director of the local Public Health Unit, the likelihood existed that I would know some of the potential study participants personally, professionally, or in both capacities. The participant inclusion criteria, addressed later in this chapter, dealt with this researcher-participant relationship issue further.

In Canada, public health officials aim to improve the health of communities as a whole. Public health practitioners focus on health promotion and population health, striving to improve the health of whole communities and decrease disparities among marginalized groups within the community (PHAC, 2001). As a public health practitioner for 25 years I have learned that behavior change does not happen unless people have the opportunity to participate in their own care in a supportive environment. I hoped to provide sedentary women the opportunity to share their experiences of menopause. As a public health practitioner, I hope to influence the development of a healthy aging program specifically designed for sedentary women making it easier for them to make healthy choices.

Target Population and Participant Selection

The identified population for this inquiry was sedentary women transitioning through menopause residing in a small rural community of Canada. As indicated earlier,

the estimated population of menopausal women in the community under study, those over the age of 40, is 29,535 (Statistics Canada, 2009). This number likely includes women who are approaching menopause, transitioning through menopause, and postmenopausal. It does not include women under forty, already transitioning through menopause. However, the natural transition through menopause occurs between the ages of 40-60 years (NAMS, 2006). Statistics Canada (2009) estimates 16,595 women between the ages of 40 and 59 reside in the municipality. Sampling from this population provided a significant number of women to engage in the topic, and recruit for study participation.

Recruitment

Canada enjoys government paid universal health care that provides all Canadians routine and specialized health care by medical practitioners of their choice. Initially, study recruitment was to occur within six area physician offices specializing in gynecology. However, following further reflection, this would only uncover potential participants who were under the care of a certified medical specialist, leaving out women receiving care from other primary care specialists such as family practice physicians and nurse practitioners. Limiting study recruitment to women seeking medical care eliminated women transitioning through menopause without medical intervention or women who seek and pay for complementary or alternative therapy.

Demographically, the municipality boasts a land mass of 963 square miles and is home to 108,000 people (Economic Development, 2009). In the community, 23,090 women are legally married, 11,180 women are separated, divorced or widowed, and

11,650 are single. There are 31,260 family units in the municipality with a median income of $63,218 in Canadian dollars. In the community, 51,765 women speak English at home, 5,860 identify themselves as immigrants, 1,360 as aboriginal, and 2,230 as a visible minority. Education levels identified for the group of the women aged 35-64 years range from 4,360 with no high school certificate, diploma or degree, to 2,335 with a university certificate, diploma or degree. At the timing of the last census in 2006, the municipality had an unemployment rate of 7.2%; the unemployment rate now sits around 12.0% (Service Canada, 2009). Finally, 28,985 women over 15 years of age report caring for children or seniors in an unpaid capacity. These demographics will help describe how the study sample is representative of the Municipal population.

Recruitment of study participants occurred in a wide variety of community locations through a combination of media avenues; from professionals serving the study population; at service clubs and organizations aimed at middle-aged women; and from other venues frequented by the target population. Leaders within the medical community were personally contacted to introduce and describe the proposed research. Primary care practitioners throughout the community received written information regarding the study, accompanied by a request to introduce the study to sedentary menopausal women. Waiting room posters describing the study, and its importance, provided contact numbers for further information. Distribution of the posters to venues frequented by women of menopausal age, including clubs, malls, and grocery stores, encouraged study participation to women outside of the medical practice office community. Because this inquiry focused on sedentary women, locations such as fitness centers, arenas, and sports

recreation facilities were not recruitment locations. A purposeful sampling technique described by Patton (1990, p. 289) provided access to participants meeting inclusion criteria. A homogeneous sample assisted in recruiting participants with the knowledge and experiences required to address the research questions. Sample primary care practitioner letters including support letters and information sheets for the inquiry are Appendix A.

Sampling

Because this study aimed to uncover the meaning of the transition through menopause for sedentary women, a homogenous purposeful sampling technique ensured adequate representation. Ulin, Robinson and Toley (2005, p. 56) describe homogenous sampling as a purposeful technique that brings participants with similar backgrounds and experiences to the study. Patton (1990, p. 289) describes random purposeful sampling as a technique used to increase credibility of results specifically when purposeful sampling generates more participants than required. Ten in-depth interviews were conducted with the intent to recruit and interview additional participants if data saturation did not occur with the initial ten women interviewed. Three additional women were recruited and interviewed; new information regarding menopause ceased following these three additional interviews and participant recruitment ended. Potential participants meeting the inclusion criteria, described later in this chapter, received an identification code for the purpose of random selection of participants in the event more women came forward during recruitment than required to reach data saturation. Recruitment occurred with the

sole intent to find sedentary women transitioning through menopause. The recruitment poster is Appendix B.

Participant Inclusion Criteria

Participant inclusion criteria included women between the ages of 40 and 60 years with an understanding of the English language that allowed them to engage in conversation during their interview. Participants were required to describe themselves as sedentary or not physically active; formal testing of fitness levels was not required. As defined by Health Canada (2009), a physically active woman participates in 30 minutes of moderate physical activity, such as walking, biking, weight training, or yoga, on most days of the week. Sedentary women do not participate in any type of physical activity outside of the normal activities of daily living required for independent living (Varo et al., 2003). Participating women were also experiencing fluctuations in their menstrual cycle as well as one or more signs of menopause. These signs included hot flashes; sleep disturbances; headaches; memory and concentration changes; depression; mood swings; vaginal dryness; sexual libido changes; urinary incontinence; skin, hair, and dental changes; or weight gain. Medical validation of these symptoms was not necessary. The women all attended an audio taped one-on-one interview, at a mutually agreeable time and location. Women participating resided in their own residence and not a group or long-term care home. Finally, women with a professional acquaintance were included as potential study participants while women known personally including direct and indirect reports, were excluded from participation.

Ethical Considerations

This qualitative inquiry required women to share personal experiences regarding their transition through menopause with relative strangers. It required a guarantee of ethical treatment throughout the entire study experience for each participant. Participants were made aware of the study's purpose, including study benefits and any potential risks resulting from their participation. Informed written consent ensured participants were aware that their involvement was voluntary and that they could withdraw from the study at any time. During the informed consent procedure, participants received information regarding recruitment, data collection and storage, compensation, as well as contact information in the event women required further information regarding the study or their participation. A sample of the informed consent form is Appendix C.

Data-Collection and Management

Prior to data collection, approval was granted by the Walden University Institutional Review Board (approval number 07-26-10-0338543). This approval followed an oral defense of the phenomenon background, problem statement, and research questions; the literature review completed and documented in chapter 2; and the proposed research methodology. Data collection included two phases, a demographic survey completed by all potential participants, and one-on-one in-depth interviews with the study participants. With the help of a researcher assistant, verbatim transcription of each one-on-one interview occurred by keyboarding the audio transcripts and saving them electronically in a computer file. Management of the data included the assignment of numeric codes to demographic questionnaires, transcripts, and interview observation

notes; the verbatim transcription of audiotaped interviews; and the secure transport and storage of all paper and electronic data files.

Demographic Questionnaire

The demographic information provided information to describe the group of women participating in this inquiry. The questionnaire provided data on basic demographic characteristics such as ethnicity, age, education, and marital status as well as participant's menopausal status. The information described the group of women participating in this inquiry and whether or not the group resembled the population of the women's community. Each potential participant received a personal numerical code that when selected for an interview, followed her through the study. This code linked the demographic questionnaire to the participants' interview transcripts and observation notes. Participants completed the demographic questionnaire following informed consent signing and prior to their one-on-one interview. The demographic questionnaire is Appendix D.

In-depth Interviews

Each one-on-one in-depth interview occurred in one of six municipal buildings located throughout the municipality, at a time mutually agreeable to both parties. The participant's preference and subsequent request determined the interview location. To increase anonymity, women were able to choose a location close to their home or in another municipal community. Bus tickets or taxi costs were offered to ensure transportation was not a barrier to interview participation. Enough interview time was scheduled for women to share their experiences without feeling rushed. Each interview

had two hours allotted with at least 30 minutes between any back-to-back interviews. This also decreased the possibility of women crossing paths with other participants.

Only the researcher, the research assistant, and the study participant were present for the interview. The consent procedure informed participants of the composition of the interview team and the various roles assigned to each member. The interview was audio taped. The research assistant recorded observations and comments, and provided all technical support, allowing provision of full attention to the interview discussion. The interview began with welcoming remarks followed by a review of the study including its purpose, benefits, and any potential risks resulting from participation. Informed consent was ensured and the consent form signed. Following informed consent and completion of the demographic questionnaire, the interview proceeded.

Every attempt was made to ensure the participant was comfortable throughout the interview process by asking questions in a relaxed, open-ended, semi-structured format. The design of the interview allowed for the collection of enough information to address the research questions without leading the participant by providing too much information. The interview framework listed each interview question and identified which research question(s) it hoped to address. Its design included a series of main questions with several follow-up questions in the event participants required further probing or clarification. The interview ended with the opportunity for women to share any additional thoughts they had regarding their transition through menopause. The interview framework is Appendix E.

Data Security

Several precautions were taken to ensure the security of data collected during this inquiry. Locked filing cabinets, in a controlled entry municipal office, held the paper records, including demographic questionnaires, interview observation notes, and interview transcripts. A secure, password-protected server with firewalls capable of limiting outside intrusion stored the electronic files of all transcribed interviews, demographic data, and observational notes. Besides me, only the researcher assistant had computer access to the electronic files. The demographic data and the file with assigned participant codes were stored separately from the interview observations and transcripts. To protect the anonymity of the women sharing their menopause transition experiences, only participant codes identified interview transcripts and observational notes and each participant was provided with a pseudonym.

Data Analysis and Synthesis

Data analysis and synthesis enabled the raw data from the interview transcripts and observation notes to make sense of the extensive thoughts and feelings on menopause provided by the women. Identifying themes within the data and linking these themes to the inquiry's conceptual framework enabled the synthesis of the data and description of the essence of the menopause transition for this group of sedentary women. The data analysis began by bracketing as described by Moustakas (1994, p. 85), followed by horizonalization of the data (Creswell, 2007, p. 159). These steps entailed classifying and coding relevant text and repeating ideas, followed by the identification of significant themes or meaning units (Moustakas, 1994, p. 97). Description of the menopause

phenomenon followed through a textural and structural description - what women experienced as they transitioned through menopause and how they experienced this transition. Finally, the analysis concluded with a multifaceted description of the menopause transition, the essence of the phenomenon (Creswell, 2007, p. 159).

This inquiry was concerned with the experiences of sedentary women transitioning through menopause. Sharing the essence of their menopause transition provided a voice for their experiences, and benefits women approaching this important yet inevitable life stage. The conceptual framework presented in chapter 1 suggests ten different areas that might impact a woman's transition through menopause including, physical health and wellbeing, physical signs and symptoms of menopause, psychological signs and symptoms of menopause, chosen coping techniques, medical support, social support network, lifestyle habits, environmental factors, spirituality, and the culture of menopause. These ideas, thoughts, and concerns assisted with identifying relevant text during the initial reviews of the one-on-one interview transcripts, sorting of data, highlighted text, and generated lists using NVivo 9 computer software by QSR International. NVivo 9 was used for coding, condensing of coded data into meaning units, preparation of data for member checking, and any other required analysis where a computer application increased the quality of the expected outcome. Identifying specific segments of information within each transcript was the first task to coding the data. Further reviewing of the groupings created through open coding assisted with reducing redundancy and overlap. Finally, once the coding was complete, a framework that described the essence of menopause for this group of sedentary women evolved. Coding

continued as the analysis unfolded with new codes, identified as nodes in NVivo 9, added as required.

Prior to collection, review, and analysis of the data, I identified my own preconceived thoughts and experiences regarding the transition through menopause. This process of bracketing encourages the researcher to set aside personal views of menopause and focus on the experiences of participants in the inquiry (Moustakas, 1994, p. 97). I reviewed all interview transcripts and observational notes in their entirety before re-reading and highlighting relevant text. The research questions and the suggested conceptual framework determined relevancy, influencing how the extraction of women's thoughts and feelings from the text occurred. I created an electronic list of significant statements, limiting repetition and overlap, with each individual statement having equal worth (Creswell, 2007, 159). Unfortunately, important information shared by the women that did not address the research questions was not part of the analysis. The length of time required for this step was dependent on the length of transcripts generated from the interviews. However, because interviews continued until data saturation, interviews and initial data analysis overlapped as the inquiry progressed.

Following the completion of a list of significant statements, I grouped the statements electronically into larger meaningful groups or themes. These "meaning units" (Moustakas, 1994, p. 97) were compared to the themes suggested in the proposed conceptual framework. Adjustments and changes to the proposed conceptual framework reflected the concepts expressed by the study participants. Finally, a picture of what women experience during the transition through menopause, and how they experience it

formed a description of the phenomenon of menopause. This description, along with verbatim examples from the women, described the essence of the transition through menopause as experienced by sedentary women.

The last step in the analysis and synthesis of the data was to ensure validity of the researcher's interpretation of the data. A review and analysis of the observational notes from the interviews, and the demographic data submitted by women prior to participating in the inquiry, potentially supported some triangulation of the study findings. Member checking as described by Creswell (2007, p. 208) further assisted with validation of data. Each participant received a summary of the study findings, specifically a description of the essence of the menopause experience of this group of sedentary women, to ensure the researcher's conclusions were a correct interpretation of their collective thoughts and feelings. I assured women that further comments received from them during this stage would be included as part of the research findings. An audit trail of the data collection and analysis procedures is Appendix F. Further discussion regarding analysis, interpretation, and validation of the data occurs in subsequent chapters.

Summary

This chapter consisted of a detailed review of the methodology and research methods used in this inquiry, taking into account the rationale for the chosen research approach. Areas covered included the role of the researcher and a detailed description of the target population, participant selection, and sampling strategy. The research design, including data collection methods and management, data analysis, and synthesis of the data followed. Ethical considerations and an examination of how the researcher addressed

credibility and dependability of the study findings completed the chapter. The result of this phenomenological study on sedentary women's menopausal experience follows in chapter 4.

Chapter 4: Results

Introduction

This chapter includes a description of the findings of a phenomenological inquiry into the experiences of sedentary women transitioning through menopause. A description of data collection and recording procedures, followed by an explanation of data management occurs. A comprehensive analysis of the data addressed the two primary research questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? The following subquestions supported the primary research questions:

1. How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?
2. What signs and symptoms of menopause do sedentary women experience?
    a. Physically
    b. Emotionally
    c. Cognitively
3. What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?
4. How does the use of hormone therapy by sedentary women affect their experience of menopause?
5. Whom do sedentary women turn to for support during their transition through menopause?

The study findings, presented within the context of the conceptual framework described in chapter 1 assisted with the formulation of the essence of menopause for the participants, and the development of a broader set of outcome recommendations that follow in chapter 5.

To enhance recommendations for public health programs and services, and further research initiatives, a discussion of the study findings in relationship to Rowe and Kahn's Model of Successful Aging occurs. The chapter concludes with a discussion of the member checking that occurred following interpretation of the essence of menopause for this group of sedentary women.

Data Collection and Tracking Process

Following Walden University's Institutional Review Board (IRB) approval on July 26, 2010 (07-26-10-0338543), recruitment for participants followed the study methodology outlined in chapter 3. Electronic distribution of study flyers occurred at five of the largest area employers during the month of August with reminder emails posted during September. Four area primary care physician teams agreed to post recruitment posters in their offices. The approved recruitment poster became a quarter-page newspaper ad for all area papers during the week of August 14, 2010. Finally, the distribution of posters throughout the community during August and September, including pharmacies, libraries, malls, and grocery stores, attempted to reach community locations potentially visited by sedentary women. Potential participants connected on their own after seeing one of the recruitment posters. No personal recruitment of participants occurred.

Face-to-face interviews with each of the participants occurred over an eight-week period. Telephone inclusion interviews preceded the face-to-face interviews ensuring participants met all study inclusion criteria. Forty-two women reached out to participate in the study. From the potential participants, 16 women met all of the study inclusion criteria; 21 women did not meet inclusion criteria, 13 due to their physical activity level, 1 due to age limitations, 7 were employees, once removed, within my organization; and 5 women were unable to be contacted to complete an inclusion interview. Many of the 21 women not meeting inclusion criteria were upset, voicing their desire to share their experience of menopause. Several requested to receive study results and recommendations upon study conclusion; this request was noted on the inclusion interview log for later follow-up. Of the 16 women who met the study inclusion criteria, 13 completed face-to-face interviews. One woman declined participation despite meeting inclusion criteria; one participant did not arrive for her scheduled interview and due to a planned month-long vacation, was unable to reschedule during the data collection timeframe; and finally, one potential participant connected the week after completion of participant inclusion interviews. An inclusion interview log was saved as a word document on an encrypted computer. This log included potential participants' first name; work, home, or mobile phone number or email address based on the contact preference of the participant; contact attempts; date of inclusion interview and its outcome; and if scheduled, date of their one-on-one interview.

All interviews occurred in the Centre for Community Services at a time convenient for the participant. The majority of women requested interviews during early

evening hours Monday to Friday. This ensured they could complete their workday while still allowing them to get home at a reasonable time. Due to participants' preferences, no interviews occurred on Saturday or Sunday. The interviews ranged from 30 minutes to 75 minutes in length, not including introductions and goodbyes. Scheduling of interviews allowed for enough time between participants to ensure women did not cross paths with each other while coming and going for their interview. The interview room was equipped with comfortable seating, tissues, and water. A sign placed on the interview room door indicated "meeting in progress". To ensure each participant's safety and create a welcoming atmosphere, participants were accompanied to and from the interview room. Three people were present for each of the interviews, the participant, researcher, and research assistant. Several women did have a companion wait for them in the building and/or parking lot.

Each interview began with brief introductions. An explanation of the role of the research assistant, including her IRB approval, occurred prior to proceeding with informed consent. The research assistant's role included the logging of interviews, keeping of observational notes throughout the interviews, working the tape recorder, and completing verbatim transcriptions of the interviews, all of which was explained to participants prior to the start of the interview. The participants' questions regarding the study were attended to before they signed the IRB approved informed consent (Appendix C). Signed and witnessed informed consents remained in a locked cabinet in a location separate from any other study files or identifying participant information. Participants then completed a brief demographic questionnaire (Appendix D). I explained to

participants the purpose of the demographic questionnaire, of which the introductory sentence advised women that information gleaned from the questionnaire would describe participants as a larger group with no individual identifying information released. Participants received a printed copy of the interview questions for reference during the interview. Following the preceding steps, the tape recorder was set to record and the interview began. The purpose of the inquiry was explained, including why the experiences of menopausal women were so important to the painting of a vibrant picture describing the essence of menopause for sedentary women. The interview proceeded using the question framework as outlined, following cues from the participant and allowing for a natural flow of conversation.

The interviews concluded with a summary of interview questions asked and an explanation of next steps in the research process. Member checking was reviewed, advising women they would receive a summary of the analysis and an opportunity to voice any concerns or discrepancies with my interpretation of the data. Immediately following each interview, reflection on the interview occurred with the research assistant, documenting thoughts, feelings, concerns, and any emerging issues requiring further discussion or clarification from participants. Numbers identified these observational notes to facilitate a linkage with the interview transcripts.

Each interview produced five pieces of information requiring management and storage. First, as indicated already, informed consents were stored in a separate file away from all other interview forms or participant information. Demographic information was compiled into a group format and stored electronically with the original paper copies

filed in a locked filing cabinet. Audio recordings were stored in a lock-box safe and in a secure location separate from the consent, demographic forms, interview observational notes, and the interview transcripts. Original observational notes completed by the research assistant during the interview were stored along with the original demographic questionnaires. Numbers identified participants on the observational notes to facilitate linking with the interview transcripts, there was no method to link the demographic information and observational notes together that would identify participants. Finally, verbatim interview transcripts were stored electronically on an encrypted computer system housed within a security accessible building.

The research assistant transcribed the audiotaping of each participant interview. The transcripts were read twice in their entirety and then once while listening to the audiotaping of each interview. Transcription errors were limited to four spelling mistakes and two interpretation errors due to low volume on the audio tape; acknowledgement and correction of these errors occurred on the original transcripts. As indicated in the previous paragraph, verbatim transcripts were stored electronically on an encrypted computer system. Observational notes highlighted each participant's body language, voice and verbal language, behavior during the interview, and body image. These notes also included the research assistant's documentation of the answers to each interview question. All files were stored as a word file on an encrypted computer system and identified by a number corresponding to the interview transcripts. For the purpose of analysis, reporting, and supporting of anonymity, each participant received a pseudonym from the top 13 names off the top 100 Canadian female names in 2010 (Today's Parent,

2010). Importation of the interview transcripts and observational notes into the NVivo 9 computer system occurred for coding, theme generation, and relationship queries. Maintenance of the NVivo 9 system took place on the same encrypted computer system already identified.

Participants

Participants in this study were typically married or living in a committed relationship, were working full-time outside the home, and had at least one child. Every participant identified herself as being White or Caucasian in descent. Highest education levels completed by the participant group ranged from grade nine to Master's level preparation, with the majority of women completing some post-secondary schooling at the college level. While each female participant was in some stage of menopause transition, the majority of women considered themselves postmenopausal with half of the women experiencing a natural or spontaneous menopause. Ages of the participants ranged from 46 to 57 years with a mean and median age of 52 years and a mode age of 51 years. The women ranged in height from 5 feet 2 inches to 5 feet 10 inches with a mean height of 5 feet 5 inches. Their weight ranged from 128 pounds to 188 pounds with a mean of 155 pounds.

Body mass index (BMI) uses height and weight to identify weight categories by dividing weight in kilograms by height in metres squared. BMI categories range from underweight (BMI under 18.5) to overweight class three (BMI over 40). Normal weight occurs with a BMI between 18.5 and 24.9 and carries the least amount of risk for developing health problems (Health Canada, 2003). The women participating in this

inquiry identified themselves as sedentary during the inclusion interviews. After calculating individual body mass indexes, the mean BMI for the group was in the overweight category at 26.32, a predicted result with an inquiry focusing on sedentary women.

Table 1

Participant Demographic Information

Pseudonym	Age		Marital Status	Menopausal History	Educational Level (completed)	Employment	BMI
			M - married, Other - committed, single, or divorced	Pre, peri, or postmenopausal	H - high school or less C - college, U - university	FT - full-time Other – PT, casual, pension	U – under N – normal or O - overweight
	<50	≥50					
Emma		X	married	postmenopausal	high school	full-time	normal wt
Olivia		X	married	postmenopausal	university	full-time	overweight
Ava		X	other	perimenopausal	college	full-time	overweight
Emily	X		other	postmenopausal	university	other	overweight
Isabella		X	other	postmenopausal	college	full-time	overweight
Sarah		X	married	perimenopausal	university	full-time	normal wt
Abigail		X	married	postmenopausal	university	full-time	missing data
Hannah		X	married	postmenopausal	high school	other	overweight
Sophia		X	other	postmenopausal	high school	full-time	normal wt
Madison	X		married	postmenopausal	high school	other	overweight
Ella		X	married	postmenopausal	high school	full-time	overweight
Julia		X	married	postmenopausal	high school	full-time	overweight
Grace		X	married	postmenopausal	high school	full-time	normal wt

Four of the participants had BMI scores within the normal range. The participants, by nature of the inquiry were all sedentary with 69 percent having a BMI in the overweight or greater category. Within the community in which the participants reside, 60 percent of the adult population is classified as overweight or obese with just over 50 percent classifying themselves as physically inactive (Zettler & Maaten, 2011).

Table 1 provides detailed participant demographic information. This sample of participants was not selected to be representative of the larger group of women residing in the municipality. Despite this, the women in the inquiry are similar to adults within their community with respect to ethnicity, family composition, physical activity, and body mass index. They are more educated and have a higher employment rate than their community counterparts. Thirty percent of adults within the participants' home community have not completed high school, eleven percent identified themselves as unemployed, just over four percent identified themselves as a visible minority, and twenty-eight percent resided in a two parent family with at least one child (Zettler & Maaten, 2011). These similarities and differences are acknowledged in chapter 5 when addressing the generalizability of the study findings.

Bracketing

Ahern (1999) describes reflexive bracketing as a practice taken on by researchers to identify areas of potential personal bias in an effort to limit the amount of influence their opinions, thoughts, and beliefs have on the research process. Gearing (2004) acknowledges reflexive bracketing as a means to openly identify a researcher's cultural background and values without excluding external assumptions regarding the

phenomenon under review. As a healthy physically active female who transitioned through menopause without any of the identified characteristics of menopause used as inclusion criteria in this inquiry, I first acknowledged to myself the reasons behind my desire to study sedentary women transitioning through menopause. I practice servant leadership (Greenfield, 1998) believing that my role is to serve those around me, improving their lives so they are empowered to also serve, thereby improving the lives of those they interact with. I want women to aspire to be healthier, to constantly learn, and to become autonomous, powerful women in our community. Public health practitioners strive to improve health outcomes for individuals, families, and communities by providing programs and services that address modifiable risk factors for numerous chronic diseases. One of my biases is a belief that a sedentary lifestyle, for the majority of individuals, is a negative lifestyle choice. This statement creates a potential bias throughout the interview process and the analysis of the data. I hope my desire to serve and improve lives of others outweighed my bias against sedentary lifestyles.

In order to safeguard neutrality and limit bias, I needed to ensure my feelings and beliefs around physical fitness and healthy eating were not imposed on women participating in this inquiry. I had to bracket my own uneventful menopause experience to truly listen, as well as hear, the menopausal experiences of the women who came forward to share their stories. Throughout the presentation of the data and my analysis of the results, I ensured each woman was quoted within the study narrative despite many of the issues discussed being similar; I needed to acknowledge that each participant brought a unique story to the inquiry.

My personal circle of friends is physically active and has, for the most part, transitioned through menopause uneventfully. I began to wonder what was different, if anything, for sedentary women; it was from anecdotal discussions that my desire to study menopause evolved. Finally, the potential existed for role conflict between my role as researcher and that of the director of the local Public Health Unit. As the researcher in this inquiry I had to resist the desire to counsel and teach regarding the benefits of physical activity and lifestyle choices outside of the interview room, focusing instead on providing an atmosphere where women felt comfortable to share their stories without feeling like they were being judged by the Director of Public Health. I hope that somehow through my research, public health programs and services will be developed to improve outcomes for sedentary women transitioning through menopause within our community.

Study Findings

If a woman lives long enough, she will eventually transition through menopause. In Canada, the average age of this life change is 52 years with many women experiencing signs of menopause for years on either side of this birthday (SOGC, 2006). The women participating in this inquiry shared their thoughts, feelings, intimate experiences, and an honest desire for health and hope for the next generation of young premenopausal women. Each participant's description of menopause, including physical and psychological experiences, coping strategies, support systems, and relationships with and within the environment assisted me with the shaping of a collective meaning of

menopause. Together, these meanings form the essence of menopause for this group of sedentary women.

Coding

As indicated in chapter 3, NVivo 9 computer software was used to assist with coding, grouping, and development of themes. The themes emerged as transcripts were read, relevant sections highlighted, and assigned to nodes within the software coding based on the proposed conceptual framework discussed in chapter 1 and revised in chapter 5. Initial coding was completed by highlighting text relevant to answering the research questions and categorizing the highlighted text into the following nodes within the NVivo 9 system:

- Body image
- Aging
- Environmental factors
- Excuses
- Hormone Therapy
- Information
- Resources
- Intimacy and Sexuality
- Invented names
- Lifestyle habits
- Meaning of menopause
- Primary care/medical practitioner support

- Menopause culture (family)
- Menses
- Physical health
- Physical signs and symptoms
- Psychological signs and symptoms
- Social support network
- Nuclear family
- Marital status
- Spirituality
- Overall well-being
- Workplace issues
- Coping techniques

The data were reviewed a second and third time, collapsing nodes by reducing redundancies and merging similar data with insufficient representation to exist as its own theme. The following themes emerged and are listed in order of greatest reference for the participants:

- The physical changes experienced during menopause
- The menopausal impact on sexuality and intimacy
- The emotional and cognitive signs of menopause
- Coping techniques used during menopause
- Thoughts on work and menopause
- Lifestyle habits

- Social support during menopause
- Medical support before, during, and after menopause
- Information and resources focusing on menopause
- Familial culture of menopause

These themes form the essence of menopause for this group of sedentary women and make up the conceptual framework displayed in chapter 5.

First Thoughts on Menopause

While women experienced menopause at different ages and stages in their lives, all experienced a menopause "ah-ha moment" with their induction into the world of enduring hot flashes. Women consistently described hot flashes as the first physical sign of menopause with hot flash experiences varying widely among them. Ava described her hot flash experience as, "it feels like my ears are going to blow off my head. You know the cartoons where they have the steam coming out, the cartoon characters, that's how I feel. Like I'm just ready to blow". Emma described a similar experience, "You know, you get a hot flash so bad that you thought you were going to throw up. It's just like *(whispers)*, oh my God, I'm going to die here, it just isn't right". Several women experienced a hot flash during their face-to-face interviews and Madison described it perfectly,

> One minute I will be sitting like I am right now, just fine, relaxed. And then all of a sudden, it's like a wave, and it starts at my feet and my toes will feel like they're just burning. And then it goes up my legs, and it goes like a wave, just *whoosh*.

> And once it hits the top I feel like somebody has directed the biggest furnace I've ever seen right at me.

Hot flashes were also the initial trigger for most women to seek medical support and advice despite the fact that many women endured the discomfort of hot flashes for months and even years before reaching out and asking for help. Not every woman voiced her hot flash experience as negative. Sophia, welcomed her hot flash stating, "When this lovely warm feeling comes over you it's like, ahhh [*laughs*] you know… and being, being warm is, was a bonus". All participants experienced hot flashes but many withstood several other physical changes that supported and confirmed the menopause transition for them.

The majority of women expressed their initial thoughts on menopause as a change they had varying amounts of control over. Some described these changes positively like Emily who was happy to see an end to buying feminine hygiene products and being able to have sex without worrying about birth control. All was good until she realized she was now buying sanitary pads for her daughter. Sarah expressed her thoughts, "It's really not incapacitating, it's not that bad and the bonus is you won't have a period so, there are some pluses to menopause". For Madison, the experience of menopause was far from positive, "People'd look at me wrong and you know, my husband started to run, the kids stopped coming over to visit mom. And um, massive emotional, hot flashes, the most evil thing I have ever experienced in my life" she continued, noticeably upset, "one minute I would be just happy and you know, not a care in the world and the next, I just wanted to kill everybody". As I listened to the transcribed data, Sarah and Madison's initial

thoughts on menopause seemed so diverse, I became concerned regarding my ability to give justice to the essence of menopause for this group of sedentary women.

Menopausal Themes Generated from the Interviews

A number of themes were generated by the participants during the interview sessions. Each theme is presented and interpreted as a single entity followed by a summary of the thematic findings. Next, my observations of the interviews and the participants' reactions to the interview questions are presented, further supporting the development of the essence of menopause for this group of sedentary women.

The Physical Changes Experienced During Menopause

Inclusion criteria for women participating in this inquiry included fluctuations in their menstrual cycle as well as one of the following changes experienced by menopausal women: hot flashes, sleep disturbances, headaches, vaginal dryness, sexual libido changes, urinary incontinence, skin, hair and dental changes, or weight gain (North American Menopause Society, 2006). The majority of participating women experienced sleep disturbances in the form of night sweats ranging from sleeping with the window open to changing night wear and bed sheets. Ava spoke candidly, stating, "In the dead of winter throw open the window and let the snow fly in and freeze your partner out of the bed". Emily noted, "Jammies wet, sheets wet, and it's like okay, roll over to that side". Grace noticed a dramatic change in her sleeping habits during her transition through menopause,

> Uh…the inability to get a good night's sleep because you know you wake up, a slight bit of, you know you start with just a little bit of a hot flash and just that

> uncomfortableness *[sic]*. I was always the one with flannel pyjamas, even in the summer time, and socks on my feet and it's like okay, the nightgowns are off, the socks are off and I'm getting up to have a shower at three in the morning because I'm dying.

For many women, the combination of hot flashes and night sweats created sleep disturbances that were difficult to tolerate. Emma was no exception, "…but then once you start having the hot flash, the night sweats at night, but when you're getting 8 to 10 in one night, it's just, *(pauses)* and there's no sleep". She describes her frustration, "I would have liked somebody to be brutally honest with me really what a hot flash and a night sweat is". Others voiced a similar desire for honest, open communication.

The majority of women had thoughts on weight gain, "I have the world's evilest pouf right here (*points to belly*)" as Isabelle stated; yet many attributed the weight fluctuations to aging, lack of physical activity, or poor lifestyle habits, not to menopause. Many like Sophia, had battled with weight for many years, "I've had this you know, love/hate affair with weight gain, for so many years that it's just [*laughs*] it comes and it goes, it goes and it comes, and it...". The majority of women, including Julia were very aware that the lifestyle choices they make, impacted their physical health, "I was getting my mom's, you know, abdominal belly a little bit, and you know, blaming everybody else but, you know the half a pumpkin pie that I ate". What was common with the women was the location of their weight gain, all women stating that they had noticed tummy, abdominal, or a belly bulge occurring during their menopause transition without any identifiable change in their eating or activity habits. While participants expressed a desire

to be more physically active, the desire revolved around knowing it was socially more acceptable to be active.

The last physical changes expressed by the majority of women were vaginal dryness and sexual libido changes. For many, the physical changes were uncomfortable and annoying, but the impact of their decreased libido on intimacy with their partner was a very distressing physical change of menopause. Of the thirteen women interviewed, eight specifically discussed the impact menopause had on their sexuality.

The Menopausal Impact on Sexuality and Intimacy

When asked, "what is one thing you wish you would have known before menopause?", the majority of women talked about the impact menopause would have on their relationships with their partners. Women openly shared intimate concerns regarding vaginal dryness, sweat and body odour, decreasing libido, and complete loss of sexual activity in their relationships. Emily shared her concerns,

> I'm hoping to have sex for another 20 years anyway or who knows what kind of things. So it, it's just my worry that if I don't do this it will atrophy and so on. But it has kind of dampened the libido, that's for sure.

Emma and Grace voiced similar concerns respectively, "we were that three or four times a week because we're very close. But that probably in that last 8 months, it's probably maybe once or twice a week, if you're lucky" and "Five years ago you were ready to go anytime, now it's like…do we have to?". Many women were visibly upset while discussing their relationships; some used humor and others, despite what they were going through voiced concerns for their partners. Madison summed up her thoughts, "I mean, I

feel bad for him but, the poor guy has not had sex in four years. You know? And he's still there. That's the most support I could ever ask for". On the flip side, Abigail remained positive regarding her intimate relationships, "Now you can have sex without birth control".

The women described their partners as supportive throughout the changes in their sexual relationship; some women actually seemed surprised their partners stayed with them throughout their menopause transition. Grace spoke fondly of the support she felt from her husband, "My husband actually has been very supportive. He, um…he, he, um… *(pause)*, he takes the time to make sure that, you know he's not pressuring me to have sex or anything else". Isabella expressed concerns regarding what could have happened had her partner not been supportive, "He's very good that way. I mean, we've been having, *(pauses)* the sexual libido discussion just happened in the last two weeks. I don't think that discussion is over yet, to find out solutions and things." Finally, women expressed genuine sadness and true grieving over the loss of their sexual libido. Julia was most candid,

> Like my libido being as low as it is *(pauses)* like I'm disappointed that that's like that because, because I'm young and spirited and I'm sad about that part of my life. Yeah, I didn't really think it was going to happen to me. I'd heard of people, their libidos dropping off and I thought, oh, I wonder what causes that? And now, here I am in it.

The Emotional and Cognitive Signs of Menopause

Almost all participants described some level of forgetfulness associated with their

menopause transition with the majority of women describing a time when they walked into a room and forgot why they were going there. Ella described it succinctly, "Go to the fridge to get a bottle of water, once you get there, forget what you were going there for [laughs], that's my menopause memory loss". Madison illustrated her forgetfulness as her "Alzheimer's moments...walk into a room, what was I here for again? And I leave [pause], again". Women discussed the impact forgetfulness had on their jobs and their day-to-day activities. Women talked about the need for lists, and second lists to remind themselves about their first lists. The need to rely on day planners and writing everything down for fear of forgetting to do something at work was a common theme as well.

Along with forgetfulness and fogginess, most women talked freely about changes in their mood identified by themselves, family members, and/or both during their menopause transition. Some women firmly believed they had not experienced mood changes despite what members of their support network indicated to them. Abigail shared, "My husband says I've always been moody, so you know. And I, I, whether that's a denial on my part, I don't think I've ever had any PMS, that's my version of it! [*Laughter*]". For Grace, the impact on her family was much more direct and apparent,

> My husband would say, what is the matter with you? You're crabby all the time, you're snapping at the kids. All of a sudden there's this, my son referred to me once as the psycho-bitch from hell, and then he ran.

Several women revealed the moodiness experienced during their menopause transition as a significant change for them. Emma described herself as a generally happy person further indicating that she was glad she started out happy because otherwise the

experience of menopause might have made her "really nasty". Isabella, spoke about her emotions with humor as well, "You know how you can get yourself so bitchy that you want to kick yourself, but you just can't kick up that way". It was during the discussions around these psychological and cognitive changes experienced during menopause when many of the women broke eye contact, lowered their voices, or paused and reflected quietly. Julia summed things up well, "Psychologically you know it is happening, you don't want it to happen but it's happening, and you know, you just don't feel good about yourself". Of the thirteen women interviewed, twelve participants described some level of emotional change associated with their menopause transition. However, despite being mentioned by almost every participant, emotional changes experienced during menopause did not dominate the interviews.

Coping Techniques Used During Menopause

The women interviewed tried numerous techniques to cope with their transition through menopause. Many of them also shared coping techniques used by friends and family members or techniques recommended to them by other women. Coping techniques ranged from homeopathic medicine like acupuncture and black cohosh, to physician assisted treatments like hormone therapy and medications for insomnia. Other women stuck to dressing in multiple layers, keeping windows open during winter months, eating frozen treats, and swimming in cold pools. Many women tried over the counter medications marketed for menopause; most purchasing them from a local health food store or area pharmacy. Some women refused to try anything, feeling menopause was a

natural experience that was part of normal aging. Emma had the most experience with homeopathic remedies and shared the most creative coping technique,

> You grind seeds on the half moon and full moon. You have to do pumpkin and sesame seeds on, on, at the new moon for two, three weeks. And then, at the full moon you have to do flax seeds and um…maybe pumpkin seeds again. Well, I did that for two months and okay I have to tell you, I don't want to see a pumpkin seed or a sesame seed ever again.

For this group of women, there was very little success with any of the homeopathic remedies tried at treating their discomforts of menopause and many women coped with the uncomfortable symptoms of menopause for years before seeking traditional medical follow-up. The reasons for delayed consultation with a primary care practitioner ranged from concerns regarding the potential reaction from their family doctor regarding their use of homeopathic remedies to previous negative reactions regarding their lifestyle choices. Madison described her thoughts, "You feel so stupid because you can't talk to a doctor about it, they know even less than you do or they don't want to talk about it". Women were supportive of freedom of choice, both their own choices and the choices of others. None of the women displayed any sign of judgement over the choices women made to cope with menopause. Sophia communicated her thoughts well, "Some people absolutely believe in natural, you know, herbs and those kinds of things. And the way I look at it, if it makes you feel good, if it helps get you through this".

A number of participants tried hormone therapy with some women using hormones at the time of their interview. The women were very informed regarding the

past controversy with hormone therapy and while none recalled the studies by name, they were able to discuss the risks of cancer and cardiovascular issues raised during the studies in the early 2000s. As with homeopathic remedies, the participants were supportive of a woman's right to choose. The women had mixed results with hormone therapy; some cycled on and off hormones in an attempt to see if their menopausal symptoms subsided while others tried and discontinued use because of poor results. Julia shared her thoughts on the use of hormone therapy and its potential risks,

> I think they [women] need to be educated about their family history, if they decide to try hormone therapy, that they're made aware of whether their levels of estrogen are going to affect that kind of thing [cancer]. Like, I don't think people know enough about that kind of thinking? They just think, you know, HRT, oh I don't want to do that, that causes cancer! Okay, well why? Maybe in some families it does but in your family, it doesn't.

Some of the participants contacted me after their interview to share that they could no longer cope with their symptoms, and that they subsequently visited their primary care practitioners, and were now trying hormone therapy. One woman acknowledged that participating in her interview for this inquiry, gave her the courage to contact her primary care practitioner regarding her difficulties coping with her menopause transition.

Thoughts on Work and Menopause

All of the women participating in this study worked outside of the home. For some, their place of employment provided a venue for support from colleagues and coworkers. For those working with the public, the workplace tended to increase their

stress as they tried to navigate through menopause under the watchful eye of their customers. For some, menopause indicated aging and the end of being "promotable at work" while others were a resource for younger women in the office. For Sarah, her work experience was positive and she described this scenario with pride, "One of my supervisors has come to me about staff who are going through menopause, and you know, do I think this would be a normal thing for them, because they seem more cranky". Sarah went on to talk about the support she received from her colleagues at work, indicating that they were all close in age and going through similar experiences. However, Olivia illustrated a more negative experience, at times appearing defeated, "Because sometimes it's the kiss of death at work if they suddenly start to identify you as quote/unquote old. And I'm already too old to be promotable".

Ella works in customer service and described a hot flash at work, "The embarrassing part of it, standing in front of a customer and having sweat drip off ya, you okay? [*laughs*] Same with bosses, standing in front of your boss, breaking out in a sweat". Hannah supported Ella's comments further indicating that hot flashes were more embarrassing when men were present, "I mean, you can stand there in front of somebody and, my thing was men, standing in front of a man and breaking out into a sweat, was really, another woman might understand, but a man just doesn't get it". The majority of women alluded to their lack of comfort discussing menopause, acknowledging they were transitioning through menopause, or experiencing any visible signs of menopause while in the presence of male coworkers. Olivia summed up her work experience beautifully,

> I'd be at work putting a jacket on because I was cold and as soon as I got it on I had to take it off. I'd put it on, take it off. In February, I'd be out in the parking lot with no coat on, touching the ground or the snow trying to get my hands to cool off.

While the majority of women believed that menopause was now discussed openly, including in the workplace, without hesitation or embarrassment they continued to verbalize discomfort discussing menopause with their bosses or males other than their significant others. Discomfort increased dramatically when their boss was a male.

Lifestyle Habits

Exercise was a common theme with the participants. Most women had discussed exercising with others as a healthy lifestyle choice and some had tried exercise in the past as a coping strategy for dealing with menopause. Others like Emma talked about exercise as the "E" word, "I, um, I, I'm not into that "E" word, I hate to say that word, because if I say that, I'd have to wash my mouth out with chocolate! So I really don't want to say that "E" word". Many women verbalized their concerns about lifestyle habits, menopause and health, while others opened up regarding their partners' desire to see them adopt a healthy lifestyle including being physically active. Ava talked freely about this,

> You know what, my partner is like an exercise [*long pause*] it is like a religion for him. To work out every day and that is just part of his life and has been for probably 40 years. Ok, so he's really encouraging about…[*exercising*] About you need to [*whispers, unintelligible*] I'm tired, and I didn't sleep much last night, and I just don't feel like exercising. Yeah. Yeah.

Despite encouragement from many supports around them and knowledge regarding the importance of being physically active, few women placed exercise high on their list of things to try as a coping technique for menopause or as a potential lifestyle change they would ponder in the near future. Despite this, one participant did begin walking shortly after her interview simply because she was uncomfortable being labelled as sedentary.

Other lifestyle habits discussed during the interviews included diet and nutritional choices, and smoking and smoking cessation. For some women, weight and/or smoking were prohibiting their doctors from prescribing hormone therapy. Sophia shared her physician's reluctance, "She felt that, probably because the fact that I'm a big person, and probably at that time I weighed more than I should have. Um, that the weight would impact my heart, and that's valid". For Ella, her physician's concerns revolved around her smoking, "She says I'll see if you quit, like I did it for three months, but she says she'll take me and see me in six months about hormones [*if I quit*]". Despite differences in lifestyle choices, none of the women passed judgement on choices made by others and again viewed the choices they make as personal and the right choice for them at this time in their lives. The participants made no connection, positive or negative, between these lifestyle habits and their menopause transition.

Social Support During Menopause

All of the women interviewed talked openly about the people in their lives who influenced their transition through menopause and while most recollections were positive, some of the relationships were negative and unsupportive. Grace discussed her

husband's reaction to her menopause transition however she also acknowledge he really didn't understand what she was going through, "My husband would say, what is the matter with you? You're crabby all the time, you're snapping at the kids". Isabella commented on reactions she received during menopause, "I get laughed at, I mean my partner laughs at me, lovingly laughs at me..." While partners were supportive regarding sexuality and intimacy, many women felt their partners did not understand what they were going through physically and emotionally. Olivia described her thoughts on her husband's perception of menopause as an illness,

> In general, my husband is not supportive of illness in any shape what so ever, so he's kind of the person that uh if you're ill he leaves you alone. You deal with it on your own, you don't talk about it, because that's how his family is.

All of the participants were in heterosexual relationships with some identifying that men just could not understand the changes women experienced during menopause.

Women relied heavily on their female family members, with sisters being mentioned most often, as well as friends and colleagues, for advice and support during their menopause transition. This support ranged from sharing experiences and coping techniques to just being together laughing at the changes they were all experiencing. Emma talked about her sister, "Probably my sister [*name redacted*] was my best resource or my best sounding board because I would call and I'd say, you know I'm so tired of these hot flashes, what can I do?" Women were supportive of each other regarding their chosen coping techniques, often sharing strategies and discussing ways to get through the day. Olivia spoke very highly of her colleagues at work, "We're pretty frank so we'll talk

about anything from what's happening in your sexual life to what's happening in your emotional life to what's happening to you physically". Hannah concurred about the support she received through work,

> I think about the people I talk with at work, and we talk about things pretty freely [*pause*] because I mean we're, most of the women in my department are around my age so we've gone through, are going through, or close to going through [*menopause*].

A number of women also talked about support and guidance they received from women at opposite ends of the age spectrum, their mothers and their children. Sometimes this support included information, resources, and recommendations on ways of coping with menopause. For some women, this support simply came in the form of acknowledgement from family members regarding a woman's ability to manoeuvre through their menopause transition successfully. When women spoke of positive social support, their engagement in the interview increased, their voices were more animated, and their body language relaxed.

Medical Support Before, During, and After Menopause

Women mentioned the medical support of family doctors, nurse practitioners, and naturopaths, or a combination of the three, during every interview and multiple times in many of the interviews. For some women these relationships were very positive, with women placing a great deal of faith and confidence in the direction they received. Many women spoke highly of their medical practitioners while acknowledging that not every woman had a positive relationship with medical personnel. Ava explained, "I know even

some of the women I work with have gone to their family doctors and end up being more frustrated afterwards because they [the doctor] is really just like, oh well, you're going through the change". The women talked about positive support and guidance that women in general receive from female physicians whether they themselves had a female physician or not. As Ava articulated bluntly, "If more doctors went through menopause, they would be more understanding of what women go through, I've got a woman doctor". Abigail concurred, "In speaking to other people, um, experiences are very different depending on their physician, their cultural background, their age, their sex [the physician's], it's widespread". Many women went as far to say that women have been "brushed aside" by male physicians simply because they were female.

As stated previously, many women experienced menopausal symptoms that affected their lives for months before contacting their primary care practitioner for support. Most women believed the physicians would not understand their concerns. Isabella voiced these concerns when asked if she would seek medical follow-up, "I'm just going to go through this on my own. I'm not going to, I'm just going to endure this, and get through it...Not until I've exhausted everything else." Madison also expressed frustration with her medical follow-up and hesitation for seeking further guidance and support "Um, because actually I haven't had one doctor or anything even attempt to explain any of this to me". Olivia did not seek medical follow-up until she had tried coping with hot flashes for three years; when asked why she answered, "You talk to the doctor, and well doctors really aren't all that helpful. They will help you in terms of the medication you can take to offset symptoms and that's about it". The majority of women

were concerned the doctor would immediately prescribe medications for their symptoms and most wanted to try everything and anything they could think of before turning to any type of medication, including hormone therapy.

The women who were happy, felt listened to, and had their needs met by their physicians, still expressed concern for other women. Sophia had a great relationship with her doctor yet conveyed uneasiness for women when that relationship was not as positive,

> There are so many women who don't talk to their docs. Or they put them up on a pedestal and say, well the doctor knows best. No, the doctor doesn't know best in particular. You have to talk to them".

It was clear that women want to have their questions answered and to feel like the doctor is treating them as an individual free to make their own choices regarding their care. Emma tried all kinds of homeopathic treatments recommended by a variety of people and when the remedies were not effective, she approached her physician feeling positive regarding the interaction,

> So, when I told her about everything that I'd done, actually she was really interested in, in some of the natural things that I had tried because she also, she's the type of doctor, she's good to also suggest things to other people.

Despite hesitation and at times confrontation with medical professionals, in the end, the majority of participants did follow through with prescribed treatments and were satisfied with the choices they made.

Information and Resources Focusing on Menopause

As stated earlier, the median age of participants was 52 years. Women participating in this inquiry obtained information about menopause including changes, signs and symptoms, coping techniques, medications and homeopathic remedies from a variety of sources including the Internet. The women were very aware of the magnitude of the Internet and the large amount of inaccurate information available on-line. In spite of this, many still indicated a desire to search and read information on their own timeframe and to do so before seeking follow-up from their primary care practitioner. They wanted to have as much knowledge about menopause before asking for help and assistance. Regardless of Internet use, the most frequent source of written information, for this group of women, was printed materials received from a variety of sources.

Every woman indicated she had read something about menopause, from pamphlets at the pharmacy to books from the library. Emma described some of her experiences reading about menopause and her desire for understandable information, "And not, and not uh, [*pauses*], just not technically all the medical stuff, but some of the clear-cut, everyday things of what to expect". Madison concurred with Emma stating,

> "Just a little booklet, you know that, or a little book that tells you, this is what it is, this is why it is, this is what you can expect. Just some helpful things, natural, or things to go with it. That'd be awesome.

Even though most of the participants read and researched menopause either in print or on line, the majority still articulated that sharing information between women experiencing menopause was the most beneficial way of learning and coping with this life transition.

A pamphlet or booklet written by women transitioning through menopause was desired as were information sessions such as workplace lunch and learn activities.

Familial Culture of Menopause

Women talked freely about their mothers' and mother-in-laws' experiences of menopause. In many of the women's parental homes, the discussion about menopause revolved around physical symptoms like hot flashes. Few of the participants' mothers discussed emotional changes or sexual relationship issues with anyone let alone with their daughters. The majority of participants did indicate a difference in what "their parents talked about" regarding menopause compared to how open things were now. Despite articulating this, many women broke eye contact and lowered their voices during their interviews whenever they discussed personal or sensitive issues. Many of the women felt their mothers believed menopause was a "woman thing" not discussed in public. Ava explained, "I think that my mom's generation was more, they didn't talk about it as much, but it was just something that you had to suck up. And, and just put up with". Grace's home was one of the exceptions; she explained, "Even if the boys were sitting at the coffee, at the dinner table afterward it was ok, so they learned about all those lovely things at the same time my sister and I were". Madison was not as convinced as the others that things had really changed with their generation, stating quite openly, "But when it comes to menopause and it's like this evil dirty secret that nobody talks about and everybody turns their heads".

Women talked about the culture of menopause they experienced while growing up. Many women assumed and hoped their experience would be similar to their mother's

menopausal experience while other women yearned for a completely different course of events. As they emerged into adulthood, even when not discussed openly, women watched and observed their mothers' menopause transitions. Abigail describes her mother's sharing of menopause,

> You know in the back of my head my mom said menopause was here one day and gone the next, you know she had such a wonderful experience so I was like, ok when I hit that age, or that time, I hope I'm as fortunate.

While Abigail did experience numerous physical and psychological signs of menopause, she believed her ability to navigate positively through this life change was her attitude as she went on to explain,

> I would hope that if that were the case, you could look at all those other positive things that have happened too and see that it's no worse [*menopause*] than having a bout of the flu for a period of time, or having to deal with diabetes, it is what it is, and deal with it.

The picture of menopause women experienced in their familial home varied so dramatically that for many, they still did not know what to expect with their own menopause transition. Women nurtured in a home of 'don't ask, don't tell', aged with exacerbated feelings of uncertainty about their own menopause. When women discussed menopause freely in the familial home, participants were almost shocked when their experience varied dramatically from their family member's menopause transitions. They expected differences between their friends and colleagues yet assumed things within their family would be very similar.

All women articulated a need for the current discussion about menopause, aging, and body changes to be open and honest. Most participants had discussed menopause, its signs and symptoms, and the good, bad, and ugly of menopause with their children and younger siblings. Even women whose children were still young spoke of being open and honest about changes in their bodies. As Emma articulated, "They were really good. And um I'm very open with my children. I raised my children to, when they were very little, I always spoke to them like an adult." Sophia was very succinct when she discussed her thoughts regarding the preparation of younger women for menopause,

> It will happen to you, no matter what you do, you can't run, you can't hide. It will happen. Understand that this is a natural part of your life; it's nothing to be ashamed of, it is not something to hide. It will happen and you get to choose, it is your choice, how you are going to handle it.

Throughout the interviews, women spoke fondly of their children and younger siblings, wanting only what was best for them as they too aged and traversed through various life stages.

Summary

The study findings section contained results from the one-on-one in-depth interviews as interpreted. It includes women's first thoughts on menopause, physical and emotional changes occurring during the transition through menopause and the impact these changes had on the women's sexuality and intimacy. The section then reviewed women's coping strategies, their use of the medical system, lifestyle habits, and some of

the resources women used to find information on menopause. It concludes with social supports and their familial culture of menopause.

Observational Thoughts of the Researcher

The interview observational notes summarized an interpretation of the participants' body language, voice and verbal language, interview behaviour, and body image. The notes included a summary of the participants' answers to the interview questions documented during the interview by the research assistant as a back up to the interview taping, in the event of a tape recorder malfunction. Review of the observational notes following the completion of the thirteen interviews revealed similarities and differences between the participants' interview behaviour. Following each interview, the research assistant recorded my observational thoughts and feelings of the interview.

Body Language

The women's body language varied from relaxed and open, to closed and guarded. Over half of the women leaned forward towards the interviewer throughout the interview with little fidgeting or playing with their hands. They maintained eye contact except during discussions of very personal information, specifically the impact of menopause on sexuality and intimacy. Several of the women were stiff and guarded for most of the interview, they displayed limited eye contact, they often placed their hands over their mouths while answering questions, and they fidgeted throughout. A couple women experienced hot flashes during their interviews and were visibly uncomfortable during the hot flash. A number of women relaxed towards the end of the interview when

they discovered the information gleaned would help improve services for women in their community.

Voice and Verbal Language

The women participating in this inquiry were educated and well spoken. The participants' voices ranged from a quiet whisper to clear and pleasant throughout the interview. A few women spoke in a monotone voice that trailed off to a whisper when discussing sensitive topics. A couple of women were very loud, speaking quickly and succinctly. A number of women spoke in the third person when speaking about themselves or their family, especially around aging and some of the more difficult characteristics of menopause. They spoke of wives, first-born child, and females instead of speaking personally by stating "me, my son, my friends or family". Finally, a number of women used jargon and invented names for different stages or signs of menopause. Names like "Perry" for pre-menopause, or "tropical vacation" for hot flashes was common.

General Interview Behaviour

Women responded to the questions in a variety of ways. Several of the women spent a great deal of time thinking about their answers, requiring several prompting questions before they formulated and articulated a response. Most of the women stayed on the topic as discussed; however a few tended to go off on tangents, requiring further prompting to get back on track. Some of the women answered questions very quickly, almost without thinking, yet their responses were succinct and articulate. Many of the women used humor and displayed some nervous laughter while discussing sensitive

topics. Women arrived for their interviews on time with only two interviews requiring rescheduling. While many women became quiet and reserved discussing sensitive topics, all maintained their composure throughout the interview.

Body Image

Almost all of the women interviewed had gained weight during their menopause transition with the majority of weight gain in the abdominal area. Aside from hot flashes, weight gain was the most frustrating physical change the women associated with menopause. Few of the women interviewed identified how they would address this weight gain, with the majority not interested in anything to do with exercise or increasing their physical activity. A number of the women were very comfortable with their body image, feeling wiser, not older and virtually "low maintenance" now that their menstrual cycles were gone and they were no longer worried about pregnancy. Despite this, the majority of women did have significant libido changes with several hoping that by participating in this inquiry, more women would talk about menopause and the changes to sexuality that accompany aging.

Discrepant Findings

The use of a homogenous purposeful sampling technique for participant recruitment resulted in a sample of women with similar demographic characteristics. While their menopausal transitions varied, their experiences were consistent with findings documented in the previous research on menopause. A few women described and believed their menopause transitions were easy and uneventful, potentially creating inconsistent findings with the rest of the participant group. However, they shared similar

physical and emotional changes, coping techniques, support requirements, and desired medical follow-up as voiced by the other participants in the study. It was their outlook and approach towards menopause that differed. Abigail voiced her thoughts well,

> I would hope that we are not worrying about the difficult part of it [menopause], the hot flashes and some of the symptoms as negative. It's part of the menopause, but menopause is a whole lot more than not having a period… you know, embrace all the wonderful stuff that you wanted to accomplish and have worked toward, and aspired to be because, you're there

Madison described her symptoms of menopause, and her coping techniques, similar to Abigail yet described her experience as, "The most evil thing I have ever experienced in my life." None of the thirteen women interviewed described their menopause experience in a manner that would warrant classification as a discrepant case.

Rowe and Kahn's Model of Successful Aging

As stated in chapter 1, Rowe and Kahn (1997) described successful aging as a multidimensional process encompassing the constructs of physical and emotional well-being, remaining disease free, and one's social engagement with life. This inquiry provided a forum for women to share their menopause transition experience. Of the women interviewed, few had medically diagnosed physical or emotional conditions that affected their aging or sense of well-being. All of the women associated menopause with aging, often associating specific characteristics of menopause with aging instead of attributing them to the menopause transition as Sarah indicated, "I just think um, I'm moving into that next phase of life. I will no longer have a period which will be nice.

[pause] Hmm, that's pretty much it". Many continued to maintain a positive outlook of feeling well as Abigail did, communicated her thoughts on menopause, aging, and being well,

> In my mind, it's [*menopause*] a lot of stuff about who you are and what you're going through. So, you know, I hope they would see it as a period in your life, no pun intended! A time where, you know, embrace all that wonderful stuff that you wanted to accomplish, and have worked toward, and have aspired to be, because, you're there!

Emma concurred with Abigail, "I think of the early stages when your cycle starts to change, I think that's a very important time in your life where you just need to take, just a personal inventory of where you are". For the majority of women interviewed, menopause was a significant life change and despite articulating little control over this change, they felt as prepared as they could be physically, emotionally, and socially, hence according to Rowe and Kahn (1997), the women felt engaged with life. This preparation came from an assortment of sources including shared experiences from family and friends, medical follow-up from primary care practitioners, health information received through a variety of resources, and their attitude regarding the changes that accompany menopause. Despite this many women still desired more information, specifically in common language, straight forward educational resources. This will be discussed further in chapter 5.

There were a few participants who felt alone and unprepared for their transition through menopause, verbalizing the need for women to have more information and

support regarding menopause long before ever reaching this life event. These women experienced significant physical symptoms of menopause, specifically hot flashes and night sweats that affected their activities of daily living and subsequent social lives. For this small group of participants, menopause influenced their family, work, and enjoyment of life. Rowe and Kahn (1997) might infer that the significant events occurring during the participants' transition through menopause diminished their successful aging process however, the participants did not articulate these thoughts. While the women associated menopause with aging, the majority did not link their menopause transition with whether or not they were aging successfully, they were "just getting old".

As indicated in chapter 2, Rowe and Kahn (1998) disputed six myths of aging including old people are not healthy, they cannot learn new things, it is too late for health changes to have any benefit, healthy aging is dependent on genetics, the elderly are not interested in sexual activity, and seniors are not productive members of society. The participants in this inquiry certainly support Rowe and Kahn (1998) in their dispute. Only a couple of women voiced health conditions that impacted their lives in a negative way. All women were currently working outside of the home, contributing to the economy within their community and every one of them was interested in learning everything they could about menopause and their menopause transition. Finally, all participants openly discussed the impact menopause was having on their libidos and sexual relationships with their partners.

Evidence of Data Quality

A summary of results, including the researcher's interpretation of the essence of menopause for study participants was sent electronically to the entire participant group using email addresses received during the recruitment process. To ensure privacy and anonymity, the emails were sent individually, not in a group email format. Feedback was requested to ensure the researcher's interpretation of the group's collective thoughts and feelings towards menopause was reflected accurately. I asked each participant to ensure they saw themselves as part of the collective thoughts without feeling like they were personally identifiable. Participants were encouraged to be open and forthcoming with their responses and to return their thoughts electronically or by contacting the researcher directly.

Participants' Reactions to Researcher's Interpretation of the Experience of Menopause

The initial response received from participants regarding the interpretation of the essence of menopause for this group of sedentary women was positive. Of the 13 women interviewed, 10 responded to the request for feedback with two emails bouncing back as undeliverable. The women who responded, concurred with the interpretation and articulated being anxious to read the entire document to gain an increased knowledge of menopause, see the entire results, and learn from the conclusions and recommendations. Abigail shared her thoughts, "I have had a chance to read your interpretation and feel that you have very accurately reflected and summed up the experience that I shared with you". Isabella summarized her thoughts as well,

> Your report sums it up nicely. I like the Essence of Menopause circle diagram. It shows how all the aspects of this health process are connected. As stated, women are more open to network and share with other women to help and be helped. It's a sisterhood thing, I think.

She goes on to state, "I was struck with the fact that we all were least likely to change our lifestyle habits even knowing how much better we would be if we did. I guess that is why we are classified sedentary". Other participants shared similar thoughts and feelings regarding the interpretation of their collective thoughts and feelings. One participant did not overwhelmingly agree, feeling that despite knowing about the importance of exercise and a healthy lifestyle, she just did not have the time in her life right now, stating further that it had nothing to do with desire or attitude. The women's response supports the quality of data presented throughout this chapter and provides validation of the interpretation of the data prior to the conclusions and recommendations presented in chapter 5. Verbatim member response to essence of menopause is Appendix I.

Conclusion

Chapter 4 included a presentation of the study findings. A description of data collection, recording procedures, and data management occurred. Through the analysis, I addressed the research questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? The study findings, presented within the context of the conceptual framework described in chapter 1, supported the formulation of the essence of menopause described further in chapter 5.

The issue of discrepant cases was also described. Chapter 4 concluded with support for data quality through the use of participant member checking.

The menopausal transition experienced by this group of women was similar to menopausal experiences expressed by others in the literature. Reframing programs and services for sedentary women that acknowledge and build on positive similarities and mitigate negative differences creates the potential for learning and behavior change. The women articulated the need for increasing their physical activity as a positive menopausal coping technique but acknowledged the inability to do so in their current physical, social, and/or cultural environment. The significance of this finding supports the need for approaches and recommendations for action that make it easier for women to make healthy decisions. These findings support the actions, recommendations, and further discussions occurring in chapter 5.

Chapter 5: Discussion and Recommendations

Introduction

Menopause is a significant life change for women. Despite documented characteristics of the menopause transition in peer-reviewed journals, popular books and magazines, and within social media, every woman will experience this transition in a manner significant for her and different from other women around her. This study provided the opportunity for sedentary women residing in a small rural community in Canada to share their experiences of menopause. As indicated in chapter 1, 77% of Canadian women over 45 years of age suffer from a chronic disease that affects their quality of life (Statistics Canada, 2006). The Public Health Agency of Canada (2009) has identified physical activity as a modifiable risk factor for numerous chronic diseases; making sedentary women a group with unique characteristics warranting further exploration. As women age, not only do they transition through menopause, the risk of chronic diseases increases. This inquiry aimed to answer the following two research questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? To address these questions and articulate the essence of menopause for this group of sedentary women, a study was conducted using a phenomenological methodology with in-depth one-on-one interviews.

Despite being uncomfortable at times, the participants shared their stories of menopause with vivid candor. The interviews provided substantial data that described menopause in sound and colorful detail enabling the interpretation of specific thematic

concepts leading to an illumination of the meaning of menopause for this group of sedentary women.

Chapter 5 includes an interpretation of the study findings as they relate to the broader body of knowledge already known on the topic of menopause. An interpretation of the essence of menopause for this group of sedentary women highlights this chapter. The study's implications for social change clearly grounded by the significance of the study and its outcomes follows. Recommendations for action and further research were very important outcomes of this inquiry for the study participants; if they were sharing their experiences, they wanted something good to come out of the research experience. The suggestions and recommendations shared by the women for future action precede the implications for social change. The chapter will conclude with personal reflections, how participation in this inquiry affected my thoughts and preconceived notions of menopause for sedentary women, and my experience with the research process.

Interpretation of the Research Findings

Relationship of Study Findings to Previous Knowledge

As indicated in earlier chapters and supported by the literature review in chapter 2, very little qualitative research exists on the transition through menopause and no peer reviewed qualitative research papers were found on sedentary women transitioning through menopause. Quantitative studies conducted by Morris & Symonds (2004) and Singh et al. (2007) described hot flashes and night sweats as one of the first noticeable and most complained about vasomotor symptoms of menopause, accounting for the majority of women's visits to primary care practitioners. The women participating in this

current inquiry described similar vasomotor symptoms with many indicating hot flashes as the top identifiable characteristic of menopause and their number one complaint of their menopause transition. Pakzad et al., (2007) found that women participating in their research study demonstrated a frequent use of alternative therapies without disclosure to their primary care practitioners. The current group of sedentary women used a variety of alternative therapies and although the majority of their primary care practitioners were supportive, only a few participants discussed alternative therapies with their primary care practitioners prior to initiating use.

Hormone replacements remained a concern for women, with the majority of participants in this inquiry believing hormone therapy (HT) should be the last treatment option used to combat any negative characteristics of menopause. Many of the women felt comfortable using HT if their doctor had spent time explaining the risks and benefits of HT specifically for them and within the context of their family medical history. Similarly, Mishra et al., (2006) concluded that women's decisions regarding HT use related to their personal knowledge, the experiences of their family, and their primary care practitioners' preferences. Studies discovered during the literature review focusing on the relationship between aging and menopause concluded that women require information and support during the transition through menopause (Elston & Gabe, 2005; Mackey, 2007). Comments made during the interviews by the group of sedentary women participating in the current inquiry support the research findings, with all of them voicing the need for knowledge, family support, and professional guidance as they transitioned through menopause. Despite participants' individual choices, all were supportive of a

woman's right to choose her coping techniques and treatment options as she transitioned through menopause. One participant went as far as to describe a "sisterhood of menopause" stating if they were all going to go through this, they might as well share thoughts and experiences, and be supportive of one another.

The study of exercise and its impact on the transition through menopause is extensive and well documented in the literature. Overall, exercise has been associated with a reduction in the frequency and severity of menopausal symptoms; improved body mass index, bone mineral density, and muscle strength; and overall increased fitness levels of women transitioning through menopause (Madden, Levy, & Stratton, 2006, and Nassis & Geladas, 2003). Few women participating in the current inquiry showed any interest in increasing their physical activity levels despite acknowledging that it would be beneficial for them to do so. Sophia verbalized her thoughts well, "It comes and it goes. I've had this you know, love/hate affair with weight gain, for so many years that it's just [*laughs*] it comes and it goes, it goes and it comes, and it..." Olivia concurred, "I know I weigh too much, but I don't really care. My health is good, my cholesterol levels are fine, you know, no diabetes." A few of the women participating were experiencing physical health issues ranging from cancer to thyroid problems in addition to their menopause transition. None of the women expressed any connection between their health concerns, negative menopause symptoms, and their activity levels. Women were aware of the importance of physical activity and its impact on health; however none made this connection in their own lives, health, or their menopause transition; most women were happy and content with their physical health.

Research conducted by Vallance et al. (2010) further recommended the need for public health physical activity programs specifically designed for menopausal women as an important and effective way to ensure women remain physically active as they age. All of the participants in this inquiry desired to improve the lives of menopausal women through the sharing of their own experiences. While participants did not express a desire for physical activity programs, they did want information. Emma shared this desire, "What would have helped is, some information, like a very clear-cut information pamphlet about menopause. And not, and not uh, [*pauses*], just not technically all the medical stuff? But some of the clear-cut, everyday things of what to expect". Ava suggested information be placed in the workplace for easy access by women and the majority of participants felt the internet would be a great way to access local information about programs and services with Sophia summing things up beautifully with a smile on her face when she said, "women my age are getting pretty computer savvy". Madison supported the need for simple information "A little book that tells you, this is what it is, this is why it is, this is what you can expect. Just some helpful things, natural, or things [coping techniques] to go with it. That'd be awesome". These thoughts, supported by many of the participants, concurred with research findings of many studies; women require information and support during the transition through menopause (Elston & Gabe, 2005; Mackey, 2007). Despite this, very little printed or electronic educational information is available specifically aimed at sedentary women transitioning through menopause. Combining information, resources, programs, and services geared towards

menopause, aging, and healthy lifestyle choices creates the opportunity for sedentary women to make easier informed choices.

The sedentary women participating in this inquiry shared their menopausal experiences; their recommendations regarding menopause educational information required by all women; and supports required to assist women through this stage of life. These thoughts were very similar to thoughts shared by women who participated in previous research, to material found in popular literature, and to information located within electronic media sites. However, the majority of previous research was conducted without identifying women's activity levels or their activity level was not a criterion for participation in the previous studies. The essence of menopause derived from the experiences of this group of sedentary women adds to the body of existing knowledge on the menopausal transition. Knowing that sedentary women transitioning through menopause require a supportive environment to make healthy choices provides valuable information for women, their support networks and medical practitioners, and public health practitioners striving to improve outcomes for menopausal women. Despite their current physical activity level and a limited desire to increase this activity, sedentary women participating in this study desired to be treated, supported, and cared for like other women transitioning through menopause.

Study participants expressed the desire to access succinct information regarding menopause and the menopause transition via the Internet. Within the popular literature search, several on-line resources were found that addressed this need however, none of the study participants indicated awareness of these resources. The North American

Menopause Society provides several free publications available for reading on-line or in downloadable print format. Two publications, *Early Menopause Guidebook 6th Edition* (NAMS, 2006) and *Menopause Guidebook 6th Edition* (NAMS, 2006) are 72 and 64 pages in length respectively. Both guides cover specific menopause topics in detail, including menopause basics, the changing body, postmenopausal health, hormone therapy, achieving optimal health, and additional resources (NAMS, 2006). These two booklets provide desired information specifically mentioned by each study participant. Many of the women voiced hearing about popular menopause books and magazines through friends and colleagues. Several women indicated a wish for community primary care practitioners to have knowledge regarding popular menopausal information readily accessible to women. Some went on to indicate their desire for primary caregivers to distribute popular literature on menopause in their offices.

The Essence of Menopause for Sedentary Women

This inquiry set out to describe the essence of menopause for sedentary women by addressing the research questions. The revised conceptual framework depicted as Figure 3, visually represents the importance of various concepts affecting the participants' experiences of menopause. Themes generated from the data analysis remained similar to the concepts originally outlined in chapter 1; however, the participants mentioned and discussed a number of the themes more often and with varying levels of importance during their interviews. The larger and darker the circle, the more time and attention women collectively placed on this aspect of the menopause transition. The physical characteristics of menopause, sexuality and intimacy, medical support, and a woman's

social network were mentioned with a high level of importance by every women interviewed. As one moves around the Essence of Menopause circle clockwise, the themes received a decreasing amount of attention and focus from the women with the least amount of focus placed on lifestyle habits.

As indicated earlier, for this group of sedentary women menopause signaled a significant life change impacted by a number of internal and external forces over which they articulated limited control. How women reacted to this life change and their perceived lack of total control, determined whether they described their menopause experience as positive or negative.

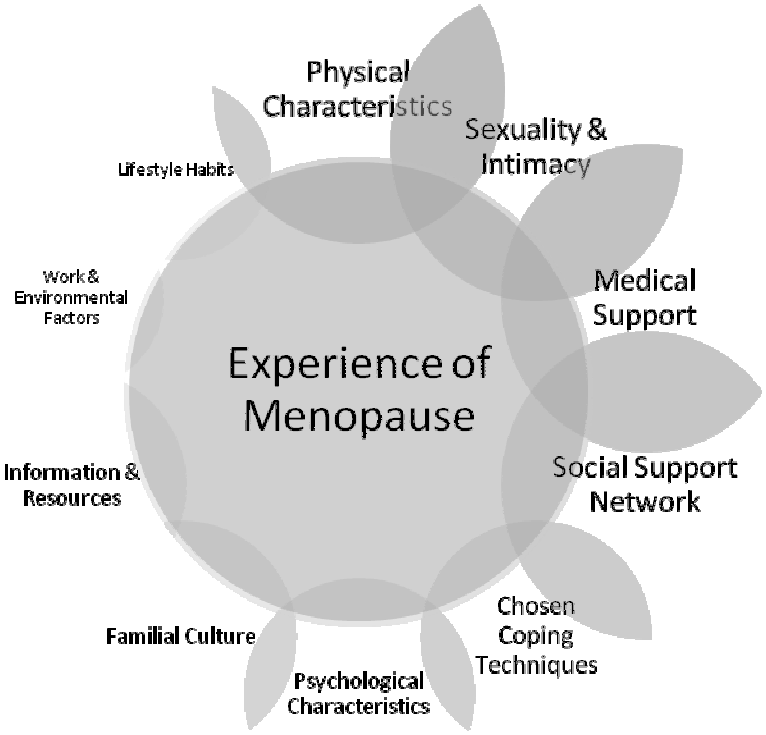

Figure 2: Revised conceptual framework.

For women like Ava, menopause was simply just a change she summarized as, “Change of life. Not in a negative way, or not in a positive way. It’s just a change.” For others, completing the transition through menopause was the start of something new, despite, as one woman described, “the roller coaster ride” of physical and emotional changes women experienced to get there. Women described menopause as the first step towards old age and while unavoidable, some women like Sophia were able to reframe the context of getting old, “Recognizing the fact that, I wasn’t dying. This is a natural progression in my life. It’s just another stage, this is not going to kill me, this just is”.

The menopause transition experiences of women participating in this study were at times varied and at other times, strikingly similar. While all women experienced physical and emotional changes during their transition, the changes varied in frequency and intensity. All women received support and guidance from significant people in their lives yet this support came from a wide variety of individuals and resource networks. Each woman talked freely about her chosen coping techniques, nevertheless these choices spanned from homeopathic remedies like black cohosh to strictly medical treatments such as hormone therapy. Perhaps the most significant observation from the interviews was the candidness of participants sharing their experiences with the researcher and the desire to support other women. Participants had the desire to increase their awareness and knowledge regarding the menopausal experience, to share their challenges and successes with the medical system, and to recommend potential resources and educational opportunities regarding the transition through menopause. Women wanted to share their experiences with other women while at the same time, receive support and guidance from

other women who were also transitioning through menopause. There was a desire for support in numbers with women feeling if more women were speaking openly about menopause, more opportunities would exist for aging women. In essence, menopause is unavoidable, and while each woman experiences menopause in her own unique way, together women can approach this life change together "in sisterhood" supporting each other in a collective way that improves health outcomes for all.

Limitations

As a phenomenological study, using one-on-one interviews as the method of inquiry, this study purposely used a small sample size. Women self-selected themselves as potential study participants. The inclusion criteria were self-reported, not requiring a medical diagnosis or validation of menopause through medical tests, further limiting the generalization of study findings. There are thousands of women transitioning through menopause within the identified study geographic area as evidenced by Statistics Canada (2009) reporting 16,595 women between the ages of 40 and 59 residing in the municipality. Many of these women will be transitioning through menopause, and many will be sedentary. However, as anticipated, not all women presented themselves as potential study participants. The participants in this inquiry were higher educated and employed at a greater rate than the average female within the municipality, further limiting the generalizability of the findings.

This inquiry focused on the transition through menopause of sedentary women, it did not view menopause through a socioeconomic lens nor did it delineate by race, culture, or sexual orientation and the impact these differences might potentially have a

woman's transition through menopause. The purpose of this inquiry was to gain an understanding of women's perceptions, thoughts, and meanings of the menopause transition for this group of sedentary women. Each participant expressed the desire to share their story so that other women approaching or transitioning through menopause might benefit from their knowledge and experience.

On a positive note, these limitations open up several possibilities for future research recommendations discussed later in this chapter. The opportunity exists for further targeted inquiry into the menopause transition including providing a forum for women further marginalized by factors such as economics, heredity, and lifestyle, to have their voices heard. Creating further discussion on menopause through research and inquiry benefits women, subsequently increasing the probability of positive social change.

Recommendations for Further Study

The findings resulting from this inquiry support the need for further qualitative research dedicated to menopause and aging women. Inquiry limitations identified earlier in this chapter support the need for further qualitative research on menopause from a variety of cultural, sexual orientation, and socioeconomic groups of sedentary women. It would be interesting and of benefit for the comprehensive development of supportive programs and services, to replicate this inquiry with physically active menopausal women or with women who have consciously changed their activity levels during their menopause transition. Whether women entered menopause naturally, surgically, or through chemical ways was not an exclusion criterion for this study. It may be of benefit

to assess these groups of women in separate inquiries as many women experiencing surgical and chemical menopause, transition through menopause outside of what has traditionally been viewed as a typical timeframe. Neighboring health units throughout the province often partner when developing educational campaigns and programs. Replicating this inquiry in a neighboring community would allow a greater number of women to voice their menopausal experiences, and increase the reach of study findings and the recommendations for action discussed in the next section. Discovering the essence of menopause for groups beyond sedentary women would increase positive social change and has the potential to augment the body of knowledge available regarding menopause with hopefully, a subsequent improvement in programs and services available throughout the community for menopausal women, their families, and support sources.

The participants of this inquiry were well aware of the importance of physical activity, healthy lifestyles, and the impact physical activity may have on their menopause transition. They have received my interpretation of their collective menopausal experience and have made several recommendations on how to improve the menopause transition for women in our community. It would now be interesting to assess their readiness to participate in an intervention study adding 30 minutes of mild to moderate physical activity, the amount of daily physical activity recommended by Health Canada (2010) for healthy adults, to their daily routine. Following a specific intervention time interval, the same questions used in this current inquiry would be asked to determine response changes following the introduction of physical activity into their daily lives.

Each factor identified in the proposed conceptual framework warrants time spent on further inquiry. Public health practitioners take pride in providing evidence–informed resources, programs, and services. More evidence-based interventions, specifically targeting menopausal women, ensure the delivery of programs and services designed specifically for menopausal women. With participants in this inquiry describing such varied relationships with local primary care practitioners, of particular interest is the use of alternative and complementary therapies and how this might impact the use of traditional health services within the medical model. It is worth mentioning that further inquiry into the impact of tobacco and dietary habits of sedentary women transitioning through menopause would further benefit public health program planning in the community. Finally, the study of community readiness for any policy level interventions supporting physical activity in the local community warrants further inquiry.

Recommendations for Action

The results of this inquiry, including the essence of menopause for this group of sedentary women, will be shared with community groups supporting and servicing menopausal women throughout the community. As a result of women sharing their desire for increased information, suggestions will be made to develop a number of educational materials, both web-based and in paper format. Discussion between community partners regarding the development and implementation of educational classes, programs, and activities such as “lunch and learn” sessions at area workplaces is encouraged and recommended. The participants desired a simple, easy to read pamphlet, absent of medical jargon, explaining what to expect during the menopause transition and

suggestions on how to cope with the characteristics of menopause they were experiencing. The women expressed the need to share their experiences with other women and, although peer support groups are not a public health role or function, the results of this inquiry will be shared with community groups providing this supportive function within the local community.

Significant effort will occur to connect with area primary care practitioners, family health teams, and community health centers. Primary care practitioners were expressed by every participant as a key support person during their menopause transition. However, despite a significant level of importance, many women expressed concerns over the lack of knowledge displayed by male primary care practitioners and the desire for all primary care practitioners to know more about menopause and what this transition means to women. Providing primary care practitioners with menopausal medical management techniques was not the focus of this inquiry or a desired outcome. However, the opportunity exists to inform area practitioners of the rich qualitative experiences shared by this group of menopausal women with the hope that a desire is generated within the primary care group to seek out educational experiences and share knowledge learned with their colleagues. Finally, attempts will be made to present the research findings at appropriate public health, healthy aging, and women's health educational sessions, workshops and conferences.

These recommendations for action all address increasing women's knowledge regarding the menopause transition and the knowledge of those in their circle of care. The recommendations do not address the sedentary lifestyles exhibited by this group of

women who so candidly shared their thoughts about weight, fitness, and activity levels. The following section addresses the issue at a community level; instead of attempting to focus on individual behavior and behavior change, recommendations aim to make changes in the community that make it easier and more desirable for individuals to be physically active.

Making Healthy Lifestyle Choices the Easy Choice for Menopausal Women

The Public Health Agency of Canada (2011) identifies physical inactivity as the most strongly associated factor linked to obesity at the population level. This continues to hold true even with adjusting and compensating for age, gender, other health behaviors, and social determinants of health like income and education. Being physically inactive impacts one's overall health and wellbeing. In fact, "physical activity has been shown to reduce the risk of many chronic conditions including coronary heart disease, stroke, hypertension, breast cancer, colon cancer, Type 2 diabetes, and osteoporosis" (Health Canada, 2010, para 4). The participants in this inquiry had very little desire to become physically active, a potential concern for local public health as 9 of the 13 women interviewed had self-reported BMIs in the overweight or obese category coupled with a community obesity prevalence rate of 23.7 % (Public Health Agency of Canada, 2011). Individual reasons for the participants' lack of desire to increase activity varied; however the majority of women interviewed were balancing aging; their career; homemaking; and caring for children, grandchildren, and/or aging parents, at the same time. This highlighted the fact that it has become imperative for public health professionals to

address both individual and societal factors that influence physical activity choices for women transitioning through menopause.

Public health practitioners need to make it easier for women to make healthy choices. This does not preclude personal responsibility and accountability, it simply supports the creation of an environment where it is easier to make a healthy choice and harder to make an unhealthy choice. Workplaces and their leaders have the power and influence to institute food, beverage, and activity policies for meetings, presentations, and conferences. If food served at meetings consists of fruit and vegetables instead of donuts and pastries, people will eat what is provided. If every meeting or conference has a component of physical activity worked into the event, most individuals will participate, and many will enjoy the energy gained during a long day at work. Several larger organizations in the municipality allow "walking meetings", providing the opportunity for employees to walk while talking and discussing issues of the day. Local governments can play a part in improving accessibility to physical activity. From the connectivity of sidewalks to smoke-free parks and bicycle trails, the possibility exists for change at the community policy level to make it easier for individuals to participate in physical activity.

Implications for Social Change

The implications for social change resulting from this inquiry begin with the potential to improve the menopausal transition for individual women in the community through shared experiences; a "sisterhood" of menopausal women as one participant so poignantly coined it. At the group level, the development of public health resources,

programs, and services, specifically targeted for menopausal women and their support systems, aim to increase the knowledge of women regarding their bodies and the changes women experience as they age. At the community level, positive social change occurs with municipal policy recommendations that create an environment where it is easier to make healthy choices including being physically active, eating well, and supporting improved access to medical care.

The purpose of this inquiry was to listen, and hear, the experiences of menopause from sedentary women. I believe it is essential to study the physical, psychological, and cultural aspects surrounding the transition through menopause to gain understanding into this important life event. It is also imperative to examine the coping techniques and social supports available, and how sedentary women used both during their transition through menopause. Successful transition through menopause will depend on a woman's overall health; the physical, emotional, and cultural aspects of menopause experienced; and her ability to buffer these experiences with coping techniques and support networks. This study provided a forum for women to share their thoughts and feelings regarding their menopause transition. Many of the participants expressed the desire to help other women through this sharing experience, while others simply felt relieved to talk openly about what they had been going through. They were generally impressed, and grateful, that somebody cared about their experiences of menopause. Any event or activity that has the potential to improve the lives of a specific group of individuals has the potential to result in positive social change. Without this body of knowledge and understanding, positive change for aging women will not easily occur and public health programs designed and

implemented to support aging women might not meet the intended goals or needs of participants.

One could debate whether sedentary, aging women are considered a marginalized group within the municipality. The participants in this inquiry expressed the desire to be recognized and heard by society, specifically by their primary care practitioners, employers, colleagues, and their community as a whole. The women believed that while things were improving, more needed to be done to have menopause discussed openly between genders, generations, and within the media. The women were also looking for accurate, evidence-based information to increase their personal knowledge regarding the transition through menopause as well as the knowledge of those within their support network and younger women approaching menopause. Through participation in this inquiry, participants wanted to improve the menopause transition for women they had never met.

However, to truly hope to improve the lives of women transitioning though menopause in a sustainable way, municipal policy recommendations making it easier for individuals, families, and communities to make healthy choices on a daily basis will improve the lives of menopausal women as well as those around them. It takes individuals and partnerships working towards improving the lives of people, the worth of organizations and communities, and the dignity of our human culture as a whole to elicit positive social change (Walden University, 2011). Public health in Ontario grounds itself in addressing the social determinants of health and reducing health inequities through the use of community engagement, multi-sectoral collaboration, support for healthy public

policy, and through health promotion, prevention, and protection activities (Ministry of Health and Long-Term Care, 2010). The World Health Organization notes that the health of individuals and communities goes beyond the responsibility of the health sector or the health of an individual, which is further supported by the WHO's launch of the age-friendly cities initiative, aimed at "creating urban environments that allow older people to remain active and healthy" (WHO, 2010, para 1). By participating in this inquiry, this group of sedentary women has the potential to improve the lives of women throughout their community. Using the results of this inquiry to support policy change at a community level increases the likelihood of positive social change.

Reflections of the Researcher

As a physically active older woman who transitioned through menopause without any of the significant characteristics of menopause other than cessation of menses, this inquiry was more rewarding and knowledge enhancing than anticipated. Meeting this group of sedentary women and listening to them share their menopause transition stories with such candor, eloquence, and passion was at times mesmerizing. The desire of the participants to improve programs and services, and increase knowledge regarding menopause for future generations of women was also not expected. Observing the positive impact the participants had on my research assistant, a young female in the midst of her childbearing years, only highlighted the significance of why participants desired to share their stories.

The personal impact of this inquiry has increased the desire to expand my research activities on menopause beyond sedentary women within the community. There

are so many women of menopausal age living in the municipality with varied cultural backgrounds, socioeconomic status, education levels, and lifestyle choices, all with a potentially unique story about menopause. While many women will transition through menopause quietly not wanting to disclose their experiences, the number of women wishing to participate in this current inquiry, despite not meeting inclusion criteria, leads me to believe that many more women long for a listening ear. I have the desire to be that sounding board, to document the essence of menopause for other groups of aging women.

Summary

This inquiry successfully addressed the study questions: How do sedentary women experience menopause? What does the transition through menopause mean to them? Participants came forward and shared their experience of menopause with candor and emotion. The essence of menopause for this group of women supported existing research findings but more importantly, identified opportunities for further research. Recommended actions for the community, including activities for health professionals and organizations catering to menopausal women were spawned from the study conclusions. The women generated positive social change by sharing their stories and allowing their voices to be heard through their desire to help younger women approaching the menopause transition. Caring communities create environments where citizens feel valued and supported throughout their lives including making it easier for citizens to make healthy choices. Further recommendations for policy changes at the municipal level add to the sustainability of conceivable change and positive social outcomes for all women living in this small rural community in Canada.

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Appendix A: Sample Information and Support Letters

Date

Primary Care Practitioner
Street.
City, ON
Postal Code

Primary Care Practitioner,

I am a graduate student at Walden University completing my Doctoral Degree in Public Health. Walden University provides a diverse community of career professionals with the opportunity to transform themselves as scholar-professionals so that they may transform society. As a Walden University student, I take pride in supporting Walden's mission by promoting the worth, dignity, and development of individuals and communities. To satisfy requirements for my dissertation, I am conducting a phenomenological inquiry into the experiences of sedentary menopausal women.

The transition through menopause is different for every woman. For some, the transition is uneventful; for others, the experience brings memories women would rather forget. Their experiences are important in advancing the care health professionals impart. A sedentary lifestyle also affects the health of aging women, increasing their chance of suffering from a chronic illness. Menopause research helps women and their families. It benefits the medical practitioners who care for them throughout this tumultuous life stage. Finally, it provides valuable information to support public health programs and services for aging women in our community.

I am requesting your assistance in recruiting potential participants for this important inquiry by posting an information flyer in your office. There is no further action required by you. Women who meet the study inclusion criteria will complete a short demographic questionnaire and an interview with me as the primary researcher. As a token of appreciation, women will receive a $10.00 gift card.

I have enclosed a study information sheet, a sample information flyer, and a sample return cooperation letter as required for ethics approval. If you have any questions regarding the study, require additional copies of the information flyer once the study is underway, or would like a summary of the research findings please feel free to email or contact me at the numbers below. At your earliest convenience, please return a letter of cooperation on your business letterhead, in the self addressed envelope provided. The ethics review process requires copies of cooperation letters from all participating partners. After ethics approval, I will forward posters for posting.

With appreciation,

April Rietdyk RN, BScN, MHS
Contact information redacted

Information Sheet
The experience of menopause: voices of sedentary women

A phenomenological study by April Rietdyk RN, BScN, MHS
a graduate student working on her doctoral degree in public health.

Background Information

- In North America, the potential now exists for women to live almost half of their life after the transition through menopause
- At least 77% of Canadian women, over 45 years of age, indicate they suffer from a chronic disease that affects their quality of life
- Sedentary women, by virtue of their physical inactivity, increase their risk for chronic diseases
- This risk, coupled with aging and any health changes resulting from menopause, creates a group of women potentially at risk of poorer health outcomes than their younger, physically active counterparts
- Women can remain healthy throughout the aging process, healthy aging is not dependent just on genetics

Problem Statement

- The problem this study addresses is that although there is copious quantitative menopausal research and modest qualitative research on the experience of menopause, there is a negligible amount of inquiry that focuses on how sedentary women experience the transition through menopause
- Until sedentary women have the opportunity to share their thoughts and experiences of their menopause transition primary care practitioners, public health professionals, and a woman's circle of support are unable to encourage healthy lifestyle changes

Research Questions

- How do sedentary women experience menopause?
- What does the transition through menopause mean to them?

What the Literature Affirms

- Physicians are the most common source of information regarding menopause
- Alternative therapy use through the menopause transition tended to be in younger, more educated women, and those exhibiting physical symptoms

- women's decisions regarding hormone therapy use related to their personal knowledge, the experiences of their family, and their primary care practitioner's preferences
- Despite the evidence available, well educated women tended to weigh the benefits of symptom control over the slight increase in risk from hormone therapy
- overall, exercise has been associated with a reduction in the frequency and severity of menopausal symptoms; improved body mass index, bone mineral density, and muscle strength; and overall increased fitness levels of women transitioning through menopause

Despite copious amounts of available literature on menopause, popular and research-based, and literature on the importance of physical activity throughout the lifespan, little information is available specifically addressing sedentary women's questions, concerns, and experiences regarding the transition through menopause.

Why Conduct a Phenomenological Study?

The inquiry aims to uncover the experience of menopause as it is lived by the women experiencing it, thus making the many invisible aspects of menopause visible. The research questions are seeking information with the hopes of creating a view of menopause greater than what is currently apparent.

Target Population

- A homogeneous purposeful sample will assist in recruiting participants with the knowledge and experiences required to address the research questions
- Inclusion criteria – women:
    - between the ages of 40 and 60 years
    - with an understanding of the English language
    - who describe themselves as sedentary or not physically active
    - with fluctuations in their menstrual cycle
    - with one or more signs of menopause (hot flashes, night sweats, vaginal dryness, etc.)
    - who live in their own residence – not a group or long-term care home

Data Collection

- Consenting women will complete a demographic questionnaire and a one-on-one interview with the researcher. All information will be kept confidential, no names will be attached to individual data files. Management of the data will include the

assignment of codes to demographic questionnaires, interview observation notes, and the verbatim transcription of audio taped interviews.

- Secure transport and storage of all paper and electronic data files is maintained through encrypted systems and locked storage files
- The Walden University Institutional Review Board will complete an ethic's review prior to commencement of data collection

Dissemination of Results

- All community stakeholders will receive a copy of the study results. As well, each participant will receive a summary of the study findings, to ensure the researcher's conclusions are a correct interpretation of their collective thoughts and feelings

SAMPLE

Letter of Cooperation

Date

RE: The experience of menopause: voices of sedentary women

A phenomenological study by April Rietdyk RN, BScN, MHS a graduate student working on her doctoral degree in public health with Walden University.

Dear Ms. Rietdyk,

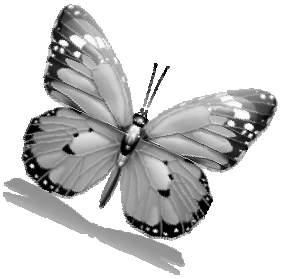
Based on my review of your research information, I give permission for you to supply our office with recruitment posters and flyers for the study **"The experience of menopause: voices of sedentary women"**. Individuals' participation will be voluntary and at their own discretion. I understand there are no identifiers within the study scope that link women to our office. We reserve the right to withdraw from our involvement at any time if circumstances change in our organization.

I confirm that I have authorization to approve research participation in this setting. I understand that the data collected will remain entirely confidential and will not be provided to anyone outside of the research team without permission from the Walden University Institutional Review Board.

Sincerely,

Name
Contact Information

Date



Primary Care Practitioner
Address
City, ON
Postal Code

RE: The experience of menopause: voices of sedentary women

A phenomenological study by April Rietdyk RN, BScN, MHS a graduate student working on her doctoral degree in public health with Walden University.

Primary Care Practitioner,

Thank you for agreeing to display information posters on my menopause transition research. I have received approval from Walden University's Internal Review Board and can now begin recruiting women to share their experiences of menopause.

Enclosed are two posters with tear offs to display in your office as well as some information flyers for women who want a bit more information.

I will forward a summary of my research findings once I receive final approval from the university.

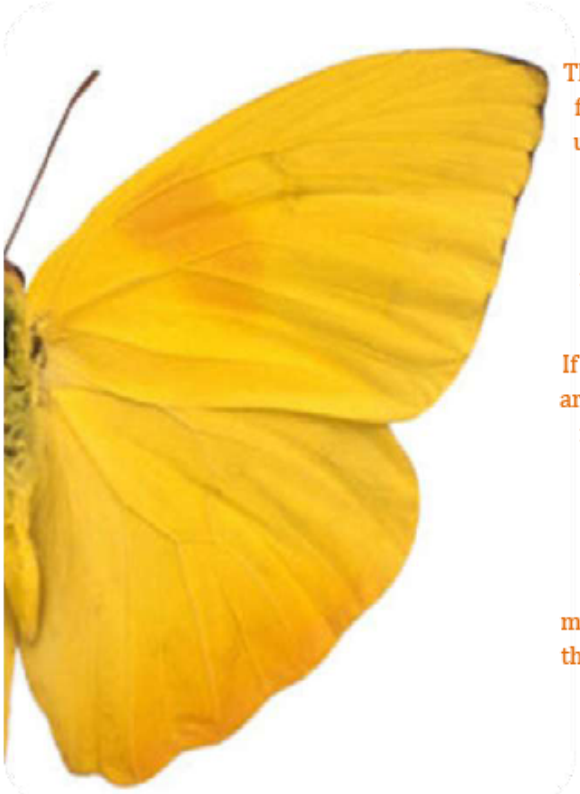
Thanks again,

April Rietdyk RN, BScN, MHS
Contact information redacted

Appendix B: Recruitment Poster

Menopause Happens

You're Invited to Share Your Story



The transition through menopause is different for every woman. For some, the transition is uneventful; for others, the experience brings memories they would rather forget. However, your experiences are important. Menopause research helps women, their families, and the medical practitioners who care for them.

If you are between the ages of 40-60 years and are experiencing symptoms of menopause, this is an invitation to share your thoughts with April Rietdyk a PhD student from Walden University.

The study focuses on women and the experience of their transition through menopause. Participation in the study involves the completion of a short questionnaire and an interview with the researcher. To find out more please contact April.

519-352-7270 Ext. 2400
aprilr@chatham-kent.ca

April Rietdyk
519-352-7270 Ext. 2400
aprilr@chatham-kent.ca

Appendix C: Informed Consent Form

The experience of menopause: voices of sedentary women

Informed Consent Form

You are invited to take part in a research study on how sedentary women experience the change of menopause. You were chosen for the study because you are between 40 and 60 years of age, describe yourself as inactive on most days of the week, and have experienced a difference in your menstrual cycle. You also are experiencing one or more symptoms of menopause like hot flashes, sleep disturbances, headaches, memory and concentration changes, depression, mood swings, vaginal dryness, sexual libido changes, urinary incontinence, skin, hair and dental changes, or weight gain. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

A researcher named April Rietdyk, who is a doctoral student at Walden University, is conducting this study. April lives and works in Chatham-Kent; this research completes the requirements for her Doctoral Degree in Public Health. April receives no financial compensation or professional advancement because of your participation in this research inquiry.

Background Information
The purpose of this study is to understand the experiences of sedentary women as they transition through menopause. Information from the experiences will help women and their doctors during this important life change. The experiences of women will eventually help improve programs and services available in the community so women stay as healthy and happy as possible during the transition through menopause.

Procedures:
If you agree to be in this study, you will be asked to:

- Complete a demographic questionnaire about yourself
- Participate in an audio-taped face-to-face interview (approximately 1-2 hours) with the researcher and a research assistant
- Read a summary of the research findings to ensure the researcher has captured your experience of menopause correctly

Voluntary Nature of the Study
Your participation in this study is voluntary. The researcher will respect your decision of whether or not you want to be in the study. If you decide to join the study now, you can still change your mind during the study. If you feel stressed during the interview, you may stop at any time. You may skip any questions that you feel are too personal.

Risks and Benefits of Being in the Study
Risks of participation in this study are low. The potential exists for other women from your physician or nurse practitioner's office, community group, or workplace to be a participant; your paths may cross in the reception area while waiting for your personal interview. The transition through menopause is very personal and you will be asked to discuss your experiences of this transition with the researcher. The benefit of participation in this study is the opportunity to provide information about your transition through menopause that will eventually assist women approaching menopause and their caregivers assisting them through this life event.

Compensation
As a token of thanks for participating in this study, you will receive a $10.00 gift card from a local bookstore. This gift is yours to keep even if you decide to withdraw from the study during or after your interview.

Confidentiality
Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

Contacts and Questions
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via 519-352-7270 extension 2400 or aprilr@cogeco.ca. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is **07-26-10-0338543** and it expires on **July 25, 2011.**
I will give you a copy of this form to keep.

Statement of Consent

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I am agreeing to the terms described above.

Printed Name of Participant: _____
Date of Consent: _____
Participant's Signature: _____
Researcher's Signature: _____

Appendix D: Demographic Questionnaire

The experience of menopause: voices of sedentary menopausal women	
Demographic questionnaire	
The following questions provide basic demographic about you. The information is confidential; it will allow the researcher to describe women participating in this inquiry. The description will be in group format only, you will not be reported on individually.	
Date:	
First Name:	
Phone Number:	
Birth Date:	
Marital status:	**Height and Weight:**
□ Single □ Married □ Separated/Divorced □ Widowed □ Committed relationship	_____ feet _____ inches OR _____ centimeters _____ pounds OR _____ kilograms
Employment status:	**Education Level**
□ Working full-time □ Working part-time □ Unemployed by choice □ Unemployed and looking for work □ Retired □ Disability	□ grade school □ high school □ some college/university □ college diploma □ bachelor's degree □ master's degree □ doctoral degree □ other
Ethnic/cultural background:	**Menopausal History:**
Check the box that most reflects your ethnic/cultural background □ White/Caucasian □ Black □ Chinese □ Filipino □ Japanese □ Korean □ Latin American □ First Nations/Aboriginal	Are you? □ premenopausal (having regular periods) □ perimenopausal (changes to periods but have not gone 12 months without a period) □ postmenopausal (after menopause) If you are menopausal, was your menopause □ Spontaneous or natural □ Surgical (hysterectomy and/or removal of ovaries)

□ South Asian □ Southeast Asian □ West Asian □ Multiple ethnic backgrounds	□ Chemotherapy or radiation induced

Appendix E: Interview Questions

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
1. Would you tell me what the word menopause means to you? a. What have you heard about menopause from others? In your opinion, how true or realistic are these things? b. Where (or from whom) have you received information about menopause?	X	X	X	X	X	X
2. Would you describe how other women in your life have expressed their experience or thoughts of menopause? Did this have any influence on how you approached menopause?	X	X				
3. What was the first thing you noticed that made you think you might be getting close to menopause? a. How did you feel	X	X	X	X		X

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
physically when you realized you were entering menopause? What physical changes have you experienced? If you experienced no physical changes, did this surprise you? b. How did you respond to these physical changes? c. As you progressed through menopause, did these physical changes change? If so, how?						
4. How did you feel emotionally when you realized you were entering menopause? What emotional symptoms have you experienced? a. How did you respond to these emotional changes? If you experienced no emotional changes, did this	X	X	X	X		X

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
surprise you? b. As you progressed through menopause, did these emotional changes change? If so, how?						
5. Did you seek medical follow-up to address your menopausal symptoms or help you cope with them? a. What guidance or medical advice received was helpful as you transitioned through menopause? b. How do you feel about the follow-up received?	X			X	X	X
6. Did you seek advice from a friend or family member regarding how to cope with your menopausal symptoms? a. How did the advice received from your family and friends compare to the advice received from health care	X			X	X	X

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
professionals? b. What, if any, of this advice did you follow while transitioning through menopause?						
7. Would you describe each of the things (medical interventions, alternative therapies, coping techniques) you have tried to help alleviate or improve each the menopausal changes you have experienced? (Think back to the physical and emotional changes identified in earlier questions) a. What techniques have worked best for you to decrease the negative symptoms of menopause? b. What techniques have not helped during your menopausal transition? c. What, if anything, influenced your decision regarding			X	X	X	

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
your choice of treatments or coping techniques?						
8. How supportive have your immediate family members (partner or children) been during your transition through menopause? a. How did they show this support? What kinds of things did they do? b. Have they been supportive of your choice of treatments and coping techniques?	X	X	X	X	X	X
9. Is there anything about transitioning through menopause you wish you could share with other women? a. Have you provided information and advice to other menopausal women? If yes, how and what types of things did you share with them?	X	X				

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
b. Have you provided information or advice to young women, (a daughter, niece etc.) not yet experiencing menopause. How was their reaction to this advice?						
10. When thinking about your menopause transition so far, what information or resources would be helpful to improve your menopausal experience? (resources could be written, group programs, internet based, etc)	X	X				
11. Has your experience of menopause been better, worse, or about the same as you expected? a. Is there anything you wish you would have known about menopause before you experienced it?	X	X				
12. Is there anything else about your experience of menopause you would	X	X	X	X	X	X

	Research Questions	Research Sub-Questions				
Interview Questions	**"How do sedentary women experience menopause?" and "What does the transition through menopause mean to them?"**	**How do sedentary women feel about menopause? Did their attitudes towards menopause change during the menopause transition?**	**What signs and symptoms of menopause do sedentary women experience? Physically Emotionally Cognitively**	**What are the chosen coping techniques of sedentary menopausal women as they transition through menopause?**	**How does the use of hormone therapy by sedentary women affect their experience of menopause?**	**Whom do sedentary women turn to for support during their transition through menopause?**
like to share with me?						

Appendix F: Audit Trail

This audit trail strategy represents the data collection and analysis steps for this phenomenological study on sedentary women's transition through menopause.

Collection of Data

Participant Recruitment

- Primary care practitioners within the community receive information detailing the study and are encouraged to provide potential participants with study information
- Information posters and flyers describing the study and inviting women to participate are distributed, throughout the community, in areas and venues sedentary women visit (primary care practitioners, malls, grocery stores, pharmacies, workplaces, hospitals, and clinics)

Organization & Primary Care Giver Recruitment Assistance			
Cooperation Letters Mailed	Agency/Professional	Cooperation Letters Received	Flyers Provided Following IRB Approval
June 7, 2010	Municipality Government	June 4, 2010	August 5, 2010 (Electronic Version)
June 7, 2010	Community Hospital	July 9, 2010	August 9, 2010 (25 Color posters)
June 7, 2010	Boards of Education	June 15, 2010 July 10, 2010	Paper and electronic versions sent August 1, 2010
June 7, 2010	Largest local employer	June 23, 2010	August 1, 2010 (Electronic Version)
June 7, 2010	35 Primary Care (physician) Offices 3 Community Medical Clinics (Nurse practitioner, Family Health Teams)	3 returned undeliverable 4 Physicians and 3 Community Clinics (June 16 to June 28, 2010)	August 9, 2010 Paper posters sent

Community Poster Distribution/Advertising (Public Places)		
Agency/Location	Media	Date
Daily Newspaper and Community Affiliates	¼ page paid advertising (Recruitment Poster) in 5 community newspapers	Week of August 14, 2010
Pharmacies Public Libraries Grocery stores Community Mall	Recruitment Posters	Week of August 21, 2010
Community Mail/Postboxes	Recruitment Posters	Week of August 28, 2010

Inclusion Screening Interviews
Potential participants are screened by telephone to ensure they meet study inclusion criteria

- 42 potential participants contacted researcher
- 16 women screened into study, 13 interviews completed, 1 unsure & never contacted researcher - no return number provided, 1 past interview dates, 1 no show & unable to reschedule (participant going on vacation)
- 21 excluded, 13 for physical activity level, 1 for over age criteria, 7 known to researcher
- 5 women – unable to contact despite numerous attempts

One-on-One Interviews

- Participants meeting inclusion criteria are interviewed at a time and location mutually agreed to by both parties; interviews are documented for audit purposes according to name, date, time, and interview location
- Participants complete an informed consent and demographic questionnaire with the researcher prior to start of one-on-one interview
- Each participant is asked the same core set of questions with additional supporting questions (as indicated in the Interview Questionnaire) if required to ensure data saturation
- Interviews are audio-taped and transcribed word-for-word by the research assistant
- Interview observations, documented by the research assistant are paired with the interview transcripts

- Field notes are made by the researcher following each interview to document the thoughts, feelings, and observations of the researcher

Name (pseudonym)	Inclusion Interview Date	One-on-One Interview Date	Transcription Completed	Location
Grace	August 16, 2010	August 17, 2010	Sept 1, 2010	Centre for Community Services
Emma	August 17, 2010	August 19, 2010	Sept 12, 2010	
Olivia	August 16, 2010	August 19, 2010	August 30, 2010	
Ava	August 19, 2010	August 25, 2010	Sept 11, 2010	
Emily	August 19, 2010	August 25, 2010	Sept 17, 2010	
Isabella	August 24, 2010	August 25, 2010	Sept 13, 2010	
Sarah	Sept 8, 2010	Sept 8, 2010	Sept 19, 2010	
Abigail	Sept 8, 2010	Sept 9, 2010	Sept 20, 2010	
Hanna	Sept 7, 2010	Sept 10, 2010	Sept 21, 2010	
Sophia	Sept 7, 2010	Sept 13, 2010	Sept 21, 2010	
Madison	Sept 21, 2010	Sept 24, 2010	Sept 30, 2010	
Ella	Sept 21, 2010	Oct 6, 2010	Oct 18, 2010	
Julia	Sept 21, 2010	Oct 6, 2010	Oct 18, 2010	

Analysis

Interview Audiotapes

- Interviews are transcribed by the research assistant; timeline as indicated above

Interview Transcripts

- Transcripts are read completely through twice by the researcher prior to any marking, coding, or identification of significant statements

Analysis of data

- Open coding is followed by reduction or grouping of coding into significant meaning units
- NVivo 9 computer program used for coding and thematic grouping

Interview observational notes

- Reviewed and linked to interviews
- Observational themes
    - Body language
    - Voice
    - Body Image
    - Overall behavior
    - Interview summary points

Interpretation of Data

- Researcher documents preconceived thoughts and feelings regarding the menopause transition
- Meaning units illuminating the phenomenon of menopause are grouped into themes and redundant units discarded
- Finally, general themes from are grouped together to form the essence or meaning of the phenomenon under study

Summary data electronically mailed to participants to ensure experiences are captured in the evolving essence of menopause

- The researcher's interpretation of the essence of menopause sent electronically to participants the second week of January 2011.
- Requested response with questions, concerns, or additional thoughts and feelings by February 15, 2011.
- Two emails bounced back noted as undeliverable
- Ten participants responded back with support and comments regarding the interpretation of the essence of menopause

Appendix G: Verbatim Interview Transcript

Emma [pseudonym]

August 19, 2010
5:00 pm-5:45 pm
Transcription completed September 12, 2010

Interviewer [I]
Participant [P]
Recorder [R]

I: Thanks for coming by and taking the time to share your story about menopause. Part of this research is to allow women to share that menopause transition, and in all of my work in preparing to do my doctorate, there is very little research that has been done where women just talk about menopause.

P: Exactly.

I: So, this is your opportunity to share your story and tell us some of your thoughts. So, when you think of the word menopause, what does that mean to you?

P: When I think of the word menopause, I think that is the, the, the end of a stage where you are very mature and you don't have to go through that monthly ritual. Which, you know when you were 14 or 13, you couldn't wait for it!
Laughter
P: But when you, when you've gone through that for 44 years, you're thinking, what was I thinking back then!
Laughter
P: It's just um. But it's just, to me, it's a new stage. I think menopause is just mature.

I: Ok.

P: But I think, I think you're absolutely right. There isn't a lot of material out there. And that's one thing I think, mothers and grandmothers, it's just a cloak of silence. No one says, no one gives you a target date where you should be experiencing this, it's all on your own. And if you go on the internet well then that just scares the hell out of you! So.

I: Sure, and that was leading into my next question, which is, what have you heard? Or when thinking about getting ready, or as you, as years went by and you got a bit older, what did you hear from the people around you?

P: What you heard was normally hot flashes. And I myself am normally a cold person, on a good day. I always had extra sweaters on. And I always said, oh I can't wait to have one of those hot flashes! Let me tell you, be careful what you wish for!
Laughter
P: Because, I uh, staged my menopause by names. Perry is peri menopause, so I call him Perry. Perry wasn't bad, Perry moved in. Perry gave you, you know, the occasional tropical moment, wasn't too bad. Could handle Perry because being cold on an average day, you kind of liked the little tropical moment.

I: Yes.

P: Except when Mary, Mary menopause, moved in, don't quite like her. Want her to pack her bags and move one because we're talking major hot flashes. And that is one thing; I have some older girlfriends who say, "oh it won't be bad, like you just get hot. And sometimes you get flushed." Well they don't tell you about the night sweats. They don't tell you about not being able to sleep. They, and that's the whole thing, they just don't share any of that. And when I seen *[sic]* this [the study] on the internet, I though obviously you are trying to reach out and gather information. So I though, if I can help, though I'm probably just like everybody else who's walked through and, little bits of stories the same.

I: Yes, for sure.

P: But there's nothing concrete that you can really…

I: No, and there's women sharing with other women in terms of trying to get that message out there.

P: Yes, right.

I: So if you think back, who would you have received the most amount of information about menopause from?

P: From my girlfriends.

I: Girlfriends?

P: Yup.

I: And so like you said, they talked like it wouldn't be that bad.

P: Yes.

I: And for you it was probably greater than what you had anticipated.

P: I had no idea. Like, when they were saying you have like, they were saying a couple of hot flashes a night. So I'm thinking, two to three, right? So I'm thinking, oh that's not too bad, because you're anticipating. But then once you start having the hot flash, the night sweats at night, but when you're getting 8 to 10 in one night? It's just, and there's no sleep.

I: Yeah.

P: And you just. And I'm a very happy-go-lucky person. So, it's a good think that I am a happy person, otherwise I think I could have been really nasty! *[laughs]*

I: It's that fatigue, hey? That set in from no sleep the next day.

P: Yeah.

I: You're overwhelmed.

P: You are, you're just dragging yourself.

I: Did, once you knew you were in peri menopause, you were approaching menopause, did you talk to some other significant people? Is your mother still alive or your mother-in-law? Anybody in terms of how they experienced menopause?

P: Um, not really my mum. My mum doesn't, she still doesn't really talk about that sort of stuff.

I: She doesn't talk about that stuff?

P: She's just the, very old school, little Italian mamma that's just, you find out on your own or just *[whispers]* oh you shouldn't talk about that. But then she gets in that whisper, it's like if you're the only two people in the room, no one else can hear the secret!
Laughter
P; So, she kind of whispers that so. But um, when I was experiencing, what I thought was peri, when Perry moved in, I went to the doctor, and I have a very great family doctor. And her name is [*name redacted*]. And she just tells you flat out, like she's very honest and that's what I love about her. She doesn't cover coat it.

I: Right.

P: And she said, "well we'll take a blood test see if really, because well you can't be. There's no way [*name redacted*] you're 46, there's no way, I'm just telling you!" I'm telling you; he's moved in! So we did the blood test, and she called me back in. She

said, well, the next couple years are going to be really good for you, but she said, after that she said, you're going to have to come back and see me. And I said, well probably not, because I only see you once a year and I like to do all natural stuff. And she said, trust me honey, you'll be back!
Laughter
P: Well, she was absolutely right. But it's just, you don't, you know there's nothing out there. You can go on the internet, but when you read stuff on the internet, it doesn't give you clear, concise, and there's so many variables.

I: Yeah.

P: As to what you could be, so how do you pinpoint? And of course I'm the type of person I've worked in law my whole life, so I'm all about the facts. Like I want to know the who, what, where and whys. And you just can't find it. And even when you read a book about menopause, it's not, it's not descriptive?

I: Yeah.

P: And direct.

I: I know, it is frustrating.

P: It is, it is.

I: In terms of trying to get that information.

I: So thinking about all you've been through, what are some of those physical kinds of signs of menopause, or those physical changes that you experienced?

P: I think the first and foremost is, your sleeping habits do change.

I: Right.

P: They really do. I haven't, I've been very fortunate. My one girlfriend has gone through, she's had a lot of physical, like physical changes where her hair was starting to really thin. And she got um, she got like some skin blotches, blotches on her skin and things like that. I've been very fortunate that I haven't had any of that, but my main thing was fatigue. And that is about the only major thing I can say that I've had.

I: Do you think that's from the hot flash/night sweats in terms of fatigue?

P: Yes.

I: Has anything changed as you went through peri, through menopause, coming through that kind of menopause transition, in terms of physical symptoms? Anything you've noticed that' more, less, greater, increased, decreased? Any physical things?

P: Not really. I, um, I, I'm not into that "E" word, I hate to say that word, because if I say that, I'd have to wash my mouth out with chocolate! So I really don't want to say that "E" word!
Laughter

P: But what I do, I do a lot of stuff for fun. But I haven't, I just find sometimes when you're walking maybe you do get a little bit more tired. But other than that, if I do anything I do it for fun. Like, for me to get on a treadmill, that, that is not fun.

I: Ok.

P: No, but I think. Just, just, just fatigue.

I: What about emotional symptoms? Anything that you've noticed whether, a lot of women talk about concentration changes, memory changes, the kind of moodiness or, even bitchiness kind of things we've heard them talk about.

P: Yeah, yeah. I'm very, um in part, I'm very fortunate because I am quite a little happy camper, which I think my husband is also happy that I am a happy camper! But certainly when I was having, for the 8 months I was having my major hot, hot sweat, I did have brain fog. It got the point where, I worked with a girls, and we were out a tractor pull, and she come up [sic] to me, and I couldn't even think of her name to introduce her to my husband! And I can remember like, dates and everything! And it was at that moment, after she left; I said to him, I can't remember her name. I cannot remember her name! And he said to me, well you're so tired don't be so hard on yourself. And I said, that's awful she works downstairs and I can't even remember her name. And it was at that moment that I realized, oh my god, I'm suffering from brain fog! At least, that's what I call it. I don't know if that's a term, but in my world, that's what I call it!
Laughter

P: And I think other than the fatigue and brain fog, I did experience that for about 8 months, but I was having major night sweats.

I: Right, so some of the fatigue, and all of those things just kind of compound.

P: Yeah, yeah.

I: And make us feel for sure not like ourselves.

P: Yeah. And I had, because I had been tired, I had asked my children too, I said, have I, have I been short or anything? They said no but, they said you're just not your usual over-the-top self. So, I think I must have been kind of draggy.

I: Yeah, sure.

P: Dragging a wagon or something but, yeah.

I: So you've talked about going to Dr.[*name redacted*], what kind of guidance or medical advice did you get from her, other than to coming back in that time, or what was her kind of…

P: *[cutting in]* Well, she said, of course different people go through menopause, it hits, it'll hit them at different stages and that. And when she was explaining these night sweats, I just though oh a couple. I thought peri can't be bad because Perry just sent, you know, the tropical moments and you're ok. Had no idea what Mary was bringing, but she [my doctor] said, oh but it'll get bad, it may get worse and you'll have to come and see me and we'll put you on HRT [hormone replacement therapy], and I said no. That will not happen. And she said no honey, I think it might. She said. You know, you've had a very easy go and I've been very fortunate through my health, and I had two children, no pain.

I: Wow.

P: Yes, so I think Dr. [*name redacted*] was kind of hoping for a bad menopause!
Laughing

P: I'll show her!
Laughter, chatter.

P: And she's brutally honest, she said, oh no honey, you'll be back. And sure enough, she was. But we had about um, hormonal replacement because I wasn't sleeping and that. And I said, I'm not ready for that. I'm going to try my um, other avenues. So um, my sister [*name redacted*] she had uh, this seed thing that you grind seeds on the half moon and full moon. You have to do pumpkin and sesame seeds on, on, at the new for two, three weeks. And then at the full moon you have to do flax seeds and um…maybe pumpkin seeds again. Well, I did that for two months and ok I have to tell you, I don't want to see a pumpkin seed or a sesame seed ever again.

I: Ok, what do you do with them?

P: You grind them and you eat them, in like, yogurt?

I: Wow.

P: And it, it's supposed to be a natural, natural oil or omega three, and omega three is supposed to be good for menopause. What worked for [*sister, name redacted*] however, did not work for me. So then, I was complaining again, so she said, go to the health-food store. Go to the health-food store, and they said oh, well you need black cohosh. So, I tried black cohosh for a month. Let me tell you, that didn't work. They said, oh well you need Evening of Primrose. So I tried that for a month, because I though, ok after four weeks you should be seeing a bit of an improvement. Well I had, I did not. So I tried that. So then one of my other girlfriends said, well you should have acupuncture. Well, I don't do needle but I even, I went for acupuncture. I went in to see the gentlemen and I said, is there any way you can just do the medical herb with no needles? He said, no I have to do acupuncture, I said well how many are we talking? He said 8, I said can you get it down to four, because I could do four, I could zone myself out for four. So I did acupuncture for a month; it did not help. It did not help. And I was on a Chinese herb called Temper Fire, very, very appropriate for hot flashes I thought.
Temper…Fire…very appropriate. But that did not work. So after about 8 months of me trying all natural stuff, and still not sleeping. And just tired of constantly changing sheets, nightgowns, sleeping on towels. It just got to the point where I had to go see my friendly family doctor. So yes.
Laughter

I: So back in to Dr. [*name redacted*].

P: Yes! So, of course you're sitting in the room and she comes in, puts her hands on her hips and says, I told you you'd be back!
Laughter
P: It's like, yes honey, I'm here! So, since July the 6th, I have been on hormone replacement and I am down to one major hot flash a night, which is a major improvement. And she anticipates that probably within the next two months that probably I should be down to nothing, once it gets into my system. Didn't really want to go with the synthetic, but, because I'm kind of an all-natural, high-test kind of girl. Because I don't any diet or stuff, and I wanted to do it all-natural but it was not working for me. And I did try, I tried everything and even the acupuncture. I was, I was hyperventilating!
Laughter
P: And I was trying, and one time I had to sneeze and I thought, whoa! Because your instant reaction when you go to sneeze is to cover your wee mouth! So I thought, oh my god, do I sneeze and pass out or do I just sneeze into the air? So I'm kind of like *[puffs*], I'm sneezing into my shoulder!

I: Oh no!

P: And I though, and that was about on my fourth week. I was lying there and I thought, why am I doing this to myself? Like I'm trying to, I have to conquer this but why am I putting myself into this heart palpitations about having needles stuck into me!
Recorder: It probably defeats the purpose of the acupuncture!

I: That's right!

P: Well, and I think it did because I couldn't totally relax right? I think if I'd been able to relax totally, it might have worked? Because everybody else that I talked to they said, oh it's great! But I guess when you have a fear of needles it's not so good!

I: Wow. What did Dr. [*name redacted*] say about all the natural stuff? Did you talk to her about that?

P: She was pretty good about it. She had asked me, she actually calls me the witch doctor!
Laughter
P: She does! I love her dearly, because if I come in…
Laughter, chatter
P: It's ok! She'll tell you herself! I try to, I try to heal myself, and not that I'm a witch doctor or anything like that. It's just that, my dad, he grew a lot of garlic and the big thing in our house, of course my mother's Italian so we put garlic in everything, expect our baking. So the answer was, if you were sick you know you have a cold then put garlic in your socks, it'll draw all the poison out of you! Or you know, you know, anything to do. So, normally if I am sick, I try, I try. Like a natural cold is going to run its course. You're either going to be 14 days blowing your nose or 14 days going to the doctors and you're still blowing your nose so. So when I go in she knows I'm in there because if it's something serious. And she always says, "oh witch doctor! Couldn't cure yourself?" So, when I told her about everything that I'd done, actually she was really interested in, in some of the natural things that I had tried because she also, she's the type of doctor, she's good to also suggest to other people?

I: Sure.

P: So she said, did you find anything different? And I said, no not really. But I said, I think I was so far at the spectrum of having such major night sweats, that I don't think anything that I really tried enough. Because maybe if I would have tried it for 8 weeks, that black cohosh, maybe if I tried it for 8 weeks I might have seen. But I was to the point where, I wanted instant relief.

I: yeah, you want it done.

P: And I thought, four weeks on one thing to me that was enough. But not enough!
[laughs]

I: What hormone replacement did she put you on?

P: I'm on femur [?]

I: Femur?

P: Yes, and uh, I've been on that since July the 6th. Which and I'm sleeping which I'm so happy.

I: A relief hey?

P: And, it is. Now I'm down to only about one major, and that's at about 5:30 in the morning. So, Mary decides not to get up until about 5:30, so. And that's ok because we get up at 6:30, so I just kind of lay there and listen to the alarm so.

I: Yeah.
P: So. And so it's not as bad as when you have an 11:30, and a 12 and so. So that's, I can live with that.

I: Yeah.

P: I anticipate that, she [*my doctor*] had said that I don't have to be on this forever, so I'm anticipating that within a year hopefully we can re-visit something else and maybe go off of it for a break. See if, you know maybe my body has settled down or anything like that. Which, I mean there's been so much in the media in terms of hormone replacement and there were all the studies that happened, you know, maybe 8 years ago in terms of things. And all this negative publicity around hormone replacement, and then they turned around, maybe in the last year and half and said, you know what? It really isn't as bad as everybody thought it was.

P: With all that hype and negative stuff, did you have any family members, any friends saying, why are you doing that? Why are you going on hormone stuff?

I: Not really. I was very fortunate. My sisters are uh, they're, they're, they're very positive. And, and, and, and they're very good that way. My girlfriends, a couple of my girlfriends were already on it, so they sort of said, oh you know it's not really that bad. And then, when I finally sat down with [*my doctor*] and admitted, yes you were right, I do need to go on this, she sat with me for a half hour. Went through the whole study, explained everything to me.

I: Good.

P: And said, ok I am going to give you some, but you know, you realistically have to look at this study. So she had, she had gone through everything with me. And she said, honestly [*name redacted*], she said, you should have been it a while ago. It's just that, you had to do your natural thing.

I: Yeah.

P: And she said, it doesn't mean you have to be on it forever.

I: No.

P: But it was good that she took the time. I was in her office for probably about an hour from start to finish. And that's a big time slot for a busy family doctor.

I: Yes, for sure. I mean it sounds like that was a very positive experience for you…

P: Yes, yes it was.

I: In terms of her taking that time.
P: Yes.

I: And that's a good thing right? We need those informed choices, and you then are able to share that information with other women…

P: Mmmhmm.

I: In terms of some of the knowledge that you've gained from that. So, you've talked about the interventions you've tried. You've talked about some of the things that worked and didn't work, we've gone over that, hormone replacement's been that only thing, right?

P: Yes.

I: Anything else? I can't think of anything else that you said?

P: [*pause*] Not really.

I: You can't think of anything.

P: Because I, everybody says, oh don't drink coffee! So you cut that out. And, oh don't drink Pepsi, so you cut that out.

I: Ok, so you tried some diet things too.

P: And you just, you, you, you, because people say, well it's coffee that's setting it off! And you're thinking, I don't think so! Let me [*laughs*], she says, let me have a sip of that! But I didn't find any, any of that really helped. It didn't. And um, I love Pepsi, it's my favourite drink. And I drink a Pepsi a day and I eat a piece of dark chocolate a day, my two sinful needs. And I still continue them.

I: Good for you! I'm a Coke person myself!

P: And I didn't change them.
Laughter
P: And when I kind of weaned myself off the Pepsi, you don't realize just how much you forward to that.

I: Yeah.

P: And everybody says, well, there's 13 spoonfuls of sugar in that! And I'm thinking, well, it's only one, right?

I: That's right, there are worse things.

P: Yeah. And I've never smoked, so I though, ah, Pepsi and chocolate.

I: That's ok.

P: That's what I figure.

I: So thinking again, let's go back to your immediate family, so those around you.

P: ok.

I: How did they support you through this transition? Did they do anything different? Did they stay away? Did they talk about it? What went on in your family?

P: No, uh, um, not overly, there wasn't a lot of major conversation. Probably my sister [*name redacted*] was my best resource, or my best sounding board because I would call and I'd say, you know I'm so tired of these hot flashes, what can I do? And was very good, and she would suggest. And my sister [*name redacted*], she uh, she she has taken Reiki. And she even tried Reiki on me to get me relaxed. But um, I don't know if I just didn't really embrace it, because I didn't see a change, in it.

I: Right.

P: But um, my other girlfriend, my sister [*name redacted*] helped her with Reiki, she had an amazing change. So, I'm not sure if I just wasn't psychologically there? Because I

was like, oh my god, this is my sister! With her hands trying to, like, healing hands. And she's very good at what she does. It's just one of those sibling things.

I: Yeah, for sure.

P: That but. No, but she was very good. My sister [*name redacted*] is two years older than me, so she's that older, wiser sister? So she's a good resource.

I: Yeah. Did you have any children still at home when you were going through…

P: Yes. Two. 24 and 26.

I: How did they react?

P: Um actually they were very good. They were really good. And um I'm very open with my children. I raised my children to, when they were very little, I always spoke to them like an adult. And there is, in our house when I was growing up, there's always the hush hush, never talk about anything to dark, or too much about life.

I: Yeah, where do babies come from?

P: Yeah, exactly. So, I was always very open with my children. One time [*my son*] looked at me and he said, mom, are you feeling ok? You're looking very tired. And I said, I don't know who's moved in, I don't know if it's Perry or Mary. And he says [*sic*], oh mom, are we talking menopause? I said, yes we are. He said, what are you going to do about that? So he didn't run. He didn't run. He was pretty good. There's a big joke in our house that Mary's moved in, so [*laughs*]. I think helps if you can have a good sense of humor about it to help you go through, but.

I: Yeah.

P: So both of them are very good so. And I've shared a lot with my daughter [*name redacted*], so she knows what to expect. Because I think the worst thing is, you have all these people who have gone through it, but nobody tells you really what to expect.

I: That's right.

P: They give you, maybe the sunshine lollipop, and they say, oh well the hot flashes. Well, what does, oh the hot flashes mean? Like, there's no descriptive. They're not going to say like in 2.2 seconds, you are ripping off every piece of clothing that you own.

I: In the office!

P: Yeah! And you're trying to be discreet, and then somebody looks at you and they say,

oh you look awful flushed! And you can hardly get the breath out, oh…no…I'm…fine! Meanwhile your innards are on fire, and you're thinking, I just want a pool to jump into.

I: Ok.

P: Yeah but no, to answer, I guess I kind of always go roundabout. But I think it's, to me, I'm always very brutally honest with my children. And, if I'm feeling like crap, and of course the 8 months that I wasn't getting any sleep, I, I'm very pale. So I looked even worse. Like, I could scare the maggots of a dead wagon I was so white.
Laughter
P: Oh my god. And my children would say, is there anything I can do for you mom? And I'd say, sorry, it's just a process.

I: Yeah.

P: And they were very supportive when I was doing the different natural [*remedies*], and they were really, really good when I was doing the acupuncture. Because they know I don't 'do needles, they were really good. They'd say, it's like you're coming home from daycare! They'd say, how'd you do today!
Laughter
P: Like, how do you think I did! I lied there terrified!

I: Aww.

P: No but, they were very supportive.

I: Ok.

P: But, they're also very good that they're happy, that they've seen, not that I was miserable or crummy mummy is normally what they call me when I'm miserable, they call me a crummy mummy. So, they said I haven't really been a crummy mummy, but they're glad that I seem happier.

I: Lots of women talk about, especially women who are experiencing night sweats and those hot flashes during the night in terms of partner intimacy, so what, what about that kind of thing within your life? Was that a big change? How did that affect you?

P: [*cutting* in] It did change for a little bit, because of course when you're very very tired…

I: And on fire!

P: And on fire, that's the last thing you want is when a hand comes over, because you just want to grab that hand and smack them with that hand! But um, just probably, we have,

my husband and I, we've always been very, had a wonderful relationship and very intimate. And probably on an average we were that three or four times a week. Because we're very close. But that probably in that last 8 months, it probably maybe once or twice a week, if you're lucky. Because it was just to the point where I was so tired.

I: Yeah, that happens too.

P: And, my husband, he was so understanding. He was so good.

I: Good.

P: He was really good.

I: That's awesome.

P: Yeah.

I: A lot of women don't have that.
P: No.

I: So, it's just nice.

P: Yeah.

I: Ok, so thinking, you've talked about your daughter. What now, looking at your life right now, what do you want to share with other women? So, what would you like to tell younger women who are nowhere near menopause, but just in terms of getting it out there and talking about it, what are some of those key things you'd to let other women know about menopause and that transition through?

P: I think on the early stages when your cycle starts to change, I think that's a very important time in your life where you just need to take, just a personal inventory of where you are. And if you do have an older sister who's been through menopause, or you have somebody you can relate to, that's the time that you should start asking questions. So you know what to expect. Its worse when, you know, when say, Perry moves in and slams the suitcases down, and then you have to figure out, how do you adjust to this? Do you make room for this person in your house? And, so it's so much easier, to me, if you know what to expect.

I: Yeah.

P; So I would say, don't be afraid to ask questions. Perry menopause and Mary menopause, they may be not the most friendliest [*sic*] relatives, but uh, who come to stay. But uh, the beauty of it is uh, they don't stay forever.

I: Yeah.

P: At least, I hope Mary's packing her bags and moving! [*laughs*]

I: Moving on to visit someone else?

P: But the nice thing is that you can certainly adjust. And I think if you have a better understanding of what to expect, and ask questions. Don't be afraid to ask questions. And I think I probably drove my sister [*name redacted*] around the bend. I asked a hundred questions. And I'd say, well you know you read this and can, are you going to expect this? [*she answered*], well I don't know, because I didn't. And, and of course everyone is different. But the best thing you can do I think, if, if you speak with if you had a mom that was able to speak about it and not whisper, if you could speak, I think it's so important that you discuss then, how she felt or how, what you can anticipate. Rather than trying to figure it out yourself. And I think it's so important for friend to share, it really is.

I: How did your daughter react?

P: No, not at all actually. [*My daughter, name redacted*] I think she's taken it all as a big learning curve, and knowing what to expect. And she was actually, she was the one who helped me get to the point where I needed to go back and see [*my doctor*] and get on the HRT.

I: Ok.

P: Because she said, you know momma, you've done so much, it's not as if you haven't tried. And you know, anybody else probably wouldn't have gone 8 months and kicked the cat that long.

I: Yeah.

P: And she said you even stepped outside your comfort level and tried acupuncture, she says, mom, she says, how much more can you do? She said, you know, she said, I think momma you need to pat yourself on the back, give you an 'atta-girl and say, ok I need to go see [*my doctor*]. And, you know, for 24 years old, she is one smart little cookie. And I'm thinking, why didn't you give me this speech four months ago?
Laughter

I: You're just finding out on your own!

P: Yes! You know and it's so good that she was able to, because you know, she's watched me go through this stage. And she's seen how much I wanted, and I have been

tired. And I just. I tried everything I could because, from reading, you know when you read studies, you think, oh my god. And actually, the studies scare the hell out of you.

I: Yes, they can.

P: Because if you ever personally read the study without having a medical doctor explain all the stats to you. Like, would you ever go on that synthetic drug? You would not put that in your body!

I: The studies were very scary.

P: They were!

I: Yeah.

P: And I, I was a product of not really having anybody to ah, to really ask those major questions, so. And there's no major books so, where do you go? The internet. So the one thing I would recommend is tell the girls to stay off the internet!
Laughter

I: Yeah. So, that leads us into, when you think about your menopause transition, what would you have liked to have been there for you? So, what information, what resources, whether that is written information, web-based, accurate information, support groups, anything like that. What would have helped you?

P: I think what would have helped is, certainly some information, like a very clear-cut information pamphlet about menopause. And not, and not uh, [*pauses*], just not technically all the medical stuff? But some of the clear-cut, everyday things of what to expect. And that to me would be so much better. And a web-based, certainly a web would be good, because the problem with the internet is when you type in menopause, you get over 10,000…

I: That's right! Thousands and thousands!

P: Yeah, you get over 10,000 hits! And, of course, when you're looking for information, there's no way of really pulling it down, and getting it down to really just the information that you're searching. So, you're reading all this, so then you're reading horror stories, you're reading more facts. And the more you read, the more it scares the hell out of you! So I think, just if there was something a little bit more down to earth and not with the medical facts that would scare the hell out of just an average person looking for answers.

I: Yeah.

P: But I think the one nice thing may be that, possibly at this stage, this is how you may feel.

I: Ok, very simple, very straightforward.

P: Very, very simplistic. Because I think simple, like, less is more. Especially with this, because when you read the studies, you would never, ever say, oh, yeah put me on the HRT stuff! I'm ready!

I: Right, ok good. So thinking about your overall kind of transition through menopause, has it been better, worse or overall the same as what you had expected when you were, you know, 40?

P: Well, of course at 40 I was looking forward to having a hot flash! I was always cold, so I'm going to have to go, it was 10 times worse than what I had anticipated. Only because of the major night sweats, but certainly you know, when you're 40 you're naïve, because you have no idea that you know, the lovely Mary's moving in, and uh, and. It was actually just horrible.

I: Horrible?

P: It was.
I: So, if you think about what's one thing that you would liked to have known before menopause, what would it be?

P: I would have liked somebody to be brutally honest with me really what a hot flash and a night sweat is.

I: Ok.

P: Instead of just do the hand motions.

I: Ok.

P: Because I think a hot flash or a night sweat, I think they to describe that in 2.2 seconds, you are going to be on fire. No question. Your internal temperature is going to raise to like 104 degrees. And you cannot take a breath, and you will try to remove every stitch of clothing that you own.

I: For sure.

P: And, you're going to hope for a fan or a pool to dive into.

I: For sure, ok, perfect.

P: But I think it just needs to be straightforward.

I: Right, very simple, to the point.

P: Yeah.

I: No beating around the bush kind of stuff, in terms of that.

P: no, no.

I: Awesome. Anything else in terms of your experience of menopause? Anything we haven't covered? Anything else you want to talk about?

P: No, I don't think so.

I: Anything to share?

P: I, I've been very fortunate up until of course, the last 8 months.

I: Sure.

P: I've been very fortunate. But uh, I think god's like, ok, you've been having it too easy! [*laughs*] We're going to spice it up a little bit for ya! But uh, I think by going through this it's a good thing also because then I've been able to share with my daughter. So uh, hopefully she won't have as hard a time. But uh, certainly she has no fear of the hormone replacement, as you know, the fear-mongers had put into our system a few years ago, so.

I: Yes, right.

P: And she's very accepting of that, which to me is a plus.

I: Sure.

P: Yeah.

I: Ok. So thank you very much.

P: You too.

Interview complete

Appendix H: Interview Observational Notes

Emma

Body Language Emma leaned forward toward the interviewer for the duration of the interview. Body language remained similar throughout the interview, with occasional changes in position, no fidgeting observed.

Voice & Language Emma used a clear and pleasant voice throughout, even when discussing unpleasant thoughts or feelings. Voice tempo, tone, and volume were appropriate to topic and the physical surroundings. Occasionally, Emma used a whisper while discussing the menopause transition of others. Did not use medical terms or jargon to describe her experience, instead invented her own names for each stage (Perry, Mary, etc.) and referred to those throughout the interview. Called physical exercise "the E word".

Behavior Emma used hand gestures to articulate certain points, and occasionally dropped verbal language from the ends of sentences in favor of these gestures. Emma took very little time to formulate her answers to questions, with only occasional pauses to answer certain questions regarding physical symptoms. She allowed the interviewer to finish asking the question without interrupting. Conversation flowed and Emma volunteered information readily. Emma seemed very comfortable sharing her story.

Body View/Image Emma described herself as generally a cold person temperature-wise. Indicated she does not enjoy exercise, prefers to do activities that are fun. She did not indicate a desire to become more active in her life, or any regret regarding the same. Indicated that she is generally a healthy person overall. Did not discuss the aging process,

or refer to herself as aging. Even though Emma indicated she was experiencing frequent hot flashes, night sweats, and fatigue, she stated she had no physical symptoms.

Interview Summary

- Menopause means the end of a stage
- Family of origin was not open in discussing these issues. Due to this, participant revealed that she obtained most of her information regarding menopause from girlfriends.
- Used her own names to describe each stage (Perry for peri menopause, Mary for menopause)
- Has a very good relationship with family doctor
- Main physical symptoms were around hot flashes/night sweats and fatigue. Later this lead to "brain fog".
- Pursued 8 months of naturopathic remedies (black cohosh, evening primrose, other herbs, acupuncture, and reiki) before starting hormone replacement
- Was not scared of hormone replacement after doctor took time to explain thoroughly, did not receive negative responses from those around her regarding this
- Intimacy with partner declined slightly in frequency, indicated that partner is supportive and understanding
- Main supports are sister, partner, doctor, and friends

- Initially searched for information on internet, did not have a good experience with this, also stated that books are too medical and do not explain in detail what will happen to you
- Would tell other women to start asking questions as soon as their cycle starts changing, to get informed and talk to older female relatives so you know what to expect
- Would have liked brutal honesty. Clear information, without medical terms, in the form of a pamphlet. Reliable web info would be helpful.
- Experience was “10 times” worse than she imagined it would be

Appendix I: Member Checking

Emma

I think you have captured the essence of menopause wonderfully!

Good job!

Good luck with you dissertation.

Curriculum Vitae

April Elizabeth Ann Rietdyk RN, BScN, MHS

[contact information redacted]

OBJECTIVE: Senior leadership position in the field of public health

HIGHLIGHTS OF QUALIFICATIONS

- Highly experienced leader in managing diverse Public Health programs, collaborating with various levels of government, and facilitating relationships with community organizations, area businesses and community citizens
- Effective and articulate communicator, presenter, negotiator and decision maker
- Resourceful and innovative; proven ability to adapt to change
- Self-directed and effective in the planning and implementation of key Public Health programs and services
- Commended for the ability to listen, motivate, encourage and coach, cultivating a productive Public Health Team working cohesively to fulfill organizational goals
- Committed to a healthy and balanced lifestyle

PUBLIC HEALTH SENIOR LEADERSHIP EXPERIENCE

Chatham-Kent Public Health Unit, Chatham, Ontario 2008-present
Director, Public Health

- Providing an atmosphere were all employees can work effectively and cooperatively on tasks within the context of corporate policy, goals, values, and culture
- Ensuring the public health management team exercises sound leadership practices
- Providing mentoring and career planning to assist employees to achieve their personal goals
- Assessing employees current ability, and matching capability with organizational requirements
- Guaranteeing fair and equitable treatment of all employees, across all departments
- Ensuring effective key cross-boundary relationships for all employees
- Continually strive for improvements to support the overall business of Public Health and the organization's goals

Chatham-Kent Public Health Unit, Chatham, Ontario 2001- 2007
Program Manager, Family Health

- Accountable for the outputs of the family health team and the impact of their behavior

- Built and sustained a team of capable people who worked individually and together to produce high performance and sustainable results
- Established reporting procedures and measurements relevant to the needs of the team and in line with company expectations
- Provided the family health team with effective managerial leadership, including:
    - Appraising team members' personal effectiveness and carrying out performance reviews
    - Coaching and establishing development plans
    - Continually improving processes within the family health team
    - Celebrating successes

PUBLIC HEALTH EXPERIENCE

Chatham-Kent Public Health Unit, Chatham, Ontario	2000-2001
Windsor-Essex Public Health Unit, Windsor, Ontario	1992-2000
Hamilton-Wentworth Public Health Unit, Hamilton, Ontario	1989-1991
Chatham-Kent Public Health Unit, Chatham, Ontario	1986-1988

Public Health Nurse

- Provided comprehensive Public Health Nursing services to high risk young families including facilitation of educational programs, one-on-one health teaching and counseling, service coordination and community integration

University of Windsor, Windsor, Ontario 1991

Clinical Instructor, School of Nursing

- Provided supervision, evaluation and a supportive learning environment for Post Diploma Nursing students placed within the community setting

EDUCATION

PhD, Public Health, Community Health Promotion and Education
Walden University, Minneapolis, Minnesota 2006-present

Master of Health Studies, Leadership, Athabasca University, Alberta 2005

Bachelor of Science in Nursing, University of Western Ontario, Ontario 1985

Continuing Professional Education

Nursing Healthcare Policy Fall Institute	2004
Dorothy Wylie Nursing Leadership Institute	2004-2005
Nursing Best Practice Guidelines Summer Institute	2005

COMMUNITY INVOLVEMENT

Chatham-Kent Children's Services	
Board President	2011-present
Board of Directors - Executive	2009-2011
Board of Directors Member at Large	2007-2009
Chatham-Kent United Way Women's Leadership Council	2008-present
Chatham-Kent Community Stroke Council	2011-present
Council Chair	
Southwestern Ontario Stroke Council	2011-present
Regional Representative	
2010 Olympic Torchbearer	Dec 2009

PROFESSIONAL AFFILIATIONS

Registered Nurses Association of Ontario	2000-present
Region One Representative, Board of Directors	2005-2009
Chair, Membership Recruitment and Retention Committee	2005-2009
Board Representative, Research Committee	2007-2009
Member, Nursing Leadership Interest Group	2000-present
Member, Childbirth Educators Interest Group	2000-present
Member, Community Health Nursing Interest Group	2000-present
Ontario Public Health Association	2004-present
Member, Children and Youth Advisory Committee	2005-2009
Canadian Prenatal Nutrition Program Planning Coalition	2004-2007
Provincial Conference Chair	2004-2007
Nobody's Perfect Ontario	2001-2006
President, Board of Directors	2002-2005
Member, Advisory Committee	2005-2006
Sigma Theta Tau International Honor Society of Nursing	2006-present

PUBLICATIONS AND CONFERENCE PRESENTATIONS

Coleman, B. L., Gutmanis, I., Larsen, L. L., Leffley, A. C., McKillop, J. M. & Rietdyk, A. E. (2009). Introduction of Solid Foods. *Canadian Journal of Dietetic Practice and Research. 70*(3).

Rietdyk, A. (2005). Nursing Professional Practice Councils: The Quest for Nursing Excellence. *Canadian Journal of Nursing Leadership 18*(4).

Heart Health Symposium, Chatham-Kent, Ontario 2009
How can the bad economy be good for your health?

Ontario Injury Prevention Conference, London. Ontario 2005
Sammy and Snooper: An Adventure in Safety. Concurrent Session

Canadian National Injury Prevention Conference, Halifax, Nova Scotia 2005
Sammy and Snooper: An Adventure in Safety. Poster Presentation

Ontario Public Health Association Annual Conference, Toronto, Ontario 2005
Playing in the Sandbox: The Experiences of a Best Start Demonstration Site.
Concurrent Session

Ontario Public Health Association Annual Conference, Toronto, Ontario 2003
Southwestern Ontario Breastfeeding Initiation and Duration Study.
Concurrent Session