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Importance of a Creative Dance Program for the Quality of Life of Long Term Care Residents
Kelsey Kristine Schafer
A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Occupational Therapy. Saint Catherine University, St. Paul, Minnesota
October, 2011
Thesis Advisor: Catherine Sullivan, Ph.D., OTR/L Thesis Readers: Kristi Haertl, Ph.D., OTR/L and Maria Genné, M.Ed., Director: Kairos Dance Theatre

Date

# St. Catherine University Master of Arts in Occupational Therapy Certification of Successful Thesis Defense

We, the undersigned, certify that Kelsey Kristine Schafer Student Name has successfully defended the thesis titled Importance of a Creative Dance Program for the Quality of Life of Long Term Care Residents Catherine Sullivan Thesis Advisor and Chair of Thesis Committee Date Thesis Reader and Member of Thesis Committee Date Thesis Reader and Member of Thesis Committee Date **Certification of Approval for Final Copy of Thesis** I, the undersigned, approve the final copy of the thesis by Kelsey Kristine Schafer Student Name

\_\_Catherine Sullivan\_\_\_\_
Thesis Advisor and Chair of Thesis Committee

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I would first like to acknowledge the individuals of Kairos Dance Theatre for their participation and willingness to have research conducted on their "Dancing Heart <sup>TM"</sup> program and its effects on older adults residing in long term care facilities. I would like to thank all the participant volunteers who shared their time, insights, and observations during the qualitative interviewing of this research study. I would like to acknowledge and thank my thesis advisor, Catherine Sullivan, for her direction, guidance, and support throughout this process. Also, I would like to thank Kristi Haertl and Maria Genne for their constructive feedback as thesis readers. Finally, I would like to acknowledge my husband and family members for their continuous love and belief in me.

#### Dedication

This thesis is dedicated to my husband, Daniel Schafer, and my parents Gregory and Kristine Kruse. Thank you mom for nurturing me and my deep love of music through piano lessons and the many hours you spent driving me to church and listening to me play the entire organ music multiple times prior to Sunday's service. Mom, also thank you for your unconditional love, patience, inspiration to join the health care field, and for being a truly exceptional role model. Dad, thank you for teaching me the value of hard work and to do all things to my best ability and with my whole heart. Also, thank you dad for teaching me how important it is to be involved in church, lead a Christian life, as well as for being at every church service I played organ throughout the years. Daniel, thank you for supporting me through stresses and challenges as well as for teaching me that despite everything, life will proceed. Daniel, dad, and mom, I could not have completed this thesis without the lessons you taught me, your continuous support, and your love. To my husband and parents; I extend my deepest gratitude and appreciation.

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#### Abstract

The purpose of this thesis was to study the impact of a creative arts-based program on nursing home residents. This research study examined staff and caregiver descriptions of elder participant's experience of a creative music and dance program called "Dancing Heart "" in two long term care facilities. The research questions of this study were (a) what is the meaning and experience of music and dance for the participants? (b) what is the perceived impact of the dance program on quality of life of the participants? and (c) what is the perceived impact of the dance program on the culture of the nursing home? Results indicate that participation in the sessions encouraged increased physicality, personal validation and reminiscence as well as a sense of "flow". In response to the second research question, results suggest that music and dance positively impacted participants' quality of life through the building of new memories, bonding, sharing of joint meaning and creative expression, experiences of fun and excitement, as well as feelings of sacredness and healing. The results for the perceived impact of a creative arts-program on the nursing home show a positive culture change through increased personal interactions between residents and staff and facility-wide interest in art-based programming.

#### Introduction

The purpose of this interdisciplinary research is to determine the importance of a creative dance program to the quality of life of long term care residents. The disciplines involved in the project are the Kairos Dance Theatre TM (professional dance), occupational therapy, and physical therapy. A creative dance program will refer here to the Dancing Heart program developed by Kairos Dance Theatre for older adults. The dancing can be done either sitting or standing and incorporates miming, storytelling, music, and singing (Kairos Dance Theatre: The Dancing Heart program, n.d). The study described in this thesis is a part of a mixed-methods research project and its focus is on examining long term care residents' quality of life, well-being, cognition, and social engagement using a qualitative methodology. Quality of life may be defined as the entirety of human cognitive and emotional reactions experienced in relation to personal achievements attained in the context of culture, values, goals, expectations, and standards (Levasseur, Desrosiers, & Tribble, 2008). In the context of this study, long term care will be defined as skilled nursing facilities that provide medical and nonmedical care to individuals who have disability, illness, or a barrier that restricts independent completion of daily activities (Centers for Medicare & Medicaid Services, 2009).

Conducting this study is important as the population of individuals over sixty-five years old is rapidly increasing and there is a parallel increase in the need for quality long term care.

Advances in the medical world such as new medications and increased health care are

contributing the increase of human life expectancies (Eyigor, Karapolat, Durmaz, Ibizoglu, & Cakir, 2009). Medical knowledge and aging baby-boomers have contributed to the rapid growth of the geriatric population (Eyigor et al., 2009). When aging, some individuals have difficulty completing daily living occupations independently. *Occupations* may be defined as activities that an individual engages in, including the physical, environmental, psychosocial, mental, spiritual, political, and cultural elements of one's life (Willard, Crepeau, Cohn, & Boyt Schell, 2009). Although most older adults live at home, long term care facilities provide some aging individuals with the health care and personal care they need such as assistance with the occupations of dressing and bathing.

Individuals residing in long term care facilities may experience activity or occupational limitations due to health conditions, limited opportunities, and environmental factors (Eklund, Erlandsson & Persson 2003). Providing the aging population with optimal environments that promote well-being is a challenge long term care facilities are facing. According to Eklund, et al. (2003), encountering optimal occupational experiences in one's daily life contributes to meaningfulness and a higher quality of life. In an effort to improve the quality of life of elderly residents, the Minnesota Department of Human Services provided a grant for Kairos' Dancing Heart creative dance program to be implemented in several long term care facilities. The current research is designed to evaluate the impact of this arts-based program on its participants.

This study was approached through an occupational science perspective. *Occupational science* is the study of occupational engagement in valued activities as it relates to health, well-being, social participation, and cultural factors (Yerxa, 2000). Occupational science also

addresses how people live, learn, socialize, and participate in life through the study of the form, function, and meaning of human occupation (Yerxa, 2000). That discipline also emphasizes the study of the link between leisure activities and well-being. For this reason, occupational science could bring a unique perspective to the examination of the impact of creative occupations on the quality of life of long term care residents. This study uses qualitative methodology which is ideal for studying subjective experiences to examine the benefits of a creative dance program.

By using a qualitative approach, a variety of dimensions of activity may be explored. Social, cultural, temporal, and physical aspects of an activity are a few dimensions occupational scientists investigate, with either qualitative or mixed-methods design as their predominant empirical tools. The qualitative methodology highlights the subjective meaning of an activity and the experience of quality of life in a more complex and detailed way than a quantitative approach alone (White, 2009). The qualitative approach could be a valuable complement to the frequently used quantitative studies examining quality of life in the long term care setting. This study is the qualitative component of a multidisciplinary mixed method study reported elsewhere.

This creative dance and long term care study is important for occupational therapy, as a key focus of occupational therapy is to help individuals improve their quality of life through the engagement in meaningful occupations. Creative arts are therapeutic tools that occupational therapists have used since the profession's birth in order to achieve increased quality of life for patients (Willard et al., 2009). Through the examination of the process and outcomes of this creative dance program, occupational therapists may be informed of collaborative approaches that may be implemented with professional artists in the future. Occupations and occupational

Creative Dance and Long Term Care

science will first be examined to further explain how it provides the foundation for this creative

dance study. Then I will look at aspects of aging, long term care, and quality of life dimensions

that the older adult encounters. Finally, I will discuss the research evidence of the effects of

music and dance for older adults in long term care facilities.

Literature Review

Occupations and Occupational Science

Definitions

10

The goal of the study is to examine the influence of a creative dance program in long term care facilities. The creative dance program can be described as an occupation since it was a regular activity that had meaning for the frail elders who participated in the program.

Occupational science is the study of engagement in occupation as it relates to health, well-being, and social participation of one's life (Yerxa, 2000). Occupational science also looks at social and cultural aspects of an individual. The social and cultural factors influence how one learns, lives, communicates with others, and are also linked to health, and quality of life (Yerxa, 2000). Thus, culture and occupation are intertwined.

We are all occupied as human beings and this occupational engagement defines our lives. Our engagement impacts our bodies, selves, communities, and the world (Crepeau & Boyt Schell, 2009). Specifically, *occupational participation* is defined as engaging in work, school, play, leisure, and activities of daily living that are necessary for one's well-being (Crepeau & Boyt Schell, 2009). Individuals also have unique *occupational identities*, the accumulation of who one is and what one wishes to become, which is influenced by culture (Crepeau & Boyt Schell, 2009).

Since occupations are an integral part of who a person is, they are by definition meaningful. Every person values his or her occupations, but the degree that one values their occupations varies from person to person. To understand the value or nature of an occupation, it is necessary to know the individual's perceived meaning of that occupation (Eklund et al., 2003). Culture is one determinant of an occupation's meaning.

Occupation in Relation to Culture

Culture directs occupation and what individuals perceive as meaningful occupation (Law, 2002). For the purposes of this study, culture is defined as the entirety of a way of living (Cole & Tufano, 2008). Thus, "values, beliefs, standards, linguistic expression, patterns of thinking, behavioral norms, and styles of communication that influence behaviors of a group of people and are transmitted from generation to generation" all encompass culture (Cole & Tufano, 2008, p. 46). Culture and our social environments determine whether a specific occupation is deemed acceptable. Thus, the cultural background of an individual affects the perceived significance of an occupation (Eklund et al., 2003). Within our social environments, individuals are continuously providing verbal and non-verbal feedback. The norms and ideologies of a culture are long lasting and slow to change, and they influence the willingness or aversion in choosing occupations such as leisure and creative activities (Eklund et al., 2003). The types of activities of daily living individuals engage in (activities necessary for survival and well-being) are also influenced by cultural beliefs (Willard et al., 2009). Culture influences daily activity patterns, lifestyle expectations, and importance of leisure activity, all of which have a pervasive effect on an individual's well-being. Well-being is the experience of satisfaction with one's life and circumstances. Well-being is the subjective perception of satisfaction and occupational performance and not the objective measurements of frequency of participation in valued occupations (Willard et al., 2009). Occupational therapists view individuals holistically and are concerned with the well-being and occupational engagement of all people.

Occupations and Occupational Therapy

An understanding of the client's preferred occupations in therapy is an essential ingredient of client-centered treatment. According to Eklund et al. (2003) a client's valuable

and meaningful occupations should be used as a therapeutic intervention. Occupations can increase a person's life satisfaction through skills acquired, feelings of competence, and potential tangible outcomes that are valuable to that person or someone else who may find value in or benefit from the occupation (Eklund et al., 2003). Competence and new skill acquisition often result in feelings of purposefulness and self worth upon performing the occupation.

Occupations entail the person, environment, and tasks an individual completes. Each individual has his or her own unique life experiences and specific personal qualities. These experiences and qualities are continually developed through individual occupational choice and through the act of performing the chosen occupations in the environment. The environment and person factors of an individual provide opportunities and barriers which directly influence an individual's task choice and ability to complete occupations. Age is one dynamic that can both provide obstacles and opportunities for occupational engagement.

#### Occupation in Relation to Age

At any age, occupations are influenced by both personal and environmental factors. When young, one of the primary occupations is play. As one ages, play or leisure activities are still important, but productive occupations such as school and work become more prominent. Environmental factors such as the opportunity to engage in sports, attend college, get a job, and go to a place of worship all impact occupational choice. According to a 2010 report from the American Association of Homes and Services for the Aging [AAHSA], the government policy of the traditional retirement age of sixty-five has a profound impact on occupational engagement in older adults. With retirement, the productive occupation of a job can be

replaced with meaningful occupations that the individual did not previously have time for.

Traveling, spending time with family, volunteering, and participating in a new hobby are just a few meaningful occupations the retired individual may participate in (AAHSA, 2010).

Personal factors may influence occupational engagement as well. A report from the 2011 American Psychological Association [APA] stated that creativity and wisdom often persist to the very end of life. *Gerotranscendence*, a term coined by Lars Tornstam (2005), refers to a stage of life in aging that is characterized by self-reflection and inner calm and contentment. In his book "Gerotranscendence Developmental Theory of Positive Aging" he described a shift in the older adult's perspective (Tornstam, 2005). Tornstam argued that the focus on material and physical aspects of the world characteristic of earlier stages, gives way to an internal focus. This process is thought to be a natural alteration of consciousness that leads to wisdom and a changed world-view (Tornstam, 2005). Joan Erikson borrowed the *gerotranscendence* term from Lars Tornstam to emphasize that human development continues for older adults until death (Butts & Rich, 2005). Older adults continue to visit friends, stay current in world events, become mentors, and engage in rewarding leisure activities (Butts & Rich, 2005, McMurray, 2004). Erikson believed that gerotranscendence is associated with the arts and the dance of life that engages the mind, body, spirit, and participation in activity (Butts & Rich, 2005).

In addition to those changes in personality and outlook, the aging adult undergoes normal age-related changes of the body. Decreased bone mass and mineral content, reduced muscle strength and mass, and declines in the size and elasticity of ligaments and tendons are all normal changes (Smith & Cotter, 2008). It is typical for hearing and eyesight to weaken with age as well. In fact, approximately forty-eight percent of men and thirty-seven percent of

women ages 75 or older have hearing impairments (Smith & Cotter, 2008). Common visual declines include reading small print, reading speed, and seeing ability in dim light (Smith & Cotter, 2008). These normal age-related changes may constrain occupational choices such as driving at night. The older adult's occupational participation is further constricted from pathological changes.

Disability affects a significant minority of older adults and may cause a barrier in occupational engagement. Dementia, diabetes, arthritis, and Parkinson's disease are just a few disabilities that are associated with aging, although it is important to remember that the majority of individuals over sixty-five do not have disabilities preventing them from full occupational participation. In fact, only about 20% of individuals over sixty-five have a disability that prevents them from going out (McMurry, 2004). Disability is more likely to be an occupational barrier to individuals who are over eighty-five years old (CMS, 2009). The focus of this study is on older individuals who are experiencing those disabling conditions.

#### Disability and Long-Term Care

There are many conditions that may result in the need for long term care services.

According to Orfila et al. (2006), older women experience increased impairments in mobility and self cares than do men who are the same age. A problem commonly faced by the geriatric population is poor balance resulting in falls and injury (Eyigor et al., 2009). In fact, according to a 2010 report from the National Association of Health Data Organizations [NAHDO], fractured bones resulting from a fall is the most common cause for an individual to need long term care services. Other conditions that cause a need for long term care include Alzheimer's disease and

dementia, multiple sclerosis, Parkinson's disease, heart disease, strokes, head injury likely caused from falls, and chronic or terminal medical conditions such as obesity (NAHDO, 2010). Male and female older adults, particularly the 75-79 year olds, are at high risk for mental illness such as depression (Eyigor et al., 2009). Depression has been linked to a decrease in engagement of occupations. For some older adults, these disabilities may result in the need for long-term care.

Long-Term Care (LTC) Options in Aging

Long-term care consists of medical and non-medical care for people who have a chronic illness or disability (CMS, 2009). Long-term care helps the individual meet health or personal needs such as activities of daily living of dressing, bathing, and using the bathroom. By 2009, approximately nine-million men and women over 65 years old will need long-term care services and by 2020, twelve-million older Americans will need long-term care (CMS, 2009). However, it is a misconception that all older adults eventually go to a nursing home. According to CMS (2009), individuals 85 and older consist of approximately fifty-five percent of people who require long-term care. Only thirty-one percent of individuals who have impairments and are between 65 and 70 years old receive care in a nursing home compared to sixty-one percent of those ages 85 and older. This is not to say that long-term care options are not beneficial and necessary. The number of individuals who need long-term care services is expected to increase as the baby boomer generation nears older adulthood (CMS, 2009).

Long-term care services are primarily paid for through Medicaid or, for those who can afford it, through private funds. According to a 2005 report by the United States Government Accountability Office (GAO), Medicare pays for only twelve percent of nursing home costs;

typically for short-term conditions and not for long-term assistance. Medicaid pays for approximately seventy percent of longer-term nursing home residents (GAO, 2005). According to a report from Family & Social Services Administration [FSSA], Medicaid is a program run by the States that pays medical bills through State and Federal tax dollars for those who have low income, cannot afford medical care, and meet other eligibility requirements. Formerly, Medicaid only paid for institutional services of nursing homes (GAO, 2005). Today, Medicaid allows more diverse services and supports for individuals in the community through Medicaid Waiver Programs (FSSA, n.d.). These waiver programs permit States to offer home and community-based services and avoid institutionalization. For example, the Aged and Disabled Waiver is specifically designed to provide community alternatives to nursing homes for individuals age 65 and older who have Medicaid (FSSA, n.d.). Although all states must offer home health services in their Medicaid programs, many states still require older adults to be in institutions to obtain Medicaid money (GAO, 2005). Regardless of funding, there are many long-term care options to choose from that are designed to meet different wants and needs of the older adult.

#### Skilled Nursing Long-Term Care Facilities

Although many older adults receive long term care services in their homes, the long-term care option that this study is focused on is skilled nursing facilities which are also known as nursing homes. The U.S Department of Health and Human Services found that if one lives to 65 years old, he or she will have a forty percent chance of entering a nursing home sometime in their lives. However, most nursing home stays are during the final few years of life (CMS, 2009). According to Day (2011), most nursing home residents (51%) are 85 years and older.

Most nursing home stays are of short duration. The average length of stay for Medicare rehabilitation residents is 23 days and the average stay for all nursing home residents is 2.44 years (Day, 2011). According to the CMS (2009), only ten percent of individuals will reside in a nursing home for five or more years. Long-term care services may be used temporarily or periodically for several reasons which include recovery from illness, rehabilitation from a hospital stay, recovery from injury, a terminal medical condition, and recovery from surgery. Temporary services are often called transitional care units [TCU] but may be labeled differently depending on the state (Day, 2011). Individuals who receive ongoing long-term care may need services due to chronic medical conditions, permanent disabilities, chronic severe pain, dementia, need for supervision, and the need for assistance with activities of daily living (Lee, Lee, & Woo, 2009).

The nursing home population predominately consists of older adults with poor health and increased co-morbidities compared to older adults who live in the community (Stock, Mahoney, Reece, & Cesario, 2008). The U.S. healthcare system is challenged to provide quality care that is cost effective for the nursing home population. According to Stock et al. (2008), providing care for older adults with poor health and co-morbidities should be addressed through comprehensive, proactive, continuous, and evidence based ideas. They proposed that a comprehensive approach that emphasizes the involvement of the older adult, such as the desires and occupational preferences of the individual, should be considered when addressing the challenged health care system (Stock et al., 2008). Approaching long-term care comprehensively directly addresses the older adult's quality of life. Chronic health conditions

can be frustrating, depressing, and reduce quality of life standards for the individual experiencing the condition.

#### Quality of Life (QoL)

#### **Definitions**

According to Levasseur, Desrosiers, & St-Cry Tribble (2008), *quality of life* is defined as the total of cognitive and emotional reactions experienced in relation to individual achievements accomplished in the context of culture, values, goals, expectations, standards, and concerns. Measuring quality of life is difficult as it is a multidimensional concept with many elements to evaluate. Another challenge to measuring quality of life is that cultural values influence what is perceived as a good quality of life. For example, Americans place a higher value in autonomy and privacy than individuals from other cultures (Kane, 2003).

Many measures of quality of life include well-being elements as well as functional components such as cognition, activities of daily living, independence, motor function, and socialization (Kane, 2003). An accepted and frequently used quality of life measure was developed by the World Health Organization [WHO]. The WHO Quality of Life measurement is a 28-item questionnaire that includes functional, physical, psychological, satisfaction, and social elements to measure quality of life (Kane, 2003). Another questionnaire that measures quality of life is the RAND 36-Item Short Form Health Survey (SF-36). The SF-36 was created to use in clinical practice and research, population surveys, and health policy evaluations (RAND, 2011). Managed care organizations and Medicare commonly use the SF-36 for routine assessments as it is highly valid, reliable, and easy to use (RAND, 2011). The RAND SF-36 assesses bodily pain,

general mental health, vitality, general health perceptions, and limitations in physical, social, and role activities. Although occupations change across the lifespan, quality of life remains a common aspiration for individuals regardless of age.

#### Quality of Life and Aging

Quality of life can positively or negatively change throughout the lifespan. Contrary to popular belief, aging brings increased happiness. On average, older individuals are more optimistic, view life more positively, and are more comfortable with themselves and their role in society than younger adults (Bryner, 2010). In a 2009 Pew Research Center survey of a nationally representative sample of 2,969 adults, sixty percent of respondents ages 65 and older said they receive more respect and feel less stress than when they were younger.

Approximately fifty percent of U.S residents who are ages 80 and older report being very happy while less than thirty percent of younger age groups report being happy (The Pew Research Center, 2009). According to Bryner (2010), as life expectancy decreases, older adults focus on what makes them feel good now rather than focusing on the negative. The Pew Research Center (2009) reported that seventy percent of respondents were enjoying more time with family. They also found that sixty-seven percent reported that the benefits of old age included not having to work and having more time for hobbies such as traveling and volunteering.

Conversely, quality of life may decrease with age for some, due to reduced ability to participate in physical activities. Engagement in physical activities declines for many reasons such as physiology, personality, emotional status, social support, vulnerability, personal beliefs about the health effects of physical activity, and age (Levasseur et al., 2008). Physical activity, regardless of physical deficits, positively affects both the physical and mental functions of older

adults (Stock et al., 2008). Also, embracing supportive family and friends whom are encouraging is shown to counteract obstacles and enhance health, well-being, and quality of life levels (Levasseur et al., 2008).

Participation in meaningful occupations is vital to skill development, building connections with others and our communities, and to find purpose and meaning in life (Law, 2002). Participation in meaningful occupations, such as work and leisure, has positive influences on health, well-being, and quality of life (Law, 2002). Environmental influences such as the social, psychological, economic, and physical factors, combined with the older adults individual characteristics and values, influence the overall health and quality of life of the individual (Orfila et al., 2006). According to Eklund et al., encountering optimal occupational experiences daily contributes to meaningfulness and a good quality of life. Individuals who experience activity limitations have decreased opportunity to perform occupations that contribute to satisfaction and happiness. Certain environments such as institutional settings, have been found to be linked to decreased quality of life.

Quality of Life Issues with Long-Term Care Residents

Nursing homes and other group residential options for seniors that offer little opportunity for occupational participation can be detrimental to quality of life. Dr. Thomas wrote that nursing home residents face loneliness, helplessness, and boredom (Thomas, 1996). Often, staff members take the role of having the power and authority over the residents, further increasing a social chasm (Thomas, 1996). According to a report by ASHOKA, long-term care facility staff, including managers and third-party payers, work to ensure that residents receive needed treatment (ASHOKA, 2002). Thus, a treatment plan is developed for the nursing

home resident that defines every hour of every day (ASHOKA, 2002). However, it has been argued that those treatment plans are typically medically driven and do not address resident's personal desires. Primarily, resources are spent on treating disease, disability, and resident decline and not on addressing loneliness, helplessness, and boredom (Thomas, 1996). The distribution of money is a result of nursing home reimbursement based on the variety and number of treatments (ASHOKA, 2002). Nursing homes are required to standardize care, comply with regulations, reduce accidents, and increase revenue which leaves little room to address quality of life issues related to loneliness. Government mandated minimum health and care requirements are enforced by state inspectors. There are penalties and fines for noncompliance which causes fear and a lack of time for caregivers to embrace new ideas. Thus, nursing home administrators often concentrate on meeting government standards which leaves the individual residents needs secondary (ASHOKA, 2002). Over time, there has been a widespread, yet mistaken belief that government compliance with regulations was equivalent to providing quality care and a good quality of life for residents (Thomas, 1996).

Quality of life is affected in part by the physical environment of the long term care facility. The balance between environmental obstacles and opportunities directly affect the level of the older adult's activity participation (Levasseur et al., 2008). Factors contributing to low quality of life in nursing home environments include isolation, loss of independence, and a risk of vulnerable adult abuse from other residents or staff. The dignity of nursing home residents is also challenged by habits such as the use of bibs, labeling of resident's clothing in a visible location, or failure to groom hair in a way that the resident prefers.

Government policies should be partly blamed for the inadequate money and resources of long-term care facilities. Kane & Kane (2010) argued that the government needs to stop spending money in the wrong places. Government funds are spent on nursing home regulations such as surveying. According to Kane & Kane (2010), the government spent \$151,480,966 in 2001 on the U.S state nursing home surveys alone. They suggested that instead of continually increasing the regulatory burden placed on nursing homes that restrict residents freedom of choice and nursing home staff rules and restrictions, government funds should go towards creating a nursing home environment that enhances resident's quality of life.

Residents have made suggestions for improving quality of life in nursing homes to make it feel more like a home environment. According to Kane (2003), nursing home residents place higher value in the quality of life elements of relationships, activity, stimulation, and security. Specifically, kind and caring staff, compatibility with workers and roommate, as well as control and choice in daily activities are factors most desired by nursing home residents (Kane & Kane, 2010). Measures taken to improve dignity and privacy, including covering catheter bags, knocking on doors prior to entering a resident's room, and respecting the residents private space, also contribute to improved quality of life in long term care facilities (Kane & Kane, 2010). Thomas (1996) argued that residents need companionship, opportunities to give and receive care with plants, animals, and other people, as well as a culture change which deemphasizes medical managing. An environment that is perceived as comfortable, like one's own home, and promotes functional improvements and maintenance through meaningful activities is the ideal nursing home setting for older adults (Song et al., 2004). Additionally,

residents should be given some decision-making authority (Thomas, 1996). These environmental elements in nursing homes can be modified to promote optimal occupational participation, increased mood, and improved quality of life (Levasseur et al., 2008). Unfortunately, a homelike environment is difficult for nursing homes to emulate as each resident is unique, a level of health care is required, and nursing home funds are limited.

Increasingly, long-term care facilities are creating more home-like environments with more privacy and individual resident attention (Stateline, 2010). Nursing homes have begun to try to find new ways to improve the quality of life of their residents. Residents are given more control over what they eat and more flexibility in sleeping and eating schedules (Thomas, 1996). Besides allowing increased independence in their residents, nursing home staff members are often encouraged to ask for resident input and work to make appropriate changes, such as decreasing loud sounds of call alarms (Stateline, 2010). Those initiatives are partly due to new regulations and sources of funding. For example, Minnesota's Nursing Facility Performance-Based Incentive Payment Program [PIPP] supports provider-initiated projects aimed at improving care quality and efficiency (Cooke et al., 2009). The PIPP promotes implementation of evidence-based practices, encourages innovation and risk taking, and fosters collaboration and shared learning (Cooke et al., 2009). The Long-Term Care Ombudsman Program established under the Older Americans Act enhances long-term care services as well (Colello, 2009). The ombudsman programs: (a) investigate and resolve grievances expressed by residents (b) advocate for long-term care changes (c) protect resident's legal rights (d) publicize information significant to residents and (e) consult with residents and their family (Colello, 2009). Currently, the Minnesota Department of Human Services has taken on the task to

promote greater quality of life in nursing home residents in MN by funding initiatives such as art-based programming (Cooke et al., 2009). These programs are designed to provide residents with a sense of accomplishment and give optimal care while maintaining involvement in life (Cooke et al., 2009). Some long-term care facilities have begun to incorporate creative dance programs that include music and dance to positively influence resident's quality of life.

#### The Meaning of Music and Dance for Quality of Life

Music and dance are interconnected with health, well-being, social participation, cultural factors, quality of life, and have persisted throughout time. The origin of music is somewhat speculative but likely began prior to early primitive man, prior to language, and long before written words. The first drum that was documented in history was prior to 6000 B.C (Cromie, 2001). There is evidence of music in prehistoric times as flutes carved from bones have been discovered (O'Donnell, 1999). Humans begin to respond to music while in the womb and by four months, dissonant notes cause infants to turn away while other musical tones cause infants to coo (Cromie, 2001). Throughout the ages, music has been found in every culture known to man.

#### Socio-Cultural Meaning of Music and Dance

Every known culture on the earth has music (Cross, 2001). Music is considered to be one of the basic actions of humans and it entails both objective and subjective components (O'Donnell, 1999). Humans are social beings and music is largely a social endeavor (Trehub, 2003). Our social nature motivates us to create unique and elaborate systems of music specific to our culture. Throughout the world mothers and fathers provide their infants with musical

stimulation. Parents often sing to their pre-linguistic children, unknowingly using cultural elements of music such as pitch, tempo, genre, and repetitions (Trehub, 2003). Additionally, music and dance are central to many cultural specific traditions such as rituals, ceremonies, and daily life (Cross, 2001).

Although music is universal, it is also subjective, in the sense that particular musical styles affect individuals of different cultures and subcultures in different ways. Music is experienced through interpretation rules or musical systems that are shared in a group or culture (Cross, 2001). An individual's personality, prior experiences with music, musical talent, concentration, and mood also affect how one responds to and experiences music (Scherer & Zentner, 2001).

#### **Emotional Meaning of Music**

Music directly affects the emotional state of humans. Music can be used to change a person's mood, cause physical responses, and strengthen or weaken emotions of a particular event (O'Donnell, 1999). Although music is subjective, there are a variety of objective features that may affect the subjective perceptions of the listeners which leads to different emotional effects. The objective features of music may include the location, event, disruptions, and the audience.

The location in which music is listened to may range from church, concert hall, vehicle, home, outside, or even at a recording studio. Different locations contain a variety of music soundboards for the listener. Wood, open air, glass, cement, stone, metal, and even water may be the dominant material surrounding one listening to music (Scherer & Zentner, 2001). The event at which the music is played affects the emotions and behavior of the listener. The

emotional responses and behaviors to music at a wedding versus a funeral are significantly different. People often dance, celebrate, and experience happiness in response to wedding music while funeral music ignites quiet, mournful, reflective, and often sad emotions (Scherer & Zentner, 2001). Distractions that arise while listening to music affect these emotional responses. Shouting at a music concert, people coughing, a crying infant, or sirens from police or fire trucks cause listening interruptions that may distract concentration, emotion, and relaxation or excitement levels (Scherer & Zentner, 2001).

Scientific studies have shown that music affects and stimulates many different parts of the brain and body. Blood & Zatorre (2001) used position emission tomography (PET) to view cerebral blood flow and neural mechanisms that are activated in emotional responses to music. When subjects listened to music, the cerebral blood flow increased in brain regions that are involved in emotions, arousal, motivation, and rewards (Blood & Zatorre, 2001). Specifically, areas of the brain activated by music included the ventral striatum, midbrain, amygdala, orbitofrontal cortex, and ventral medial prefrontal cortex (Blood & Zatorre, 2001). The amygdala, a limbic structure that processes emotions, is activated when there are strong music evoked emotions (Koelsch, 2005). In fact, a single tone change in music can engage the amygdala and result in an emotional response (Zatorre, 2001). Another limbic structure, the nucleus accumbens, is activated through reward and pleasurable stimuli and is often associated with resulting behavioral responses (Koelsch, 2005). Studies reveal that music reduces stress, facilitates relaxation, and even helps to alleviate depression by reducing the amount of cortisol released in the body (Knight & Rickard, 2001 & Keolsch, 2005). Cortisol is a hormone released in response to stress. When excessive, cortisol levels have negative effects on physical,

cognitive and emotional health (Khalfa, Bella, Roy, Peretz, & Lupien, 2003 & Koelsch, 2005). The beneficial effects of music on cortisol levels could help prevent those negative effects (Khalfa et al., 2003).

The emotional power of music is difficult to study scientifically because the musical experience is subjective. The same musical ensemble may ignite emotionally powerful feelings of love in one individual and feelings of loss or anger in another. The same music may be experienced differently by the same individual on a later date or following increased frequency of hearing the song (Cromie, 2001). Individual memories linked to a musical piece also affect the emotion produced from music (Cromie, 2001). For example, a musical piece played at a graduation may be linked to memories of joy, freedom, accomplishment, sorrow, fear, or admiration. Thus, when the same musical piece is listened to at a later time, the initial memories correlated with the music may return and evoke similar emotions (Cross, 2001). In addition to emotions, music can ignite movement and general arousal in the listener.

Rhythm of Music, Movement, and Arousal

A universal feature of music across cultures is that movement and music often co-exist (Cross, 2001 & Grahn, 2009). Due to its emotional impact, music is often composed with specific action tendencies in mind (Cross, 2001). For example, music may be composed to get people to sing, dance, fight, work, march, play, and celebrate (Trehub, 2000). Rhythm is key to organized physical movements and perception of musical rhythm is culturally universal (Grahn, 2009). Our bodies have natural rhythms in our heartbeat, walking, and breathing. Musical rhythms promote the organization of physical movements in time (Grahn, 2009). The culturally discernible rhythms of music facilitate coordinated movements and emotional arousal of

people in small or large groups (Trehub, 2003). Music entices the listener to move his or her body to specific beats and rhythms often through clapping, tapping feet, or swaying the body (Grahn, 2009 & Grahn & McAuley, 2009). Many people indicate that they cannot sit still and have trouble suppressing body movements while listening to music (Grahn & McAuley, 2009 & Trehub, 2000). As previously discussed, music activates the nucleus accumbens which is linked to reward, pleasurable stimuli, and behavioral responses (Koelsch, 2005). Thus, the activation of the limbic structure of the nucleus accumbens from hearing music may be one of the reasons why people have a natural response to move, dance, or join in the music making (Koelsch, 2005). In addition, a study by Grahn (2009) revealed that musical beats and rhythms are processed in motor areas of the brain including the basal ganglia (striatum), cerebellum, and premotor and supplementary motor areas (SMAs). This helps explain the link between highly rhythmical music and increased movement. Conversely, lullables which are characterized by slow beats can dampen movement and thereby put children to sleep (Trehub, 2003). Music's effect on sleep is partially due to the fact that it also increases levels of melatonin which is a hormone that induces sleep (Trehub, 2003). The release of endorphins, which can assist in relieving pain, is also an effect of music. For this reason, music has been played in hospitals to help calm, relax, and decrease pain in patients (Bernardi, Porta, & Sleight, 2006 & Cromie, 2001).

The body's response to music can be quantitatively measured. For example, classical music that is played at sixty beats per minute causes the heart beat and pulse rate to relax to the beat of the music through its melody and rhythm (Bernardi et al., 2006). According to Scherer & Zetner (2001), music also affects the amplitude and frequency of brain waves.

Specifically, music with sixty beats per minute, affects brain waves in such a way that the right and left hemispheres become engaged simultaneously (Bernardi et al., 2006). The activation of both brain hemispheres increases alertness, concentration, learning, and memory (Bernardi et al., 2006). Music with faster tempos increases breathing rate, heart rate, and blood pressure while music with slower tempos elicits a decrease in these body mechanisms (Bernardi et al., 2006, Schered & Zentner, 2001). Music with swelling crescendos (gradual increase in volume) induces moderate arousal while decrescendos (gradual decrease in volume) induce relaxation (Bernardi et al., 2006). The positive results of listening to music expand beyond the physiological impact to include quality of life.

Impact of Music and Dance Programming on Quality of Life of Older Adults

Music affects quality of life components of well-being, physical activity, socialization, culture, cognition and memory. *Music therapy* is the use of music to restore, maintain, improve, and address psychological, cognitive, social, mental, and physical health of individuals of all ages (Davis, Gfeller, & Thaut, 2008). Versions of music therapy have been implemented since the earliest recorded history (Davis et al., 2008). The Hebrews and Greeks were documented as treating physical and mental illness with the playing of music (Davis et al., 2008). More recently, music and dance have been used with older adults because of its meaningfulness and positive effects on mood and quality of life.

Impact of Music and Dance on Well-Being and Mood

Music and dance may be used as an intervention modality to influence well-being and mood. Some older adults feel depressed when they move from their home to a facility where

assistance is needed (Davis et al., 2008). Nursing homes often hire music therapists to help relieve grief and improve emotional feelings of the residents transitioning into their new institutional environment (Davis et al., 2008). In addition to music therapists, other professionals such as occupational therapists, activity therapists, and professional artists have facilitated music, dance, and other creative movement activities in long term care, as well as other venues, to positively impact the well-being and mood of residents. However, only a few studies have been conducted to document the benefits of those programs.

The benefit of folk dance for the mood of older adults has also received empirical support. For example, a study by Eyigor et al. (2009) included 40 healthy females over 65 years old in an eight week dance-based exercise program. The subjects were randomly assigned into a group of folkloric dance-based exercise and a control group. The dance-based exercise group had significant improvements in physical performance, balance, and quality of life (Eyigor et al, 2009). Eyigor et al. (2009) also discovered that individuals who participated in the dancing program reported higher levels of happiness following the dancing than they did prior to participation. Other researchers have discovered similar positive outcomes resulting from art based programs.

Even though it does not involve music, Tai Chi includes similar patterns of movement as creative dance. Tai Chi is one of the creative movement activities whose benefits for mood have had some empirical support. For example, a study by Lee et al. (2009) included 139 residents ages 65 and older, from six nursing homes. The experimental group of 66 individuals participated in a twenty-six week Tai Chi program while the control group of 73 individuals did not. The Tai Chi program consisted of a combination of physical activity similar to dance and

cognitive meditation. The results indicated that there was a statistically significant difference in the physical and mental components of quality of life between the experimental and control groups (Lee et al., 2009). Findings showed significant improvement in quality of life after residents practiced Tai Chi (Lee et al., 2009).

In a landmark study, Cohen (2006) found that older adults who participated in art based programming involving dance and music felt satisfaction and elation resulting from performances that exceeded their own expectations. Individuals who experienced successful performances repetitively felt increased self esteem, mood, and motivation to continue participating (Cohen et al., 2006). The study included 300 participants age 65 or older randomly assigned to a control group and a weekly art-based treatment group which included music, dance, as well as visual and literary arts (Cohen, 2006). Five questionnaires were used to assess health problems, mental health issues, and social activity participation (Cohen, 2006). The arts based intervention group showed greater reduction of depression and loneliness, as well as greater improvement in morale, and physicality than did the control group (Cohen, 2006).

Music and dance can also improve physical function better than exercise alone. Music and dance promote continued involvement thanks to the positive emotional experience (Cohen, 2006). Music is pleasurable, decreases the cortisol stress hormone, and encourages sedentary older adults to move and dance (Eyigor et al., 2009). Music and dance are enjoyable and increase physical activity without the potential stress and burden of repetitious exercise such as lifting weights (Eyigor et al., 2009). A study by Eyigor et al. (2009) divided 40 older adults over the age of 65 in a social dance group and a control group for eight weeks. Results

indicated that social dancing significantly improved and maintained motor function, physical performance, and balance (Eyigor et al., 2009). Improved motor function can thus translate to a reduced risk of falling.

Some research indicates that music and rhythmic exercise are beneficial for seniors who have an increased risk for falling. Cohen (2006) reported in his study that the art-based intervention group reported fewer falls while the control group reported increased falls than was measured at baseline. In McKnight's (2010) study, more than 130 older adults were tested in walking and balance skills following a music program called Dalcroze eurhythmics that encourages free body movements to piano music and gradually includes elements of movement and object manipulation set to piano music. Participants continued to show balance and walking improvements six months following the study's conclusion. Thus, dancing, whether social or creative, appears to have a positive effect on the movement, balance, and number of falls in older adults (McKnights, 2010).

If an older adult uses dance as exercise and happened to fall, benefits from dance may even reduce the chance of fractures. Dancing increases bone mineral content and joint flexibility which help to buffer against bone fractures (Wayne et al., 2007). Dancing also affects other physical functions. Like any other physically demanding activity, dancing improves cardiopulmonary functioning, lowers blood pressure, increases muscle strength, enhances motivation levels, increases confidence, and heightens energy levels (Wayne et al., 2007). In addition to the many physical benefits, dancing has also been positively linked to socialization. *Music and Dance, Self-Efficacy, and Socialization* 

Older adults that engage in meaningful social interactions with other individuals experience positive health outcomes. When given a sense of control such as by achieving mastery in an activity, positive health results ensue (Cohen et al., 2006). Thus, a sense of self efficacy enhances well-being (Cohen et al., 2006 & Heslin & Klehe, 2006). Specifically, self efficacy is an individual's belief in his or her ability to successfully perform a particular task (Heslin & Klehe, 2006). Perceived level of self efficacy is a determinant of an individual's effort, persistence, and performance of a task (Heslin & Klehe, 2006). When a task is successfully accomplished, both self efficacy and overall perceived well-being increase (Heslin & Klehe, 2006). Accordingly, activities that increase opportunities for mastery are linked to positive feelings of self-efficacy. Art-based programs provide optimal opportunities to experience mastery and a sense of control, as these programs offer satisfaction and empowerment (Cohen, 2006). For example, in a study about the benefits of social dance in long term care, Palo-Bengtsson, Winblad, & Ekman (1998) observed that it was natural for male nursing home residents to take control and escort their female dance partner, enabling them to fulfill valued cultural social roles. Intervention studies looking at the benefit of social dancing in nursing homes, found that it stimulated social interactions and communication with other older residents. Spontaneous activity such as arm movements was also stimulated through the social dancing (Palo-Bengtsson et al., 1998). Other studies have found that dancing can include group movements in which individuals are given opportunities to hold hands and make eye contact with one another. Greeting and socially interacting with other older adults in the context of dance can facilitate further interactions that may otherwise occur infrequently in the nursing home environment (Song et al., 2004).

Social dancing is not only meaningful for nursing home residents, but can also have a meaningful impact beyond the residents themselves. Research found that the positive feelings increased communication, improved behavior following dancing, and also positively impacted the residents' caregivers and family members (Palo-Bengtsson et al., 1998). Another study by Clair (2002) examined the effects of music on the engagement of older adults with dementia and their caregivers. A music therapist guided eight couples to individually find their music of choice. Clair (2002) concluded that music therapy was effective in increasing engagement for both caregivers and the older adults with dementia. Music and dance also has a positive impact on dementia and cognitive difficulties.

Impact of Music and Dance on Memory and Attention

Creative dance programs have been found to positively influence the cognition of older adults. Music and dance increases mental stimulation and psychological functions of individuals with dementia (Palo-Bengtsson et al., 1998). A study by Larkin (2001) revealed that scores on memory tests of people with Alzheimer's greatly improved when they listened to music while being tested. Twenty-three subjects with dementia were tested for recall after being exposed to four different types of noise including no noise, cafeteria noise, familiar music, and novel music (Larkin, 2001). The older adult's recall was significantly and equally better with familiar and novel music than with silence or cafeteria background noise (Larkin, 2001).

A number of mechanisms for positive memory effects have been suggested. For example, Knight and Rickard (2001) proposed that memory improvements are partially due to the effect music has on increasing the release of certain hormones in the body. Amygdala

activation and hormone release of noradrenaline in response to music results in strengthened memories of the experience that occurred while listening to music (Cuddy & Duffin, 2005).

Cuddy & Duffin (2005) explained that music stimulates the release of adrenaline which 'instructs' the amygdala to activate other areas of the brain to more strongly store the memory of the event.

In addition to facilitating the formation of new memories, the effects of music on physiology can also explain its ability to facilitate retrieval of long-term memories. Larkin (2001) suggested that expressive and physiological reactions to emotion-inducing events are stored in memory along with the emotion-inducing incident. Recall of past emotional experiences from memory and imagination can result in similar emotional reactions as was originally experienced. Recall from memory along with emotional reactions can be triggered by a specific cue such as music. Music can bring emotional experiences from memory back into awareness similar to the way specific smells trigger a memory (Scherer & Zentner, 2001). Music is often associated with important life events that may include religious ceremonies, marriage, funerals, dancing, and other cultural specific events (Scherer & Zentner, 2001). Music entwines the life of most individuals from all cultures.

### Literature Review Conclusions

Strategies aimed at improving and maintaining health and quality of life of older adults are beneficial to the individuals involved and to society as a whole. Those efforts have the potential of preventing disability, reducing the costs of health care, and increasing the older adult's functional abilities and quality of life (Song et al., 2004). Although music and dance have

been found to positively influence older adults, only limited research has been conducted in long-term care facilities. In addition, no studies have been found that used an occupational science perspective emphasizing the meaning of the activity for the individual. See Appendix F for additional literature review information. In addition, few studies have incorporated qualitative measures to better understand the various aspects of quality of life that are impacted by arts-based programming. The degree to which creativity is incorporated in those types of interventions is also a dimension whose benefits need further understanding.

Providing optimal care of nursing home residents should be about more than addressing medical problems. The limited research that exists suggests that art-based programming can contribute to better quality of life and improved health outcomes by focusing on each unique individual, his or her desires, and his or her potential (Cohen, 2006). This qualitative research study explores the impact of The Dancing Heart program on the quality of life of frail elders in two long term care facilities.

#### Methods

### Research Design and Questions

This research is part of a larger mixed design study intended to investigate the effects of a creative dance and story-telling program on long term care residents of five long-term care facilities in the Twin Cities area. The art-based programming was implemented in those

facilities by a non-profit organization run by professional artists named "Kairos Dance Theatre" weekly for two years. The present research was conducted in two of the long-term care facilities involved in the overall mixed-methods research program. Although the quantitative data in the overall study included measures taken from elderly participants themselves, the present qualitative research focused on collecting testimonies from the staff, volunteers, and caregivers of the older adults participating in the program. The over-arching research question was: What is the importance of a creative dance program for long term care residents? The sub-questions were: (a) what is the meaning and experience of dance and music for the participants? (b) what is the perceived impact of the dance program on quality of life of the participants? And (c) what is the perceived impact of the dance program on the culture of the nursing home?

This particular study utilized a qualitative interview-based design to collect testimonies about the program. Predetermined open-ended questions were designed based on the literature review, current Kairos program objectives, and the identified research questions for the study. The design was prospective since interviewees were still involved with the program when the interviews were conducted.

Framework Analysis was used to analyze the interview transcripts. *Framework Analysis* is an approach to qualitative analysis based both on inductive (data driven) and deductive (apriori) concepts (Richie & Spencer, 1994). It was developed in the context of applied policy research and aimed at providing outcomes or recommendations through an analysis process that was clear to funders and other readers (Lacey & Luff, 2001; Richie & Spencer, 1994). Framework Analysis consists of five linear stages. *Familiarization*, the first step, is the

completion of transcriptions and reading of the data (Lacey & Luff, 2001). Next is *identifying a thematic framework* which consists of developing codes from *a priori* issues (pre-set research questions, study framework, issues found in the literature) and from emergent concepts derived during the familiarization process (Lacey & Luff, 2001). *Indexing*, also known as coding, is the application of the codes to the transcripts. In this process, numerical or textual codes identify data that correspond to different categories. The fourth stage, *charting*, is the creation of charts from the coded data. During charting, the data is reorganized so themes are easier to identify at the next stage. The final stage is *mapping and interpretation* which is the true analysis stage where the associations, patterns, explanations, and concepts in the data are determined (Lacey & Luff, 2001). These patterns, associations, and relationships may be examined under the lens of the original research questions.

# **Program Description and Setting**

Kairos Dance Theatre is a non-profit, intergenerational dance company in Minneapolis, Minnesota. This dance company has an award-winning program called *The Dancing Heart*, which serves to engage residents of skilled nursing facilities in the meaningful activities of reminiscence and creative dance. Kairos states that their mission is "to share the joy of dance and unleash its power to nurture and heal". They believe there are many ways of dancing, and that "each person has his or her own dance to share and story to tell" (Kairos Dance Theatre, 2010). Kairos Dance Theatre promotes creativity and improvisation through the incorporation a variety of music, songs, and dance as well as through the encouragement of all participants to share personal stories.

This study was conducted in two long-term care facilities in Minnesota. These sites were selected from the five sites involved in the overall mixed-method research based on their diverse locations and populations. One skilled nursing facility is located in an inner-city neighborhood and the other is in a rural small town a little more than an hour away from a main city.

### **Population**

Participants consisted of staff, volunteers and caregivers of residents in a rural and an urban nursing home. The rural nursing home is small, with about 75 beds filled at any one time. The individuals who reside at this long term care facility are approximately 80 years old. There is not one specific health issue that brings the individuals to this facility. Residents' diagnoses include stroke, heart attack, Parkinson's, Alzheimer's and other forms of dementia. The urban nursing home facility is larger than the rural one as it almost reaches 150 beds. The average age of residents in this urban skilled nursing facility is also about 80 years old. The residents in this long term care facility are more racially diverse than in the rural facility. Some of the common diagnosis experienced by residents of the rural facility at the time of the interviews included diabetes, renal failure, mental illnesses such as paranoid schizophrenia, and dementia.

Residents were selected for participation in the creative-arts program based on their ability to tolerate a ninety minute activity session. However, residents were welcomed to join the program regardless of their functional abilities, as the program is designed for individuals at

all physical, cognitive, and mental health levels. It was the wish of the staff at Kairos dance to make their program available to as many elderly individuals as possible.

Inclusion criteria for participation in the research interviews was to be a staff or volunteer at the nursing home and to have participated in the Dancing Heart dance program or be familiar with it, or to be a caregiver of a Dancing Heart participant. A total of fourteen individuals participated. The total sample of individuals from the two selected sites in this study included eight staff and three volunteers, of which two were Kairos members. Also included were two family members from the rural facility and one family member from the urban long term care facility. It is important to note that all the names used in this research study are pseudonyms that were created jointly by the two student researchers. The pseudonyms do not resemble the interviewee's actual names. Table 1 summarizes the general demographics of the interviewed participants in this study.

Table 1

Kairos Dance Theatre Study Participant General Demographics

Name	Role	Facility
Ariel	Provider-nursing home staff	Rural
Beth	Provider-nursing home staff	Rural
Cassidy	Provider-nursing home staff	Rural
Dianne	Provider-nursing home staff	Urban
Elaine	Provider-nursing home staff	Urban
Franny	Provider-nursing home staff	Urban
Grace	Provider-nursing home staff	Urban
Heather	Provider-volunteer	Rural
Irma	Provider-Kairos staff	Rural
Julie	Provider-volunteer	Urban
Kendra	Provider-Kairos staff	Urban

Laurel	Family member	Rural
Michael	Family member	Rural
Nadine	Family member	Urban

### Procedure

Prior to the initiation of this study, the Institutional Review Board (IRB) at Saint

Catherine University reviewed and approved this study. Participants were recruited by the placement of volunteer sign-up sheets in the two skilled nursing facilities. The sign-up sheets consisted of brief information describing the study and the researchers' desire to interview staff, volunteers, and caregivers (family members) who were familiar with or involved in the Dancing Heart Program with the residents. An example of the sign-up sheet can be found in Appendix A. Interviews were arranged based on a specified date that researchers would visit the long term care facility. Prior to initiation of the interview, potential participants were given both a short verbal summary and a written explanation of the study. They were also given the opportunity to ask questions or express concerns prior to signing the consent form (see Appendix A). In addition, researchers explained that the information would be anonymous and kept strictly confidential. The researchers also indicated that participants had the right to refuse answering specific questions and/or to stop the interview at any time. The student and

faculty researchers interviewed a total of fourteen participants. Additionally, the faculty advisors conducted follow-up interviews with three of the participants previously interviewed by the students. Participation in this study was entirely voluntary.

### Tools

Interview guides (Patton, 2002) were developed based on the study questions established by the research team, goals of the Kairos program, and information from the literature, including the occupational science perspective. Samples of the interview guides may be found in Appendix B. The questions were designed to elicit testimonies regarding the impact of Kairos' Dancing Heart program on several components of quality of life and areas of personhood. They included but were not limited to mobility, memory, mood, social interaction, and occupational engagement.

All the interviews were conducted individually. Although it was not always possible to find a private setting, they were conducted with the maximum amount of privacy available. Most initial interviews were conducted face-to-face by the students, except for the interviews with the family caregivers and additional staff member which were conducted on the phone by the faculty advisors. All the follow-up interviews were conducted over the phone by the faculty advisors. Interview guides were followed closely but the open-ended questions allowed for elaboration and clarification as needed during the interview. Conversations were recorded using the Easy Hi-Q Recorder TM computerized recording system. The Express Scribe TM program was then used to play back the interview and allow for verbatim transcription. Interviews ranged in length from twenty to thirty-five minutes. Following transcription, the researchers

developed follow-up questions based on unclear and/or inaudible interview information. The three follow-up interviews were based both on need for clarification and availability of the interviewees. Participants were given no external incentives to volunteer for this study.

Researchers expressed appreciation and gratitude for participants' involvement.

### Data Analysis

In order to analyze the data, researchers followed the five steps of Framework Analysis. In the *familiarization* stage, researchers transcribed interviews and read these transcripts multiple times in order to familiarize themselves with the data. Next, researchers developed a coding framework consisting of a combination of codes identified through a deductive process from the research questions and the literature and codes that were found inductively from the interview transcripts during the familiarization stage. A copy of the coding framework can be found in Appendix C. Researchers triangulated the codes through a sample coding process between the students and the faculty researchers to identify areas needing modifications. Following refinement of the coding framework, the two graduate students independently coded two transcripts to establish inter-rater agreement. The coding framework agreement between researchers was ninety-four percent for the category codes, which constitutes a highly reliable tool.

Line by line coding of the data was then completed by the student researchers with the use of that coding framework. Coding was immediately followed by the *charting* stage in which textual excerpts corresponding to each code were sorted into tables across all participants.

One representative quote was selected for each participant but the line identifying other

instances of the code for each participant was included in a separate column. This allows researchers to read what was said about each code and also provides information about the number of instances each code appeared for each participant. A charting example of the category code of a Kairos participant's non-verbal engagement [ENG-NV] may be found in Appendix D. Finally, during the *mapping and interpretation* phase, researchers used the thematic charts to identify themes for each code and coding categories, as well as patterns, associations, or relationships that appeared within the data across the coding categories. Those patterns were formulated into overarching themes that were developed taking into account the original research questions.

### Results

The results of this research study indicate that a creative arts program can positively influence long term care residents' quality of life. A total of fourteen individuals were interviewed regarding their observations of long term care residents' reaction to Dancing Heart, a creative dance and story-telling program developed and facilitated by Kairos Dance Theatre. Eight direct care providers, three family members, and three volunteers were interviewed by this author as well as another student working on a parallel thesis. These interviews were transcribed, coded, and analyzed to describe the experience of the Dancing Heart program and determine its importance for the residents and its impact on long term care residents' quality of life. The student researchers do have overlap in the analysis focus as the main themes were developed together. However, this researcher focused primarily on the musical aspects, the culture, creativity, and the resulting effects on long term care residents. Siri Rydholm (2011), the other student researcher, placed more emphasis on the physical aspect of the dance and its benefits. This research study found that the creative activities of music and dance were experienced as positive both during and after the sessions. The themes were organized in response to the three research questions. Related to the first question, on the meaning and experience of dance and music for the Kairos participants, results indicated that increased physicality, personal validation, reminiscence, as well as sustained and timeless engagement were observed of Dancing Heart participants. In response to the second research question

about the perceived impact of the dance program on the quality of life of the Dancing Heart participants, themes suggested that music and dance impacted participants' quality of life through the formation of new memories, joint creation and bonding, experiences of fun and excitement, as well as feelings of sacredness and healing. In reference to the third research question about the perceived impact of the dance program on the culture of the nursing home, results showed more personalized interactions between residents and staff, increased inquisitiveness towards art-based programming, and improved climate in the facilities. An additional theme that emerged from the interview transcripts, although it was not part of the research questions, was evidence of constructive feedback for Kairos's program.

### Experiences of Participants in Kairos

The first research question aimed to discover the meaning and experience of dance and music for long term care residents. Themes that emerged were (a) *Increased physicality in response to music*, (b) *Validation of each participant and enhanced sense of personhood*, (c) *Sustained and timeless engagement and*, (d) *Reminiscence in response to music. Increased Physicality in Response to Music and Dance* 

This theme of greater mobility in the context of The Dancing Heart program was a dominant theme emerging from the analysis. The chart showed that all fourteen interviewees reported observing that residents increased their physicality during the Kairos program. The narratives indicate that these improvements appeared to derive from the components of music including (a) rhythm and beat, (b) melody and tune and, (c) lyrics that produced creative miming. Many of the residents were reported to primarily be sedentary due to the lack of

opportunity, ability, and willingness to engage in physical movement. The Dancing Heart provided many opportunities for movement through expressive dance and creative miming of stories. All interviewees reported that the nursing home residents increased their physicality in response to the rhythm and beat of the music. For example, Julie explained that the residents participating in The Dancing Heart would:

...rock side to side, and now a lot of them are just getting up and really able to actually engage in partner dancing and moving their feet a lot, and really showing a lot of progress physically.

Elaine also reported observing impressive improvements in physical movement through Kairos participation in Dancing Heart.

Elaine: It's kind of amazing to see the flexibility that happens even throughout a session...it goes from very little movement and very little desire for movement to large arm swings or even the mobility and being able to rotate your ankle and things like that which is it seems huge to me because most people are in wheelchairs and having trouble with a lot of things...

Music appears to have been a prime motivator for this increased physicality.

Interviewees frequently referenced music as an influential motivator to resident's movement and participation. The beat of music elicits movement. Because of her focus on dance, Rydholm, S. (2011) the other student researcher, elaborated on the effect of the beat of music on physicality. The focus of this research is on other aspects of the musical experience such as the melody, tune, familiarity, emotion, culture, creativity, and their impact of participation.

Grace and Franny both discussed the impact of the melody and tune of music as it influences emotions and addresses cultural preferences in relation to movement.

Grace: [...] some of them are able to do more than they would be able to do without the motivation of music and the people and the ambiance.

Franny: There are some residents that will move more physically with encouragement, and sometimes with the right music.

Likely by its evocation of social dancing, music also often elicited spontaneous handholding. As described by Grace and Elaine:

Grace: [...] we sit in a circle and there's times in the program, like at the end when we'll all hold hands, and residents will often times...spontaneously take a hand of another resident. People that you may not expect to do that.

Elaine: ...what's nice to see is those spontaneous...somebody will grab somebody else's hand or they'll ask them to dance and they'll get up spontaneously...

Often, the residents will be moving in unison to the music. This group harmony is also evident during the singing of songs. Kendra illustrated this by stating:

...it's a great day when you sit and look around the room, and almost everybody is moving in time to the music and that is great success.

The familiarity and meaning of the lyrics of a particular tune also affected the residents' reactions and personal expressivity.

Beth explained how the meaning attributed to various songs facilitated participation:

Music makes a big difference. Using the music that they remember when they were younger and then exposing them to different music too and makes them...want to be part of it.

Individual's cultural background also contributed to the impact music had on participation. Franny provided a specific example of increased movement, personal expressivity, and cultural meaning derived from music during Kairos. Franny explained how a resident with African origins reacted to Dancing Heart:

...we did an African dance and we broke it down and step by step, and then she proceeded to talk about her family and some certain memories from her homeland.

The nursing home residents were given an opportunity to express their artistic and creative sides through the art of music and dance. The expressivity and creativity in their dance and miming movements was in response to the music, the lyrics, or one another. Each resident was free to use his or her imagination, be playful, and be spontaneous. Beth explained the creative movement and miming that occurs in Kairos.

Beth: ...when we're doing dance moves we'll look around to see who's doing the dance movements and then we have the rest of the group follow that person... they're maybe tapping their toes and we acknowledge that and then we have the rest of the group [tapping their toes]... I've seen over a pattern of time where now the residents will look 'where'... they'll want to encourage that person too.

As is seen through the above results, the various components of music, namely rhythm (beat), melody (tune), and lyrics (words), elicited the engagement and active participation of those involved with The Dancing Heart. Moreover, Beth's illustration also addressed the acknowledgement of individual participants, which is developed in the next theme.

Validation of Each Participant and Enhanced Sense of Personhood

The second theme that emerged addresses the direct experience that long term care residents had in The Dancing Heart sessions in that Kairos artists' had the ability to stimulate each participant's creative potential which resulted in feeling valued as persons. Interviewees reported that The Dancing Heart program helps each participant feel needed, special, cared for, worthwhile, and validated for who he or she is as a person. Interviewees also explained that the Kairos Dance Program is participant-centered and that each person is viewed as an individual with unique gifts. In the context of The Dancing Heart, participants are provided with

the opportunity to share their stories which are then used as material for creative miming and dancing by the group. This process, as well as the encouragement given to participants to spontaneously express their creativity through movement, was used to acknowledge individual participants and encourage mutual listening and validation of each resident's personhood. Interviewees revealed participant-centeredness of the Kairos program through their observations of acknowledgement that was given to each individual and his or her stories.

Heather: ...[residents] may be old, they may be in this grouping ... but their stories are different, they're of great value and they should be told that 'you've contributed a lot', and 'you are of great value now too'.

Beth: ...they actually have an opportunity to be acknowledged in a way at their age that they probably wouldn't be acknowledged for their past gifts and for who they are now as a person...

Kendra: ...when we go around the room and do the name, check-in thing and you can hear everybody singing the song with that person's name in it, the group participation is best.

Interviewees also described how each Dancing Heart participant was encouraged to put forth his or her best ability regardless of past experience or current function. Each participant was viewed as a unique individual and was welcomed to contribute his or her gifts and unique creativity which alternated between singing, dancing, miming, story-telling, listening, and more. Ariel and Elaine illustrate this creativity below.

Ariel: Right now we're getting life stories together and Kairos will be putting something together and then we'll probably do some type of a skit around that in the future.

Elaine: Sometimes residents will get playful and make up stories. We have one [resident] who talked about a jumping lion or something like that.

Participant-centered programming was also represented through the emphasis the Kairos professionals placed on determining the participants' preferences. Cassidy articulated this by stating that:

...we pay special attention to each individual and their likes and dislikes.

Specifically, nursing home residents expressed their personality through musical preferences. In fact, Kairos artists frequently selected the tunes used in the sessions based upon the interests and suggestions of the long term care residents. In this way, the Kairos artists catered to each unique individual and provided a variety of musical experiences. Elaine and Irma, respectively, spoke about Kairos' participant-centered programming in relation to musical preference by stating:

...the Kairos Dance community seems pretty good about trying to figure out what the people's favorite types of music are, what are the things that get them interested.

...they try to find out about the residents and then bring in music. One woman was an Opera singer and they even searched out music for her.

Incorporating music specific to the residents' cultural background was another strategy used by Kairos artists to bring validation to each person. Grace touched on the benefit of that approach for participants by stating that:

...when we play music from their country, they can really feel the beat, and you really see it in their bodies and in their face. ...people appreciate other people's cultures. I think people do resonate most with their own cultural music and dance.

Experience of Sustained and Timeless Engagement

The joint creative process within The Dancing Heart program generated a focused experience and a loss of track of time which can jointly be described as a sense of "flow". *Flow* is the state of full immersion and involvement in an enjoyable and often creative activity

(Nakamura & Csikszentmihalyi, 2002). A feeling of intrinsic reward and a distorted sense of time is often experienced when in a mental state of flow. Mihaly Csikszentmihalyi, who coined the word "flow", described time distortion as the internal experience of time slowing down or speeding up as the external clock remains consistent (Nakamura & Csikszentmihalyi, 2002). Interviewees reported that the individuals were engrossed so thoroughly in The Dancing Heart program that they did not noticed the passing of time.

Irma: ...when they went in the first time with their [Kairos] program the staff said, 'we think you can probably keep their attention for ten or fifteen minutes'—and an hour and a half later they're all happy and smiling and they've been totally engaged for that amount of time.

In addition to the loss of a sense of time, the full immersion in the activity appeared to temporarily suspend the sense of place. For example, Dianne discussed that the nursing home residents would:

"tell stories about their life and they feel like they're in another world for an hour or so".

The feelings of flow with activity immersion, intrinsic rewards, distorted sense of time and space, and enjoyment were expressed in the reminiscence process as well. Reminiscing and reliving past memories in the present created the flow as will be further discussed below.

Reminiscence in Response to Music

Finally, interviewees frequently expressed the importance of music for the resident's recall of past memories. Specific musical arrangements ignited nostalgic memories within the residents. Some of the retrieved memories had not been recalled for more than fifty years. For example, Julie reported that:

I have definitely witnessed specific songs and especially with music, conjuring up memories, triggering memories, and they then are able to express those memories, essentially, from what's triggered. And it's the memory, which could have been 50-60 years ago is extremely present, as if it just happened.

These powerful emotional memories were even observed in residents suffering from dementia. Narratives indicate that the reminiscence of the past typically involved positive emotional recollections in which the individual enjoyed reliving the remembered experiences and related feelings. Some of the reminiscing led to emotions so powerful that tears were generated. The significant connection between music and reminiscence was consistent across all research participants and was one of the most frequently mentioned themes. Franny explained that the music in the Dancing Heart Program:

...brings them back to a certain time, generally a very happy time. They'll play Louis Armstrong and it'll bring one resident back to her times in the dance hall. We've played "New York New York" and it'll bring another resident back to the times she would go to New York to get her hair done in the Bronx.

Sometimes music brings them back to the country and language of their childhood.

Another interviewee, Grace, described the memory retrieval of an immigrant Kairos participant through music by stating that:

...we have a woman who's very Norwegian, like almost one hundred percent Norwegian, and she will sing in Norwegian. Even though she can't remember a lot of the words in English...

Equally powerful, was the recognition that residents were not only retrieving past memories but they were also creating new memories through their participation in Kairos. This theme will be discussed in response to the next research question.

Impact of Music and Dance on Participant Quality of Life

The second research question sought to identify the perceived impact of the dance program on the quality of life of the Kairos Dancing Heart participants. All of the emerged themes appear to reflect the benefits of the artistic expression and creativity derived from participation in this arts-based program. Themes that emerged from the transcripts in response to this research question included (a) The Dancing Heart content and routines help form new memories, (b) Joint artistic experience and creativity facilitate bonding, (c) Creating joint meaning, (d) Fun and excitement as consistent experiences within the joint art-making and, (e) Feelings of sacredness and healing from art-making.

The Dancing Heart Content and Routines Help Form New Memories

There were reoccurring instances of interviewees describing that the nursing home residents were creating new memories over the course of the Dancing Heart sessions. Since the creation of new memories builds up over time, this theme is most applicable to the current research question on the impact of the program on quality of life. Among the evidence of participants creating new memories is their recall of new songs learned in Kairos beyond the sessions themselves. This seemed to be facilitated in part by the routines within Dancing Heart in which some of the songs are repeated across the sessions. Irma emphasized this phenomenon through her comment that staff members or volunteers would repeat a saying or a line from a song heard in the Dancing Heart session:

...and throw it out to somebody during the week, and often they'll get a response...which means they remember that happening in the group, that song, or that saying, so that's fun.

Kendra also illustrated this theme by describing that she witnessed the learning of new information such as chorus of the "Great Big Love" song taught by Kairos facilitators and sung at the conclusion of each session:

...particularly with that closing song 'Great Big Love,' you can look around and they're singing along with it. They may not remember all the verses, but they're singing the chorus with us, and they're doing the hand motions, and like I said, they do remember us.

The creation of new memories was also evidenced by the residents' recognition of individuals they newly met in the Kairos Dance program. As Kendra previously alluded to, the long term care residents who participated in The Dancing Heart remembered the facilitators and other individuals involved in the program. Kendra elaborated by explaining that:

...I do know that many of them remember us. Even though there's memory problems going on, people will light up when they see your face. They know that they know you, and that it's in a good context...

Finally, the creation of new memories was observed through the residents' ability to learn and reenact new routines as well as to continue conversations initiated during the previous Kairos session.

Nadine: ...[she is] understanding and communicating about the fact that it's happened and that's really tremendous.

Julie: ...there are conversations, for example, with people that I have one week, and then the following week, we pick them up. So I think that they retain [information].

The research transcripts of this study show repeated evidence that many residents, in spite of cognitive problems, remembered the routines and songs of The Dancing Heart sessions as well as recognized the facilitators and fellow participants.

Joint Artistic Experience and Creativity Facilitate Bonding

Human bonding positively influences quality of life. Interviewees discussed how bonding was developed through participation in Kairos' dance program. The joint creative process repeated over the sessions resulted in the formation of relationships. Relationships were newly generated and/or enhanced between the nursing home residents, staff members, volunteers, and family members. Julie described the bonding and trust that developed in the context of the joint artistic process.

Julie: ...there's an authenticity and sincerity about their connection when they're in the group. I think they really, truly see the beauty in each other, because of whatever's connecting with their heart through the music and dance. I think their hearts are opened up and they can then connect with these other hearts.

Cassidy and Julie described the bonding that developed between individuals involved with The Dancing Heart.

Cassidy: [with] each other we're all just kind of one big happy family when we're in there.

Julie: [it has been] only been six months that I've known them and I feel like I've known these people forever because we share so little time each week, but the time is just loaded with so much meaning.

Kairos artists provided the opportunity for staff members and residents to connect to aspects of each other's personhood beyond their worker and client roles. The artistic experience appeared to make participants feel closer. Cassidy and Heather illustrated this sense of bonding by commenting that:

Cassidy: I think it's made them closer to us personally. We're not just someone who works here...I don't know, we just kind of bond more when we're in there.

Heather: I noticed that in the morning when they're first coming to the group, they're greeting one another and they're happy to see each other. I think they've become much more appreciative of one another. They're generous, thoughtful, they've just become my friends, it's as simple as that.

This development of bonding and comfort level with one another that occurred in response to Kairos did not just happen between staff members and residents but was also observed among residents and between participants and their caregivers.

Franny: ...some residents that do socialize with one and other within the group... and we do have some that will get up on their own without any encouragement to participate and to be the center, and will walk around and they'll socialize with other residents by either waving, or saying good morning or smiling at them.

Kendra: There are several residents that it really helps when they arrive if we introduce them to the people sitting on either side, and they frequently will say 'yes, I know her' and they'll start to chat. And then there are those that are the ones usually who are more mobile, actually will dance with each other like you saw here today, and that certainly creates a bond for them.

Interviewees also observed that the bonding between the long term care residents continued outside of the Kairos sessions.

Beth: I have seen a change in our residents they way they interact with each other and we actually have a couple who sit together now and one thinks of song titles and the other one can sing them.

Touch was a common manifestation of the bonding that occurred between individuals involved in the Kairos program. Interviewees discussed the importance of touch in the development and manifestation of close relationships. Touch seemed to be both a way to encourage personal connection and a manifestation of the trust and comfort with others. To illustrate how touch was used by Dancing Heart artists, facility staff, and volunteers to foster that personal connection, Ariel stated that there is one particular resident who:

...can't speak but completely understands everything around him. And one of the boys during the program put his arm around him. And the gentleman just responded with a huge smile.

Dianne also reported the meaningfulness of physical touch to express that bond among participants.

Diane: We do things with holding hands and they like to be held you know touched so therefore they are having the human touch and they like to be wheeled around in the middle when they do certain dances if they're in a wheelchair and they enjoy that...

## **Creating Joint Meaning**

The Dancing Heart program gave the nursing home residents, staff, family members, and volunteers the opportunity to create shared meaning with each other. Similar and yet distinct from bonding (the emotional connection), creating joint meaning refers to the creative process as well as its outcome. In part through the facilitation of the bonding process mentioned above, Kairos professionals created a safe and welcoming environment that was conductive to artistic expression and sharing. Many interviewees mentioned that The Dancing Heart participants felt safe enough for exploration and creativity.

Julie: It is an opportunity for them to remember beautiful moments in their life and share those memories in a safe environment with peers. I think that's what makes them feel like they can push themselves to explore movement and story telling and just let down their guard, because I think they know that they're really respected in that environment.

Julie and Grace also explained that what they observed from both the Dancing Heart facilitators and the participants.

Julie: There's just really an open-heartedness to everybody that's there, and they're all so willing to really put themselves out there with their own stories and their own experiences, and share their talents really generously. Like everybody has a different strength, and everyone brings that in and shares it.

Grace: Residents are engaged when they're there and they're valued and they're given attention and a place to tell their story and to be themselves and express themselves.

The shared joy in the creative process also occurred between the residents and the long term care staff.

Beth: [Kairos brings] joy and a gift to residents, being able to experience something that they may not ever be able to do at this age in their life without Kairos. [...] A lot of us

have that silly funness you know silly fun attitude. We want to have fun with our residents. [...] This has given us the go ahead that it's O.K to sing with them and joke with them more and that we can be as silly with them and they can be silly with us.

Finally, the creation of joint meaning in a safe environment also positively influenced the relationships between the elder residents and their family members. Ariel's testimony illustrated this point:

Ariel: It's actually a wonderful thing to for them to see their parent a little more lively, smiling, happy, it does wonders for them too because I'm sure there is a lot of people that that wish that their parent didn't have to be here. But all in all it's a very secure, safe environment with a lot of lifelong learning going on and we don't let them sit [laughs] we're always doing something.

Fun and Excitement as Consistent Experiences within Joint Art-Making

Fun and excitement was frequently discussed during the research interviews. In fact, all fourteen interviewees described the Kairos program as pleasurable for all individuals involved. All interviewees spoke emphatically about the increased positive emotions derived from the program just as Cassidy simply but powerfully stated, "They just love it. They really enjoy it." *Fun* includes positive feeling emotions such as happiness and pleasure. *Excitement* includes terminology such as arousal level and feeling upbeat and stimulated. Ariel emphasized this by expressing that The Dancing Heart is "very uplifting for them" and that "their whole day is much better after."

Julie: [The residents] are very excited to be together... it seems like it's the highlight of their life, and it's a really exciting opportunity for them that they're really grateful for.

Elaine: [...] You can just tell by the number of smiles. I notice people when I'm walking out of the program and it's just amazing because when I walk in sometimes people just aren't moving, they won't make eye contact, their faces are slack [...]. You really wouldn't believe these are the same people as when you go in. [...] Their mouths will hang open and their eyes brighten and they're moving and it's just, it's like night and day for some of these residents.

Elaine, Kendra, and Franny also elaborated on the feeling of happiness and increased arousal experienced by the residents.

Elaine: [Residents are] able to enjoy [...] and they get to have a lot of fun and get excited about a group event [...] It's really a feeling, you can definitely tell people are happier when they're in there. They're more alive, they get a lot out of it.

Kendra: ...people are listening and responding to stories with laughter...

Franny: Sometimes we do get residents that are particularly tired that day, or not feeling well, and some, or I would say the majority of them we can arouse, and we'll play a particular of their favorite songs, and it'll get some aroused, and awake and focused enough for the group.

Julie provided a specific example of how one nursing home resident is observed to have noticeable increases in her stimulation levels as a result of Dancing Heart participation. Julie stated that she knows of one woman:

... who often comes in pretty sedate and just kind of a little bit zoned out, just kind of staring, and by the end she's, if you engage with her, she will immediately start speaking and telling you stories. She really wants to start talking. Where at the beginning, you wouldn't, you wouldn't experience that with her. So it's an example of that I think, that yes, it definitely pulls people's alertness, and awareness level up to a higher degree, for sure.

Participation in the Kairos program was a rewarding experience for the staff as well.

Interviewees commented on the joy, pleasure, and delight that they experienced as a result of engagement during Dancing Heart sessions. Elaine described those positive emotions most vividly:

Kairos has been amazing. I just I mean, I go to school during the day and I teach and it's very intellectual work but I feel like when I come here I finally get a chance to feel and I get a chance to interact and I get a chance to see how alive people can be and I get a chance to kind of push the boundaries of what's one thought that they could do you know beforehand. So it's really kind of a nice it's as if you had dessert in the middle of the day that's what it feels like [laughs].

The pleasure and excitement experienced by Dancing Heart participants also appeared to be a healing experience. This feeling will be discussed as part of the next theme.

Feelings of Sacredness and Healing from Art-Making

Another significant theme related to quality of life that arose during the interviews is that the creative process in The Dancing Heart was often perceived as spiritual or even sacred, and the process was felt as healing for the mind. The artistic moving to the music, the story-telling and the feelings of bonding generated within the program were all cited as facilitating connection with their spirituality. Grace explained that when the Dancing Heart participants sing:

... 'Great Big Love' at the end, it's a really connecting time for everybody. And it's a pretty Ecumenical program, so whatever people's faiths are they can really be accessed through that program....there is openness for their spiritual faith to be expressed...

Spirituality does not just mean having a connection to a particular religion. Elaine described how the music and artistic process within the Kairos program seemed to provide a way for the long term care residents to connect to something greater than themselves, whether linked to a particular faith or not. Specifically, Elaine stated that:

...especially because we do that last song and the name song, I think that there is also something almost you know for some residents there maybe something spiritual about it too. This kind of sense of connecting something larger I'll notice people who close their eyes or they'll say I have a lot of faith you know. So I think there is also that component which gets brought up in the program.

The theme of sacredness was most commonly linked to storytelling. Meaningful memories and past life activities were relived in the creative yet safe environment of the Kairos program. For example, Julie discussed the spiritual aspect of storytelling by voicing that:

It's sharing something almost sacred, something from a deep, deep place when they share this stuff. I think sacred is probably the best word for it.

Additionally, staff, volunteers, and family members experienced a sense of healing through engagement with the Kairos program. Irma articulated this by commenting that:

I just think it is so wonderful what they are doing and it is such a healing part of my week. There is something wonderful that happens for me.

One resident cried when he reminisced about his past. This crying was interpreted by interviewees as positive as the process of expressing this emotional story appeared to help heal his spirit.

Julie: I believe that it was healing for him to be able to share that, and I think that it helped him to be able to think more clearly, once he was able to release that—Because I've seen him be a little more articulate and present, and be a little more able to connect with us since that time. (42)

The healing and constructive effects of Dancing Heart are not only witnessed within the program but throughout the long term care facility. Creative arts programs such as The Dancing Heart influence the culture of the entire facility.

### Impact of Music and Dance on the Nursing Home Culture

The third research question aimed to identify the perceived impact of the dance program on the culture of the nursing home. Thus, this question addressed the impact of Kairos' Dancing Heart on the atmosphere of the long term care facility outside the group sessions. There was carryover from the Kairos program to the interactions of individuals outside the program. For example, the residents and staff sung songs together that were learned in Dancing Heart, staff knew more about the Kairos program participants and thus felt closer to them, and the Kairos Dancing Heart participants came to know one another. The

bonding and creation of joint meaning resulted in a more personalized interaction between the residents and the staff outside the program. The primary themes that emerged from this category include the (a) *Continuation of personalized relation and ease of communication* between the residents and staff members, (b) Art-based programming elicited inquisitiveness and, (c) Dancing Heart improved the climate of the long term care environments.

Continuation of personalized relation and ease of communication between the residents and staff members

Interviewees spoke of the more individualized connections and improved nursing home culture derived from participation in the Kairos program. The Dancing Heart program provided a common bond, the creation of joint meaning, and improved the depth of connections with each other. For example, Grace stated that:

...when we can share part of ourselves then we have more to go on with each other, [we have] more of a common bond or base. It [Dancing Heart] was really nuts and fun, and so all throughout the day, everyone was telling her how great it was to see her out there [at the Dancing Heart session].

The feelings of connection extend beyond the Kairos program to affect the entire long term care facility. Beth explained this outcome by relaying that:

I've seen a change in our residents, the way they interact with each other, and we actually have a couple who sit together now and one thinks of song titles and the other one can sing them.

Elaine also talked about the change of the nursing home culture. Elaine expressed that the culture of the long term care facility increased in connectivity. Elaine stated:

I guess the only other thing I would say is that there's kind of an intangible thing that arises and I may just kind of be imagining this but at least within the program you definitely see kind of a like a kind of grid of energy. I don't know if that makes any sense but it's like people are connecting even if they're directly engaging with each other there's this sense that like people are connected they're there's this sense of others

around there's kind of a vitality and so that's what I think is probably something that you know is harder to name but it's definitely there. There's like, you know after we're done in the room, it's almost as if you can image like a little grid placed where people are kind of in touch and they're a little bit more alive.

Interviewees also addressed the carryover of positivity from within The Dancing Heart sessions to the entire facility. They felt that the culture created within the Kairos program resulted in a more cheerful nursing home atmosphere. For example, Beth explained that:

One of the staff members had told me they were talking about how hard it was to get this person [dressed]. She was very slow. And I hear another staff member say 'well I just asked her to sing me a song and the next thing you know, we're all dressed and she's singing away and she's so happy'. (88)

The happier environment of the nursing home did not go unnoticed. The Dancing Heart program led to facility wide inquisitiveness about art-based programming.

Art-Based Programming Elicited Inquisitiveness

Another theme in this category of Kairos' effects extending beyond the resident participants was the curiosity elicited throughout the long term care facilities. Residents, staff members, volunteers, and family members were all clearly intrigued by the Dancing Heart program and curious to find out more about it. Julie explained this increased interest in Kairos by stating that:

I just know that whenever I see anyone walk by, whether it's a visitor or a nurse, or a staff person, or a custodial person, they always stop and watch, every single time.

Other research interviewees described the heightened interest and desire to participate in the creative process from individuals who have learned about or witnessed the Kairos Dance Program.

Elaine: There's this sense of 'what is this dance program oh that looks kind of fun hey I want to do that' [laughs] you know and I think that at first they were saying it was it was

met with a little bit of resistance you know maybe not maybe that's too harsh of a word but sort of skeptical inquiry you know [laughs] but now that you know people seem to really enjoy it and enjoy that the residents are getting that kind of thing and so yes I think it has changed people's perceptions probably.

Kendra: [Facility staff will] help move the residents in, and they talk very positively about the program that's coming up. And also, I understand that in all of the sites, there are more staff helping now with Dancing Heart than there were originally.

This curiosity surrounding Kairos has led to inquires about expanding art-based programming within the long term care facility. In fact, many interviewees expressed their wishes that art-based programming such as The Dancing Heart would expand to include all the residents and increase in the frequency of sessions at the facility they are associated with.

Moreover, interviewees verbalized their hopes that art-based programming like Kairos Dance, would expand and be implemented in all long term care facilities. Although not connected to a particular research question, the interviewee's program evaluation may be found in Appendix F. The implications of this research study results will be addressed in the discussion.

#### Discussion

The results of this research study provide valuable information about the impact of a creative arts-based program on older adults residing in long-term care facilities. In this discussion section, I will highlight the relationship between the evidence provided in the

literature review and the results obtained in this research study. I will also discuss the implications of the results. The discussion is organized into three primary categories based upon the research questions of (a) what is the meaning and experience of dance and music for the participants? (b) what is the perceived impact of the dance program on quality of life of the participants? and (c) what is the perceived impact of the dance program on the culture of the nursing home?

### Meaning of Music and Dance for Participants

Research interviewees reported the increased physicality of the long term care residents as a result of participation in Dancing Heart. Those involved in The Dancing Heart experienced such pleasure from the familiar and newly heard music that increased movement came naturally. According to the literature on the neurobiological impact of music, the sense of pleasure was likely linked to the activation of the nucleus accumbens (reward center of brain) and the increased movement was probably tied to the activation of the motor areas of the brain, namely the basal ganglia, cerebellum, and SMAs (Koelsch, 2005). Whether the participant was tapping his or her foot or dancing with a partner, the perceived delightfulness of the music stimulated sustained participant involvement. Music was fundamental in promoting these organized physical movements. Other researchers have also reported the ability of music to entice physical movement (Grahn, 2009; Grahn & McAuley, 2009). Trehub (2000) reported that people listening to music naturally feel enticed to move which appeared to be the case for many of the Dancing Heart participants. Also similar to this research, Palo-Bengtssson et al. (1998) found that music and dance stimulated spontaneous activity such as

arm movements or toe tapping. It also led to improvements in cardiopulmonary function, muscle strength, energy levels, confidence, and decreases in blood pressure. The enticing nature of dance may have enhanced its physical benefits. The residents' experience of joy and increased physicality in response to the music suggests that music and dance could be a cost effective and valuable form of exercise for older adults. For example, Eyigor et al. (2009) found that social dancing significantly improved the motor function, physical ability, and balance of adults over 65 years old. Rydholm, S. (2011), the student collaborator in this research study, further elaborates on these physicality implications in her thesis. Beyond improved physicality, participation in The Dancing Heart enhanced the nursing home resident's personhood.

It was reported that The Dancing Heart participants were *validated and experienced a sense of personhood* through their participation in the weekly Kairos program. Each individual was acknowledged as a unique entity with special gifts to contribute regardless of his or her physical or mental capacities. Storytelling, personal choice of meaningful music, and individualized creative dance movements were all aspects of facilitating a participant- centered environment. The opportunity for residents to share their stories, and have them used as material for creative miming and dancing, reflected an acknowledgement and validation of each participant. That personal validation was enhanced by The Dancing Heart artists' choice of music that was culturally specific and preferred by the residents. These positive results stemming from acknowledged individuality are consistent with past research which shows that acknowledgment and validation of long-term care residents increases positive reports of quality of life and well-being (Eklund et al., 2003). Specifically, The Dancing Heart creative art program

provided the residents with the meaningful occupation of music and dance that promoted feelings of competence, self-expression, purposefulness, self worth, and the facilitation of skill acquisition. Without the presence of Dancing Heart, interviewees suggested that these emotional experiences were limited for long-term care residents. Those results are consistent with previous studies indicating that validation and recognized personhood or individuality is highly vital to the individual and his or her sense of quality of life (Orfila et al., 2006; Song et al., 2004; Stock et al., 2008). Palo-Bengtsson & Ekman (2000) and Law (2002) also reported this validation of residents' personhood to be significant for the maintenance of individuality, purpose, and meaning in life in long term care. The experience of embraced authenticity may have contributed to the feeling that the time was quick to pass while engaging in Dancing Heart sessions.

Interviewees discussed the experience of flow through comments that those participating in the Kairos program perceived their internal clock of time to speed up in such a way that they felt that the time 'flew by'. Nakamura and Csikszentmihalyi (2002) asserted that the sense of flow, or the complete absorption in meaningful activity, can cause a distorted sense of time. The Dancing Heart program was the meaningful activity participants were absorbed in that created the sense of flow. Interviewees reported the significance of flow in relation to resident attention span and the experience of a suspended sense of place. Due to the flow created in Dancing Heart, residents happily engaged in activity for much longer than expected. Story-telling also transported them to another world. Both flow and story-telling allowed the residents to "exercise" and increase their physicality in a sustained way while enjoying themselves and perceiving time to fly by quickly. Reporting similar findings of the

effects of enjoyable activities, Nakamura and Csikszentmihalyi (2002) stated that pleasurable activity elicits enhanced self-motivation, participation, and positive health effects. Moreover, flow was observed in The Dancing Heart art-based programming during the participant's reminiscence of significant past memories.

Research interviewees frequently reported the reminiscence and past memory retrieval of the long term care residents in response to music and storytelling in The Dancing Heart. Nostalgic memories were retrieved and shared with others upon hearing specific musical tunes or songs. Interviewees reported that even the residents with dementia were recalling past memories in response to the music. These results are consistent with other research studies such as Larkin (2001) who found that individuals with Alzheimer's greatly improved their scores on memory tests when they listened to music while being tested. According to Palo-Bengtsson et al., (1998), music and dance increases mental stimulation which in turn increases the mental functioning of individuals with dementia. Other researchers suggested that music improves memory recall through the release of certain hormones such as noradrenaline and the activation of the amygdala (Cuddy & Duffin, 2005; Knight & Richard, 2001). The reminiscence that occurred during Dancing Heart was often of emotional and positive past events that came back to mind after being triggered by a specific song. This is consistent with the fact that music and dance are commonly associated with many cultural specific traditions such as rituals, ceremonies, and daily life (Cross, 2001; Scherer & Zenter's, 2001). The reminiscence and recall of past memories and beloved songs was highly important to the participants and was linked to improvements in their quality of life.

# Music and Dance Impact on Participant Quality of Life

Quality of life of long term care residents was positively influenced by the arts-based programming. The creation of new memories following participation in Dancing Heart contributed to the positive impact on quality of life. The long term care residents who participated in Dancing Heart were reported to recall conversations, people, new songs, and dance routines from one week to the next. In addition to stimulating long term memories, as discussed above, our results suggest that the dance program challenged and positively influenced participants' short term memory and cognition. Older adults commonly face steeper declines in their short term memory capabilities than their recall of long term memories Thus, this evidence of creating new memories suggests that music and dance may benefit short term memory. Those results are consistent with previous research. For example, Knight and Rickard (2001) and Cuddy & Duffin's (2005) demonstrated how the hormone release in response to music works to strengthen the memories of the experience that occurred while listening to music. Thus, music assists in increasing the strength of memory storage of an event. Dancing Heart participants, including those who had dementia, were reported singing songs newly learned in the Kairos sessions, as well as reenacting newly learned choreography set to music. According to Scherer & Zetner (2001) and Bernardi et al. (2006), music with sixty beats per minute stimulates brain waves in a way that simultaneously engages the right and left brain hemispheres. The concurrent activation of the right and left hemisphere increases one's ability to learn, concentrate, and retain memories (Bernardi et al., 2006). Along with the recall of others, those involved in Dancing Heart created shared meanings and close relationships with other participants.

It was clear through interviewee reports that the quality of life was also enhanced by the bonding which occurred through participation in The Dancing Heart. The formation or improvement of relationships among residents and between residents and staff, residents and family members, as well as residents and volunteers was clearly evident. Consistent with this study, many researchers have emphasized the link between human relationships and bonding and quality of life. For example Thomas (1996) wrote that when there is little opportunity for occupational participation and engagement with others, reported levels of quality of life decrease and feelings of loneliness, helplessness, and boredom increase in long term care institutions. The long term care residents in this study were provided with an environment that supported both occupational participation and engagement with others. Results are consistent with studies showing that bonding relationships facilitate a decrease in feelings of loneliness, helplessness, and boredom (Thomas, 1996). Also consistent with the present research results, Palo-Bengtsson et al. (1998) found that music and dancing stimulated social interactions and increased communication between other older adults in long term care facilities.

In addition to bonding, participation in arts-based programming gave the resident participants the opportunity to create joint meaning. The bonding which arose in the context of the group led to a sense of comfort and safety which was conducive to creativity and new sharing. Also, the opportunities for self-expression provided in The Dancing Heart facilitated increased creativity. The creation of joint meaning extended beyond the residents to impact both caregivers and family members. The shared experience of Dancing Heart provided a foundation for conversations between individuals of different cultures, ages, and walks of life. The joint experience of positive feelings was noted to increase communication and improve the

ease in which caregivers and family members engaged with and assisted the resident. Palo-Bengtsson et al. (1998) and Clair (2002) reported similar results of music and dance creating a joint experience for older adults, caregivers, and family members. This mutual occurrence ignited positive feelings and increased communication (Palo-Bengtsson et al., 1998, & Clair, 2002). Results of this study suggest that the bonding and creation of joint meaning are linked to the sense of fun felt by the participants of The Dancing Heart.

All interviewees in this study reported consistently observing the impact of The Dancing Heart on the feeling of fun and excitement, and on the arousal levels of the participants. These powerful positive emotions are a direct reflection of perceived quality of life. As was discussed in the literature review, participation in meaningful and enjoyable occupations both maintains and improves quality of life. Specifically, other research studies such as O'Donnell (1999) and Blood & Zatorre (2001) found similar results indicating that music directly affected ones emotional state. Other researchers also reported that music can be used as a tool to change the mood and emotions of an individual (O'Donnell, 1999 & Blood & Zatorre, 2001). Interviewees shared their observations of the fun Dancing Heart participants were experiencing by using descriptive terms such as excitement, enjoyment, exhilaration, pleasure, joy, delight, and increased alertness and arousal. Those results are consistent with previous studies which link listening to music to alertness and positive emotions. For example, a study using PET scans found that music stimulates the limbic system, a brain area which controls emotions, arousal, motivation, and rewards (Blood & Zatorre, 2001; Koelsch, 2005). Another potential cause of The Dancing Heart program's effect on participants' excitement is that music with fast tempos

increases breathing rates which promotes alertness and music with crescendos directly induces arousal (Bernardi et al, 2006).

Finally, reports of increased arousal and excitement levels may be attributed to the social environment. As was previously discussed, participation in a group, like The Dancing Heart, where everyone is comfortable with each other, feels safe, and all are equally engaged in a shared experience may be another factor in the increased alertness, excitement, and enjoyment levels of participants. Some interviewees reported such intense and unique participant emotions that the theme of sacredness and healing emerged.

Perhaps linked to the feelings of creativity, a large percentage of interviewees discussed experiences in Dancing Heart sessions by using words and phrases that described healing, spirituality, sacredness, something bigger, and a spiritual expressiveness. Kane (2001) reported that the maintenance and improvement of quality of life levels is linked to the expressions of one's spirituality. Thus, it is important that individuals residing in long term care facilities are provided with an environment and means for spiritual expression (Kane, 2001). The Dancing Heart sessions were clearly perceived as a spiritual experience that lead to the sense of sacredness. Music, dancing, and the sharing of stories provided an outlet for participant's expression of inner thoughts and emotions. This opportunity for emotional expressivity led to a sense of healing and revitalization.

### Music and Dance Impact on Nursing Home Culture

Dancing Heart participants were reported to have increased happiness both within and outside of the arts-based program sessions. The music and dance atmosphere in the sessions

was carried over to the entire facility. Similarly, Eyigor et al. (2009) discovered that individuals who participated in a dancing program reported higher levels of happiness following the dancing than they did prior to participation which positively altered the feel of the environment. Interviewees in the present study suggested that The Dancing Heart program had a positive impact on the atmosphere of the long-term care facility as a whole. Residents began to sit with each other outside of Dancing Heart and staff members and residents grew closer to each other. Staff and residents even sang songs together that were learned in the Kairos program. This carryover of positive mood and interactions was frequently noted to positively impact the entire nursing home atmosphere towards a greater sense of community.

Music was noted to be an important factor contributing to the increase of positive emotions facility wide. Some possible explanations for that positive impact come from Cromie (2001) and O'Donnel (1999) who both state that music has powerful effects on human emotions and mood. Research has found that music reduces stress, facilitates relaxation, and helps alleviate depression (Koelsch, 2005; Zatoree, 2001). The significant impact of music on human emotion was found to also be due to music reducing cortisol hormones released in the body (Knight & Rickard, 2001 & Keolsch, 2005). The effects of music on cortisol are significant because listening to music is a cost effective method to reduce stress and improve mood (Khalfa et al., 2003). Those effects of music during the sessions are likely to have affected participants' mood outside the session and facilitated their interaction with other residents and staff. Those effects on the atmosphere of the whole facility need to be further investigated empirically. The Dancing Heart program appeared to help buffer against potential negative impacts of an institutional environment on residents' quality of life. Currently, efforts are in

place to find ways to improve the quality of life of long term care residents (Kane & Kane, 2010). Dancing Heart provided meaningful activity and increased personal relationships between residents and staff which both contribute to improved quality of life levels. Thus, it would be beneficial if Dancing Heart or similar dance programs were more widely implemented in long term care facilities to improve quality of life levels.

In addition to more positive emotions, participants in this study seemed to experience improvements in their self esteem and enhanced motivation to continue participation in The Dancing Heart. Cohen (2006) found similar results with older adults who engaged in art-based programming. Participants in his study expressed increases in satisfaction, mood, self esteem, and motivation following participation in a choir. The experience of accomplishment, achievement, and even exceeded expectations that are derived from participation in art based programming contribute to the enhanced mood and facility-wide atmospheric change.

Another indicator of cultural change within the nursing homes in the current study was the facility-wide inquisitiveness and interest surrounding the arts-based programming.

Although some individuals were initially skeptical and reported feeling silly, all interviewees expressed their belief in the benefits of art-based programming. In fact, interviewees reported a continuous and steady rise in the number of residents and volunteers who wished to participate in the program. Facility members who were not involved in Dancing Heart quickly began to ask questions and express their desire to become involved with a program that had such a positive impact on its participants. Overall, the creative art Dancing Heart program positively impacted the culture of the nursing homes through the facility wide enhancement of quality of life levels.

#### Limitations

There may have been variables that affected the results of this study. One limitation of this study is the small number of participants. However, a large number of participants are not necessarily expected for qualitative studies. Furthermore, the participant sample was taken from Minnesota alone. Thus, caution should be taken to avoid generalizing the results of this study. Another potential limitation of the study was the inadequate privacy during a few interviews. Interviewing was conducted at the long-term care facilities and private space was not always available. Thus, during some interviews, staff members and residents were entering or passing by the designated interview area. Insufficient interview privacy may have created distractions and interruptions in thought processes while interviewees were answering questions. Moreover, it is possible that some interviewees withheld information due to the chance of being overheard. Another potential limitation of this study was the disproportionate number of women participants although it parallels the demographics of the nursing home facility. Results might have been different if there was a more balanced representation of both genders. Finally a limitation of this study was an observer/participant account of the long term care residents' experience in the dancing sessions. Due to cognitive limitations and other factors the study design did not include the older adults in the interviews. This limitation could be addressed by further research.

### Recommendations for Further Research

A recommendation for future research is to further examine the experience of flow. There appears to be no existing research that views the relationship between art-based programming and flow. The impact of flow on older adult's physicality should be further researched due to the results of this research indicating that music and dance created a sense of flow that resulted in sustained participation of meaningful and healthful activity.

Additionally, the connection between flow and storytelling may be further explored. More controlled studies with comparison groups using mixed methodology would also help establish a clearer cause-effect relation than this descriptive study. Finally, including participants who are cognitively able to participate in interviews and recount their own first person experience with the program would be a natural follow-up to this study.

## Conclusion

The present study shows that music and dance-based programming, such as Kairos' Dancing Heart program, can positively impact many aspects of quality of life in a nursing home environment. This study provides evidence for supporting the integration of occupations involving music and dance groups in long-term care facilities. The occupational science perspective and qualitative measures allowed a thorough examination of the meaningfulness and impact of the creative activity of music and dance as exemplified by the Dancing Heart program, for long term care residents. This study provides evidence that such creative art based programs contribute to improved mobility and quality of life of long term care residents. Specifically, The Dancing Heart, the music and dance program examined in the present study, positively impacted (a) the direct experience of long-term care residents (b) participant quality of life and (c) the overall culture of the long-term care facility.

First, music and dance in the Dancing Heart program were found to enhance the older adults' personal experiences during the dance sessions. Music and dance positively influenced the long-term care residents' physicality, socialization, validation of personhood, and the recall of past memories. Additionally, the nursing home residents clearly experienced a sense of flow as evidenced by their sustained attention while they were wholly immersed in the Dancing Heart group.

Second, participation in the music, dance, and storytelling sessions was found to improve elements of quality of life through the creation of new memories, greater bonding between the staff, volunteers, and residents, as well as the establishment of a safe place conducive to sharing and creative expression. Quality of life was also enhanced through the intense experience of fun and excitement generated by the dance program. The powerful

sense of sacredness and expressed spirituality contributed to what was described to be a healing experience for the resident participants.

Finally, The Dancing Heart had a positive impact on the culture of the entire long-term care facility. The good feelings experienced during Dancing Heart persisted past the music and dance sessions and helped create a nursing home culture of greater closeness and meaningful interactions as well as an overall happier atmosphere. This improved pleasurable and cheerful culture did not go unnoticed. In fact, Dancing Heart's presence in the long-term care facility increased the overall interest in arts-based programming. The inquisitiveness and expressed desires to become involved in Dancing Heart expanded to such an extent that a waiting list was developed. Also, the interviewees expressed their desires to enlarge and expand the number of arts-based programs offered to the facility residents. Many interviewees expressed their hopes and desires that music and dance programs such as Kairos Dance Theatre's, would be integrated into long-term care facilities nationwide.

Nationwide integration of arts-based programming such as Kairos' Dancing Heart may be the key to improve and maintain the health, personhood, and quality of life of older adults. By incorporating art based programming in long-term care facilities, there is potential for increasing functional abilities and even the possibility of reducing the costs of care.

The results of this research study provide evidence for the benefits of the occupational science framework and qualitative research for studying quality of life of long term care residents. Kairos Dance Theatre's Dancing Heart is an arts-based program that implements meaningful occupations to enhance quality of life. Studying the beneficial impact of artistic occupations is within the realm of occupational science which is an interdisciplinary field of

study that informs occupational therapy practice. As is seen in this research, music and dance are meaningful occupation which positively influences long term care residents' quality of life components such as well-being, physical activity, socialization, culture, and memory.

Therefore, therapeutic interventions for the older adults would benefit from incorporating arts-based programs such as Kairos' Dancing Heart. Inclusion of arts-based intervention is part of the history of occupational therapy. Interdisciplinary collaboration between occupational science researchers, occupational therapists, and artists may result in additional valuable research data regarding the effectiveness of art-based interventions. Music and dance creative art programs such as Kairos' Dancing Heart provide long term care residents with a meaningful and pleasant way to positively enhance their health and quality of life.

### Appendix A

### **INFORMATION AND CONSENT FORM**

### (Providers)

## Importance of a Dance Therapy Program for Long Term Care Residents

#### Introduction:

You are invited to participate in a research study investigating the therapeutic benefits of a dance therapy program on long term residents. This study is being conducted by St. Catherine University in collaboration with the Kairos Dance Program. The study will be conducted under the supervision of Catherine Sullivan, Ph.D., OTR/L and Kristine Haertl, Ph.D., OTR/L in conjunction with two graduate student researchers, Kelsey Schafer, OTS, and Siri Rydholm, OTS. You were selected as a possible participant in this research because you are a provider of services or a volunteer for the Kairos dance program and/or one of the long term care residences hosting the dance program (Names of facilities inserted here). If you are interested in the study, you will be asked to participate in an interview exploring the importance of the dance therapy program for the participants. Please read this form and ask any questions you have before you agree to participate in the study.

### **Background Information:**

The purpose of this study is to examine the importance of the Kairos dance program for long term care residents. Approximately ten individuals are expected to participate in this research. The study is being conducted at two sites: (Names of facilities inserted here). Interviews will be conducted with providers and caregivers associated with the participants of the Kairos dance program in order to explore the impact of the program on physical and emotional status and quality of life.

### **Procedures:**

If you are interested in being included in the study, you will be asked to participate in an interview with the student researcher, Kelsey Schafer. The researcher will contact you and ask for a convenient time and location to conduct the interview; if you desire, a copy of the consent form may be provided to you in advance. The interview will last approximately 45 to 75 minutes and will ask questions regarding your personal experience with the Kairos dance program and your observations of the impact on resident participants of the program. Interview questions will focus on the impact of the dance program on the participants, the group culture and the impact on the nursing facility. No names will be used in the coding, transcribing, or reporting of the information. You will be asked to sign a consent form at the time of the interview. You may discontinue the study at any time.

### Risks and Benefits of being in the study:

The study has minimal risks. Some questions may be perceived as personal and/or sensitive in nature as they inquire of your observations and perceptions of the impact of the dance program on the participants. You may choose not to answer any question or questions that you wish without affecting your participation in the study. Confidentiality will be maintained throughout the study; no participant's name will appear in the final written research report. At any time during the study, you may request that information be withheld from use. You may also request that the tape recorder be stopped or paused for any reason during the course of the interview. At any time prior, during, or after the interview, you may discontinue participation in the study.

There are not direct benefits to you as a participant for being in the study. An external benefit is an opportunity to share your unique opinions and perspectives on therapeutic properties of the Kairos dance program. This is an opportunity to give personal insights on the effects of the program on long term residents. It is hoped that information from this study will lead to academic and practical knowledge regarding the efficacy, meaning and impact of the dance therapy program.

### **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 any written reports or publications, no one will be identified.

The research results will be password protected on the computer and only the faculty advisors and student researchers will have access to the records while we work on this project. Data

analysis should be completed by December of 2010. We will then destroy all original reports and identifying information that can be linked back to you. The tape from the interview will be kept in the locked file cabinet and only the students and advisors will have access to them. The tape will be destroyed by December 2010.

### 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 the Kairos Dance program, the affiliated Long term care residences or St. Catherine University. If you decide to participate, you are free to stop at any time without affecting these relationships.

## **Contacts and questions:**

If you have any questions, please feel free to contact the student researchers Kelsey Schafer at (phone #), Siri Rydholm (phone #) the faculty advisors, Dr. Kristine Haertl at (phone #) and Dr. Catherine Sullivan at (phone #). If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher, you may also contact Dr. John Schmitt, Chair of the College of St. Catherine Institutional Review Board, at (phone #).

You are making a decision whether or not to participate. Your signature indicates that you have

You may keep a copy of this form for your records.

### **Statement of Consent:**

Signature of Researcher

read this information and your questions have been answered. Even after signing this form, please know that you may withdraw from the study at any time.				
I consent to participate in the study and	agree to be audio-taped.			
Signature of Participant	Date			

Date

## Appendix B

## **Interview Guide- Providers**

<u>Concepts from the Literature for the effects of dance and exercise on the elderly</u>: Motivation-Affect/Mood- QOL- Movement- Follow through with Health Related Activities-Balance/ Physical-ADLs- Behavior-Cognition-Social Interaction

**Background/ General Questions:** (Student introduces self and the general purpose of the study without guiding the answers <e.g., do not say, "We want to see if the dance therapy program improves balance and cognition">)

- 1. In what capacity are you affiliated with the Kairos Dance program and the program sites?
- 2. How long have you been involved with the program?
- 3. In general how do the dance program participants respond to the program?

## **Sub Question:** What is the meaning and experience of dance and music for the participants?

1. From the client interactions and behaviors within and outside the dance therapy group, what meaning or importance do you believe the dance program has for them?

- 2. Do you believe that personal or cultural experiences with music and dance influences their individual response to the group? Why or why not?
- 3. Do clients ever discuss personal stories in relation to the dance therapy group? **Follow up-** What is the effect of these stories (e.g., does it influence mood, interaction, response to the group?)
- 4. Describe the social culture of the group. **Follow up-** Do clients socialize with each other? ...

# <u>Subquestion:</u> What is the perceived impact of the Kairos' program on quality of life for the participants?

- 1. How does the state of the client coming into the group on a particular day influence his/her participation in the group? Does the group seem to affect mood, energy level or interaction?
- 2. Do you notice any effects of the group on client or group mood? Please describe. **Follow up** Do these mood effects continue outside of the group?
- 3. Do you notice any effects of the group on client arousal? Please describe. **Follow up-** Do these arousal effects continue outside of the group?
- 4. Do you notice any effects of the group on client's memory and thinking? Please describe. **Follow up-** Do these effects continue outside of the group?
- 5. Do you notice any effects of the group on client's social interaction? Please describe. **Follow up-** Do these effects on social interaction continue outside of the group?
- 6. Do you notice any effects of the group on the client's physical status (this may include mobility, overall health, energy level, etc.) **Follow up** Do these effects continue outside of the group?

# <u>Subquestion:</u> What is the perceived impact of the Kairos program on the culture of the long term care facility?

- 1. Describe the staff/volunteer interaction with the clients within the group.
- 2. Are there particular qualities that seem to influence the staff effectiveness within the group? Please describe.
- 3. Do you believe the group influences the staff/ client interactions outside of the group? Why or why not?
- 4. Do you believe the program has influenced the staff/ volunteer perceptions of art based programming? Why or why not?
- 5. Have administrators been supportive of the program?
- 6. Please describe any additional observations of how the program has affected the culture of the nursing home/ long term care facility.

# Closing:

- 1. What is the meaning of the dance therapy program for you?
- 2. Do you believe it is an effective program and enhances services to the clients? Why or why not?
- 3. What general benefits of the dance program do you see for the participants? (Expand on any specifics)
- 4. Are there any suggestions you would have for the dance program? (Expand on any specifics)
- 5. Is there anything further you believe would be important for us to know in relation to the dance therapy program?

# Thank you for your participation!

# Appendix C

# **Coding/Indexing Framework**

Category Name	Code	Description		
Category #1 EMOTION	EM			
Description: Emotions experienced by residents resulting from engagement in Kairos  Dance				
Love/Enjoyment/Fun	EM-LENJ	Includes any time the interviewee states a positive emotion felt in relation to the program, or observation of other participants enjoying the program or having fun. This includes any time the fun is used as a descriptor of the program. May also include participant quotes such as "I love this program." Or "This program is so much fun. Excludes description of non-verbal expression of emotions.		
Anticipation	EM-ANT	Resident expressions of "looking forward" to the next Kairos Dance session or expressing a desire to		

		return to the Kairos program again in the future.
Validation	EM-VAL	Kairos participants feeling recognized, acknowledged, or validated as a unique individual with unique gifts to offer. This also includes the notion that resident's lives are meaningful regardless of their age or ability.
Improved Mood In	EM-IM-IN	This includes descriptions of evidence that resident's mood was lifted or improved during the course of the dance session(s). Note: has to include statement denoting "change" or "improvement" otherwise code as EM-LENJ above
Improved Mood Out	EM-IM- OUT	This includes descriptions of evidence that resident's mood continued following the dance session.
Category #2: ENGAGEMENT	ENG	
Description: Includes a program.	ll references	to participants actively engaging in the dance
Non-Verbals	ENG-NV	Participants displaying eye contact, smiling, or spontaneously reaching out a hand are non-verbal signs of engagement in the Kairos Dance activity. Include only non-verbal for emotional expression or interpersonal contact. Excludes physicality from participation in the program (see code below)
Response to	ENG-	Includes increased participation due to music,
Different Forms of Stimuli	RSTM	movement, physical touch, props, or a specific combination of these stimuli.
Increased Physicality	ENG- PHYS	Includes participants displaying increased physical ability or participation in the Kairos Dance group. Such as toe-tapping or standing to dance when they don't often stand otherwise.

Increased	ENG-IA	Includes any references to increased energy,
Arousal/Alertness		wakefulness, or alertness as a result of
		participation in the Kairos Dance group that has
		not been mentioned in the "Non-verbal" and
		"physicality" code above. Also refers to effects
		lasting after the end of the session.
		lasting arter the end of the session.
Decreased	ENG-DP	Refers to signs that residents are being over-
Participation		stimulated or fatigued by the dance group, or
		display decreased participation on a given day
		(possibly due to extraneous factors).
		(positive) and to contain the second,
One-on-one	ENG-	Refers to staff-volunteer/resident one-on-one
interaction	OINT	interaction with residents in the Program.
Category #3:		
MEMORY	MEM	
Description: Includes	any roforono	es to client memories in association with the Kairos
	ally reference	les to chefit memories in association with the kanos
Dance group.		
Story-Telling	MEM-ST	This refers to residents sharing stories from their
		past during the Kairos Dance sessions.
Creating New	MEM-	Includes any reference to evidence that residents
Memories	CRT	remember previous Kairos Dance sessions or
		activities, and/or are creating new memories from
		participation in the Kairos Dance program.
		Examples include recognizing members of the
		group, remembering new songs or new routines
		learned during the Kairos groups, anticipating the
		sessions etc.
		عدي المارية ال
Accessing Memories	MEM-	Includes references to certain types of music or
via Songs/Music	MMUS	songs facilitating memories from the resident's
J .		past. Excludes memories of songs or routines
		learned in the program
		rearried in the problam
Emotional Memories	MEM-EM	Includes descriptions of powerful emotional
		memories shared by residents during the Kairos
		dance group. These memories may be tied to
	•	, , , , , , , , , , , , , , , , , , , ,

		strong emotions that are either positive or negative.
Memories Out of	MEM-	Includes memories formed during the Kairos group
Group	OUT	that are retrieved outside of the group.
0.1		
Category #4:	DEI	
RELATIONSHIPS	REL	
Description: Description	ns of relatio	nship forming/building with other individuals in the
Kairos Dance Group.		
Canas of Dalamaina	DEL DEL	
Sense of Belonging	REL-BEL	Includes statements that participants experience a
		sense of belonging to something/a particular
		group.
Relationships Among	REL-RR-	Includes mention of residents building
Residents In Group	IN	relationships with other residents in the Kairos
		Dance group.
Relationships Among	REL-RR-	Includes mention of residents who have formed
Residents Outside of	OUT	relationships in the Kairos group displaying
the Group	001	continued relationships outside of the group.
the Group		continued relationships outside of the group.
Relationships	REL-RSV-	Includes references to relationship building among
Between Residents	IN	residents and the staff or volunteers that facilitate
and Staff/Volunteers		the Kairos Dance program each week.
In the Group		
Relationships	REL-RSV-	Includes mention of residents and staff members
Between Residents	OUT	or volunteers who have formed relationships in
and Staff/Volunteers		the Kairos group displaying continued relationships
Outside the Group		outside of the group.
Socialization	REL-SOC	Includes references to socialization benefits of the
Jocianzation	INLL JUC	Kairos Dance program. Does not include specific
		references to a feeling of belonging. (Ex:
		meaningful conversation, singing/humming music
		together).
Category #5:		

MEANING	MEAN	
resident, client, or volu	unteer. This	rthing that conveys particular meaning to the code may overlap some others but includes the d, and areas that resonate with personal interest.
Spirituality	MEAN- SPIR	This code includes items that speak to the spiritual, personal, and collective nature of the group. This is not specifically linked to religious references, but may include religious references.
Personhood	MEAN- PERS	This code relates to the comments that validate the individual's sense of personhood, belonging, and personal meaning. Includes mention of individual feelings of self-worth.
Creativity	MEAN- CRT	This code includes mention of opportunities for residents to express creativity. Examples may include storytelling, choreography, etc.
Category #6: ENVIRONMENT	ENVT	
Description: Includes of takes place in.	lescriptions (	of the environment that the Kairos Dance Program
Supportive	ENVT- SUP	Descriptions of residents feeling that the Kairos Dance program takes place in a supportive environment that encourages their participation. This may include physical or emotional support of participation. (Support residents in freedom of self expression)
Culturally Sensitive	ENVT-CLT	Includes references to considering resident's specific cultural backgrounds when choosing music/themes/activities for the dance program.
Safe	ENVT-SF	Includes references to an environment that reduces the threats or risks of participation in the Kairos Dance program. This is closely related to,

		but distinct from the supportive environment
		code. Support encourages participation. Safety
		reduces the barriers to participation. (Ex: can
		participate regardless of physical/singing abilities).
Individualized	ENVT-	Includes one on one interaction with clients, and
	IND	adjustment of activities/themes/music based on
		individual preferences and abilities. Refers to the
		feeling that each resident can participate
		in/benefit from the program at a level appropriate
		for them. (Just right challenge).
Category # 7:		
THERAPEUTIC INTENT	THER	
<b>Description:</b> Includes t	he elements	s of the group and qualities important in the
volunteers and staff in	order to pro	omote the groups desired positive effects. For
example, qualities imp	ortant in a v	olunteer, use of individualized music, etc.
Physical Elements	THER-	This would include the use of props, items, balls,
	PHYS	etc., that seem to encourage the desired effects of
		the group.
Personal Qualities	THER-	This code includes personal qualities such as ability
	PERS	to engage the client, willingness to work one-on-
		one and overall positive mood and disposition, etc.
		that contribute to the desired effects of the group.

# Category # 8:

Cultural Elements

STAFF/VOLUNTEERS/FAMILY SVOLF

THER-CUL

Description: Includes all non-resident participants of the Kairos Dance Program.

The inclusion of elements that resonate with the

clients own culture and develop unique collective culture of the group. (Note: this may also include

the influence of the culture at the site.)

Effects for staff/volunteers	SVOLF- EFF	Includes descriptions of personal effects that staff and volunteers experience from their participation in the Kairos Dance Program.
Effects on Family	SVOLF- FAM	Includes Kairos participant's family member's response to the program. This includes positive or negative family reports and support of the Kairos Dance Program. If an interviewee is both a family member and a volunteer for the Kairos Dance Program, their comments should be included in this section, rather than SVOLF-EFF section.
Staff/volunteers/fami ly suggestions for Kairos improvements	SVOLF- IMP	Includes suggestions made to improve the Kairos Dance Program. Ex: Expand within the facility and to other facilities and decrease length of time (resident fatigue).
Evaluation	SVOLF- EVAL	Includes evaluative responses about the program. Examples may include what they like or do not like it.

Appendix D

# **Charting Example for the Category Code: Engagement-Non-Verbal (ENG-NV)**

Category	Code	Participant	Quote	Line	Additional Lines
ENG	NV	Nadine	She didn't sing a songs but she did all the other things that all of us did in the little skit	383	130, 215, 226, 289- 290, 335- 336, 350, 353, 368, 380, 403, 472
ENG	NV	Grace Initial	When we play music from their country, they really, they can really feel the beat, and you really see it in their bodies and in their faces	12	23
ENG	NV	Grace Follow-Up	None		
ENG	NV	Franny	We do have some that will get	36	34

			up on their own without any		
			encouragement to participate		
			and to be the center, and will		
			walk around		
ENG	NV	Julie	None		
ENG	NV	Kendra	I think most often the light in	64	30, 64
			their eyes is a big thing and		
			then the smile and then the		
			physical participation		
ENG	NV	Elaine	But this time it was amazing.	49	6, 22, 23,
			She was awake for, you know,		25, 34, 64
			really the whole time and		
			looking around and she		
			couldn't move much but she		
			was still engaged and moving		
			her fingers and doing a little		
			finger dancing and so I		
			definitely see that happening		
ENG	NV	Dianne	And they're smiling. It's a	37	51, 74, 82,
			smiling thing up there.		86, 119
ENG	NV	Heather	Sometimes the whole group is	48	
			laughing. They say belly		
			laughing is good for you. And		
			when we sing "Oh what a		
			beautiful morning" there's a		
			part in there where everyone		
			can laugh, so we hold our		
			tummies and we laugh.		
ENG	NV	Irma	I've seen people break out in	38	12, 32, 44,
		Initial	smiles like two thirds through		76, 90
			the, through the morning, you		
			know? And it's very, there'll be		
			a sudden change in their face,		
			all of a sudden they're smiling,		
			yeah.		
ENG	NV	Irma	then as the group goes on their	9	6, 7, 13
		Follow-Up	face lights up and they smile		
ENG	NV	Cassidy	Sometimes, I'm, lots of times	30	28, 82
			we hang onto hands and they'll		
			put their hand out to the next		
			person, you know, someone		
			you wouldn't think would even		
			do that, well when they see us		

		all hanging onto hands will		
		actually put their hand out to		
		the person next to them.		
NV	Beth	So you can see from her body	43/	34
		language and her expressions	44	
		that she's definitely upbeat and		
		lifted.		
		MR: Oh definitely.		
NV	Ariel	Like several times we have a	26	12, 24, 35,
		resident who is can't speak but		57, 73, 118
		completely understands		
		everything around him. And		
		one of the boys during the		
		program put his arm around		
		him. And the gentleman just		
		responded with a huge smile.		
NV	Laurel	Some will move but it just	13	13, 17, 22-
		seems like they are all smiles in		23, 27, 55,
		there you know.		57
NV	Michael	I have noticed that he smiles	12	5, 16, 21,
		even when they bring him in		26, 31, 44,
				45, 51, 53,
				59
	NV NV	NV Ariel  NV Laurel	actually put their hand out to the person next to them.  NV Beth So you can see from her body language and her expressions that she's definitely upbeat and lifted.  MR: Oh definitely.  NV Ariel Like several times we have a resident who is can't speak but completely understands everything around him. And one of the boys during the program put his arm around him. And the gentleman just responded with a huge smile.  NV Laurel Some will move but it just seems like they are all smiles in there you know.  NV Michael I have noticed that he smiles	actually put their hand out to the person next to them.  NV Beth So you can see from her body language and her expressions that she's definitely upbeat and lifted.  MR: Oh definitely.  NV Ariel Like several times we have a resident who is can't speak but completely understands everything around him. And one of the boys during the program put his arm around him. And the gentleman just responded with a huge smile.  NV Laurel Some will move but it just seems like they are all smiles in there you know.  NV Michael I have noticed that he smiles 12

Appendix E

# **Compiled Category-Code Themes and Overall Category Themes**

ENG	NV	THEME	Faces light up with smiles, and people will often get up or initiate physical contact with one another.
ENG	RSTM	THEME	Everyone seems to respond to the music (different songs/beats reach different people), and there are also physical props that seem to elicit increased engagement.
ENG	PHYS	THEME	Many residents have displayed increased movement capabilities throughout the course of the program, and many of them seem more motivated to move/dance/exercise when there is music to accompany them.
ENG	IA	THEME	Many residents (not all) seem to display increased arousal levels, or are described as "more awake/alert" during the program than when they first came in. There are a few observations to suggest they may even remain more alert after the program is finished.
ENG	DP	THEME	There were fewer mentions of this category, but not all residents actively engage in the program. Some are too sleepy, or too medicated, or too sick to engage in the Kairos activities. Some residents also display signs of becoming overwhelmed by the stimulation in the group, and withdraw or request to leave.
ENG	OINT	THEME	The importance placed on one-on-one interaction is mentioned several times, as well as the importance of eye contact or physical contact with one individual at a time. This one on one interaction seems to increase arousal and participation among the residents.
ENG	ОТН	THEME	Sometimes it is difficult to observe how engaged a resident may actually be. Also, there are extraneous factors like age and medical condition that affect engagement. It is important to note that engagement levels also vary among individuals.
ENG	CATEGORY	THEME	Overall, there seem to be several things that elicit increased engagement among the

REL	BEL	THEME	residents during Kairos. Through music, eye-contact, physical props, physical contact, and movement, the majority of residents seem more alert and engaged with their surroundings after they leave than before they came in. This is not true for ALL residents, however.  There seem to be positive reactions when the residents feel that they are a part of a
			group. Many people reference a feeling of connection among everyone involved.
REL	RR-IN	THEME	Residents seem to display evidence of relationships with each other, either by talking, reaching out for one another's hand, or actually dancing together if they are able.  These bonds have been observed and mentioned by approximately ¾ of the interviewees.
REL	RR-OUT	THEME	A few of the residents seem to be continuing relationships formed within the group, even when they are out on their floors. This has been observed less with residents who have dementia, and many of the interviewees caution that they haven't been able to personally witness evidence of these relationships outside the group.
REL	RSV-IN	THEME	Many interviewees report a positive relationship is formed between the residents and the young men who volunteer with the group. They also describe a stronger bond that seems to be established between the residents and Kairos staff or volunteers, presumably due to the emotion involved with sharing personal stories during the group.
REL	RSV-OUT	THEME	This group does seem to facilitate relationships between residents and the Kairos staff/volunteers even outside of the group (particularly between residents and nursing home staff who are involved in the Kairos program). It gives them a common experience to refer to in conversations throughout the week (between Kairos sessions).
REL	SOC	THEME	Almost all interviewees mentioned observations of positive social interaction that occurs during the group, and they believe that particular opportunity to interact with peers in a fun and positive environment is helpful in improving mood and quality of life among the residents.

## Appendix F

## Additional Literature Review

# Aging and Disability

Life expectancy and demographics.

People in the United States are living longer than ever before, and the population of older adults is rapidly growing. Human life expectancies are increasing due to advancements in the medical world and new medications. Furthermore, the baby-boomer population is aging.

Approximately 78 million baby-boomers were born between the year's 1946 and 1964 (The Pew Research Center for the People and the Press, 2011). In 2011, about 658,000 baby-boomers will turn 65 years old (The Pew Research Center for the People and the Press, 2011).

According to the Pew Research Center (2011), 10,000 baby-boomers will turn 65 each day from January 1<sup>st</sup>, 2011 until the year 2030. As the medical world continues to advance in knowledge, human life expectancies will continue to rise (Eyigor et al., 2009).

Reductions in death rates from the five leading causes of death have attributed to increased life expectancies. The leading causes of death in the United States in 2007 were heart disease, cancer, stroke, chronic lower respiratory diseases, and accidents (CDC, 2009). It is expected that the leading causes of death will continue to decline as medical advances persist. In fact, the U.S. Administration on Aging estimates that there will be 55 million older Americans by the year 2020. Simultaneously, 6.6 million Americans will be over age 85 and 241,000 will be centenarians (CDC, 2009). According to the Census Bureau, there were 78 million baby boomers making up 26 percent of the United States population in 2008. Thus, a record number of individuals will be retired and make up a large portion of consumers of long-term care services and supports in the near future.

As of 2007 the life expectancy at birth for males and females reached a record high of 77.9 years (CDC, 2009). Simultaneously, the age adjusted death rates in the United States were at a record low of 760.3 for every 100,000 people (CDC, 2009). In the United States, white females have the longest life expectancy at 80.7 years according to 2007 data from Centers for Disease Control and Prevention. Black females have the second longest life expectancy at 77 years with men living in the United States following at 75.3 years (CDC, 2009). Women experience more minor disabling conditions that are non-fatal, such as arthritis. Conversely, men experience more fatal conditions such as cardiovascular disease (Orfila, Ferrer, Lamarca, Tebe, Domingo-Salvany, & Alonso, 2006). The difference between non-fatal and fatal

conditions affecting men and women contribute to women living six to eight years longer than men in developed countries (Orfila et al., 2006).

Disability versus Independence in Aging

Maintaining functional independence and continued participation is important for older adults (Song et al., 2004). Contrary to popular misconceptions, most older individuals do not suffer significant disability and decreased independence and activity participation. Disability is defined as impairments of specific body systems that cause a significant limitation in a major life activity (He, Sengupta, Velkoff, & DeBarros, 2005). Types of disability may include physical, self-care, mental, sensory, and losses in function affecting ability to go outside of the home and be employed (McMurry, 2004). According to the 2000 Census, physical disabilities affected twenty-nine percent of older adults (He et al., 2005). According to recent data from CMS, (2009), only nineteen percent of Americans aged 65 and older experience some degree of chronic physical impairment. Moreover, only ten percent of older people had self-care disabilities and only twenty percent of older individuals had difficulty going outside of the home (He et al., 2005 & McMurry, 2004). When focusing on Minnesota, forty-percent of adults 65 and older and seventy-four percent of adults 85 and older have a disability limiting or hindering their participation in occupations in some way (McMurry, 2004). This shows that the percentage of individuals who report disability increases with age.

### Long-Term Care in the Community

Although this research focused on the geriatric population residing in nursing homes, it is important to note that there are other long-term care options. Other options include assisted

living, home health care, adult day care, respite care, board and care homes, and continuing care retirement communities (CMS, 2009). Many individuals choose to stay in their home as long as possible. There are long-term care options available to accommodate individuals who prefer to stay in their home but need assistance, and some family members may choose to care for the older adult. Approximately seventy-nine percent of individuals who do require long-term care receive care at home or in community settings versus institutions (CMS, 2009). These services allow people to stay in their home or community and receive appropriate cares. Another long-term care option is nursing home institutions.

### Appendix G

## **Emerged Themes**

### **Evaluation of Kairos**

Interviewees provided constructive feedback for the Kairos Dance program.

Researchers questioned the interviewee's insights by inquiring if they had "any suggestions for the Kairos Dance program?" Most interviewees did not have any suggestions for the program improvement. The overwhelming evaluative response of research interviewees was positive.

Many individuals expressed their wishes that programs such as Kairos Dance could be extended to include all long term care facilities. For example, Beth stated that Kairos is a:

...program that I believe every nursing home should have for their elders. ...even if you have younger age groups I think that it benefits them, it makes them feel important. They lose that. They lose that when they come into a nursing home. That is the last place anybody nobody says 'I want to go to a nursing home someday' and if we're able to give them joy with this program as we do we try we try with other things but this program does that this acknowledges them for who they are and gives them joy and they have a lot of fun dancing and even if they don't get out of their chair they're dancing they will tell you. One gal, she can't walk anymore, but she will say 'oh I was dancing all morning' so. I would say to you that I would like to see, but you should know that many of us would like to see this program at all nursing homes.

There was a strong consensus that Kairos Dance was positive and beneficial and thus, interviewees would like the program to reach the maximum number of individuals. Elaine also alluded to her desire that art-based programming increases size and frequency within the facility she is associated with. Elaine reported that:

You know, I wish that there could be more of this because then they can sort of keep that momentum going, but at least there's this one program they go to.

The few evaluative suggestions for the improvement of Kairos Dance involved staff and volunteer education. For example, Ariel said:

...it's been fabulous and I think education to staff is an important thing and educating the nurse's aides to actually come in and see what some of the residents do when they're here I think gives them a different perspective on the resident themselves too.

Beth provided Kairos with improvement suggestions related to Kairos leaving the long term care facility. Beth said:

...maybe a suggestion would be little by little them edging out. The residents love them as individuals but they have to know that it's not the individuals that make the program, that we can and we have done it here by ourselves without them and we had some very successful times. So that would probably be the only thing, knowing when it's time to be done....maybe some missed one's here and there and gives the staff more confidence I think too...

Other interviewees gave suggestions of how to make Kairos easily accessible to other facilities. Elaine commented that she believes:

...there should be more of these [laughs] you know and I think you know it's great. I think they already do this but sort of reflecting on what worked particularly well for that group and that session where they go next and I think all that already happens. So yes just I mean I think if there's a way to kind of make it I'm not sure if it's possible but to make it structured enough to have a template ready for other groups who want to do the same kind of thing. I think that would be really helpful because I know that every group is individual but if there are things that work particularly well those would be really helpful to share. I think just having something ready for others to go with [laughs] would be good and yes maybe even having multiple session...having even more

residents participate so a second group or something so that they can really get a lot of people who want to do this program able to do this program.

Overall the evaluative responses about Kairos were positive. Many interviewees reiterated what they viewed as key benefits of this art-based programming. This positive feedback touched on the happiness, relationships, and the benefits of looking forward to (anticipating) participation in meaningful activity. Irma explained this by stating that she believes that Kairos:

...helps keep them in present time and remind them that they still can participate in their lives, that they're not just being entertained or kept busy, but they're actually feeling more engaged in their lives.

Beth summarized her observations of the many benefits that Kairos provides to the long term care residents. Beth stated that Kairos:

...benefits their body. It benefits their mind. It benefits their emotions. I guess yes pretty much it's a whole body experience.

### References

- American Association of Homes and Services for the Aging. (February, 2010). *Volunteer*activities. Retrieved July 21, 2010 from http://www.aahsa.org/section.aspx?id=10965
- ASHOKA UNITED STATES (2002). *Investing in new solutions for our world's toughest problems*. Retrieved January 29, 2011 from <a href="http://usa.ashoka.org">http://usa.ashoka.org</a>
- Bernardi, L., Porta, C. & Sleight, P. (2006). Cardiocascular, cerebrovascular, and respiratory changes induced by different types of music in musicians and non-musicians:

  The importance of silence. *Journal of Heart*, 92, 445-452.
- Blood, A. J. & Zatorre, R. J. (2001). *Intensely pleasurable responses to music correlate*With activity in brain regions implicated in reward and emotion. Retrieved February 2,

  2011 from proceedings of the National Academy of Sciences of the United States of

  America Web site: <a href="http://www.pnas.org/content/98/20/11818.full">http://www.pnas.org/content/98/20/11818.full</a>
- Bryner, J. (2010). LiveScience: Does old age bring happiness or despair? Retrieved on

- January 28, 2010, from <a href="http://www.livescience.com/culture/aging-happiness-100404.html">http://www.livescience.com/culture/aging-happiness-100404.html</a>
- Butts, J. & Rich, K. (2005). *Nursing ethics: Across the curriculum and into practice*.

  United States of America: Jones and Bartlett Publishers, Inc.
- Centers for Disease Control and Prevention. (December, 2009). *Death in the United States, 2007.* Retrieved June 1, 2010 from <a href="http://www.cdc.gov/nchs/data/databriefs/db26.htm">http://www.cdc.gov/nchs/data/databriefs/db26.htm</a>
- Centers for Medicare & Medicaid Services. (March 25, 2009). Long-term care. Retrieved July 16, 2010, from http://www.medicare.gov/LongTermCare/Static/Home.asp
- Clair, A. A. (2002). The effects of music therapy on engagement in family caregiver and Care receiver couples with dementia. *The American Journal of Alzheimer's Disease and Other Dementias, 17,* 286-290.
- Cohen, G. D. (2006). Research on creativity and aging: The positive impact of the arts on health and illness. *Generations*, 30(I), 7-15.
- Cohen, G. D., Perlstein, S., Chapline, J., Kelly, J., Firth, K. M., & Simmens, S. (2006). The impact of professionally conducted cultural programs on the physical health, mental health, and social functioning of older adults. *The Gerontological Society of America*, 46(6), 726-734.
- Cole, M. B. & Tufano, R. (2008). *Applied theories in occupational therapy: A practical approach*. Hamden, Connecticut: SLACK Incorporated.
- Colello, K. J. (2009). Older Americans Act: Long-Term Care Ombudsman Program.

- Congressional Research Service. Retrieved April 30, 2011 from <a href="http://aging.senate.gov/crs/aging12.pdf">http://aging.senate.gov/crs/aging12.pdf</a>
- Cooke, V., Arling, G., Lewis, T., Abrahamson, K. A., Mueller, C., Edstrom, L. (2009).

  Minnesota's nursing facility performance-based incentive payment program: An innovative model for promoting care quality. *The Gerontologist*, *50*, 556-563.
- Crepeau, E. B. & Boyt Schell, B. A (2009). Analyzing occupations and activity. In H.S. Willard, E. B. Crepeau, E. S. Cohn, & B. A. Boyt Schell, (Eds.), Willard & Spackman's occupational therapy (11<sup>th</sup> edition, pp. 359 372). Baltimore: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Cromie, W. J. (2001). *Music on the brain: Researchers explore the biology of music.*Retrieved April 16, 2010, from Harvard University, Harvard Gazette Archives Web site:

  <a href="http://www.news.harvard.edu/gazette/2001/03.22/04-music.html">http://www.news.harvard.edu/gazette/2001/03.22/04-music.html</a>
- Cross, I. (2001). Music, mind and evolution. Psychology of Music, 29(1), 95-102.
- Cuddy, L. L. & Duffin, J. (2005). Music, memory, and Alzheimer's disease: Is music

  Recognition spared in dementia, and how can it be assessed? *Journal of Medical Hypotheses*, *64*, 229-235.
- Davis, W. B., Gfeller, K. E., & Thaut, M. H. (2008). *An introduction to music therapy:*Theory and practice (3<sup>rd</sup> ed.). Silver Spring, MD: American Music Therapy Association.
- Day, T. (2011). National Care Planning Council: About Nursing Homes. Retrieved on

  January 29, 2011, from <a href="http://www.longtermcarelink.net/eldercare/nursing-home.htm">http://www.longtermcarelink.net/eldercare/nursing-home.htm</a>
  Eklund, M., Erlandsson, L. & Persson, D. (2003). Occupational value among individuals

- with long-term mental illness. *Canadian Journal of Occupational Therapy, 70*(5), 276-284.
- Eyigor, S., Karapolat, H., Durmaz, B., Ibizoglu, U., Cakir, S. (2009). A randomized controlled trial of Turkish folklore dance on the physical performance, balance, depression and quality of life in older women. *Archives of Gerontology and Geriatrics*, 48, 84-88.
- Family & Social Services Administration. (n.d.). *Medicaid Waivers*. Retrieved on January 29, 2011, from <a href="http://www.in.gov/fssa/ompp/2549.htm">http://www.in.gov/fssa/ompp/2549.htm</a>
- GAO United States Government Accountability Office. (2005, April). Long-term care

  financing: Growing demand and cost of services are straining Federal and State budgets

  (Publication No. GAO-05-564T). Retrieved on January 29, 2011, from

  <a href="http://www.gao.gov/new.items/d05564t.pdf">http://www.gao.gov/new.items/d05564t.pdf</a>
- Grahn, J. A. (2009). The role of the basal ganglia in beat perception: Neuroimaging and Neuropsychological investigations. Annals of the New York Academy of Sciences, 1169, 35-45.
- Grahn, J. A. & McAuley, J. D. (2009). Neural bases of individual differences in beat perception. *Journal of Neuroimage*, *47*, 1894-1903.
- Heslin, P. A. & Klehe, U. S. (2006). Self-efficacy. In S. G. Rogelberg (Ed.), *Encyclopedia of Industrial/Organizational Psychology*, *2*, 705-722.
- He, W., Sengupta, M., Velkoff, V. A., & DeBarros, K. A. (2005). 65+ in the United States:

  2005 current population reports. U.S. Department of Health and Human Services & U.S.

  Department of Commerce. Retrieved on January 26, 2011 from

# http://www.census.gov/prod/2006pubs/p23-209.pdf

- Kairos Dance Theatre: The Dancing Heart program (n.d). Nursing facility performancebased incentive payment proposal for Ebenezer
- Kane, R. A. (2003). Definition, measurement, and correlates of quality of life in nursing homes: Toward a reasonable practice, research and policy agenda. *The Gerontologist*, 43, 28-36.
- Kane, R. L. & Kane, R. A. (2010). Long-term care: What older people want from longterm care, and how they can get it. *Health Affairs*, *20*(6), 114-127.
- Khalfa, S., Bella, S. D., Roy, M., Peretz, I., & Lupien, S. (2003). Effects of relaxing music on salivary cortisol level after psychological stress. Retrieved February 2, 2011 from New York Academy of Sciences Web site: <a href="http://www.brams.umontreal.ca/plab/downloads/Khalfa">http://www.brams.umontreal.ca/plab/downloads/Khalfa</a> et al. 2003.pdf
- Knight, W. E., & Rickard, N. S. (2001). Relaxing music prevents stress-induced increases insubjective anxiety, systolic blood pressure, and heart rate in healthy males and females. *Journal of Music Therapy*, 38(4), 254-272.
- Koelsch, S. (2005). *Investigating emotion with music: Neuroscientific approaches.*Retrieved on February 2, 2011 from Max Planck Institute for Human Cognitive and Brain Sciences Web site: <a href="http://www.stefan-koelsch.de/papers/Koelsch\_ANYAS\_in-press\_Emotion\_Music.pdf">http://www.stefan-koelsch.de/papers/Koelsch\_ANYAS\_in-press\_Emotion\_Music.pdf</a>
- Lacey, A. & Luff, D. (2001). Trent focus for research and development in primary health

- care: An introduction to qualitative analysis. *Trent Focus Group.* Retrieved February 2006, from
- http://www.trentrdsu.org.uk/cms/uploads/Qualitative%20Data%20Analysis.pdf
- Larkin, M. (2001). Music tunes up memory in dementia patients. Lancet, 357, 1-3.
- Law, M. (2002). Participation in the occupations of everyday life. *American Journal of Occupational Therapy*, *56*(6), 640-649.
- Lee, L. Y. K., Lee, D. T. F., & Woo, J. (2009). Tai chi and health-related quality of life in nursing home residents; Clinical scholarship. *Journal of Nursing Scholarship, 41, 30-39.*
- Levasseur, M., Desrosiers, J., & St-Cry Tribble, D. (2008). Do quality of life, participation and environment of older adults differ according to level of activity? *Health and Quality of Life Outcomes*, 6, 30-38.
- McKnight's (November 24, 2010). Study: Seniors reduce falls risk with music-movement class. *McKnight's long-term care news & assisted living*. Retrieved December 2, 2010 from <a href="http://www.mcknights.com/study-seniors-reduce-falls-risk-with-music-movement-class/article/191531/">http://www.mcknights.com/study-seniors-reduce-falls-risk-with-music-movement-class/article/191531/</a>
- McMurry, M. (2004). Minnesota State Demographic Center. Elderly Minnesotans: A

  2000 Census Portrait. Retrieved on September 18, 2010 from

  <a href="http://www.demography.state.mn.us/PopNotes/ElderlyMinnesotans2004.pdf">http://www.demography.state.mn.us/PopNotes/ElderlyMinnesotans2004.pdf</a>
- NAHDO: National Association of Health Data Organizations (2010). *Top ten conditions*that cause people to need long term care. Retrieved November 1, 2010 from

  <a href="http://www.nahdo.org/">http://www.nahdo.org/</a>

- Nakamura, J. & Csikszentmihalyi, M. (2002). The concept of flow. In C.R. Snyder & S.J.

  Lopez (Eds.), *Handbook of positive psychology*, 89-105. Oxford: Oxford University Press.
- O'Donnell, L. (1999). *Music and the brain.* Retrieved May 2, 2010, from <a href="http://www.cerebromente.org.br/n15/mente/musica.html">http://www.cerebromente.org.br/n15/mente/musica.html</a>
- Orfila, F., Ferrer, M., Lamarca, R., Tebe, C., Domingo-Salvany, A. & Alonso, J. (2006).

  Gender differences in health-related quality of life among the elderly: The role of objective functional capacity and chronic conditions. *Social Science & Medicine*, 63, 2367-2380.
- Palo-Bengtsson, L., Winblad, B., & Ekman, S. L. (1998). Social dancing: A way to support intellectual, emotional and motor functions in persons with dementia. *Journal of Psychiatric and Mental Health Nursing*, *5*, 545-554.
- RAND Corporation (2011). Medical outcomes study: 36-Item Short Form Survey.

  Retrieved on March 3, 2011 from

  <a href="http://www.rand.org/health/surveys">http://www.rand.org/health/surveys</a> tools/mos/mos core 36item.html
- Richie, J. & Spencer, L. (1994). Qaulitative data analysis for applied policy research. In Bryman and Burgess (Eds.). *Analyzing Qualitative Data, 173-194.* London: Routledge.
- Rydholm, S. (2011) *Importance of a dance program for long-term care residents.*Unpublished master's thesis, Saint Catherine University, Saint Paul, Minnesota.
- Scherer, K. R., & Zentner, M. R. (2001). Emotional effects of music: Production rules. In

  P. N. Juslin, & J. A. Sloboda (Eds.), *Music and emotion: Theory and research.* Oxford, NY:

  Oxford University Press.

- Smith, C. M. & Cotter, V. T (2008). Normal aging changes. Hartford Institute for Geriatric

  Nursing Retrieved on April 30, 2011 from

  <a href="http://consultgerirn.org/topics/normal\_aging\_changes/want\_to\_know\_more">http://consultgerirn.org/topics/normal\_aging\_changes/want\_to\_know\_more</a>
- Song, R., June, K. J., Kim, C. G., & Jeon, M. Y. (2004). Comparisons of motivation, health behaviors, and functional status among elders in residential homes in Korea. *Public Health Nursing*, *21*, 361-371.
- Stateline: State policy and politics. (2010, November). *Putting the 'home' in nursing homes*. Retrieved January 29, 2011 from <a href="http://www.stateline.org">http://www.stateline.org</a>
- Stock, R., Mahoney, E., Reece, D., & Cesario, L. (2008). Developing a senior healthcare practice using the chronic care model: Effect on physical function and health-related quality of life. *The American Geriatrics Society, 56,* 1342-1348.
- The Pew Research Center for the People and the Press (2009, June 29). *Growing old in America: Expectations vs. reality.* Retrieved January 28, 2011, from <a href="http://pewresearch.org/pubs/1269/aging-survey-expectations-versus-reality">http://pewresearch.org/pubs/1269/aging-survey-expectations-versus-reality</a>
- The Pew Research Center for the People and the Press (2011, January 3). First baby boomers turn 65. Retrieved March 1, 2011 from <a href="http://pewsocialtrends.org/2011/01/03/first-baby-boomers-turn-65/">http://pewsocialtrends.org/2011/01/03/first-baby-boomers-turn-65/</a>
- Thomas, W. H. (1996). Life worth living: How someone you love can still enjoy life in a

  Nursing home: The Eden alternative in action. Acton, Massachusetts: VanderWyk &
- Burnham. Tornstam, L. (2005). *Gerotranscendence: A developmental*theory of positive aging. New York: Springer Publishing Company.
- Trehub, S. (2000). Human processing predispositions and musical universals. In N. L.

- Wallin, B. Merker, & S. Brown (Eds.), *The origins of music.* Massachusetts Institute of Technology.
- Trehub, S. E. (2003). The developmental origins of musicality. *Nature Neuroscience,* 6(6), 669-673.
- Wayne, P. M., Kiel, D. P, Krebs, D. E., Davis, R. B., Savetsky-German, J., Connelly, M., & Buring, J. E. (2007). The effects of Tai Chi on bone mineral density in postmenopausal women: A systematic review. *Journal of Physical Medicine and Rehabilitation 88*, 673-680.
- White, J. (2009). Questions for occupational therapy practice. In H.S.
   Willard, E. B. Crepeau, E. S. Cohn, & B. A. Boyt Schell, (Eds.), Willard &
   Spackman's occupational therapy (11<sup>th</sup> edition, pp. 262 272). Baltimore:
   Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Willard, H. S., Crepeau, E. B., Cohn, E. S., & Boyt Schell, B. A. (2009). Willard & Spackman's occupational therapy 11<sup>th</sup> edition. Baltimore: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Yerxa, E. J. (2000). Occupational science: A renaissance of service to humankind through knowledge. *Occupational Therapy International*, 7(2), 87-98.