5-2016

Older Adults and the Availability of Complementary and Alternative Medicine in Assisted Living Facilities: A Critical Examination

Chris Pommerenke
St. Catherine University

Julie Poupore
St. Catherine University

Older Adults and the Availability of Complementary and Alternative Medicine in Assisted Living Facilities: A Critical Examination

Chris Pommerenke and Julie Poupore

St. Catherine University

May 18, 2016

Table of Contents

Abstract

Over the next two decades, the population of adults over age 55 will undergo exponential growth. Complementary and alternative medicine (CAM) use is popular, and offers pain management, increased mobility, a sense of control over health, improved health overall despite physical frailty, personal responsibility over health and health care, and preservation of good health. We identified and interviewed decision-makers from eight assisted living facilities in two Twin Cities counties regarding what types of CAM they offer onsite and why. Quantitative and qualitative data, were analyzed to describe CAM therapies and identify themes. Themes emerged around access to CAM, barriers to CAM and benefits of CAM. CAM access themes include appropriating more space to provide services, reducing the burden of finding appropriate practitioners, and problems of relying on volunteers to provide services. Themes around CAM's perceived health benefits in older adults include reducing medications, pain, depression, and anxiety. These findings have implications for elder care living choices, care costs and reimbursement practices, conventional and holistic health policy, and the well-being of older adults.

Introduction

Forty percent of adults in the United States have tried some type of complementary and/or alternative medicine (CAM) (Clark, Black, Stussman, Barnes, and Nahin, 2015). Adults ages forty-five to sixty-four are the highest users of CAM at 36.5% while 22.7% of those sixty-five and older access this type of care. People who experience positive benefits of CAM are likely to want to continue practicing as they age (Collins, Wacker, & Roberto, 2013). When people transition to alternative living situations, knowledge of and access to these services may be complicated by accessibility (Stares, 2014).

A Google search of senior housing options in the Twin Cities metropolitan area reveals twelve online database options none of which list the availability of CAM options onsite. There is not a comprehensive source that identifies which assisted living facilities in the Twin Cities provide CAM therapies onsite. This research aims to bring this issue to the attention of assisted living administrators with the intent of bringing easier access to information about the availability of CAM services and the reasons why assisted living facilities do or do not make these available onsite.

The population of older adults is growing at an unprecedented rate worldwide. In the period between 2000 and 2050, the number of adults over the age 60 will increase from 11% to 22% (The World Health Organization [WHO], 2014). This increase in overall population suggests that there will be more 80 and 90-year-olds than ever before (WHO, 2014). As baby boomers reach retirement age, social constructs such as bio medicalization and the economy of aging will have an impact on the modern day concept of aging (Estes, 2001; Estes, 2008; Fries, 2014; Mykytyn, 2008).

In Minnesota, over the next two decades, the population of adults who are age 55 or older will undergo transformational growth: this population will double by 2030 (Minnesota Department of Administration State Demography Center [MDASDC], 2011; & Minnesota Compass, 2016a). The most concentrated areas of adults older than 65 are projected to live in the Twin Cities metropolitan area, and in particular the suburbs of Minneapolis and St. Paul (MDASDC, 2011). In the Twin Cities, Ramsey and Hennepin counties have the highest total number of older adults as well as 30% of the senior housing options in the state (Minnesota State Demographic Center, n.d.; Minnesota Department of Health, n.d.).

Complementary and alternative medicine (CAM) practices are alternative approaches used to maintain health and wellness, prevent illness, and to treat or relieve symptoms along with or in lieu of conventional medical practices (Bauer & Rayner, 2012; Cartwright, 2007; Cheung, Wyman, & Halcon, 2007; Lang, Walkup, & Arcury, 2010; Ness, Cirillo, Weir, Nisly, & Wallace, 2005; Nguyen, Grzywacz, Williamson, Fletcher, & Dawson, 2003; Willison & Andrews, 2004). A range of 30-88% of adults report using CAM (King & Pettigrew, 2004; Kronenberg, Cushman, Wade, Kalmuss, & Chao, 2006; Ness et al., 2005).

Management of pain and increased mobility are important outcomes from the use of CAM (Tang & Tse, 2014). Other reported benefits of CAM include a sense of control over health, better overall health despite physical frailty, personal responsibility for health and health care, and preservation of health (Cartwright, 2007; Fries, 2014; Marinac et al., 2007; Sternberg, Chandran, & Sikka, 2003). These findings are positive and suggest continued use.

CAM therapies have positive results for older adults such as the use of aromatherapy for agitation in patients with dementia (Fung, Tsang, & Chung, 2012) and yoga for overall better physical and mental health for older adults (Fan & Chen, 2011). When older adults struggling

with depression practiced tai chi, their moods improved (Anisha, Femila, & Appavu, 2014). Stussman, Black, Barnes, Clarke, & Nahin (2015) found that 90% of the adults in their study used natural supplements to ensure wellness. The positive health implications of CAM are both humane and financially beneficial to help people age with increased comfort (Wang, Kennedy, & Wu, 2015; Williamson et al., 2003).

Assisted living facilities have become an accepted option for older adults when they are ready to transition out of their homes (Wilson, 2007). Research about the use of CAM among older adults has been more prevalent in recent years; however, few studies describe the availability of CAM therapies at any residential living situations including assisted living facilities, nursing homes, and memory care residences. Bauer and Rayner (2012) conducted a literature review of CAM use for any type of residential facility for older adults and found just five studies that met the criteria for the review.

These facilities are less costly and offer more freedom, privacy and independence than long-term care nursing homes (Ball et al., 2004; Grabowski, Stevenson, & Cornell, 2012; Wilson, 2007). This model of residential care highlights the individual, independence, dignity, and quality of life (Allen, 2010). Wilson (2007) identifies health, housing, and hospitality as the primary focuses of assisted living facilities. As older adults transition from living a fully independent life in an assisted living facility, they may lose access to services and activities they once enjoyed (Collin et al., 2013).

When people experience positive benefits of CAM, they are likely to want to continue these practices to prevent illness and for treatment of disease (Bauer & Rayner, 2012; Fries, 2014; Goldman & Cornwell, 2015; Williamson, et al., 2003). Older adults use CAM and health care frequently, so it is essential to have comprehensive and accurate data on the usage patterns

of CAM by older adults (Ness et al., 2005). Therefore, the purpose of our research is to describe which CAM therapies do assisted living facilities offer onsite in the Twin Cities and why.

The first chapter of this paper is the introduction. The second chapter is the literature review. The third chapter provides the authors' lenses. The fourth chapter discusses the research method. The fifth chapter reviews the research results, and the sixth chapter provides a discussion of our research results.

Literature Review

The purpose of this chapter is to review the relevant literature about the use of CAM in older adults, defined as those aged 55 and older. First, we discuss the needs of an aging population and give an overview of CAM. Next, we describe CAM use in the older adult population and the benefits thereof. Next, we discuss older adults' access to CAM. Finally, we conclude this chapter with our summary and research question.

Needs of an Aging Population

In this section of the literature review, we discuss the potential (but not inevitable) needs of an aging population. We consider the aspects of wellness and health impacted by aging. Then we describe changes in health status that may lead to the need for increased CAM support. Next, we discuss housing and care options for older adults. Finally, we describe assisted living facilities, one of the options older adults have available when they are unable to live independently.

Wellness and health. The population of older adults in the United States is growing, individuals are living longer, and the number of people living with chronic health conditions is rapidly expanding (Schoenborn & Heyman, 2009). With this, there is increased emphasis on promoting healthy behaviors that can prevent or reduce the number of chronic conditions an older adult may live with and minimize the impact on a person's overall well-being (Schoenborn & Heyman, 2009). Stares (2014) points to the need to address the bio-psycho-social needs [and] multiple comorbidities of the aging population and cites increased use of a wide range of treatment options to address the complexity of the needs.

Older adults are more likely to use CAM to maintain good health and wellness or as a method to manage the symptoms caused by chronic conditions (Clarke, Black, Stussman,

Barnes, & Nahin, 2015). Minimizing ongoing conditions can help reduce or eliminate symptoms and decrease the use of prescription medications (Schoenborn & Heyman, 2009; Tait et al., 2013).

Changes in health status. Older adults are more likely to experience changes in physical, cognitive, or psychological health and/or disability as they age (Centers for Disease Control and Prevention [CDC], 2015; Holmes, Powell-Griner, Lethbridge-Cejku, & Heyman, 2009; Minnesota Compass 2016b; World Health Organization [WHO], 2015). Chronic health conditions are more likely to appear in midlife and have a higher chance of multiplying with advanced age (CDC, 2015; WHO, 2015). These worldwide and national trends reflect the population of older adults in Minnesota. In 2014, 31.9 percent, or 237,755 of Minnesotans aged 65 or older reported living with one or more limitations involving hearing, vision, ambulation or cognition, independent living, or self-care (Minnesota Compass, 2016b). Individuals who are managing multiple chronic health conditions face coordination of numerous providers, medications, and procedures (CDC, 2015).

Absent from the CDC (2015) report, which is rich with health statistics of United States citizens and includes a "Special Feature on Adults aged 55-64," is any mention of complementary and alternative medicine. Yet, the use of CAM is growing in this age group (Clarke et al., 2015). The CDC report (2015) focuses on private and public pay insurance and Medicare and Medicaid as potential sources of payments. Most of these options do not pay for CAM, so there is no surprise that the report does not mention it.

Housing and care. In a culture unwilling to make accommodations for the changes that often accompany aging, many older adults eventually face decisions about how to make adaptations to meet their changing physical and cognitive needs (Ceci, Purkis, & Bjornsdotir,

2013). For those who need specialized housing, there are many options to choose from, particularly for those who can afford to pay for them out of pocket (Stevenson & Grabowski, 2010). Each offers amenities and healthcare services, including different levels of care. There is a tension between cost and accommodation that leaves older adults who do not have the financial means with fewer choices in living arrangements once they are unable to live independently (Stevenson & Grabowski, 2010). As the population of older adults grows, the number of residential living options has been meeting the demand: "Minnesota has one of the highest rates of senior housing units per 1,000 older adults in the country" (Minnesota Board on Aging, 2015, p. 18). At the same time, higher proportions of older adults live in their homes and rely on spouses, children, and family members for help as needed. Fewer are living in specialized housing for older adults (Minnesota Board on Aging, 2015). What is unknown is whether or not this is sustainable.

Assisted living. Assisted living facilities have emerged over the last 37 years as a landing space within the continuum of independent living and full time nursing home care (Wilson, 2007). The State of Minnesota recognizes assisted living facilities as "Housing with Services," and does not require licensure per state law. However, registration with minimum requirements is mandatory (Chun, 200; Revisor of Statutes, State of Minnesota 2015). In 2015, there were 102 registered assisted living facilities in Ramsey County and 330 in Hennepin County.

Beel-Bates, Ziemba, and Algase (2007) explain that assisted living communities feel more like a home than an institution: the staff encourages people to maintain their independence, they provide more amenities than nursing homes, and they cater more to the needs of the residents. Moving to assisted living, residents have the ability to bring remnants of home with them; their apartments allow them more room for pictures, furniture, decorations, and other

familiar possessions (Williams & Warren, 2008). Older adults prefer assisted living communities to nursing homes, and caregivers want a continuum of services to be accessible to their loved ones as needs increase (Williams & Warren, 2008; Beel-Bates, Ziemba, & Algase, 2007).

Overview of CAM

There are many different ways to describe CAM including different terminology and philosophies. Terminology and definitions from the past three decades reveal evidence that CAM is becoming more mainstream over time. In this section, we examine changing perceptions about CAM therapies. Finally, we highlight the prevalence of CAM use among adults.

Changing definitions and perceptions. In its 2011-2015 strategic plan, the National Center for Complementary and Alternative Medicine (NCCAM, 2011) defines CAM as "a group of diverse medical and health care interventions, practices, products, or disciplines that are not considered part of conventional medicine" (p. 1). The NCCAM also point to the issue of some CAM therapies entering the mainstream; "clearly the boundaries between CAM and conventional medicine (also called Western or conventional medicine) are not absolute" (p. 1).

Researchers define alternative medicine as practices used in place of conventional medicine while complementary medicine is something used in conjunction with conventional medical treatment (National Center for Complementary and Integrative Health NCCIH 2015; Briggs, 2015; Micozzi, 2011). The term integrative medicine refers to a hybrid of conventional and alternative approaches with a focus on disease prevention, the health of the whole person, and limited use of invasive techniques (Briggs, 2015). Complementary and alternative medicine is the term we relate to and are using in our research, and is explained by some of the following organizations and researchers. The National Center for Complementary and Integrative Health [NCCIH] (2015) contends there are two domains to describe most CAM: natural products and

mind and body practices. The NCCIH (2015) further asserts that the complexity of traditional practices such as Chinese medicine, Ayurvedic medicine, homeopathy and naturopathy do not fall into any particular category. Nemer (2010) identifies five types of CAM therapies including "natural products (i.e., dietary supplements); mind-body medicine (i.e., meditation, acupuncture); manipulative and body-based practices (i.e., massage, chiropractic spinal manipulation); alternative medical systems (i.e., homeopathy, naturopathy, traditional Chinese medicine); and energy healing (i.e., magnet therapy, Reiki)" (p.2). Wieland, Manheimer, and Berman (2011) point to the fact that there are both theoretical and operational definitions of CAM to consider. Cohen (2003) cites the role federal and state government entities play in classifying and defining CAM therapies and providing regulation and licensure for practitioners. This influences policies about what is acceptable, credible, and sometimes, what is paid for by public and private insurance.

CAM prevalence. Starting in the year 2002, studies show a range of 30-88% of adults report using CAM (Clarke et al., 2015; King & Pettigrew, 2004; Kronenberg et al., 2006; Ness et al., 2005). The differences in these results are indicative of what questions they ask and what modality they study. For example, one survey may ask if the respondent has used any form of CAM in the previous 12-month period while another may ask if the respondent has ever tried CAM, and still another may focus on a particular modality. Another difference is the number and type of CAM therapies they ask respondents to describe or recall or whether they are asked at all.

The National Health Interview Survey (NHIS) has asked questions about the use of CAM since 2002. Subsequent surveys conducted in 2007 and 2012 found that the use of CAM increased in the adult population for all age groups between 2002 and 2012 (Clarke et al., 2015). This large survey (n=65,169) of adult CAM users indicates that 32% of adults have tried at least

one CAM practice in the previous twelve months (Clarke et al., 2015). The use of CAM therapies is highest for adults between the ages of 45-64 (Clarke et al., 2015). Women and individuals who are White or Asian, or with high incomes and education levels are more likely to use CAM (Clarke et al., 2015; Keith, Kronenfeld, Rivers, & Liang, 2005).

CAM in the Older Adult Population

In this section, we discuss the use of CAM across the adult population in the United States. First, we examine common CAM therapies that all adults use. Next, we examine CAM use and older adults. Finally, we discuss the reasons older adults use CAM.

Commonly used CAM therapies. The five most common CAM therapies adults use include: nonvitamin, nonmineral dietary supplements; deep-breathing exercises; yoga, tai chi, and qigong; chiropractic or osteopathic manipulation; and massage therapy (Clarke et al., 2015). King and Pettigrew (2004) found 41.1% of all adults use one form of CAM, and 20.6% use two or more with biologically based and mind-body therapies with prayer most prevalent. Minnesota is distinctive in that the state is in a region which ranks significantly higher in comparison to other states in adult use of chiropractic or osteopathic manipulation, use of nonvitamin, nonmineral dietary supplements, and massage (Peregoy, Clarke, Jones, Stussman, & Nahin, 2014).

CAM use and older adults. Adults aged 65 years and above increased their use of CAM by nearly 7% between 2002 and 2012 (Clarke et al., 2015). Also, as older adults age and their health conditions multiply or the severity of their symptoms intensify, they use CAM more frequently (Clarke et al., 2015; Ness et al., 2005). The largest group of CAM users is adults between the ages of 45-64. As this demographic group known as “baby boomers” (Americans born between 1945-1964) age, it is likely many will want to continue to practice CAM therapies.

Reasons for use. Adults use CAM for a variety of reasons: to promote good health, prevent disability and/or disease or alleviate the symptoms of short term or chronic conditions; cost; and poor results from using conventional medicine (Nahin, Stussman, & Herman, 2015; Stussman et al., 2015; Tait et al., 2013). Reasons for use are often connected to the type of CAM practiced. Stussman et al. (2015) found that nearly 94% of adults who practice yoga and 90% who used natural product supplements did so for wellness reasons rather than treatment for illness. In contrast, 67% of chiropractic care users in this study were more likely to use this type of care to treat a particular condition (Stussman et al., 2015). Stussman (2015) asserts that the individuals surveyed about these modalities indicated that "general wellness or disease prevention" was the top reason that they practiced them (p.1). Other reasons include improved "immune function, energy, and memory or concentration," along with the fact that these modalities "focus on the whole person, mind, body and spirit" (Stussman et al., 2015, p. 5).

Altizer, Grzywacz, Quandt, Bell, and Arcury (2014) found that older adults are most likely to seek CAM information for health crises and less likely to seek out information for general well-being, and chronic conditions associated with aging that they may perceive as something they must live with. Alternatively, Tait et al. (2013) found that older adults with chronic conditions were more likely to seek CAM treatments. There is not a lot of information available about older adults' use of CAM (Tait et al., 2013). Two reasons for CAM use are correlated with conventional medicine: use of CAM because conventional medicine did not help, or because conventional medicine was too expensive (Tait et al., 2013). Possible reasons for discrepancies between findings include the fact that the definition of the "older adult" age range varies between studies and the type and number of modalities included in the analysis differs as well (Altizer et al., 2014; Stussman et al., 2015; Tait et al., 2013). In a survey of patients, Jong,

van de Vijver, Busch, Fritsma and Seldernircjk (2012) found most adults want conventional providers to work with them to integrate a variety of therapies to promote wellness and manage illness and chronic health conditions.

Benefits of Using CAM

In this section we discuss the benefits of using CAM to promote positive health outcomes for adults as they age. First, we describe some of the health benefits. Next, we discuss the gains from specific CAM modalities in older adults.

Health benefits. Older adults look to CAM as a way of increasing control over their maturing bodies and health (Fries, 2014). Briggs (2015) explains that there are potential benefits for chronic pain management including "massage and spinal manipulation, hypnosis, acupuncture, mindfulness and meditative exercise forms such as tai chi and yoga, and relaxation techniques" with few safety concerns when used with older adults (p. 59).

In discussions regarding the benefits from CAM, older adults frequently state reducing pain and/or improving mobility are important (Cartwright, 2007; Cherniack, Senzel, & Pan, 2001; Cheung et al., 2007; Dello Buono et al., 2001; Fries, 2014; Marinac et al., 2007; Williamson et al., 2003). Bauer and Rayner (2012) contend that in residential settings, CAM residents use CAM for coping with musculoskeletal ailments and recurring pain. Given a reduction in pain and other symptoms of chronic conditions, older adults can experience a higher quality of life and well-being (Bauer & Rayner, 2012; Williamson et al., 2003) and report physical, mental, and emotional improvements (Woodyard, 2011).

Massage therapy. When looking at alternative therapies used for the treatment of osteoarthritis, Ramsey, S., Spencer, A., Topolski, T., Belza, B., and Patrick, L. (2001) assert that 47% of the participants in this study used alternative therapies and that massage therapy was the

most prevalent. The cohorts in this study describe overall health improvement as a reason for using alternative therapies, including massage (Ramsey, S., Spencer, A., Topolski, T., Belza, B., & Patrick, L., 2001). When older adults with persistent pain use massage therapy, they report fewer limitations from physical or emotional issues, have more energy/less fatigue, and greater overall health (Munk, Kruger, & Zanjani, 2011).

Pet therapy. Cherniak and Cherniak (2014) reviewed several studies looking at the benefits, if any, when older adults are involved with pet therapy. The studies involved dogs, cats, birds, fish, and robotic simulations of animals to determine the health benefits of pet ownership or animal assisted therapy in older adults (Cherniak & Cherniak, 2014). Some of the gains include: less frequent behavioral disturbances, less agitation, and greater social behavior with dementia patients (Behling, Haefner, & Stowe, 2011; Cherniak & Cherniak, 2014; Perkins, Bartlett, Travers, & Rand, 2008).

Using animals has become more prevalent in facilities with older adults and the number of formal policies and procedures to support these programs is growing (Behling et al., 2011). Behling et al. (2011) also assert that animal programs improve the overall quality of life for residents in these facilities.

Music therapy. Many studies describe how useful and beneficial music therapy is with older adults, and how it contributes to improving the quality of life (Coffman & Adamek, 1999). Coffman and Adamek (1999) assert that greater socialization and new challenges are also important to maintaining their health. Music therapy is part of the interdisciplinary team involved in hospice care, and the focus is to maintain or improve the comfort of life (O'Callaghan, 1996).

Music therapy provides benefits when rehabilitation is the goal and accompanies

physical, speech, and occupational therapies to improve motor, communication, cognitive, and sensory skills in adults with chronic conditions (Greco, 2013). Music therapy improves speech and mood, balance, and gait (Kadivar, Corcos, Foto, & Hondzinski, 2011).

Art therapy. Im and Lee (2014) assert that art therapy reduces depression in older adults, but there is no similar effect on cognitive abilities. Im and Lee (2014) also state that depression often coexists with cognitive impairment in older adults, so this suggests that relieving the depression would help the cognitive abilities.

Mindfulness, Tai Chi, and yoga. Older adults report positive outcomes with mindfulness-based stress reduction and tai chi, and yoga (Briggs, 2015; Fan & Chen, 2011; Moss et al., 2015; Ribeiro et al., 2012; Woodyard, 2011). Moss et al. (2015) tested a pilot program using adapted mindfulness-based stress reduction in a continuing care retirement community. The results included increased awareness, less judgment, and greater self-compassion within the participants (Moss et al., 2015). Tai chi was helpful with older people struggling with depression residing within the residence (Anisha et al., 2014; Wang et al., 2015). The results confirmed that tai chi was a useful way to reduce depression and improve the moods of the older residents. Depression is a prevalent psychiatric concern within this population, so this may offer an alternative to those on medications (Anisha et al., 2014; Wang et al., 2014).

Yoga enhances the welfare of elders and has many health benefits, including improved cardiovascular fitness, and promotes a more physically active lifestyle (Ribeiro et al., 2012). Tiedemann, O'Rourke, Sesto, and Sherrington (2013) found older adults were likely to adhere to, and enjoy the practice of, a mindfulness-based yoga program. The benefits include the restorative qualities it offers, such as feelings of relaxation, peace, and calm (Woodyard, 2011).

Fan and Chen (2011) found that yoga exercise has concrete benefits for both the physical and psychological health of older adults living with dementia within long-term care facilities. Fan and Chen (2011) report that "yoga-trained participants had better physical and mental health than those who did not participate, including lowered blood pressure, reduced respiration rate, strengthened cardiopulmonary fitness, enhanced body flexibility, improved muscle strength and endurance, improved balance, and therapeutic joint motion" (p. 470). Also, participants experienced reduced depression and exhibited fewer behavior issues (Fan & Chen, 2011).

Additional Reasons to Use CAM

In this section, we discuss cost effects and the reliance on less traditional health care treatments as contributing to the use of CAM by older adults.

Cost. The increasing use of CAM therapies can be traced to individuals wanting to take charge of their own health care, feeling discontented with traditional medicine, and needing to offset the increasing expense of conventional care (Págan & Pauly, 2005). Wang et al. (2015) assert that 12 million American adults responded that they used CAM to save money on prescriptions in 2011. Barnes, Bloom, and Nahin (2008) discuss adult CAM users and conclude that they delay or do not receive traditional care due to cost, and this has impacted the rise in CAM use

Cartwright (2007) states that the research regarding CAM and older adults is limited to studies done with those who can afford private treatment. However, when cost is not a factor older adults are open to trying CAM. When older adults participated in a program that covered the costs of CAM, they reported a preference for this treatment noticing that they were able to participate fully in the process, were responsible for noting the changes in their conditions, and described improved physical symptoms as well as improved mental health (Cartwright, 2007).

African American older adults continued to use supplemental, non-prescription oral therapies despite limited incomes when they learned that they were healthier than non-participants in a study done within a community clinic (Sternberg et al., 2003). Dietary supplements or herbal remedies are a low-cost alternative to expensive prescription medications. However, there is concern that complications can result when used in conjunction with pharmaceuticals (Tait et al., 2013; Wang et al., 2015), suggesting that coordination and integration of CAM and conventional care treatments are key to successful healthcare.

Reliance on less traditional health care treatments. Arcury et al. (2012) assert older adults with symptoms of illness frequently opt out of treatment, and when they do take action, they commonly report using over-the-counter and prescription remedies and rest. Arcury et al. (2012) conclude that CAM is common, but not as prevalent as over-the-counter and prescribed medications.

Cartwright (2007) asserts that within the population of older adults in this study of complementary care, the "whole package care" was valuable. Cartwright (2007) describes that the subjects' felt nurtured and supported by the providers within the clinic where they received CAM treatments. Wang et al. (2015) discuss the substitution of CAM as a cost-cutting strategy by older adults with low incomes, insufficient health insurance benefits, and failing health or disability. Two-thirds of older adults, who accessed their care at a community clinic, reported using vitamins and other oral supplements (Sternberg et al., 2003). Sternberg et al. (2003) assert the participants in this study used multivitamins most often, followed by vitamin E and calcium.

CAM Accessibility for Older Adults

In this section, we consider issues of CAM accessibility for older adults who continue to rely on CAM for their health care needs when moving to an assisted living facility or another care setting. First, we discuss education for providers of older adults. Next, we discuss what we know about the cost of CAM and any potential barriers. We conclude with a discussion regarding the importance of understanding supplement use by older adults.

Education for providers. Providers and patients both recognize the value of, and the desire for, communication (Ho, D'Agostino, Yadegar, Burke, & Bylund, 2012; Marinac et al., 2007; Ness et al., 2005; Williamson et al., 2003). Additionally, Ho, D'Agostino, Yadegar, Burke, and Bylund (2012) establish that the primary reason patients do not talk to providers about CAM use is that the providers do not ask. Education regarding CAM is important for those that care for the older adults to enable them to plan for the greatest success between the individual and the treatment that is used (Stares, 2014; Williamson et al., 2003). Increased education for providers will heighten their awareness of possible treatment interactions, which can further foster the integration of CAM with the current system (Williamson et al., 2003).

With specific attention to nurses, Beel-Bates et al. (2007) discuss the significance of registered nurses within an assisted living community. The nurses' focus on the maintenance of residents' health status, tracking medication effectiveness, and prevention of unnecessary pain and suffering, monitoring unnecessary transfer to emergency rooms or nursing homes and minimizing unnecessary patient harm as a result of medication errors (Beel-Bates et al., 2007). Williamson et al. (2003) state that professionals in the healthcare arena need greater reinforcement regarding CAM.

The cost of cam and potential barriers. An analysis of the 2007 National Health Interview Study found that adults spent $33.9 billion on CAM (Nahin, Barnes, Stussman, & Bloom, 2009). CAM use is more prevalent among individuals with higher than average income and that can afford the out of pocket expense that is not typically covered by health insurance (Bauer & Rayner, 2012; Ness et al. 2005). Ness et al. (2005) agree that those in the highest quartile of income were more inclined to use some form of CAM, suggesting that the ability to pay for CAM is a barrier to accessibility.

Understanding supplement use. Researchers assert that the lack of disclosure with healthcare providers regarding supplement use among older people is a concern (Cheung et al., 2007; Dello Buono et al., 2001; Marinac et al., 2007; Mehta, Gardiner, Phillips, & McCarthy, 2008; Ness et al., 2005). Tait et al. (2013) affirm that patients need to share their use of vitamins, herbs, and supplements with health care providers given the potentially adverse interactions with conventional medicines.

Sternberg et al. (2003) assert that when older adults take many medications there are multiple interactions and changes in metabolism, and there can be adverse reactions. Without a solid knowledge regarding supplements, consumers find it difficult to discern what information is accurate, and may need or want advice regarding what products to use (Marinac et al., 2007; Rozga, Stern, Stanhope, Havel & Kazaks, 2013). Marinac et al. (2007) emphasize their respondents' interest in learning more about herbal products and dietary supplements, a further indicator of the importance of expanded education and the benefits from incorporating it into their health regimen. As providers become more knowledgeable, and feel comfortable discussing the advantages of CAM and develop a more collaborative and integrative approach, access could be improved.

Summary and Research Question

Our literature review has shown that older adults are using CAM to supplement their health care needs and report benefits from its use (Fries, 2014). There is evidence that complementary and alternative medicine has positive psychological and physical effects on older adults (Bauer & Rayner, 2012). As older adults transition to assisted living and want to continue using CAM, staff can encourage and support residents, but will need education to do this (Stares, 2014). With the transformational growth of older adults occurring in Minnesota, and their desire to manage chronic conditions with CAM, it is prudent to determine if CAM therapies are an option in these communities and if not, why. Therefore, our research question is: Which CAM therapies do assisted living facilities offer onsite in the Twin Cities and why?

Research Lenses

The purpose of this chapter is to describe our research paradigm, culture of inquiry and theoretical, personal, and professional lenses and how they impacted the selection and design of the study, data collection and analysis, and our interpretation of the results. When researchers are transparent about their assumptions, readers are able to think objectively about how these biases impact the research. The reliability and validity of this study's findings are more accurately assessed in light of this full disclosure.

Research Paradigm and Culture of Inquiry

We begin this section by describing how our research stems from the critical realist paradigm. Next, we discuss how critical social theory frames our research.

Critical realist paradigm. Our research is rooted in the critical realist paradigm. Cruickshank (2012) maintains that critical realism must replace empiricism "to develop theories to interpret causal processes and advance knowledge through criticism" (p. 80). This paradigm is used increasingly as a viewpoint from which to study complex health care systems (Schiller, 2016; Cruickshank, 2012; McEvoy & Richards, 2006). Schiller (2016) asserts that this paradigm is emerging as a multi-layered way to view complex systems. Assisted living facilities for adults have become complex systems providing a continuum of care services. In addition, these systems interact with the Medicare and Social Security systems.

The complexity of these systems requires different ways of viewing reality. In critical realism some truths are inherent and constant and some truths we observe and experience (Schiller, 2016). In order to answer our research question, we considered all three ways of knowing to understand the complexity. For this research we found out how many and what type of CAM therapies were available at the assisted living facilities (inherent and constant), we did

the interviews onsite at each facility and toured them when it was offered (observed) and engaged in conversation with representatives of the facilities who were able to explain why or why not CAM therapies were available (experienced). Following this framework made it possible to answer our two-part research question.

Culture of inquiry. The culture of inquiry that we use as a framework for our research is critical social theory, meaning that we conduct our research subjectively and with discernment (Morrow & Brown, 1994). Patton (2002) describes critical theory as "orientation qualitative inquiry" due to the fact that the research lens is focused on a particular viewpoint (p. 129). This orientation is what guides us through our research process. Bentz and Shapiro (1998) assert "what is most important to critical theory is that its research contribute to a long-term project or goal of human emancipation, even if this goal is unrealized in the present or the immediate future" (p. 153). We will be "seek(ing) not just to study and understand society but rather to critique and change society" (Patton, 2002, p. 131). The societal context within which older adults age has changed over time and these changes have included the development of policies that have led to cultural and systemic restrictions which are exacerbated by race, class, income, gender and disability (Estes, 2001). Due to a predominant medical model of care, older adults are often reduced to a collection of distinct medical problems rather than a whole person with a thriving mind, body, and spirit (Powell, 2006).

Theoretical Lenses

We begin this section describing how holism frames our research project. We then discuss how social justice impacts our viewpoint.

Holism. Holism describes the gestalt of an entity as being greater than the total of the parts (Micozzi, 2011). As researchers from a Graduate Program in Holistic Health Studies, we

echo this belief. We believe that the mind, body, and spirit alignment is necessary for wellness. We also consider the importance of social connections, and recognize the impact the environment has on health (Micozzi, 2011). Another tenet that guides us with this research is the belief that achieving wellness is important for both chronic and acute health conditions even when a cure is not possible.

Social justice. As social justice advocates and students in Holistic Health, it seems paramount that we find ways to extend or increase the offerings of CAM to older adults. Looking at systems like assisted living facilities that are set-up to provide services to older adults seems like a logical way to do it. This conversation has the power to generate other conversations and influence a system as an entity and to benefit the whole person. This belief guides us to do this inquiry and we believe that we are contributing to older adults with the findings. The effects may not be immediate, but we will make contributions at St. Catherine University, our family and friends, assisted living facilities, and within the literature. We will be part of the solution in treating older adults in a holistic way.

Professional Lenses

Our research team brings a variety of relevant professional experience to this project. As Patton (2002) notes, the researchers, themselves, are important instruments of data collection and analysis. Therefore, we briefly describe our experiences and how they influenced our research process.

Chris. I have an undergraduate degree in human services and have had a long career working for nonprofit organizations providing services of all different kinds and ages of people. While I personally believed that all types of discrimination were responsible for the conditions leading an individual to seek out help from an organization, my focus of providing services was

almost always on correcting some perceived deficit of the individual seeking help. We (as staff) decided what was best for "our clients" with whom we were often frustrated for not doing what we thought they should be doing. We rarely asked people what or how they wanted things to happen or considered the possibility that we had different priorities or worldviews. This approach results in blaming individuals rather than taking a critical look at broader systems. Ironically, our research does not involve interacting directly with older adults. We chose to interview administrators of assisted living facilities because in our early review of the literature, we found that older adults often used CAM therapies from which they experienced benefits. This led us to find out more about the people making the decisions and to provide awareness, information, and education about CAM the administrators may not have had.

I believe individuals have an inherent right to the freedom to make the choices that are best for them. As a group, older adults have frequently weathered adversity and often have developed skills that draw on their strengths. These opinions have influenced this research project thus far because I am questioning the motivation of facilities that care for older adults and whether they have the balance sheet or well-being of older adults in mind. At the same time, I have to check my tendency to revert toward an impulse to find a way to fix something that I first interpret as a deficit.

Julie. For more than twenty years, I have been an advocate for people sixty years and older. I believe in helping them remain independent, make good decisions for their lives, and I dialogue with them regarding their life journey. I do not believe I have the answers for them, but I will challenge them to consider other points of view when appropriate. I have discovered in my work that people appreciate this process of mutuality. My advocacy role expands beyond the elders themselves, and includes educating their friends, family members, and anybody who will

listen to me about issues confronting their loved ones. Older adults have valuable wisdom to recognize and embrace, and this may provide benefits to our society on a macro level. Older adults have lived through many changes and they have experienced many hardships that contribute to their growth and wisdom. They are revered in many cultures because of this. I believe it is important to acknowledge and encourage them to share more of their insights.

I know from my experience, as a grant writer for an organization focused on older adults, funding is not adequate for the traditional models of service delivery. There are limited funding streams at a time when the older adult population is growing rapidly, and traditional health care does not have the answers for many of their issues. Helping older adults find ways to remain resilient/healthy in the face of this reality, along with educating and empowering them about issues that contribute to their quality of life, is one of my goals. I understand that CAM has benefits for all age groups. As a passionate advocate for older adults, I want to see how assisted living facilities are using CAM therapies to assist older adults. I believe this project provides a necessary platform to discuss CAM therapies in assisted living facilities and will inspire further dialogue going forward. We start the conversation with this research and believe that this will generate the momentum for additional conversations. Ultimately these conversations will impact the older adults living in assisted living facilities.

Personal Lenses

Just as our professional experiences have given us lenses that impact us as research instruments in this study (Patton, 2002; Brinkman & KvaleWe, 2009), each of us has relevant personal experiences that contribute to how we see this topic, how we engage with it as researchers, and how we use ourselves in the research process. Therefore, we note relevant

personal experiences (or lenses) along with our plans for reflexive monitoring of these lenses and their impact on this project.

Chris. Growing up and into adulthood, I have lived a middle class life with financial advantages and social privileges not available to all. I was born during the civil rights movement and was raised Catholic in a church focused on social justice. I started kindergarten the year the Minneapolis school system implemented and desegregated the schools and attended a diverse school outside of my neighborhood. Along with this, my parents were curious about the world and led dinner conversation that often turned to social, political and religious issues. Importantly, my sister and I were encouraged to question the status quo, develop critical thinking skills and we would receive positive feedback when we were able articulate an abstract concept well. I knew from a young age that the world was not fair for everyone. But the rest of my family I and were unaware of the privileges that we enjoyed because of the color our skin.

Because of the social, political, and religious contexts from which I view situations along with the emotional connection to others, I am particularly conscious of and sensitive to suffering. I also understand that I am living my own truth and that others are too, so I can't make assumptions based on my reactions. This viewpoint impacts this research because when I sense a problem caused by oppression, it is also true that it simply is not true in every case even if it looks like that to me from the outside. I needed to be aware of this and make sure that I asked clarifying and/or probing questions to ascertain the meaning of the statements made by the people that I interviewed. For this project, I had to balance an impulse to find fault with the way the systems we interacted with worked and have the patience to listen deeply in an effort to gain better understanding. Since our culture of inquiry is about transformation and changing systems, it is necessary to understand them and make assumptions.

Julie. As I have become more reflective with age, I realize how much my upbringing in my Finnish home influences my worldview. My mother who raised me was proud of her Finnish roots, and she was adamant that what was good for one, was good for all. I grew up believing that all people were worthy of the same treatment, and there should be no preferential treatment given to *anybody***.** I remember a high school friend who, when reminiscing with me, stated that what he remembered about me was my ability to include all people whether I was friends with them or not. I carry this idea forward with this study, believing that CAM should be available to all. I have thought about this many times, and I believe that would make my mother happy to hear. Another value that came from my upbringing is the concept of keeping life as simple as possible. This includes cooking simple meals and having minimal extraneous possessions. Along with this simplicity comes keeping things neat and orderly. Our house was always meticulously presentable to those who may stop by. I know this desire for order is a driving force for me. I believe that along with this attraction for order, comes my passion to present my beliefs and understandings in a systematic and rational way and be a voice for those who are not able to access their own.

My husband has told me that when I am passionate about something my mind can become closed to other ideas. I believe this is accurate, and as much as I try to be open, it is difficult for me. When I am unresolved about an idea, issue or decision, it is much easier to stay amenable to many points of view. This personal awareness has been a good thing for me as I have learned to step out of conversations if I know I am not able to remain neutral and without preconceived ideas. With this understanding, I knew that I needed to be transparent with my research partner if I believed that my preconceived ideas were getting in the way. I believe that my awareness of this was enough to keep it in check. I do not remember any time during the

study having to step away from anything or my research partner telling me that my bias was coming through.

After battling cancer in 2014, I know my views on many things changed. What once mattered to me does not create the same feelings in me. Living in the space between life and possibly death has brought a new awareness to my being. It is much easier for me not to sweat the small stuff, and much of life is small stuff to me now. My love and desire to bring goodness to all that I meet has not changed. In fact, this is the fuel that feeds my spirit. I believe that this project provides positive outcomes beyond our initial thoughts and hopes. Befrienders Training, a lay ministry I participated in many years ago, left me with one important thought. It is called "the ministry of absence," meaning that we never know how our presence affects a person once we leave them. Daily I think about this, and let it be my guide. With this guiding my work, I believe the interviews provided a dialogue to influence the respondents' ideas about CAM. This conversation will provide momentum for further discussion within the facilities, and staff will evaluate the alternative therapies that are available to the residents. I trust our energy influenced, and challenged ideas regarding the use of CAM, and those older adults will benefit because of our work.

Method

The purpose of this chapter is to describe the methods we used to answer our research question, "Which CAM therapies do assisted living facilities offer onsite in the Twin Cites and why?" We begin by discussing our paradigm and culture of inquiry. Next, we describe our rationale for using the interview method. Then, we detail the process to develop our instrument. We then discuss the steps we took to address the protection of human subjects and ethical considerations. Next, we describe our data collection and analysis procedures. We then discuss the reliability and validity of our research. Finally, we detail our design specific strengths and limitations.

Paradigm and Culture of Inquiry

Our research paradigm and culture of inquiry inform how we approach our research. We begin by describing the critical paradigm and axiology that is the framework for our research. We then define critical social theory and demonstrate how this culture of inquiry informs our process. Then, we explain how critical social theory sets the context for how we view the social constructs that define or confine older adults.

Critical paradigm. Our personal epistemology and axiology align with the critical paradigm, which "focuses on the alleviation of suffering through the critique of sources of oppression" (Bentz & Shapiro, 1998, p. 38). We acknowledge that our research question requires both the detachment to collect concrete data that is part of a commonly shared reality as well as the discernment to interpret meaning about the subject matter we are studying. The critical realist ontology expresses this dichotomy and also allows for different types of data collection (Creswell, 2014; Graham & Geisler, 2009; Schiller, 2016). The philosophy of the critical paradigm is rooted in a belief system that allows for the expression of both objective and

subjective reality (Creswell, 2014). The collection of two forms of data is an expression of each of these viewpoints. Our research question first acknowledges the tangible existence of complementary and alternative medicine practices available onsite at each assisted living facility. Secondly, we ask questions to find out why these practices are or are not available by asking critical questions. We approached this study with a flexible philosophy and critical worldview because it melds well with our culture of inquiry.

Critical social theory. Originating from the philosophical traditions of Socrates, Plato, Aristotle, Immanuel Kant, and Karl Marx, critical social theory is rooted in logic, deductive reasoning, rationality, radical social change and rejection of materialism (Bentz & Shapiro, 1998; Bronner, 2011; Morrow & Brown, 1994). This culture of inquiry attempts "to understand, analyze, criticize, and alter social, economic, cultural, technological, and psychological structures and phenomena that have features of oppression, domination, exploitation, injustice, and misery" (Bentz & Shapiro, 1998 p. 146). Bentz and Shapiro (1998) assert that this culture of inquiry, which involves a process of transformation and consciousness resulting from the research, is as important or more important than the immediate result of the research. Within this culture of inquiry, there is an assumption that the data we collect may promote widespread change, usually over time.

The premise of the inevitability of illness and disability one associates with aging is discriminatory and is a construct of social culture unwilling to make accommodations (Kennedy & Minkler, 1998) or change social policy (Estes, 2001). Further, this resistance is based on economic considerations rather than what is moral and just (Kennedy & Minkler, 1998). Critical social theory allows us to be active participants in a process of discovery and critical examination of socially constructed oppression of the elderly (Bentz & Shapiro, 1998).

Critical social theory has moved through changes in philosophy and prominence (Bentz & Shapiro, 1998; Bronner, 2011; Morrow & Brown, 1994). The current iteration of inquiry requires that the phenomena studied in research have considerations both historically and in the context in which it occurs (Morrow & Brown, 1994). Perhaps the most basic thing that sets it apart from other cultures of inquiry is its injunction to think concretely rather than abstractly, and concreteness involves context (Bronner, 2011; Morrow & Brown, 1994). The principle of concrete (from the Latin word *cede* for "withdraw" or "remove"), thinking tells us that we should not look at a phenomenon by removing it, or abstracting it from its context. To understand it fully—that is, concretely (from the Latin word *concrescere* for "growing together")—we need to grasp it in its context (Bentz & Shapiro, 1998, p. 146-147).

This distinction—concrete rather than abstract thinking—is key to why this culture of inquiry is the best fit for our study. From our perspective, it is important to know which facilities offer or do not offer CAM; we also wanted to know why. We intended to dig deeper to find both the benefits of, and barriers to providing this type of care in an assisted living facility. This study focuses on what is and involves interaction with individuals who have the power to make decisions about providing or withholding particular services, and the design is to inform and educate those that we interview as well as educate ourselves as researchers. Using the interview method, we planned to collect quantitative data about what CAM services are available. We collected qualitative data to address the "why" part of our research question. We plan to provide all of the representatives with an executive summary of the project, so that they have a report of the collective information. This will educate and inform them about what other facilities offer and may inform them about CAM therapies that they do not know about that may be helpful to their residents.

Another feature of critical social theory is the focus on systems. Bentz and Shapiro (1998) assert, “What is most important to critical theory is that its research contributes to a long-term project or goal of human emancipation, even if this goal is unrealized in the present or the immediate future" (p. 153). We anticipate that this research project will provide a dialogue to inform decision makers about alternative methods of care. Further, we consider this line of thinking to be the first step toward improving health care options for older adults beyond the choices available in the traditional medical model.

Stares (2014) identifies and encourages professionals working with older adults in health care systems to increase their knowledge of CAM because older adults are less likely to seek information or mention current practices if they think that the professional is uninformed. Also, Stares (2014) suggests when "nondisclosure is high, there may be missed opportunities to benefit the health of older adults, and reduce strain on the health care system". It is a principle of critical social theory inquiry to influence change for individuals who are disenfranchised from the power structure in which they live, and this happens when older adults are dependent on the structures and systems of an assisted living facility (Estes, 2001).

Rationale for Interviews

The critical paradigm and critical social theory culture of inquiry drive the selection of interviews as a research method. Interviews are in line with our critical paradigm and critical social theory inquiry. Asking questions is essential to critical social theory inquiry for: “wielded with purpose and care, a question can become a sophisticated and potent tool to expand minds, inspire new ideas, and give us surprising power at moments when we might not believe we have any” (Neyfakh, 2012, p. 4). Rothstein and Santana (2011) assert that the ability to form and strategize how to use questions effectively is critical to learning and disseminating new

information. Also, the number of possible responses can increase or decrease depending on the phrasing of a question (Neyfakh, 2012).

Strengths of this method include the in-depth investigation of subject matter leading to opportunities to clarify ambiguity in participant responses (Kvale & Brinkmann, 2009). For this reason, we used an interview schedule, which allowed for questions resulting in qualitative and quantitative data as well as follow-up questions to clarify the responses as they occurred in individual conversations (Vogt, Gardner, & Haeffele, 2012).

Sampling Procedures

In this section, we describe our recruitment rationale, and our purposive and snowball sampling procedures. We submitted an application for our basic research study to the St. Catherine University Institutional Review Board on December 1, 2015, and it was approved December 16, 2015. At the time of our search there were 102 registered assisted living facilities in Ramsey County and 330 in Hennepin County. We conducted interviews with 11 individuals representing eight assisted living facilities over a five-week period. We collected both qualitative and quantitative data in the interviews. Our inclusion criteria included representatives from each facility that individually or as part of a team made policy and program decisions for the facility and had the ability to answer questions about why CAM therapies are or are not offered onsite. We selected Hennepin and Ramsey counties as the geographic locations to conduct this research because these counties include urban and suburban communities. In addition, these two counties have the highest population of older adults in the Twin Cities metropolitan area along with the most assisted living options. Both researchers live or work in Saint Paul, and our proximity to these two counties allowed us time to conduct the interviews, particularly since the interviews

took place in the winter when the weather could be a potential factor in traveling to interview sites.

Purposive sampling. We started by using purposive sampling to select facilities from a specific group of representatives with unique knowledge or characteristics (Vogt, Gardner, & Haeffele, 2012). We compiled two lists of assisted living facilities from the Twin Cities Senior Housing online database (2016), one from Hennepin County and one from Ramsey County. To find this source, we conducted an internet search on Google using the phrases “twin cities senior housing” and “twin cities assisted living facilities" which revealed twelve databases searchable by both type of living arrangement and location. We chose to use the Twin Cities Senior Housing database for its comprehensive information and multiple search options.

Since Julie works with older adults in Ramsey County, and to reduce potential bias, Julie worked from the list of Hennepin County assisted living facilities, and Chris worked from the list of Ramsey County assisted living facilities. Since our first contact with each facility was likely to be a receptionist that would direct our call to the appropriate person, we developed a script to use for our first contact call (Appendix A). We created a second script for use with potential representatives (Appendix B). It was unusual to reach individuals on the first call, and we left messages on the voicemail systems of potential representatives using an abbreviated version of this script.

Our goal was to interview up to 16 representatives of eight to ten assisted living facilities. We aimed for interviews with a representative of four to five facilities in each county with an even balance of urban and suburban locations. To create the calling lists, we went to the Twin Cities Senior Housing website and selected “senior housing” then selected “rentals” then “assisted living” and finally, “filter by county.” The Hennepin County list included 82

unduplicated assisted living facilities and the Ramsey County list included 33. We called the facilities on the lists in sequential order that we generated. We made fifteen calls from the Ramsey County list resulting in interviews with two representatives of suburban assisted living facilities. We made nineteen calls from the Hennepin County list resulting in two interviews; one from a suburban assisted living facility and the other from an urban facility. This sampling method yielded a total of four interviews with qualified representatives over a two-week period. Due to our tight timeline, we considered other sampling strategies to meet our goal, an example of researcher reflexivity.

We generated a second calling list for Ramsey County by conducting an additional search using the search term "MN housing with services list" on Google. "Housing with services" is the designated name for an umbrella of housing arrangements, which include assisted living facilities for older adults (The Minnesota Department of Health, 2016). This list included the name of the main contact person for the facility along with a direct phone number to the contact person listed. To create the calling list, we went to the Minnesota Department of Health, Health Regulation - Facilities and Professionals database and selected "housing with services" then selected "by county" and then "Ramsey" and exported the information to an Excel spreadsheet. Working sequentially down the list, we made calls to 15 of the 46 assisted living facilities on this list targeting assisted living facilities in urban locations. We left 11 voicemail messages and reached two representatives in person without needing to leave a message. Both representatives reached in person agreed to take part in the study, and one representative returned a message and agreed to participate. This gave us three more of our participant facilities.

Snowball sampling. When our first strategy did not produce the number of desired interviews, we also used snowball sampling in 3 different ways to recruit additional

representatives. First, we sent email messages to the 3 representatives we interviewed for this study to promote the opportunity to participate with their professional networks and asked them to share our contact information. We then asked fellow students in the Master of Arts in Holistic Health Studies programs to share information about the study with individuals within their social or professional networks. Finally, we both posted information about the study and a recruitment statement on our Facebook pages. To reduce the risk of coercion, we did not directly contact potential representatives. Instead, we asked that they contact us if they were interested in participating. We recruited one additional representative using this strategy.

When we spoke directly with potential representatives, we used the appropriate script and asked if they were interested in participating in our study. Eight of the nine potential representatives reached in person agreed to participate in the study. Interviews took place onsite at each facility at a mutually agreed upon time as scheduled. In one case we were asked to send our confidentiality agreement by email in advance of our meeting so that a supervisor could approve the interview. We gave the Consent Form to the remaining representatives onsite before beginning the interview. We obtained signatures from all representatives and gave each of them a copy of the agreement.

Instrumentation

In this section, we describe the logic behind the development of our interview schedule. We also describe our roles as researchers as instruments in the interview process.

Interview schedule. We decided that interviews were the best way to collect the data that would answer our research question. Interviews allowed us to collect quantitative data to determine the frequency of CAM use in assisted living facilities as well as rich descriptive qualitative data. We conducted interviews within the pragmatic framework which Patton (2015)

asserts “seeks solutions to problems” and is “the basis for interviewing program participants from a utilization-focused evaluation perspective or undertaking action research interviews with people in organizations and communities” (p. 436). Morrow and Brown (1994) assert that in Social Critical Theory, "intensive research designs consider small numbers of cases regarding a great number of individual properties" (p. 250). The value of this perspective is in capturing the depth of human experience. As a result, the interviews with representatives of the assisted living facilities allowed us to go deeper than just acquiring the number of CAM therapies being used. We were able to ascertain the reasoning behind the decision-making process to offer or not offer CAM therapies in the facilities.

A search of instruments in the Health and Psychosocial Instruments (HAPI) database in November 2015 did not reveal an instrument that was a fit for this study. We designed an interview scheduled resulting in a set of four structured and 15 semi-structured interview questions to collect quantitative and qualitative data about the types of CAM therapies available onsite at assisted living facilities (Appendix C). We compiled a list of the sixteen most used CAM therapies from a national health survey to determine if they were or were not available onsite at each facility (Clarke et al., 2015). We asked representatives to list additional CAM therapies available at the facility, not on the list of 16 items to capture the totality of services available onsite.

We designed the second set of open, semi-structured qualitative questions to explore the reasons that facilities offer or do not offer CAM to its residents. The purpose of these questions was to clarify the structured questions and to stay within the scope of the study. We designed our research question and the questions on the interview schedule to provide information about CAM

to the representatives that they may not have. Also, the questions evoked responses that would inform us about practical use of CAM making the interview informative to all participants.

Reliability and validity of the interview schedule. Julie is a professional in the field of gerontology with over 25 years of experience. Chris and Julie have each had training and experience using different interviewing techniques. Chris has training in interviewing techniques, which she received as an employee of a market research firm. In addition, over the last ten years she has developed or has been part of a team of professionals developing program evaluation plans for several nonprofit organizations. Both have conducted interviews in a supervisory role with prospective employees. We designed interview questions based on the literature to answer our research question and tested them with three professionals in the field of gerontology. The responses to most questions provided the information we were seeking and we reworded those that did not. We removed some questions from the instrument due to redundancy.

Before each interview, we each arrived early and took the time to review the interview questions and set an intention to bring positive energy and openness to the conversation. Following each session, we took the time to reflect on the interview and took notes about our interpretations about the conversation as well as observations about the facility and the representative. As we interviewed representatives, we individually recorded field notes including information about what the representatives said, ideas they expressed, and concepts we wanted to go back and ask about but could not interrupt to ask while they were in the middle of expressing a thought. We also captured nonverbal expressions, reactions, or comments made before or after the interview that were not captured on the recording device. Following the interviews, we compared our interpretations and reflected about what we noticed in our observations of each facility and captured this information in field notes. The practice of taking notes increases

reliability by making a record of the data and not relying on one's memory to capture what was said and ensuring the reliability and validity of the information recorded (Brinkmann & Kvale, 2015; Patton, 2015).

Researchers as instruments. The interview schedule was designed with the intention that we—and the participants giving the answers—would learn something new in the process. Understanding is essential to our inquiry given that in critical social theory, "the focus of inquiry becomes to understand and explain the phenomenon in a way that would facilitate changing it" (Bentz & Shapiro, 1998). Using the list of most used CAM therapies introduced new concepts to the representatives and several asked us to explain or describe the practice (Clarke et al., 2015). The representatives considered some practices that were not on the list to be CAM. Also, Kvale and Brinkmann (2009) assert that "the researcher is his or her own research tool" so we were conscious of how our experiences and interpretation of the responses from participants influenced further questioning (p. 134). Further, Auerbach and Silverstien (2003) explain, "examining the way one's subjectivity influences one's research is called reflexivity and is a goal of qualitative research" (p. 27). We noticed that conversation seemed more natural with each interview with improved researcher reflexivity and that the follow-up questions elicited richer responses (Patton, 2015). We had an awareness of our own personal and professional biases as we conducted our interviews. It was important to recognize that the interview was a professional conversation to gather information and there was a need to respond with neutrality (Patton, 2015). We were also mindful of repressing our impulse to connect with representatives by sharing information about our thoughts.

Protection of Human Subjects/Ethical Considerations

In this section, we discuss the ethical scrutiny taken to protect the human subjects participating in the study. First, we discuss the information and consent form (see Appendix D) we gave to the representatives. Next, we consider the potential risks and benefits of participating in the study. Finally, we describe coercion, which can pose a risk to participants.

Informed consent. During our first call with representatives we introduced the project, gave background information, and described the procedures. When we scheduled interviews during our initial conversation with representatives, we informed them that information shared in the interviews would be confidential, and that we would give them a consent form to sign. One representative asked for a copy of this form to review prior to the interview. The others waited to read and sign the form at the study location.

We gave the representatives information during the recruitment call, and in person before the interview, that they could withdraw from the study at any time. They were given contact information to reach us, our faculty advisor, and the chair of the St. Catherine University Institutional Review Board. We reviewed the information and consent form before the start of the interview and we asked representatives to sign a copy of the form. We also gave them a copy.

Risks and benefits. We informed representatives that participation in the study would not lead to any direct benefits to the facility or for them. Risks for representatives in this study included protecting the confidentiality and privacy for employees who may share information about the facility, management or coworkers and possible coercion. The risk of breaching confidentiality was low and we minimized it by removing personal identifiers describing the facilities or the representatives in the final report. To minimize the risk of invasion of privacy, we designed questions to focus on policy and not the personal feelings of the subject. In addition,

we did not name facilities in the final research report, and we were careful not to provide descriptions of the facilities that would make them easily recognizable geographically, or to those working in this field.

We each transcribed one interview and a professional transcriptionist transcribed the other six. We secured our data on two password-protected computers that only we had access to and a locked file cabinet. We deleted audio interview data from the audio recording device once downloaded onto the computer. A professional transcriptionist had access to the audio data of the interviews via a password-protected folder in Drop Box that only contained de-identified interview data. The transcriptionist signed a confidentiality form (Appendix D). We assigned letters A-H to the eight interviews to ensure confidentiality. Destruction of the data will take place no later than June 1, 2016.

Coercion was a minimal risk in this study. We used snowball sampling during our recruitment phase. However, we did not directly contact any potential respondent. We each posted a message to our Facebook page, sent an email to students within our research class, and asked representatives of facilities that we interviewed to forward a message to colleagues. In all three cases, we simply asked them to share our recruitment message. We relied on potential representatives of facilities to contact us. In one case a referral from a representative that had completed an interview resulted in an interview with a colleague of that person. As previously mentioned, we also made sure that Julie was not in the position of asking someone she knew professionally to participate in an interview.

Data Collection Procedures

We conducted interviews onsite at each of the eight assisted living facilities. Four of the meetings with representatives took place in a conference room, three took place in the office of

the representative and one was conducted in the atrium of the facility. Both researchers were present for seven of eight interviews. Julie missed one appointment due to illness, so Chris conducted that interview alone. We interviewed at least one individual at each of the eight facilities, and we interviewed two individuals at three of the facilities. We interviewed two individuals at some facilities when the first interviewee indicated that another person might be able to answer questions that they were unable to answer. In all three cases, the two interviewees were in the room at the same time.

We began the interview with each representative by explaining our research project and conveying our research question. We gave representatives a copy of our consent form to read and encouraged them to ask questions (Appendix E). We verified that they understood what they were signing by asking open-ended questions and asking them to restate what was expected of them. We kept a copy of the signed consent for our records. We gave each representative a copy of the consent for his or her records. We asserted that we would offer transparency with the findings and would follow up with them by sharing an executive summary of the study.

At each session, one researcher asked the interview questions and the other took notes and ensured proper operation of the audio recording device. After four interviews, we noted that the researcher who had conducted three of the four was developing a more natural, conversational tone and decided to stay in the roles of interviewer and audio recorder/note taker for the remaining four interviews. This improved the reliability of the interactions because there was a consistent approach in interview technique (Kvale & Brinkmann, 2009). At times, the researcher taking notes asked clarifying questions when more information was needed.

We audio recorded each interview on a digital device and ranged between 15:51 to 47:06 minutes in length. We downloaded and stored the audio recordings on a password-protected

computer on the same day the interviews took place. We deleted the original recordings on the device once they were stored on a password-protected computer.

Data Analysis Procedures

First, we describe the process we used to organize the data. Then, we detail the analysis of the quantitative data. Finally, we describe the analysis of qualitative data.

Organizing the data. We began data analysis by each individually listening to the recorded interviews. Next, we each read all eight interview transcripts while listening to all eight audio recordings of each interview. We checked the audio recording against the transcripts for accuracy and noted when there were discrepancies. We compiled our field notes by typing them into a word document. Patton (2015) asserts that multiple interactions with the data are critical because "findings emerge out of the data through the analyst's interactions with the data" (p. 542). After these steps, we set two full days aside to meet to further sort and analyze our data. We then organized our data by types: quantitative data (types of CAM available) and qualitative data (clarification questions). The first three questions on the interview schedule primarily resulted in quantitative data while the remaining questions resulted in qualitative data. Multiple contacts with all forms of the data are critical so that we established familiarity with the data to ensure reliability and validity (Crowe, Inder, & Porter, 2015).

Quantitative data analysis. First, we completed descriptive statistical analysis of the quantitative data. The first three questions required specific answers about CAM therapies. Eleven representatives from each of the eight facilities gave responses to these questions and tabulation of the answers was done per facility not per individual representative responses. The first question asked representatives to tell us what types of therapies come to mind when they consider the term complementary and alternative medicine. The second question asked the

representatives from each facility whether the 16 most commonly used CAM therapies between the years 2002-2012 were available onsite at the facility (Clarke et al., 2015). We read the list of questions and representatives responded with "yes" or "no" answers, resulting in a list of which of the 16 CAM therapies were available at each of the eight facilities. The third question asked representatives if any other CAM other therapies were available that they did not previously mention. This question resulted in additional lists of CAM therapies available at each of the eight facilities.

First, we made a list of all eight facilities on a white board using the transcripts from the interviews. Next, one of us read from the transcripts aloud while the other made a list of the responses to question one for each facility. We checked the white board list against the transcript to ensure accuracy and then took a photo of the board when we knew that the information was correct to ensure reliability and validity. We erased the information on the board and repeated this process with each of the two remaining questions.

We then used the data from the photos to compile three tables on an Excel spreadsheet detailing the facility representative's answers to each question. To tally responses to all three questions, column A was a list of the eight facilities. For question one (what kind of therapies come to mind when you hear the term CAM), the headings for columns B-S were labeled with all the responses to question one. For the responses to the second question, columns B-Q were labeled with the sixteen most commonly used CAM therapies. For the responses to the third question (are there others you offer not on this list), columns B-Y were labeled with the responses from the facility representatives.

To tally the responses, the number one was added on the line for each facility in each column where the representative mentioned the CAM therapy. The summation feature on the

spreadsheet tallied the down the columns to determine total number of times each CAM therapy was mentioned by each facility and across the rows to determine the total number of responses for each facility. We also made a list of comments made by representatives about the therapies while responding to question one. We used the quantitative data in the three tables to create the tables for the results section for this research study. When the data was entered we checked our accuracy against the photos of the white board tallies. We also checked the summation feature by adding each row and column using a calculator. We used some of the qualitative data from the additional comments of the representatives in the results and discussion sections of this study.

Qualitative data analysis. For this study, we conducted thematic analysis of the qualitative data (Brinkman & Kvale, 2015; Crowe et al., 2015; Patton, 2015; Vaismoradi, Turunen & Bondas, 2013). Across disciplines it is common to find discrepancies in the definitions and descriptions of thematic and content analysis (Crowe et al, 2015 & Vaismoradi, et al., 2013). Crowe et al. (2015), assert that thematic analysis "can be defined as a process of interpretation of qualitative data in order to find patterns of meaning across data" and content analysis "can be defined as a process of description of qualitative data in order to represent clusters of responses" (p. 617).

To begin our data analysis first, we reread the transcripts out loud together and noted contextual information not directly related to the questions that we asked and wrote this information on a white board. We then entered each question from the instrument onto an Excel spreadsheet and listed the responses from all representatives that directly answered each question. This made it possible to see the responses from the representatives to every question in totality, and made it possible to begin to detect patterns by grouping common words and phrases used among the eight facilities.

Next, we independently began to identify one-word common themes stemming from the answers to each of the qualitative questions on the interview schedule and write them on notecards. We also read our field and observational notes and highlighted recurring words and phrases and added these onto cards. We then sorted the cards with common language into categories of larger themes and noted similar themes that we each identified in our independent process. We discussed, revised, and identified four major themes based on the commonality of the words and phrases used.

Crowe et al. explain "content analysis involves establishing categories and identifying the frequency by which they occur" and that "category refers to the manifest content" while themes moves from this to an understanding of the latent meaning" (p. 617). Our process moved beyond the obvious content and resulted in themes that "involves the search for and identification of common threads that extend across an entire interview or set of interviews" (Vaismoradi, et al., 2013, p. 400). Further, we did not interpret the data using "quantitative counts of the codes" as is often the reason for using content analysis. For these reasons, we contend that we used thematic analysis for this research study.

Reliability and Validity

Reliability and validity are addressed when designing, conducting, and producing a report of this research project. This needs to occur at all steps along the way. First, we will address the steps we took to ensure reliability. Next, we will discuss how we addressed validity.

Reliability. We did a thorough literature review regarding the use of CAM, older adults' use of CAM, and assisted living facilities to determine gaps for further study. We then thoroughly explored and explained our research lenses, including our theoretical, professional, and personal lenses to be transparent about our biases for ourselves and for our readers. This

information was necessary as there is a prevailing opinion in the scientific community that qualitative data produced by conversations are likely to be influenced by the bias of the researchers and does not result in reliability (Vogt et al., 2012). This information provides transparency regarding some of our worldviews, and allows the reader to assess the study in light of our biases. We also each have professional experience in conducting different types of interviews and Chris has experience with developing program evaluation.

We each transcribed one verbatim interview and a professional transcriptionist produced verbatim transcripts for the remaining 6 interviews. We each listened to the audiotapes independently and read the transcripts to ensure the tapes matched the written transcripts. Two more times we each read our transcripts separately and highlighted what we thought was relevant data for analysis. Together we analyzed our data noting themes and what findings aligned with the literature. Further analysis provided us with concepts that we did not recognize during our actual study (Patton, 2015). These unanticipated findings became our unexpected findings section in the paper. To reinforce our conclusions regarding the analysis, we had many conversations prior to writing and refining our results and discussion chapters.

Validity. Throughout our design and implementation processes our investigator responsiveness, reflexivity, and active analytical stance were evident. At each point of the process, we discussed, discerned, and evaluated where we were and where we were headed. In-depth probing during the course of an interview is one way to improve the validity of interview questions (Vogt et al., 2012). We had a conversation after each meeting with the representatives to discuss our experience and our initial perceptions of what we heard and recorded this information in notes. Once we collected the data, we transcribed our audio recordings to increase validity (Brinkmann & Kvale, 2015). However, since there is a distinction between the

expression of spoken and written language, two transcribers using the same recording often produce transcribed conversations with different meanings (Brinkmann & Kvale, 2015). Each researcher transcribed one interview, and then verified the other researcher's transcript for accuracy. The other six interviews were professionally transcribed, and both researchers verified those for accuracy.

We agree with Brinkmann and Kvale (2015) that the skills and effectiveness of the researchers influence validity. Also, achieving validity in research is dependent upon actively pursuing “quality control” at every stage of the research process (Brinkman & Kvale, 2015, p. 284). After data analysis, we produced the results and discussion chapters. We wrote individually by sections and then read and critiqued the others work. This technique aligns with our culture of inquiry, in that approaching validity from this standpoint requires us as researchers to "adopt a critical stance" on our process and act as the "devil's advocate toward (our) own findings (Brinkmann & Kvale, 2015).

Design-Specific Strengths and Limitations

This research study had strengths and limitations due to its design. First, we discuss the design-specific strengths. Next, we discuss the limitations of this research design.

Strengths. One of the strengths was the reflexivity of our sampling process. When we ran into barriers trying to connect with potential representatives by leaving voicemail messages, we tried another sampling method. We also tried another database from which to generate a list. Both of these changes helped us reach our goal of eight assisted living facilities to take part in the study.

We were able to collect information regarding what is the use of CAM, reasons for its use, and barriers to its use. The benefit of these findings is that they contribute to the accumulative knowledge or facilitate change (Bentz & Shapiro, 1998).

Limitations. A limitation of this study was the difficulty finding participants at the facilities that were willing to participate. Another issue was that we used a small sample size to gather our data from.

Results

The purpose of this chapter is to report the results of our research, "Which CAM therapies do assisted living facilities offer onsite in the Twin Cities and why?" The results of this begin with a description of the eight assisted living facilities and the representatives that were interviewed. We then discuss the observational data about the facilities and the representatives. Next, we summarize the types of CAM therapies available in the facilities. Finally, we present four themes that emerged from the data along with supportive documentation: 1) CAM classification and terminology, 2) barriers to offering CAM, 3) employee advocates and organizational support for CAM in the facilities, and 4) benefits of CAM use.

Description of Participants

In this section we describe the facilities that took part in this study. We then describe the representatives of the facilities who were interviewed.

Description of the facilities. Recruitment of assisted living facilities for this study began on January 6, 2016 and ended on February 17, 2016. We collected data about eight assisted living facilities from interviews with a total of eleven representatives who make decisions or are part of a team that make decisions about the type of CAM available at the facilities. We interviewed at least one individual at each of the eight facilities, and we interviewed two individuals at three of the facilities. All of the facilities are located in Minnesota with six situated in Ramsey County and two in Hennepin County. Three facilities are located in suburban communities and five are located in the urban communities of Minneapolis and St. Paul.

All but one of the facilities provided continuum of care including independent living, assisted living, enhanced assisted living, assisted living for memory care, transitional care,

memory care, skilled care, and hospice care. In addition, many facilities are campuses with a mix of private pay and subsidized options.

Most representatives describe their facilities as providing a continuum of care. Several also use the word *campus* to refer to the sprawling connected multi-building complexes. Of the eight participating facilities, just one was a stand-alone assisted living facility. This particular facility served individuals with persistent mental illness and 55% of the residents were older adults ages fifty-five to sixty-five. These residents were waiting to meet the age requirement to move to a building for adults ages sixty-two and above.

For the facilities participating in this study, the typical sequence of care begins with independent living and then progresses to various levels of assisted living. Some residents move to nursing home care that may or may not be offered onsite depending on individual medical needs. Most of the facilities also have specific space dedicated for individuals in need of transitional care who need a high level of care while recovering from a short-term illness or injury. One facility has an adult day program and another has a companion care living arrangement where respite for a caregiving spouse is included in the rent. Hospice care services were available with most types of living arrangements at all but one facility participating in the study.

There are differences in how each facility collects payment for the various levels of care. Two facilities accept private pay only (personal income, long-term care insurance, or health insurance), and one is a public housing assisted living facility that is fully funded by state and federal government sources. The five remaining facility participants fall in between and offer multiple payment options including private pay, elderly waiver, or medical assistance for those living in memory or long-term care. For individuals who live in independent or assisted living,

the primary option is private pay. Some of the facilities maintain a few subsidized spaces and these are generally reserved for long-term residents who have run out of funds to pay their rent. Representatives of the facilities reported that generally when individuals run out of income to pay rent for assisted living their only option is to move to a facility that accepts public sources of payment.

There is also variety in how facilities are owned, managed, or aligned. In several cases, one company owns the building while another company manages the staff. Additionally, there can be multiple organizations providing residents with skilled medical services. Most facilities have partnerships with medical systems to provide access to physicians, physical and occupational therapists, and psychological or psychiatric care. All but one facility are aligned with a Christian religion although each representative indicated *all faiths are welcome,* and offered examples of the availability of *non-denominational or ecumenical services*.

Description of representatives. We interviewed 11 representatives from eight facilities who had a wide variety of experience and expertise. Two were male and nine were female. Eight of the 11 expressed personal interest in CAM and leveraged this interest to find ways to incorporate CAM therapies into the schedule of activities. Three representatives have training specifically in a type of CAM practice.

Observational Data

In this section we discuss the observations we noted about the facilities. We then describe our observations about the facility representatives who were interviewed for this study.

Observations about the facilities. We noticed two major differences upon entering the facilities, depending on whether it was a locked community or not. Walking into the three suburban and one of the urban facilities, a receptionist greeted us and offered coffee. There were

atriums, coffee shops, and gift shops and each had the appearance of a hotel. These areas were quiet and the residents were notably absent in the common areas. The remaining four urban facilities required us to push a button to be buzzed in. In several of these facilities, residents were sitting near the entrance watching people come and go.

We took tours at five of the eight sites. Three tours included examples of assisted living spaces and common areas. There were areas for recreation, activities, meals, and a quiet space for spirituality and medical appointments. We did not observe any open space that did not serve a specific purpose. The other two tours focused on specific areas that are used for CAM therapies. One example is a room that houses specialized exercise equipment for older adults with dementia, and an indoor playground for adults working on improving strength and balance. Another example is a carpeted labyrinth that is installed in an onsite chapel.

Observations about the representatives. Of the 11 representatives interviewed, one of the 11 was not engaged. The representative was late for the appointment, rarely made eye contact with us, was distracted during our conversation, and responded with brief answers resulting in the shortest interview. The others seemed excited to talk about CAM and the practices offered at the facilities. Some seemed embarrassed if they were not familiar with a particular practice and most were interested in learning more about what they did not know. Most were familiar with a few CAM practices, and seemed unaware of the broad array of available CAM therapies.

Types of CAM Available in Assisted Living Facilities

In response to the first question "what types of practices come to mind when you hear the phrase complementary and alternative medicine" (see Table 1), representatives identified half of the items from the list of sixteen most used CAM therapies from the 2012 National Health Interview Survey and identified an additional ten practices that were not on the list. Responses to

this question included statements such as *any sort of non-medicinal therapy for a chronic condition or for providing comfort* and several comments about practices that are *non-pharmacological* or used to *avoid having to use medicine.* One representative mentioned that CAM therapies *promote relaxation and are not standard medical practices.* Another noted that CAM focused on *general, overall wellness and looking at the whole person.*

Table 1

Response to the question: When you hear the term complementary and alternative medicine what types of practices come to mind for you?

Practices Identified as CAM	Number of participants (facilities) identifying this as CAM
Massage Therapy	4
Aromatherapy	3
Music Therapy	3
Acupuncture	2
Art Therapy	2
Chiropractic	2
Pet Therapy	2
Yoga	2
Energy Healing	1
Essential Oils	1
Meditation	1
Relaxation	1
Spiritual Practices	1
Tai Chi	1
Traditional Chinese Medicine	1
Vitamin/herbal supplements	1
Water Aerobics	1
Whole Person/Holistic	1

When asked which, if any of the 16 CAM therapies were in place at a facility, five including homeopathic treatment, naturopathy, hypnosis, biofeedback and Ayurveda were not offered by any of the facilities (see Table 2). Seven of the eight facilities provide *massage therapy* and representatives indicated that *touch is important.* In all cases, residents in assisted

living pay for massage therapy, as it is not included in their rent. Representatives see it as an amenity they can market to prospective residents. A majority of the facilities also offer *yoga, tai chi* and *special diets*. At least half of all representatives reported offering*, deep breathing exercises, meditation therapy and energy healing*. Half also indicated that *nonvitamin/ nonmineral dietary supplements* were dispensed only by a physicians order; the other half indicated that residents may be taking these independently but the facility did not track this information. Several representatives indicated that they *had heard of* several of the practices on the list and asked for more information about what they involved. Some representatives indicated that management encouraged staff use CAM therapies for self-care.

Table 2

Response to the question: I'm going to read a list of CAM therapies. This list of sixteen complementary and alternative medicine practices was selected based from a national survey titled, "Trends in the use of complementary health approaches among adults: United States, 2002-2012" (Clarke et al., 2015). Please let me know if any of these are available onsite at your facility.

Practices Identified as CAM	Number of participants (facilities) identifying this as CAM
Massage Therapy	7
Yoga, tai chi, qi gong	6
Special diets	5
Nonvitamin, nonmineral dietary supplements	4
Deep breathing exercises	4
Meditation	4
Energy Healing Therapy	4
Guided Imagery	3
Progressive Relaxation	2
Acupuncture	2
Chiropractic or osteopathic manipulation	1
Homeopathic Treatment	0
Naturopathy	0
Hypnosis	0
Biofeedback	0
Ayurveda	0

In response to the third question, "Do you have anything more to add to this list" (See Table 3), half of the representatives identified eighteen CAM therapies that were not related to the sixteen listed in the National Health Interview Survey, *music therapy*, programs that promote *the whole person or holism,* and *art therapy* are examples. More than one representative mentioned *dance therapy and aromatherapy* as additional practices offered.

Table 3

Response to the question: Do you have anything more to add to this list?

Practices Identified as CAM	Number of participants (facilities) identifying this as CAM
Art therapy	4
Music therapy	4
Whole person/holism	4
Aromatherapy	2
Dance therapy	2
Crafts	1
Gardening	1
Intellectual pursuits	1
Intergenerational programming	1
Labyrinth	1
Mneme therapy	1
Pet therapy	1
Poetry	1
Special equipment (adult jungle gym, HUR)	1
Spiritual Practices	1
Theater	1
Therapy pool	1
Twin Cities Mobile Market	1
Water aerobics	1

CAM Classification and Terminology

In this section, we first discuss how representatives and residents of the facility wrestle with terminology used to describe CAM and the philosophy behind some of the practices.

Terminology. Each representative questioned whether certain practices are considered to be CAM. Some representatives expressed a lack of understanding or confusion about CAM therapies and a desire for more education about what CAM encompasses. One representative said *I think music therapy is imperative. Even if it's an activity I think it's still therapy. Kind of a hidden therapy*. Many representatives talked about providing a comprehensive group of practices

to *meet the needs of the whole person*. One representative explained an exercise and fitness program by stating:

> *We're including things that are going to meet the needs of the whole person. So to me that is incredibly therapeutic because it's not just focusing on okay, we're going to play Bingo every day, but really looking at what a person needs.*

Others mentioned meeting the individual's needs of *mind, body and spirit* and made comments illustrative of one representative who explained, *a holistic approach involves physical, emotional, mental and spiritual [health]…so all of our activities are guided to trigger those points.* Sometimes, representatives were specific about the impact of CAM therapies on the whole person. A representative from a facility shared that participation in CAM therapies encourages:

> *more social engagement. There's definitely less falls on the physical side. I think it just feeds them. It feeds them emotionally and spiritually, they are more engaged, there is less need for medications. I have one gentleman in particular who was using a walker for several years and he is now to the point where he is no longer using a walker. So that is a huge benefit.*

Some representatives referred to CAM therapies as activities instead of therapies. In another interview, the representative said that the title of *activities staff* has changed to *wellness staff, and this is happening in other facilities too.* The representative shared that some of this is changing now to prepare for the baby boomers. Another representative described *a fine line* between traditional medicine and CAM and went on to say that since some CAM *can be classified as an activity* and is not subject to the same rules and licensure of traditional medical practices, it is easier to incorporate.

Older adults and terminology. Sometimes the way a CAM practice is introduced to residents helps to ensure participation. For example, when the instructor changed the name of the yoga sessions offered at one facility from *Yoga* to *Stretch, Strength, Balance and Breathe,*

attendance increased and stabilized. The representatives surmised that some of the residents might have had concerns about the religious implications of practicing yoga but enjoyed the movement. Another representative explained that older adults'

> *religious beliefs are so strong that if you use the word meditation they often connect it to a different culture and if it is presented as prayer it is ok...so we have to always be careful how we word things.*

Representatives of other facilities also described deacons or chaplains offering guided imagery or meditation as part of their interaction with residents.

Barriers to Offering CAM

In this section, we discuss the barriers that many facilities face in offering CAM therapies. First, we discuss the issue of lack of physical space. We then describe the reliance on students and volunteers to provide low-cost or free CAM therapies to residents. Finally, we discuss the issue of payment as a barrier to offering CAM.

Space. Many representatives described not having enough physical space to offer CAM therapies. Several facilities have partnerships in place with medical clinics, chiropractic students, acupuncture students, and one with the University of Minnesota that occupy the limited space available. In particular, space for group activities is both limited and has high value. One representative explained:

> *It can be tough when you're looking at construction to build either clinic spaces or big community spaces because the cost per square foot is so high. And if it's not a room that you're renting like an apartment [where] you get revenue on that square footage...a huge community space, there is no revenue coming in for that.*

Reliance on students and volunteers. Another barrier to offering CAM therapies is the reliance on unpaid students and volunteers. Some CAM therapies start at facilities because there is a volunteer willing to offer them and most used volunteers to provide these services. One representative explained:

> *I think with healing touch just finding volunteers that are willing to go out to the suburbs or finding volunteers that are in the suburbs so that we can have that program be in all of our communities. Right now that and many things other are dependent on volunteer time.*

Payment for CAM therapies. Assisted living facilities have different ways of paying for CAM services. The assisted living facility that is completely subsidized by government funding does not charge a fee to residents for participation in any group activities or services and individual services are not available unless volunteers provide them. As a staff member explained, *all residents are on some kind of public assistance and have eighty to one hundred dollars per month for personal expenses after paying their rent*. All of the activities are paid for by grants or donations at this facility. Volunteers or staff also provides limited individual services.

Private pay facilities do not charge for most of the services when CAM services are conducted in a group setting. These are often included in the rent residents pay to live at the facility and are sometimes available to everyone on the campus. However, when an individual practitioner such as a massage therapist, chiropractor, or energy healer performs a service the resident is usually charged a fee. To avoid having to account separately for offering CAM therapies to residents, one representative at a private pay facility explained that *we recently raised the rates in assisted living for memory care by 6.8% to pay for increasing the number of CAM services to include it for everyone receiving this level of care*.

On campuses with a combination of public and private payment methods there can be different options to access funds for residents. One example is allowing residents from a publicly financed building to attend the activities technically paid for through the rent of private pay residents. The representative explained,

> *HUD [United States Department of Housing and Urban Development] housing does not believe in activities. So there is not a budget for activities (for residents in public*

> *housing) because HUD won't allow it. So then those tenants come here (private pay assisted living) for activities*.

Other facilities access multiple funding sources combining government and private foundation grants, individual donations, and volunteers to make CAM therapies available. To expand the availability of CAM services, another facility intentionally offers practices that are more likely to be covered by Medicare or private insurance such as chiropractic care, acupuncture, or massage. Most facilities rely on volunteers or students to provide services such as acupuncture, chiropractic care, and energy healing. Another strategy involves training nurses, activities staff or chaplains to provide healing touch, aromatherapy services or lead meditation or guided imagery. One representative explained:

> *a couple of people, myself included are going to aromatherapy - a two day class at Normandale [Community College] in April that will give us a base level of certification so that we can make it more of an actual process at [our organization]*.

Most representatives commented about how it would be *helpful for medical practitioners to refer [CAM therapies] in order for it to be covered by insurance*. However, this was an unusual occurrence.

Employee Advocates and Organizational Support

In this section we discuss how employees and/or organizations lend their support to the use of CAM onsite. First, we describe how employees advocate for the implementation of CAM therapies. Next, we examine how organizations' policies support the use of CAM as part of their services.

Employee advocates. The availability of CAM therapies at some facilities was there in several cases because of a dedicated individual. Some facilities offered few CAM therapies and were just starting to think about adding them. One representative explained, *we really haven't had any real discussions yet about [adding additional practices] but I'm very interested in*

getting the discussions going. And there's someone over at the care center I was told who's also very interested. For others, CAM therapies were something brand new to them personally. Another representative shared:

> *I have to say that I as I've aged, I've become more interested in alternative therapies, which is not in my nature. I guess when I came here to work I didn't realize [CAM] was such a recognized aspect of the mission here which is a pretty cool alignment. So when things are revealed to me I find it very interesting… but I don't have a list of alternative modalities that I can't wait for us to start using because I'm kind of learning as things come to me.*

Organizational support. Some organizations have incorporated CAM therapies into all the facilities that they manage. For four facilities, offering CAM therapies was part of the organization philosophy and policy. At these facilities, management encourages staff to take part in CAM therapies for self-care in these caregiving environments. They promote a culture of wellness and encourage residents as well as staff to participate in CAM therapies. One representative stated:

> *We have someone [from] our managing company who spearheads the holistic side of care. So she works at a facility but she's the lead for all of our metro region sites. She really spearheads any of the aromatherapy and energy healing pieces. She is trained as a trainer for some of those things so she can come to our sites to do this*

Others had philosophical reasons for offering CAM therapies. A representative explained:

> *Our guiding philosophy is that we are a faith-based organization. We see the spirituality in everybody that's in our community. We see that people are not always open to doing things that are an alternative way but many are and so we want to really be able to offer services and amenities and benefits to people in whatever way they're open to. We also want to educate people on the potential benefits without trying to convert or oversell. Our integrative care committee has had a couple of open houses this past fall where we had stations people could go through and experience several types of [CAM therapies] like energy work, guided imagery, and aromatherapy.*

When the organization incorporates CAM therapies as part of its philosophy, the representatives become fully invested. Another representative shared:

> *I think it's wonderful that we have all these things onsite. I think it's really special. I think aging can be very stressful and there's a lot of life changes and huge personal and familial things that happen at that stage of life. So having these calming, I don't want to say activities but options out there for people to use I think is really important.*

> *Acupuncture, massage therapy, chiropractic are really important centering options for people on this campus. One thing that we really focus on in health care at this point is reduction of medications. So any time we can use any of these other options out there to reduce medications is huge and especially if they're psyche meds.*

Benefits of CAM Use

Overall, representatives mentioned several benefits of CAM therapies. First, we discuss overall wellness and health. Next, we describe the impact of CAM on quality of life. Finally, we discuss the impact of CAM on social engagement.

Wellness and health. One respondent observed that residents who participate in CAM therapies appear to have higher overall happiness, contentment and comfort...some of these practices that are familiar to them are offered and they can still make connections with people who have the same similarities and interests. Many representatives mentioned that medication reduction or elimination was a benefit of CAM therapies. One representative indicated that CAM therapies are sometimes used to avoid having to use medicine. Several representatives reported that aromatherapy has a calming effect when used with dementia patients, thereby reducing their anxiety.

Quality of life. Another benefit to the residents has to do with better quality of life. One representative shared:

> *I think that it gives people an opportunity to express themselves in different ways like the poetry for example. Maybe somebody who's more quiet and withdrawn, if you ask them to write a poem they may be more apt to express their feelings in that poem then if you were to just ask them outright how are you doing today?*

A representative observed that residents who participate in CAM practice have a *calmer presence; the residents are able to cope better and seem more satisfied with life.* Many representatives mentioned that CAM therapies are *non-invasive*, and this was an important point

when discussing the failure of more traditional treatments, which *do not solve the problems, especially with memory care residents.*

Social engagement. The representatives at the facility where the majority of residents are diagnosed with mental health issues describe the positive impact of CAM therapies on social engagement. The older adults at this facility have struggled with their mental health for most of their lives. Many of the activities that are available for residents provide opportunities for conversation and may be the only contact some have with another person. The residents reach out to each other with compliments, and *they are so kind to one another.* A representative explained:

> *I see that a lot of people come out [from] the relaxation sessions - people who are very anxious... sometimes soft music or just asking them to take a deep breath and slow down when they don't naturally have that ability to do that is very helpful especially when they're trying to solve a problem, or they are feeling very stressed out.*

Another practice in regards to socialization is that a few of the facilities invite older adults who live in the community to participate in activities and socialize with residents. This broadens the social network for those living within and outside of the facilities.

Discussion

The purpose of this chapter is to interpret our research findings. First, we discuss findings supported by the literature. Next, we discuss unexpected findings. Finally, we describe the implications for holistic health, older adults, and further research. This chapter ends with a brief summary and conclusion.

Findings Supported by the Literature

Three of the four themes that emerged from this study are supported by the literature: 1) the multiple ways that CAM is classified and the terms used to describe it, 2) how employees and organizations influence the support and use of CAM, and 3) the benefits of CAM. The fourth theme, barriers of providing CAM is not supported by the literature.

CAM classification and terminology. There are many ways of classifying CAM (Fries, 2014). The literature refers to alternative medicine practices as integrative medicine, complementary and integrative medicine or complementary and integrative therapies, holistic health, and wellness programs (Wieland, Manheimer, & Berman, 2011). When we asked our representatives the interview questions, they were not confident about what constituted CAM therapies and asked for clarification. We stated that there were no right or wrong answers. We wanted representatives to give an honest answer about their interpretation of what types of therapies could be classified as CAM. Wieland et al. (2011) found that confusion about CAM is due to the distinction between operational and theoretical definitions. This points to a broader problem in the of classification CAM therapies that is not exclusive to the setting of assisted living facilities.

Furthermore, we asked the representatives whether they considered the CAM therapies to be activities, medical therapies, or treatments. While there was discussion of it being an

amenity, an activity, a possible therapy or encompassing wellbeing, most often the representative identified it as an activity. The facilities have an activity budget so this is how they are able to provide what they do and have money to pay for it.

In addition, some of the things that providers listed as CAM are often not thought of as CAM. Some examples of this include gardening, adult jungle gyms, crafts, and theater. These are more traditional activities or recreational therapies that are being labeled as CAM.

Based on the literature and the results of this study, we see the issue of nomenclature as a barrier to integrating CAM therapies in assisted living facilities for older adults. How do you expand what you offer when you are not sure what to offer? In order to meld CAM into the present medical system, there has to be some common language among the different providers. When there are no standard ways to identify CAM therapies, it is difficult to establish a dialogue with insurance companies about potential reimbursement. The results of this inquiry suggest that more research could be done to find ways of creating a consistent language for CAM. This may be a step to move forward with possible payment streams.

Employees and organizations support CAM use. As Stussman et al. (2015) suggest, our respondents echoed that CAM modalities "focus on the whole person – mind body and spirit" (p. 5). In response to a question about their facility and what they offer, a specific representative said they had a wellness program *and it is focused on the whole person. It focuses on six key areas of health, including intellectual, social, vocational, spiritual, emotional, and physical. These needs are met through classes, community events, and spiritual care.* Prospective residents receive a brochure that highlights this program when they come to tour the facility. The creation of this program with its own brochure and the statement by the representative above implies that they do give credence to the importance of the whole person.

The absence of defined CAM therapies and the belief in holism suggest a dichotomy for the participants within the facilities. They believe it is prudent to incorporate CAM into their communities. However with this lack of understanding of what constitutes a CAM practice, which we have discussed throughout this study, we posit that education is necessary for those who interface with older adults as Marinac et al. (2007) suggest. This may help staff feel more comfortable in their roles and be willing to incorporate more CAM therapies in their facilities. Additionally, as they increase their knowledge, they may become advocates for CAM as well as influence the systems of reimbursement.

Benefits of CAM. The benefits of having CAM available in assisted living facilities includes overall wellness and health, quality of life, social engagement, and less invasive treatments. Using CAM with memory care residents provides hope to staff because other things are not working.

Our representatives enjoyed sharing the benefits of the practices they consider to be CAM. We did not hear any discussion about negative side effects or reasons why the older adult had to discontinue the CAM activity. CAM helps to minimize chronic conditions, and can help reduce or eliminate symptoms, and reduce the use of prescription medications (Schoenborn & Heyman, 2009; Tait et al., 2013). The participants talked about reducing medications especially when referring to memory care residents.

This finding of decreasing medications echoes what the literature told us and conveys benefits to the health care system. Reducing the use of pharmaceuticals may have positive effects on the payment systems for medications, which may aid the care system as a whole. This finding has implications for older adults and their families too. If the difficulty of watching a loved one

fade into the abyss of memory loss can be eased in any way, there may be moral implications to do so.

Barriers. Bauer and Rayner (2012) did a systematic review of the literature and found only five studies on older adults and their CAM therapies. With so few studies, it came as no surprise that we have no literature describing similar barriers in assisted living facilities that we found. The two barriers to providing CAM in this study are: space and the use of students and volunteers to provide the services. Both barriers suggest the importance of finding ways to be reimbursed for CAM therapies.

Having a dedicated space to offer individual CAM therapies beyond what they already do is a barrier without a current solution. Currently the facilities are at capacity but administration does make space available for visiting physicians, nurse practitioners, and other traditional providers through partnerships with clinics and hospitals. The representatives did not disclose whether there was revenue with these partnerships. What they did say is that they cannot justify increasing any of their buildings without having a revenue stream to attach it to.

All of the representatives talked about using volunteers and students to deliver CAM services. They also reported that what they offered was dependent on what volunteers or students are available. They would like more volunteers to offer therapies to additional people, but they also acknowledged the need to be cautious when using volunteers. Older adults are a vulnerable population and it is the staffs' responsibility to ensure their safety. Having a volunteer willing to provide therapy does not guarantee that they are qualified and able to provide the service. Therefore, if CAM is to be legitimately integrated into assisted living facilities, this issue needs to be recognized and addressed to find a viable solution.

It is necessary to address both of these barriers in order to increase the use of CAM within assisted living facilities. The message seems to be that it is necessary to figure out ways to recover dollars from the practices in order to become sustainable and be able to provide more.. This suggests another possible study.

Unexpected Findings

Our study also has a number of unexpected findings. First, our finding that many representatives describe CAM therapies as an *activity* is consistent among the facilities we visited and was somewhat unanticipated. An explanation for this as described by many respondents is that funding is available for activities, so they can offer them under the budget for activities. Another potential cause for this is that activities are done in groups and not individually. This bypasses the protocols and procedures that must be in place when insurance is tapped to cover the expense for an individual. Another possible explanation for this is that there are no licensure requirements for the people providing the service.

We also detected a problem with the terminology of, and a broader understanding of, what was included under CAM therapies. There was a wide disparity between the 16 most used CAM therapies from the National Health Survey (NHS) and those actually offered onsite at the facilities. Aromatherapy, pet therapy, music therapy, and dance therapy were not on the NHS list and were often available as regular activities at the facilities that participated in this study. These activities are often done in groups where the NHS list asked about individual practices so this is a possible reason for the discrepancy. Also, we referred to them as practices and the assisted living facilities call them activities. This may offer another explanation.

Another unexpected outcome is that volunteers or students often provide CAM services. Initially, the therapies started because there was a volunteer within the community who offered

to provide it. There is no structure in place for CAM practitioners to deliver and bill for services. This finding is significant because a barrier discussed earlier includes finding more volunteers to increase services. This may need to change so as not to propagate the proverbial thought that the services may not be worthy of just compensation.

We were surprised to find that a number of the sources we contacted to provide feedback were unresponsive. In one situation, there was a commitment from a staff person to participate, and on the day of the interview, was sick. This representative did notify us and promised to meet the following week. We did not hear from this person again, which surprised us because there was such enthusiasm on the telephone. For many of the other unresponsive facilities, we simply never received a return call. We can only speculate as to the reasons – the belief that they did not have anything to contribute to our study, not accessing the appropriate staff, and the staff who are well-suited to participate are overworked.

Implications

In this section we describe possible implications for holistic health found in our study. Next we discuss some implications for older adults. Finally we discuss some implications for further research that other researchers may want to study.

Implications for holistic health. In this section we discuss the implications for holistic health. We discuss the lack of consistent terminology and how this may need to be addressed going forward.

The 2012 NHS found slight decreases in the use of CAM in all segments of the adult population. Perhaps this is because the list of available practices on the survey are inconsistent with what we show is actually being used in elder care. Another factor may be the differences in terminology and definitions used by the users and practitioners of holistic health approaches.

This lack of cohesiveness may lead to confusion among practitioners, users of these services, and the general public.

Implications for older adults. In this section we discuss how CAM contributes to older adults by first discussing the prevention of disease. Next we discuss the issues surrounding the cost of CAM.

According to the literature, CAM therapies offer limited side effects, reduced cost, and contribute to overall wellness (Briggs, 2015; Cartwright, 2007; Clarke et al., 2015; Davis & Weeks, 2012; Fan & Chen, 2011; Nahin et al., 2015; Stussman et al., 2015). Many facilities turn to CAM therapies to help older adults alleviate existing physical or psychological symptoms. The value of CAM therapies for disease prevention was noticeably absent from most conversations with respondents. Education and promotion of the benefits of CAM therapies that prevent potential health problems associated with aging are needed for the older adult population, their families, and the health professionals and facilities that care for them. This might be an implication for public policy.

Many facilities rely on an activities budget to provide CAM therapies. Other forms of payment for CAM therapies include private health insurance, Medicare, Medicaid or payment by the user. The CAM therapies most often covered by insurance include chiropractic care, acupuncture, and, sometimes, massage therapy. Pet therapy can also be prescribed by a physician and when this occurs, residents of facilities cannot be charged for the extra costs associated with having a pet. Within the structure of the current health care system increased coverage for CAM therapies—particularly the many with evidence based efficacy—by private and public health insurance has the potential to reduce healthcare costs overall for the older adult population.

Implications for research. A limitation of this research study is the small sample size of eight facilities in a very targeted area. A research study using a larger sample size and increased economic and geographic diversity may contribute to a fuller understanding of the use of CAM in eldercare. We found there was a crossover in services in many of the facilities that participated in our study. Therefore, research about the availability of CAM therapies incorporating all levels of care available at facilities that provide a full continuum of care, may detect institutional norms, beliefs, and policies that we missed due to our focus on CAM within assisted living arrangements.

Finally, especially since a loss of power is a social construct that many older adults face as they age, a study interviewing older adults currently living in assisted living about their preferences about the availability and delivery of CAM therapies may uncover additional issues not mentioned by the professionals interviewed for this study. In addition, in anticipation of the baby boomer generation who may move to these facilities in the next 30 years, it would be prudent to interview individuals in that age range now to prepare for this imminent wave.

Conclusion

As we face unprecedented growth in the population of older adults who are calling assisted living facilities home, we examined the use of complementary and alternative medicine (CAM) practices onsite. We asked which CAM therapies do assisted living facilities offer onsite in the Twin Cities and why. The top three therapies offered at the eight facilities participating in the study include: 1) massage therapy, 2) yoga, tai chi or qi gong, and 3) special diets. The benefits described by the representatives include overall wellness and health, quality of life, social engagement, and less invasive treatments. Using CAM with memory care residents provides hope to staff because other things are not working.

We uncovered four main themes: the use of CAM classification and terminology, barriers to providing CAM, employee advocates and organization support, and the benefits of CAM for older adults. We found that the representatives we interviewed are advocates for using CAM, but need accurate information so they can educate others. Education along with the promotion of the benefits of CAM practices that prevent potential health problems associated with aging are needed for older adults, their families, and the health care professionals and facilities that care for them. This might be an implication for public policy. Additional research about the availability of CAM therapies offered along the full spectrum of care for older adults and how they are paid for is needed. Finally it would be wise to include older adults living in assisted living facilities in a study regarding CAM. There may be additional issues uncovered that were not noted by the professionals.

References

Allen, J. (2010). Person-centered care: At the core of assisted living. *Geriatric Nursing, 31*(5), 391-392. doi:10.1016/j.gerinurse.2010.08.008

Altizer, K. P., Grzywacz, J. G., Quandt, S. A., Bell, R., & Arcury, T. A. (2014). A qualitative analysis of how elders seek and disseminate health information. *Gerontology & Geriatrics Education, 35*(4), 337-353. doi: 10.1080/02701960.2013.844693

Anisha, V., Femila, P., & Appavu, S. (2014). A study to assess the effectiveness of tai chi exercise on depression among senior citizens in selected old age home. *Asian Journal of Nursing Education and Research, 4*(4), 403-407. Retrieved from http://www.indianjournals.com/ijor.aspx?target=ijor:ajner&type=home

Arcury, T. A., Grzywacz, J.G., Neiberg, R. H., Lang, W., Nguyen, H. T., Altizer, K., …Quandt, S. A. (2012). Older adults' self-management of daily symptoms: Complementary therapies, self-care, and medical care. *Journal of Aging and Health, 24*(4), 569-597. doi:10.1177/0898264311428168

Auerbach, C. F., & Silverstein L. B. (2003). *Qualitative data: An introduction to coding and analysis.* New York, NY: New York University Press.

Ball, M. M., Perkins, M. M., Whittington, F. J., Hollingsworth, C., King, S. V.,& Combs, B. L. (2004). Independence in assisted living. *Journal of Aging Studies, 18,* 467-483. doi: 10.1016/j.jaging.2004.06.002

Barnes, P., Bloom, B., & Nahin, R. (2008). Complementary and alternative medicine use among adults and children: United States, 2007. *National Health Statistics Reports, 12,* 1-24. Retrieved from http://www.cdc.gov/nchs/products/nhsr.htm

Bauer, M. & Rayner, J. (2012). Use of complementary and alternative medicine in residential aged care. *The Journal of Alternative and Complementary Medicine, 18*(11), 989-993. doi:10.1089/acm.2011.0582

Beel-Bates, C., Ziemba, R., Algase, D. (2007). Families' perceptions of services in assisted living residences: Roles of RNs and implications for policy. *Journal of Gerontological Nursing, 33*(12), 5-12. Retrieved from http://www.healio.com/geriatric-medicine/journals/jgn/2007-12-33-12/%7Bae99a01e-29c0-4a11-b116-58053a68c9ee%7D/families-perceptions-of-services-in-assisted-living-residences-role-of-rns-and-implications-for-policy

Behling, R., Haefner, J., & Stowe, M. (2011). Animal programs and animal-assisted therapy in Illinois long term care facilities twenty years later (1990-2010). *Academy of Health Care Management Journal, 7*(2), 109-117.
Retrieved from http://www.alliedacademies.biz/Publications/Download.aspx?fid=563

Bentz, V. M., & Shapiro, J. J. (1998). *Mindful inquiry in social research.* Thousand Oaks, CA: Sage.

Briggs, J. (2015). Americans' active quest for health through complementary and integrative medicine:Understanding the personal choices and the science behind such health practices. *Generations: Journal of the American Society on Aging, 39*(1), 56-64. Retrieved from http://www.asaging.org/blog/self-empowered-aging

Brinkmann, S., & Steinar, K. (2015). *Interviews: Learning the craft of qualitative research interviewing.* Thousand Oaks, CA: Sage.

Bronner, S. E. (2011). *Critical theory: A very short introduction.* New York, NY: Oxford University Press.

Cartwright, T. (2007). Getting on with life: The experiences of older people using complementary health care. *Social Science & Medicine, 64*, 1692-1703. doi:10.1016/j.socscimed.2006.11.034

Ceci, C., Purkis, M.E., & Bjornsdottir, K. (2013). Theorizing accommodation in supportive home care for older people. *Journal of Aging Studies, 27*, 30-37. doi: 10.1016/j.jaging.2012.10.004

Centers for Disease Control and Prevention's National Center for Health Statistics (2015). *Health, United States, 2014: With Special Feature on Adults Aged, 55–64*. Retrieved from http://www.cdc.gov/nchs/data/hus/hus14.pdf

Cherniak, E., & Cherniak, A. (2014). The benefit of pets and animal-assisted therapy to the health of older individuals. *Current Gerontology and Geriatrics Research, 2014*, 1-9. doi:10.1155/2014/623203

Cherniak, E., Senzel, R., & Pan, C. (2001). Correlates of use of alternative medicine by the elderly in an urban population. *The Journal of Alternative and Complementary Medicine, 7*(3), 277- 280. doi: 10.1089/107555301300328160

Cheung, C., Wyman, J., & Halcon, L. (2007). Use of complementary and alternative therapies in community-dwelling older adults. *The Journal of Alternative and Complementary Medicine, 13*(9), 997-1006. doi:10.1089/acm.2007.0527

Chun, R. (2001). Assisted living/housing with services in Minnesota [Information Brief]. Minnesota House of Representatives Research Department. Retrieved from http://www.house.leg.state.mn.us/hrd/pubs/asstlvg.pdf

Clarke, T. C., Black, L. I., Stussman, B. J., Barnes, P. M., & Nahin, R. L. (2015). Trends in the use of complementary health approaches among adults: United States, 2002-2012. *National Health Statistics Reports, 79,* 1-16. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr079.pdf

Coffman, D. & Adamek, M. (1999). The contributions of wind band participation to quality of life of senior adults. *Music Therapy Perspectives 17*(1), 27-31. doi: 10.1093/mtp/17.1.27

Cohen, M.H. (2003). Complementary and integrative medical therapies, the FDA and the NIH: definitions and regulation. Dermatologic Therapy (16), 77-84. ISSN: 1396-0296

Collins, S. M., Wacker, R. R., & Roberto, K. A. (2013). Considering quality of life for older adults: A view from two countries. *Generations: Journal of the American Society on Aging 37*(1), 80-86. Retrieved from http://www.asaging.org

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches.* Thousand Oaks, CA: Sage.

Crowe, M., Inder, M. & Porter, R. (2015). Conducting qualitative research in mental health: Thematic and content analyses. *Australian & New Zealand Journal of Psychiatry, 49*(7), 616-623. doi: 10.1177/0004867415582053

Cruickshank, J. (2012). Positioning positivism, critical realism and social constructionism in the health sciences: A philosophical orientation. *Nursing Inquiry 19*(1), 71-82. doi: 10.1111/j.1440-1800.2011.00558.x

Davis, M., & Weeks, M. (2012). The concentration of out-of-pocket expenditures on complementary and alternative medicine in the United States. *Alternative Therapies in Health & Medicine, 18*(5), 36-42. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3523202/

Dello Buono, M., Urciuoli, O., Marietta, P., Padoani, W., & DeLeo, D. (2001). Alternative medicine in a sample of 655 community-dwelling elderly. *Journal of Psychosomatic Research, 50,* 147- 154. doi:10.1016/S0022-3999(00)00223-3

Ehrenreich, B., & English, D. (2010). *Witches, midwives & nurses: A history of women healers* (2nd ed.). New York, NY: Feminist Press.

Eisenberg, D. M., Kessler R. C., Foster, C., Norlock, F. E., Calkins, D. R., & Delbanco, T. L. (1993). Unconventional medicine in the United States: Prevalence, costs and patterns of use. *New England Journal of the American Medical Association, 328*, 246-252. Retrieved from http://www.nejm.org/doi/full/10.1056/NEJM199301283280406

Estes, C. (2008). A first generation critic comes of age: Reflections of a critical gerontologist. *Journal of Aging Studies, 22,* 120-131. doi:10.1016/j.jaging.2007.12.014

Estes, C.L. (2001). *Social policy and aging: A critical perspective*. Thousand Oaks, CA: Sage.

Fan, J., & Chen, K. (2011). Using silver yoga exercises to promote physical and mental health of older adults with dementia in long-term care facilities. *International Psychogeriatric, 3*(8), 1222-30. doi:10.1017/S1041610211000287

Fries, C. (2014). Older adults' use of complementary and alternative medical therapies to resist biomedicalization of aging. *Journal of Aging Studies, 28,* 1-10. Retrieved from http://dx.doi.org/10.1016/j.jaging.2013.11.001

Fung, J. K. K. M., Tsang, H. W. H., & Chung, R. C. K. (2012). A systematic review of the use of aromatherapy in treatment of behavioral problems in dementia. *Geriatrics and Gerontology International, 12,* 372-382. doi: 10.1111/j.1447-0594.2012.00849.x

Goldman, A. & Cornwell, B. (2015). Social network bridging potential and the use of complementary and alternative medicine in later life. *Social Science & Medicine, 140,* 69- 80. Retrieved from http://dx.doi.org/10.1016/j.socscimed. 2015.07.003

Grabowski, D. C., Stevenson, D. G., & Cornell, P. Y. (2012). Assisted living expansion and the market for nursing home care. *Health Services Research, 47*(6) 2296-2315. doi:10.1111/j.1475-6773.2012.01425.x

Graham, M. A., & Geisler, C. (2009). *Beyond quantitative, qualitative & mixed methods: An integrative model for teaching research.* Unpublished manuscript, Holistic Health Studies, St. Catherine University, Minneapolis Minnesota.

Greco, M. (2013). *The status of music therapy in Florida nursing homes and assisted living facilities.* (Master's thesis). Available from The Florida State University, ProQuest Dissertations Publishing. (UMI No. 1539236)

Gubrium, J., Holstein, J., Marvasti, A., & McKinney, K. (2012). *Five lenses for the reflexive interviewer. The Sage handbook of interview research the complexity of the craft.* Thousand Oaks, CA: Sage.

Ho, E., D'Agostino, T., Yadegar, V., Burke, A., & Bylund, C. (2012). Teaching patients how to talk with biomedical providers about their complementary and alternative medicine use. *Patient Education and Counseling, 89,* 405-410. doi:10.1016/j.pec.2012.03.009

Holmes, J., Powell-Griner, E., Lethbridge-Cejku, M. & Heyman, K. (2009). *National health statistics reports,* (20), 1-6. Retrieved from http://www.cdc.gov/nchs/data/databriefs/db20.pdf

Im, M., & Lee, J. (2014). Effects of art and music therapy on depression and cognitive function of the elderly. *Technology and Health Care: Official Journal of the European Society For Engineering and Medicine, 22*(3), 453-458. doi:10.3233/THC-140803

Jong, M. C., van de Vijver, L., Busch, M., Fritsma, J., & Seldenrijk, R. (2012). Integration of complementary and alternative medicine in primary care: What do patients want? *Patient Education and Counseling, 89,* 417-422. doi: 10.1016/j.pec.2012.08.013

Kadivar, Z., Corcos, D., Foto, J., & Hondzinski, J. (2011). Effect of step training and rhythmic and auditory stimulation on functional performance in parkinsons' patients. *Neurorehabilitation and Neural Repair, 25*(7), 626-635. doi:10.1177/1545968311401627

Keith, V. M., Kronenfeld, J. J., Rivers, P. A. & Liang, S. Y. (2005). Assessing the effects of race and ethnicity on use of complementary and alternative therapies in the USA. *Ethnicity and Health, 10*(1), 19-32. doi:10.1080/135578502000323010

Kennedy, J. & Minkler, M. (1998). Disability theory and public policy: Implications for critical gerontology. *International Journal of Health Services (28*)4, 757-776. ISSSN: 00207314

King, M. O., & Pettigrew, A. C. (2004). Complementary and alternative therapy use by older adults in three ethnically diverse populations: A pilot study. *Geriatric Nursing, 25*(1), 30-37. doi:10.1016/j.gerinurse.2003.11.013

Kronenberg, F., Cushman, L. F., Wade, C. M., Kalmuss, D., & Chao, M.T. (2006). Race/ethnicity and women's use of complementary and alternative medicine in the United States: Results of a national survey. *American Journal of Public Health, 96*(7), 1236-1242. doi:10.2105/AJPH.2004.047688

Kubsch, S., O'Shaughnessy, J., Carrick, J., Willihnganz, T. Henricks-Soderberg, L., & Sloan, S. (2007). Acceptance of change in the healthcare paradigm from reductionism to holism. *Holistic Nursing Practice, 21*(3), 140-151. doi: 10.1097/01.HNP0000269151.88602.37

Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners*. London, England: Sage.

Kvale, S., & Brinkman, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Thousand Oaks, CA; Sage.

Marinac, J., Buchinger, C. Godfrey, L., Wooten, J., Sun, C., & Willsie, S. (2007). Herbal products and dietary supplements: A survey of use, attitudes, and knowledge among older adults. *Journal of the American Osteopathic Association, 107*(1), 13-22. Retrieved from https:jaoa.org/article.aspx?articleid=2093317

McEvoy, P. & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing, 11*(1), 66-78. doi: 10.1177/1744987106060192

Mehta, D., Gardiner, P., Phillips, R., & McCarthy, E. (2008). Herbal and dietary supplement disclosure to health care providers by individuals with chronic conditions. *The Journal of Alternative and Complementary Medicine, 14*(10), 1263- 1269. doi: 10.1089/acm.2008.0290

Micozzi, M. (2011). *Fundamentals of complementary and alternative medicine.* St. Louis, MO: Saunders/Elsevier.

Minnesota Board on Aging (2015). 2015 Survey of older Minnesotans: Summary of key findings. Retrieved from http://wwwmnaging.net/en/Advisor/SurveyOlderMN.aspx

Minnesota Compass (2016a). Aging overview. Retrieved from http://www.mncompass.org/aging/overview

Minnesota Compass (2016b). Disability. Retrieved from http://www.mncompass.org/aging/disability

Minnesota Department of Administration State Demography Center. (2011). The long run has become the short run: Budget implications of demographic change. Retrieved from http://mn.gov/admin/images/long-run-has-become-the-short-run-msdc-feb2011.pdf

Minnesota Department of Health (n.d.). Health regulation: Facilities and professions [Database] Retrieved from http://www.health.state.mn.us/divs/fpc/directory/providerselect.cfm

Minnesota State Demographic Center (n.d.). Percent of the population that is 65 years and or older. Retrieved from http://mn.gov/admin/demography/data-bytopic/aging

Morrow, R. A., & Brown, D. D. (1994). *Critical theory and methodology*. Thousand Oaks, CA: Sage.

Moss, S., Reibel, K., Greeson, M., Thapar, A., Bubb, R., Salmon, J., & Newberg, B. (2015). An adapted mindfulness-based stress reduction program for older adults in a continuing care retirement community: Quantitative and qualitative results from a pilot randomized controlled trial. *Journal of Applied Gerontology, 34*(4), 518-538. doi: 10.1177/0733464814559411

Munk, N., Kruger, T., & Zanjani, F. (2011). Massage therapy usage and reported health in older adults experiencing persistent pain. *Journal of Alternative and Complementary Medicine, 17*(7), 609-616. doi:10.1089/acm.2010.0151

Mykytyn, C.E. (2008). Medicalizing the optimal: Anti-aging medicine and the quandary of intervention. *Journal of Aging Studies, 22,* 313-321. doi:10.1016/j.jaging.2008/05.004

Nahin, R. L., Barnes, P. M., Stussman, B. J., & Bloom, B. (2009). Costs of complementary and alternative medicine (CAM) and frequency of visits to CAM practitioners: United States, 2007. *National Health Statistics Reports* (18), 1-14. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr018.pdf

Nahin, R. L., Stussman, B. L., & Herman, P. L. (2015). Out of home expenditures on complementary health approaches associated with painful health conditions in a nationally representative adult sample. *The Journal of Pain, 16*(11), 1147-1162. doi:10.1016/j.pain.07.013

National Center for Complementary and Alternative Medicine [NCCAM], (2011). *Exploring the science of complementary and alternative medicine: Third strategic plan, 2011-2015.* Retrieved from: https://nccih.nih.gov/sites/nccam.nih.gov/files/about/plans/2011/NCCAM_SP_508.pdf

National Institutes of Health, National Centerfor Complementary and Integrative Health [NCCIH], (2015). *Complementary, alternative, or integrative health: What's in a name?* (NCCIH Publication No. D347) Retrieved from https://nccih.nih.gov/health/integrative-health

Neiberg, R. H., Aickin, M., Grzywacs, J. G., Lang, W., Quandt, S. A., Bell, R. A., & Arcury, T. A. (2011). Occurrence and co-occurrence of types of complementary and alternative medicine use by age, gender, ethnicity, and education among adults in the United States: The 2002 National Health Interview Survey (NHIS). *The Journal of Alternative and Complementary Medicine, 17*(4), 363-370. doi:10.1089/acm.2009.0157

Nemmer, D. (2010). *Complementary and alternative medicine in the United States* (Unpublished doctoral dissertation).Retrieved from http://improvehealthcare.org/wp-content/uploads/2011/08/1-4-1-PB.pdf

Ness, J., Cirillo, D., Weir, D., Nisly, N., & Wallace, R. (2005). Use of complementary medicine in older Americans: Results from the health and retirement study. *The Gerontologist, 45*(4), 516-524. Retrieved from https://www.gerontologist.oxfordjournals.org

Neyfakh, L. (2012, May 20). Are we asking the right questions? *Boston Globe*. Retrieved from https://www.bostonglobe.com/ideas/2012/05/19/just-ask/k9PATXFdpL6ZmkreSiRYGP/story.html

Nguyen, H. T., Grzywacz, J. G., Lang, W., Walkup, M., & Arcury, T. A. (2010). Effects of complementary therapy on health in a national U.S. sample of older adults. *The Journal of Alternative and Complementary Medicine, 16*(7), 701-706. doi: 10.1089/acm.2009.0442

O'Callaghan, C. (1996). Pain, music creativity and music therapy in palliative care. *American Journal of Hospice and Palliative Care, 13*(2), 43-49. doi:10.1177/104990919601300211

Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Patton, M. Q. (2015). *Qualitative research and evaluation methods.* Thousand Oaks, CA: Sage.

Págan, J., & Pauly, M. (2005). Access to conventional medical care and the use of complementary and alternative medicine. *Health Affairs, 24*(1), 255-262. doi:10.1377/hlthaff.24.1.255

Peregoy, J. A., Clarke, T. C., Jones, L. I., Stussman, B. J., & Nahin, R. L. (2014). Regional variation in use of complementary health approaches by U.S. adults. *National Center for Health Statistics Data Brief*, (146), 1-8. Retrieved from http://www.cdc.gov/nchs/data/databriefs/db146.pdf

Perkins, J., Bartlett, H., Travers, C., & Rand, J. (2008). Dog-assisted therapy for older people with dementia: A review. *Australasian Journal on Ageing, 27*(4), 177-182. doi:10.1111/j.1741-6612.2008.00317.x

Powell, J. L. (2006) *Social theory and aging*. Lanham, MD: Rowan & Littlefield.

Ramsey, S., Spencer, A., Topolski, T., Belza, B., & Patrick, L. (2001). Use of alternative therapies by older adults with osteoarthritis. *Arthritis & Rheumatism, 45*(3), 222-227. doi:10.1002/1529-0131(200106)45:3<222::AID-ART252>3.0.CO;2-N

Revisor of Statutes, State of Minnesota (2015). 2015 Minnesota statutes: Chapter 144D. Housing with services. Retrieved from: https://www.revisor.mn.gov/statutes/?id=144d

Ribeiro, K., Rocha, K., Sousa, M., Albuquerque, F., Ribeiro, S., & Silva, R. (2012). Improvement in physiological and psychological parameters after 6 months of yoga practice. *Consciousness and Cognition, 21*(2), 843-850. doi:10.1016/j.concog.2012.01.014

Rothstein, D., & Santana, L. (2011). *Make just one change: Teach students to ask their own questions*. Cambridge, MA: Harvard Education Press.

Rozga, M., Stern, J., Stanhope, K., Havel, P., & Kazaks, A. (2013). Dietary supplement users vary in attitudes and sources of dietary supplement information in east and west geographic regions: A cross-sectional study. *BMC Complementary and Alternative Medicine, 13*(200), 1-9. doi: 10.1186/1472-6882-13-200

Schiller, C. J. (2016). Critical realism in nursing: An emerging approach. *Nursing Philosophy*, *17*(2), 88-102. doi:10.1111/nup.12107

Schoenborn, C. A. & Heyman, K. M. (2009). Health characteristics of adults aged 55 years and over: United States, 2004-2007. *National Health Statistics Reports* (16) 1-32. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr016.pdf

Stares, R. (2014). Complementary and alternative medicines: Educating service providers to ensure best fit for older adults. *Indian Journal of Gerontology*, *28*(4), 519-527. Retrieved from: http://www.gerontologyindia.com/pdf/Vol-28-4.pdf#page=81

Sternberg, S., Chandran, A., & Sikka, M. (2003, December 1). Alternative therapy use by elderly African Americans attending a community clinic. *Journal of the American Geriatrics Society, 51*, 1768-1772. doi: http://dx.doi.org.pearl.stkate.edu/10.1046/j.1532-5415.2003.51562.x

Stevenson, D. G., & Grabowski, D. C. (2010). Sizing up the market for assisted living. *Health Affairs*, *29*(1) 35-43. doi: 10.1377/hlthaff.2009.0527

Stussman, B. J., Black, L. I., Barnes, P. M., Clarke, T. C., & Nahin, R.L. (2015). Wellness-related use of common complementary health approaches among adults: United States, 2012. *National Health Statistics Reports*, 85, 1-12. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr085.pdf

Tang, S. K., & M. Tse, M. Y. (2014). Aromatherapy: Does it help to relieve pain, depression, anxiety, and stress in community-dwelling older persons? *BioMedical Research International, 2014,* 1-2. doi: 10.1155/2014/430195

Tait, E., Laditka, J., Laditka, S., Nies, M., Racine, E., & Tsulukidze, M. (2013). Reasons why older Americans use complementary and alternative medicine: Costly or ineffective conventional medicine and recommendations from health care providers, family, and friends. *Educational Gerontology, 39*, 684-700. doi:10.1080/03601277.2012.734160

Tiedemann, A., O'Rourke, S., Sesto, R., & Sherrington, C. (2013). A 12-week Iyengar yoga program improved balance and mobility in older community-dwelling people: A pilot randomized controlled trial. *Journals of Gerontology series A: Biological Science and Medical Science, 68*(9), 1068-75. doi:10.1093/gerona/glt087

Twin Cities Senior Housing Guide (2016). Senior Housing Rentals: Assisted Living. Retrieved from https://seniorhousingguide.us/senior-housing/rental/#!/housing_category=assisted-living

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and health Sciences 15*, 398-405. doi: 10.1111/nhs.12048

Vogt, P. W., Gardner, D. C., & Haeffele, L. M. (2012). *When to use what research design*. New York, NY: The Guilford Press.

Wang, C., Kennedy, J., & Wu, C. (2015). Alternative therapies as a substitute for costly prescription medications: Results from the 2011 national health interview survey. *Clinical Therapeutics, 37*(5), 1022-1030. doi: 10.1016/j.clinthera.2015.01.014

Wieland, L. S., Manheimer, E., & Berman, B. M. (2011). Development and classification of an operational definition of complementary and alternative medicine for the Cochrane Collaboration. *Alternative Therapies, 17*(2), 50-59. Retrieved from http://www.alternative-therapies.com/index.cfm/fuseaction/Content.Main/id/48

Williams, K., & Warren, C. (2008). Assisted living and the aging trajectory. *Journal of Women &Aging, 20*(3-4), 309-327. doi:10.1080/08952840801985011

Williamson, A., Fletcher, A., & Dawson, K. (2003, May). Complementary and alternative medicine: Use in an older population. *Journal of Gerontological Nursing, 29*(5), 20-28. doi:10.3928/0098-9134-20030501-06

Willison, K., & Andrews, G. (2004). Complementary medicine and older people: Past research and future directions. *Complementary Therapies in Nursing and Midwifery, 10*(2), 80-91. doi:10.1016/S1353-6117(03)00106-9

Wilson, K. (2007). Historical evolution of assisted living, in the United States, 1979 to the present. *Gerontologist, 47*(1), 8-22. doi:10.1093/geront/47.Supplement_1.8

Woodyard, C. (2011). Exploring the therapeutic effects of yoga and its ability to increase quality of life. *International Journal of Yoga, 4(*2), 49-54. doi:10.4103/0973-6131.85485

World Health Organization. (2014). Ageing and Life Course: Facts about ageing [Fact sheet]. Retrieved from http://www.who.int/ageing/about/facts/en

World Health Organization (2015). Ageing and health [Fact Sheet]. Retrieved from http://www.who.int/mediacentre/factsheets/fs404/en/#

Appendix A

Recruitment Statement

First Call to Facility

Hello my name is _____ and I am a graduate student in the Holistic Health Studies program at Saint Catherine University. I am conducting a research project about complementary and alternative healthcare options available at assisted living facilities located in (Ramsey or Hennepin) County. I'm wondering if you could connect me to the person at your facility that makes decisions about healthcare practices available to residents?

Appendix B

Recruitment Statement

First Call to Personnel

Hello my name is _____ and I am a graduate student in the Holistic Health Studies program at Saint Catherine University. I am conducting a research project about complementary and alternative healthcare options available at assisted living facilities located in (Ramsey or Hennepin) County. Do you happen to be a person that makes decisions or is part of the decision-making process for this facility? Would you be willing to be interviewed by myself and my research partner about the use of complementary and alternative practices available at your facility? It is a one-time interview that will take between 60 and 90 minutes at a location of your choosing. Is it possible to schedule a time in the next few weeks for an interview with you?

If respondent indicates that they do not offer complementary and alternative medicine practices at the facility: thank you for sharing that information. We are also interested in finding out about the reasons organizations choose not to offer these practices. Would you be willing to be interviewed by myself and my research partner about this?

The one time interview will take between 60 and 90 minutes at a location of your choosing. Is it possible to schedule a time in the next few weeks for an interview with you?

Appendix C

Interview Schedule

We will be asking a series of questions designed to answer our two-part research question. The first set of questions is designed to answer the first part of our research question: What types of complementary and alternative medical practices are organized by and offered on site in assisted living facilities in the Twin Cities. The next set of questions is designed to answer: why?

Structured Interview Questions

When you hear the term "complementary and alternative medicine" what types of practices come to mind for you?

I am going to read a list of CAM practices. This list of sixteen complementary and alternative medicine practices were selected based on the responses from a national survey titled "Trends in the use of complementary health approaches among adults: United States, 2002-2012" (Clarke, Black, Stussman, Barnes & Nihan, 2015). Please let me know if any of these are available on site at your facility:

1. Nonvitamin, nonmineral dietary supplements
2. Deep breathing exercises
3. Yoga, tai chi, qi gong
4. Chiropractic or osteopathic manipulation
5. Meditation
6. Massage Therapy
7. Special diets
8. Homeopathic Treatment
9. Progressive Relaxation
10. Guided Imagery
11. Acupuncture

12. Energy Healing Therapy

13. Naturopathy

14. Hypnosis

15. Biofeedback

16. Ayurveda

Are there any other types of complementary and alternative medicine practices offered at this facility that were not on this list?

Do you have anything more to add to this list?

Semi-Structured Interview Questions

1. Do residents or their families ask about the availability of complementary and alternative medicine practices when they initially contact your facility?

2. What reasons were behind the decision to offer these practices?

3. Have there been any conversations about adding additional practices?

4. What is the value/benefit of offering these practices onsite?

5. Do you know if there are residents who travel away from this facility to take part in complementary and alternative medicine practices?

For those who offer CAM services:

1. What changes have you observed in the residents who take part in these practices?

2. Who makes the arrangements for these services?

3. How do residents access these practices?

4. Are these practices considered to be an option for health care, an activity or an amenity?

5. Is there a fee to participate in any of these services? If so, how are they covered?

6. Are there barriers that have prevented this facility offering these types of services?

Finally, we would like to know a little bit about this facility.

1. How many living units are in this facility?

2. How is the facility funded?

3. Is this facility aligned with a particular religion?

Appendix D

Transcriptionist Confidentiality Agreement

I, _____, transcriptionist, agree to maintain full confidentiality in regards to any and all audiotapes and documentation received from Chris Pommerenke and Julie Poupore related to their study on *The availability of complementary and alternative medical practices in assisted living facilities: A critical examination with implications for the well-being of older adults.*

Furthermore, I agree:

To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of audiotaped interviews, or in any associated documents;

To not make copies of any audiotapes or computerized files of the transcribed interview texts, unless specifically requested to do so by Chris Pommerenke and Julie Poupore;

To store all study-related audiotapes and materials in a safe, secure location as long as they are in my possession;

To return all audiotapes and study related documents to Chris Pommerenke and Julie Poupore in a complete and timely manner.

To delete all electronic files containing study related documents from my computer hard drive and any backup devices.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audiotapes and/or files to which I will have access.

Transcriber's name (printed)

Transcriber's signature

Date _____

Appendix E

Information and Consent Form

The availability of complementary and alternative medical practices in assisted living facilities: A critical examination with implications for the well-being of older adults

Introduction:

You are invited to participate in a research study investigating the use of Complementary and Alternative Medicine in Assisted Living facilities in the Twin Cities. Chris Pommerenke and Julie Poupore, graduate students at St. Catherine University under the supervision of Carol Geisler Ph.D., a faculty member in Holistic Health Studies, are conducting this study. You were selected as a possible participant in this research because you are in a position of selecting what services will be offered to the residents in your facility. Please read this form and ask questions before you agree to be in the study.

Background Information:

The purpose of this study is to describe the types of complementary and alternative medical practices offered in assisted living facilities in the Twin Cities and why. Approximately 8 facilities are expected to participate in this research.

Procedures:

These are the procedures that you will agree to:

- If you agree to be interviewed, a time will be scheduled to meet with researchers at a location of your choice.
- You will receive a consent form the day of the interview, which must be signed to proceed. You will receive a copy of the consent.

-The researcher will conduct the interview with you using structured (types of CAM available onsite at the facility) and semi-structured questions (describing why or why not) with follow up questions.

- You can indicate whether you would like to receive the final executive summary.

-This study will take one session that will last 60- 90 minutes.

Risks and Benefits of being in the study:

This study will have no direct benefits to you. The study has minimal risks. As an employee speaking on behalf of an Assisted Living facility, there may be some hesitation to disclose information about the facility. The researchers will be sensitive to any data that could be compromising, and will not have any identifying information in the final report.

Confidentiality:

Any information obtained in connection with this research study that can be identified with you will be disclosed only with your permission; your results will be kept confidential. In the written report or publication, no one will be identified or identifiable. However, there will be quotes used in this report.

We will keep the research results on a password protected document stored on a password protected computer and only the researcher(s) named in this form and our advisor will have access to the records while we work on this project. Recordings will be loaded on to the computer and password protected.

We will finish analyzing the data by May 15, 2016. We will then destroy all original reports and identifying information that can be linked back to you. Only the researchers and our faculty advisor will have access to the audiotapes and they will be destroyed at the conclusion of the data analysis.

Voluntary nature of the study:

Participation in this research study is voluntary. Your decision whether or not to participate will not affect your future relations with St. Catherine University in any way. If you decide to participate, you are free to stop at any time without affecting these relationships. However, the researchers will retain the data.

Contacts and questions:

If you have any questions, please feel free to contact me, Julie Poupore at 612-968-1442 or Chris Pommerenke at 612-709-7137. You may ask questions now, or if you have any additional questions later, the faculty advisor Dr. Carol Geisler at 651-690-7789 will be happy to answer them. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739 or jsschmitt@stkate.edu.

Statement of Consent:

You are making a decision whether or not to participate. Your signature indicates that you have read this information and your questions have been answered. Even after signing this form, please know that you may withdraw from the study, but we will use whatever data has been collected at this point.

I consent to participate in the study and I agree to the use of audio taping during my interview.

_____

Signature of Participant Date

_____

Signature of Researchers Date