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INNER-PEACE AND PHYSICAL HEALTH: PEACE OF MIND AND PHYSICAL HEALTH AMONG RHODE ISLAND OLDER ADULTS

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INNER-PEACE AND PHYSICAL HEALTH:
PEACE OF MIND AND PHYSICAL HEALTH AMONG RHODE ISLAND
OLDER ADULTS

BY
THUPTEN TENDHAR

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
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MASTER OF EDUCATION DEGREE THESIS
OF
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ABSTRACT

The number of older adults increases globally year after year at an unprecedented rate, and so does their healthcare expenditure. This trend is similar in Rhode Island. The proportion of older adults relative to the general population is rising sharply in this smallest state in the US. The quality of later life and well-being of the older adults remains questionable for many, due to the increasing chronic disease burden associated with advanced age.

The purpose of this research was to study the relationship between inner-peace and physical health, with the aim of developing a clearer picture to improve the health and well-being of older adults in the state of Rhode Island.

Data were collected through the use of a self-report questionnaire method mailed to approximately 600 members of the Osher Lifelong Learning Institute at the University of Rhode Island in July, 2013. Two hundred and forty-five members participated by completing and return mailing the questionnaire. The findings overall confirm a small but significant correlation between inner-peace and physical health. This finding can contribute to a better understanding of the relationship between inner-peace and physical health of older adults.

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DEDICATION

This thesis is dedicated to all older adults including my late father Mr. Chonga Tsering, my kind mother Mrs. Choney Dolma and my teacher Geshe Tenpa Chomphel. May the merit and virtue accumulated from this sincere effort contribute to the inner-peace, physical health and overall wellbeing of older adults in the world's current and future generations to come!

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CHAPTER 1

INTRODUCTION

Significance of the Problem

The health and well-being of older adults have been identified and recognized by the United Nations as one of the most pressing and universal social issues of our time (Antonucci, Okorodud & Akiyama, 2002). However, even after a decade there still exists a significant number of older adults who rank low, in both developing and developed countries, on the WHO-Five Well-being Scale, which includes items such as being happy and having lots of energy. The problems faced by today's older adults are not only their issues, but are also problems confronting our families, communities and countries (Antonucci et al., 2002). Therefore, if this situation remains unimproved, the poor health and well-being faced by current older adults may impact the health and well-being of our youths, adults and future generations of humankind.

Each individual seeks happiness and wishes to be happy, but happiness is highly inter-related with both physical and mental health (Abdel-Khalek, 2006). Mental health affects physical health (Holt & McClure, 2006), but the more the amount of inner violence, disharmony and negative emotions the lower our mental health scores. Negative psychological states such as distress, depression, and anxiety have been found associated with higher risk of Type 2 diabetes, coronary heart disease, disability, and total mortality. Negative thoughts have been found to play a critical role

in depression and psychological maladjustment (Wong, 2008). One's positive thoughts are found to be positively related to satisfaction with life and happiness (Ingram, Kendall, Siegel, & Guarino, 1995). The richer we become in inner-peace, the healthier our mind becomes. This sense of wholeness and integration of mind and body, accompanied by a sense of inner harmony, is often reflected in the spiritual and wisdom traditions of both the East and West (Underwood & Teresi, 2002). The connection between health and emotions may be strong, particularly in the latter part of human life (Chida & Steptoe, 2008).

Problem Statement

As the number of older adults in the state of Rhode Island increases (US Bureau of the Census, 2010), there is greater concern and a higher need for a holistic approach to improve physical health and quality of aging. The unprecedented increase in the number of older people throughout this decade and the preceding decade is not because of major changes in our healthcare system or groundbreaking cure of diseases that occur during old age (Antonucci et al., 2002). Surprisingly, this increasing proportion of older adults is mostly attributed to the significant reduction in deadly childbirth and child mortality rates. The child mortality rate has been decreasing worldwide due to socioeconomic development and successful child survival interventions (Black, Cousens, Johnson, et al., 2010). Major infections and diseases that used to cause traditional childhood deaths are now either prevented or cured.

However, improvement in child health is different from that of older adults. International studies show that today, a high number of older adults still suffer from at least one chronic disease. In the US, the least physical active of any age group is older

adults, who also generate the largest medical care expenditures (Nelson et al., 2007). Although there is a growing awareness about integrated wholeness of a person, healthcare providers often assess the body, mind, and spirit as totally different entities and try to treat the disease instead of the patient (Garrett & Garrett, 1982). According to *The World Health Organization*, health is not merely the absence of disease or infirmity, but is a state of complete physical, mental and social well-being. Dictionaries also specify both mental and physical dimensions when defining health (Ware Jr., 1987). An older person's life should not simply be a matter of survival, as there is much more to life and quality living (Clark, 1991). Multidisciplinary studies, supported by their findings, emphasize that aging cannot be reversed, but it can be enriched and enjoyed with good physical and mental health (Lee, Yoon, Lee, Yoon & Chang, 2012).

It is especially important to determine the relationship between inner-peace and physical health, because the complex health and well-being challenges that older adults faces today are also an urgent issue for the entire society. As every human being is a social animal, their aging takes place in families, communities, and countries rather than aging alone without impact on society. Therefore, there is a strong association between the health of older adults and the health of families and communities. Active social relations throughout one's life cycle, including old age, fulfill very important functions of emotional and instrumental support. After all, social isolation of individuals seems to be one of the main factors of risk in the psychological well-being and health of older adults (Portero & Oliva, 2007).

Over the years there have been many educational, medical, social, psychological, nursing, gerontology and other studies conducted on the Mind-Body-Spirit relationship (see Hungelmann, Kenkel-Rossi, Klassen & Stollenwerk, 1966, Miller, 1985, Targ & Levine, 2002). Based on these studies researchers have found a strong connection between the mind and body in general, and between one's affective state and physical health in particular. A positive state of mind has a strong impact on healthy people in terms of survival. For unhealthy individuals, a positive state of mind improves the patient's adaptation to physical illness and lowers mortality rates even in serious medical cases such as renal failure and HIV (Chida & Steptoe, 2008). On the other hand, people with negative mental thoughts can experience a negative effect on their health (Holt & McClure, 2006). The findings from this current study between inner-peace and physical health in older adults could potentially improve the health and quality of life for the increasing number of older adults in the state of Rhode Island. Through improving the health status of older adults, it may also help individuals, the state of Rhode Island and the US Federal Government to reduce medical expenditures.

Significance of this Study

Therefore, the purpose of this study is to examine the relationship between inner-peace and physical health of Rhode Island older adults. In this study, it was hypothesized that there is a significant correlation between inner-peace and physical health; and that inner-peace has a positive association with older adult's physical health. If these hypotheses are supported by this study, promoting inner-peace could

potentially benefit the health and quality of life for an increasing number of older adults.

CHAPTER 2

REVIEW OF LITERATURE

This study concerned the relationship between inner-peace and physical health among older adults. There are different ways of classifying older adults. However, this study employed a developmental perspective to the term “older adult” and defined the sample as individuals who are age 65 or older (Baltes & Smith, 2003). Although there is a number of studies on spirituality and physical health (Fry, 2000) and physical health and mental health (Phelan, Stradins & Morrison, 2001), there is still an important yet unabridged gap in studying the association between inner-peace and physical health in this fast-growing population of older adults.

Inner-Peace

Inner-Peace can be described in different ways based on individual understanding, but here it refers to a mental disposition free of negative thoughts and emotions with internal strength, stability, and peacefulness regardless of adverse external conditions (Lama, 2012). In earlier studies, researchers have found a strong impact of positive emotions and good mental attitudes – such as forgiveness, gratitude, optimism, faith, self-perception, and mindfulness – on different types and severity levels of health issues.

Researchers have shown an important connection between forgiveness and well-being. People who learn to forgive get significant inner relief as they reduce the amount of anger toward those whom they perceive as being unjust or even

antagonistic to them (Huang & Enright, 2000). Thus, forgivers are emotionally far better and healthier than non-forgivers. In addition to its positive role on emotional health, forgiveness is also reported to have an effect on indicators of physical health such as blood pressure and hemodynamic responses (Waltman et al., 2009). People who score higher in forgiveness and self-efficacy are less likely to experience pain, suffering and disability. According to Carson et al. (2005), forgiveness is related to feeling less pain, specifically “patients scoring high on current forgiveness were much more likely to report lower overall scores on the affective pain and sensory pain scales” (p. 86).

Similarly, people with a sense of gratitude are found to experience fewer physical illness symptoms than those who do not practice gratitude (Emmons & McCullough, 2003). A sense of gratitude is also associated with higher experience of joy and happiness. After all, humans survive on the kindness of others, and we seek support from others whenever we face difficulties in life. We also receive health benefits throughout our life simply from human warmth and affection (Lama, 2012).

Optimism is also strongly related to positive health results, in the context of enormous health threats such as coronary heart disease, cancer and so on (Scheier & Carver, 1993). Recent studies, such as one on hip fracture recovery, show that positive expectations influence the physical healing and recovery of elderly patients (Levy, Slade & Kasl, 2002). Likewise, self-perception of aging has been found related to an older adult’s health. Poor self-perception of aging has been documented to have a negative impact on subjective health in older adults (Moor, Zimprich, Schmitt, & Kliegel, 2006). On the other hand, older adults with more positive self-perception of

aging were found to have better physical health and did not show a sharp decline in physical functioning over time, compared to those adults with negative self-perception of aging (Sargent-Cox, Anstey & Luszcz, 2012).

A study conducted recently with a large sample of nationally representative older adults in the US found a strong association between posttraumatic stress and individual health conditions. Those older adults with lifetime posttraumatic stress are found to have a high rate of negative health conditions and poorer physical functioning (Pietrzak, Goldstein, Southwick, & Grant, 2012). In another study, it was found that people with posttraumatic stress disorder spend more time in bed, because of disability days and illness, even when they are treated for diseases. These findings strongly suggest that older adults with posttraumatic stress disorder experience grave impairments in daily life and are less content with their life (Van Zelst, de Beurs, Beekman, Van Dyck & Deeg, 2006). These scientific studies draw an undeniable picture for us, showing how an older adult's mental state influences their physical health, either positively or negatively.

Faith in religion or spirituality is negatively associated with experiencing loneliness, depression, and anxiety, regardless of demographic variations in age, gender, and education (Kalkstein & Tower, 2009). An increasing number of researchers in mental health, gerontology and medicine agree on a positive relationship between faith and physical health (Wallis, 1996). Spiritual practice may also contribute to improving the quality of life by reducing adverse medical symptoms (Kass, Friedman, Leserman, Zuttermeister & Besnon, 1991). Mindfulness meditation, for instance, has been found to be effective in clinical use for medical patients to

reduce their pain and pain-related behaviors (Kabat-Zinn, Lipworth & Burney, 1985). All these positive emotions and mental attitudes are closely related to an individual's inner-peace. Hence, one's inner-peace may be able to bring positive health benefits, not only for oneself, but also for the family and community at large.

Physical Health

Physical health refers to a general state of physical well-being in which a person is physically fit to perform work and social or other regular daily activities without limitations or interference from pain. Physical health is most commonly measured according to limitations in personal performance or ability to perform mobility, self-care activities such as dressing and eating, and more vigorous physical activities (Ware Jr., 1987).

Poor physical health has long been recognized to be one of the most important risk factors for depression in older adults, (Geerlings, Beekman, Deeg and Tilburg, 2000). According to Kannus, Sievänen, Palvanen, Järvinen, and Parkkari (2005), many people who are aged 65 or older suffer injuries resulting from falls. Therefore, falling is a major public-health concern representing one of the main causes of longstanding pain, disability, functional impairment, and death in older adults. However, regular physical activities could help reduce the risks of fall, anxiety, depression and diseases such as cardiovascular, thromboembolic stroke, type 2 diabetes, osteoporosis, obesity, breast cancer and hypertension (Haskell et. al. 2007).

One's physical health status may also be negatively influenced by personal involvement, experience or exposure to violent activities in life. The World Health Assembly declared violence as a major public health issue in the year 1996 (Krug,

Mercy, Dahlberg, and Zwi, 2002). Among different types of violence, battering is a significant direct and indirect risk factor for various physical health problems often seen in health-care settings (Campbell, 2002). War is another significant factor that leaves serious adverse effects on health and well-being. A study conducted on 921 male military veterans who were of age 65 at the time of study showed that both combat exposure and posttraumatic stress disorder (PTSD) were correlated with their poorer health (Schnurr and Spiro III, 1999).

The 2002 World Health Organization report on violence and health stated that about 4400 people die every single day because of deliberate acts of collective, interpersonal or self-directed violence. Thousands more including older adults are injured or suffer from non-fatal health impacts as a result of being the victim or witness to violent acts that also devastate families and lead to huge costs in medical treatment (Krug, Mercy, Dahlberg, and Zwi, 2002). In the US, violence is listed as one of the leading health indicators. According to the US Department of Health, the cost of injury and violence in the US is estimated at over \$224 billion annually. The department reported that 32,436 people died from firearms injuries in the year 1997, and 42 percent of the total number were victims of homicide (US Dept. of Health and Human Services, 2010).

In general both physical and mental exercise can create a positive impact on physical health of older adults. Physical exercises and activities have positive and beneficial effects on some mental and physical health outcomes (Penedo, Frank, Dahn, and Jason, 2005). For example, researchers found that Tai Chi, a slow meditative physical exercise, if practiced three times a week for six months, is effective in

decreasing the number of falls, fear of falling and risk for falling. Such programs help to improve physical performance and functional balance in physically inactive people aged 70 years or older (Li et. al., 2005). In addition, yoga was found to have positive results on its practitioners for both diseased and healthy populations. Yoga appears to be helpful in relieving several symptoms associated with kidney disease, diabetes, menopause and schizophrenia. (Ross and Thomas, 2010).

Mental exercise, such as meditation practices and maintaining positive emotions, might have powerful impacts on human physiology and physical health. A study on the alterations in brain and immune function produced by mindfulness meditation shows that a short mindfulness meditation program could produce noticeable positive impacts on the brain and functions of our immune system (Davidson et al. 2003). Development of such positive emotions as love, forgiveness, contentment and hope might benefit the individual health through their effect on neural pathways that are attached to our immune systems and endocrine (Seybold and Hill, 2001).

Purpose of Study

The purpose of this study is to examine whether there is a correlation between inner-peace and physical health exist in Rhode Island older adults. The aim of this project is to identify a relationship that might assist older adults in improving their health and quality of life through inner-peace. The research questions that guided this study were (1) whether the inner-peace and physical health of older adults are correlated, and (2) whether there are demographic differences in the inner-peace and physical health of older adults.

The ultimate goal of this study is to contribute to efforts in creating a healthier and more peaceful world where all people, especially the growing number of older adults, can enjoy a meaningful quality of life in a beloved community.

CHAPTER 3

METHODOLOGY

Research Hypothesis

The primary hypothesis of this study was that there is a positive correlation between inner-peace and physical health in Rhode Island's older adults. The secondary research question explored to determine if there were differences by demographic variables namely age, gender, and marital status on Inner-Peace and Physical Health.

Procedure and Sample

This study employed a multidisciplinary quantitative research design involving physical health and inner-peace measures. Data for this study were collected from volunteering members of the Osher Life Long Learning Institute (OLLI) at the University of Rhode Island. The recruitment and sampling, the sample, and the survey instruments measuring Inner-Peace and Physical Health are reviewed in this section.

Sampling and recruitment design: The URI Program in Gerontology and OLLI were approached to explore the possibility of recruiting the URI OLLI members for this study on the relationship between the Inner-Peace and Physical Health. The URI OLLI was selected because it is part of the university and a good collaborator for interdisciplinary research. It was also an accessible and convenient sample where the members were living in Rhode Island at the time of the study. Another advantage of partnering with OLLI was that its membership consisted of a range of age groups who

resided in different geographical locations within the State of Rhode Island. Upon receiving the URI OLLI's official approval and support, their members were approached and invited to participate in this study in few different ways.

The primary investigator first attended the URI OLLI's annual meeting to introduce the study, explain its objectives and to encourage voluntary participation. A printed recruitment poster was also shown at the meeting. The URI Program in Gerontology director, Phillip Clark, and the URI OLLI director, Beth Leconte, also encouraged members to take part in the research. The researcher also conversed and took questions from members who showed interest in the study. Subsequently, URI OLLI sent out an e-mail to invite its six hundred members to participate in the study. Survey forms were available for pick up at the OLLI office itself where members came to attend classes and meetings. In the survey form, the following criteria for participation in the study were listed: (1) age criteria: to be age 65 or older; (2) to maintain anonymity, respondents are reminded not to write their name or other identifying information on any of the study materials; (3) participation in the study is voluntary; members do not have to participate if they do not wish to; (4) respondents may quit answering the survey at any time or decide not to respond to questions they are not comfortable answering.

Subsequently, due to the limited number of respondents through the e-mail recruitment, the researcher mailed out letters enclosed with the consent form, survey forms, and prepaid return envelope to all OLLI members. A cover letter, stapled in front of the survey form, sought members' participation and asked them to return the survey in the enclosed prepaid envelope in a one month. To prevent members who

have already taken this survey at the URI OLLI office from retaking the survey again, the note also asked those who have already submitted the survey to disregard the survey.

The preprinted Business Reply Mails were addressed to Inner-Peace and Physical Health Study, Center for Nonviolence and Peace Studies at the University of Rhode Island, Kingston. Eventually, 245 out of 600 people, a response rate of 40.8%, responded by completing and sending their surveys back to the researcher. Each of the survey responses were carefully numbered starting from one, typed onto computer and checked thrice for information accuracy. (Refer to Appendix A for the cover letter and survey form.)

Instrumentation

Two primary scales were utilized in this study:

(1) Inner-Peace was assessed with the use of the World Health Organization Quality of Life - Spiritual, Religious, and Personal Beliefs (WHOQOL-SRPB) instrument. This is a World Health Organization (WHO) scale initiated as a project of the Division of Mental Health in the WHO to simultaneously develop a quality of life (QOL) instrument in 15 countries. This overall scale was intended as a generic Quality of Life tool for use with patients across varying disease types, severities of illness, and cultural subgroups. The SRPB subscale has constructs specifically on spiritual, religious and personal beliefs.

World Health Organization's Quality of Life Measure-Spiritual, Religious, and Personal Beliefs (WHOQOL-SRPB): Domain VI of the WHOQOL-SRPB was used for the assessment of Inner-peace. This instrument has been used in previous cross-

cultural research to study spirituality, religion, and personal beliefs as components of quality of life (Saxena, 2006). The WHOQOL measurement system is suitable for evaluating the quality of life of adults in the US (Bonomi, Patrick, Bushnell and Martin, 2000). The WHOQOL-SRPB measurement is open and for public use, and no permission is required. It consists of eight facets or sub-scales. Out of the eight dimensions assessed, five measures (1) meaning in life, (2) awe, (3) wholeness and integration, (4) inner peace and (5) hope (Koenig, 2008). The three remaining facets measure spiritual connection, spiritual strength and faith. The Inner-Peace sub-scale is of particular relevance to this study. It consists of four items: (1) To what extent do you feel peaceful within yourself? (2) To what extent do you have inner peace? (3) How much are you able to feel peaceful when you need to? and (4) To what extent do you feel a sense of harmony in your life?

Items are rated on a 5-point Likert ordinal scale (1 = Not at all, 2 = A little, 3 = Moderately, 4 = Mostly, 5 = Completely). The questions ask how the participant's inner-peace has affected different aspects of their quality of life in the past two weeks. Although the strongest correlations were found with psychological and social domains and overall QoL, the SRPB facets that address issues such as inner peace, faith, hope, optimism, and spiritual connection were highly correlated with all of the WHOQOL domains ($p < .01$) (Saxena, 2006). According to Skevington, Gunson and O'Connell (2012), the total score could range from a low of five to a high of 20. The WHOQOL-SRPB was found to have good internal consistency with overall reliability rate ($\alpha = 0.85$). Inter-item correlation among these four items ranges from 0.65 to 0.76. In

this study on Rhode Island older adults, the reliability among these four items was $\alpha = .91$, with inter-item correlations that range from 0.62 to 0.73.

(2) Physical Health was measured with the use of the Short Form 12 Health Survey (SF-12v2). Developed by QualityMetric, the SF-12v2[®] Health Survey is a shorter version of the SF-36v2[®] Health Survey that uses 12 questions to measure functional health and sense of well-being from the patient's point of view. QualityMetric was acquired by the UnitedHealth Group (UHG), a health insurance and services company, in March 2010 and provides services to many hospitals, health insurers, pharmaceutical companies, researchers, government, and many others.

Short Form 12 Health Survey (SF-12v2): This survey was used to measure Physical Health. SF-12v2 instrument has been used in previous research to measure participants' perception of physical and mental health (Happell & Koehn, 2011). This measure is becoming one of the most used healthcare survey in the U.S. It has been used to evaluate the physical and mental health components of the general population and older adults. It showed acceptable reliability and validity with the 2003-2004 Medical Expenditure Panel Survey (Cheak-Zamora, Wyrwich and McBride, 2009). Both components were normed to the U.S. population, with a mean of 50 and standard deviation of 10 (DiBonaventura, Paulose-Ram, Su, McDonald, Zou & Wagner et al., 2012).

The Physical Health Scale incorporates four components concerning general health (one item), physical functioning (two items), role-physical (two items), and bodily pain (one item). The SF12v2 measure produces a composite score – the Physical Component Summary (PCS) – as an indicator of physical health. For the

PCS, 50 is set as the norm and 10 the standard deviation of the general U.S. population. Hence, a score of below 50 indicates health status that is below the average relative to the general U.S. population. The measure generally ranges from 20-70. At the lowest, the score indicates substantial limitations in self-care, physical, social and role activities, severe bodily pain, frequent tiredness, health rated as poor. At the highest, the score indicates no physical limitations, disabilities or decrements in well-being, high energy level, and health rated as excellent. For the full WHOQOL-SRPB and SF12 survey, please refer to Appendix A.

Participants were asked to respond to the seven items listed above, and items were rated using a Likert ordinal scale. Only question number two is rated on 3-point Likert scale, while the remaining six questions are rated on a 5-point Likert scale. For example, in question one every participant was asked, “In general, would you say your health is:” and the available responses were 1 (Excellent), 2 (Very Good), 3 (Good), 4 (Fair), and 5 (Poor). For each totally completed instrument, the minimum score possible was seven (7) and the maximum score could be thirty-three (33). According to Cheak-Zamora, Wyrwich, and McBride (2009), the collective items measuring physical health in SF-12v2 (otherwise known as Physical Component Summary Scores- PCS) have high internal consistency reliability ($\alpha > .80$). The PCS items also have high test–retest reliability ($ICC = .78$) and also high convergent validity ($r > .56$).

During the planning phase of this research study, the researcher contacted QualityMetric through e-mail about using their SF12v2 instrument. After some conversations regarding the nature of the study and its funding source, the QualityMetric referred the researcher to Pamela J. Bartley in its Office of Grants and

Scholarly Research (OGSR) that could grant permission to students and researchers to use health surveys at no cost for unfunded and non-commercial study. The researcher was asked to complete, sign and submit a Non-Commercial License Agreement Form and a signed copy of the Educator Acknowledgement Form from Dr. John Boulmetis, the researcher's Major Professor. The licensure to use SF12v2 was released on January 7, 2013.

Data Analysis

For the SF12v2 data, the responses were entered into the software provided by QualiyMetric that generated a mean physical health rating for each participant. This rating and the WHOQOL data were entered into and analyzed using Statistical Package for the Social Sciences (SPSS), Version 21.0. For all analyses, a p-value of less than .05 was considered significant. Data analysis was completed in three phases. First, the surveys were reviewed for completeness, and survey responses were numerically coded and entered into SPSS. The descriptive statistics were calculated for the dependent and independent variables including frequencies, percentages, means, medians, modes, and standard deviations.

The Spearman's rho was used to test correlation of the statistical relationship between Inner-Peace and Physical Health to determine whether or not the hypothesis is supported. Specifically, the test was applied to see if a correlation existed between inner-peace and physical health. The slightly skewed distributions of the Inner-Peace and Physical Health data indicate that the Spearman's rho test would be a more appropriate correlation test to use in this study compared to Pearson's correlation. Additionally, analysis of variance (ANOVA) was explored to determine any

differences that might have been attributed to gender, age and marital status. Appropriate correlations and tests of group differences were employed.

CHAPTER 4

RESULTS

In this section, a description of the sample is first discussed, followed by the correlational relationship between the two dependent measures, and demographic differences.

Sample Descriptive

Sample: Approximately 600 members of URI OLLI were mailed a self-report questionnaire for their voluntary participation in this study. There were 245 OLLI members, ranging from age 52 to 91, who completed and returned their survey forms. Although the research was intended to focus on individuals 65 years and older, there were 32 participants (13.1%) of the total sample who were under the age of 65 (between age 52 and 64). This group of participants was included in analyses that examined correlational associations in the overall sample. The exact age of 68 participants (27.8% of total sample) could not be determined because they did not report their age. Given the characteristics and sample size of this group, these participants were included in the overall sample correlational and gender analysis to check for significant differences.

Of the total number of participants 145 were at least age 65. Among them 122 (84.1%) were female and 23 (15.9%) were male. By age, 27.6% (n=40) belong to age group of 65-69, 36.6% (n=53) belong to age 70-74, 18.6% (n=27) belong to age group of 75-79, and 17.2% (n=25) belong to age group of 80-91. A total of 68 people did not mention their age, majority of whom (96%) were female participants. Please refer to

Table 1 for the age and gender of all the participants. By marital status, 11 people (7.7%) were single, 63 people (44.1%) were married, 24 people (16.8%) were divorced) and 31 people (31.5%) were widowed. Please refer to Table 2 for the marital status of participants who were aged 65 and over.

Table 1 –Age and Gender for All Participants

Group	n	Percent Total (%)	Female (%)	Male (%)
Age 52-64	32	13.1	84.4	15.6
Age 65-69	40	16.3	82.5	17.6
Age 70-74	53	21.6	86.8	13.2
Age 75-79	27	11.0	77.8	22.2
Age 80-91	25	10.2	88.0	12.0
Not reported	68	27.8	96.0	4.0
Total(\geq 65)	145	59.2	84.1	15.9
Total (All)	245	100	87.8	12.2

Table 2 – Marital Status for Participants aged 65 and over

Group	n	Percent Total (%)	Female (%)	Male (%)
Single	11	7.6	81.8	18.2
Married	63	43.4	69.8	30.2
Divorced	24	16.6	95.8	4.2
Widowed	45	31.0	97.8	2.2
Not reported	3	1.4	66.7	-
Total	145	100	84.1	15.9

Inner-Peace and Physical Health: Of the sample that was 65 and over (n=145), the mean of the WHOQOL-SRPB inner peace score was slightly higher at 3.79 (sd: 0.64). As for the Physical Core Summary of the SF12v2 measure, a score of 50 is the norm and 10 the standard deviation of the general U.S population. For our total sample, the mean PCS score was 50.75, which is slightly higher than the general U.S population. For our female participants, the mean PCS score was 50.99, slightly higher than the U.S. female sample (norm=49.19). For our male sample, the mean PCS score is 49.6, lower than the US male norm (norm=50.87). The QualityMetric software does not generate the standard deviation of the PCS score. Please refer to Table 3 for the inner-peace and physical core summary scores of participants.

Table 3 – Inner-Peace and Physical Core Summary Statistics for Participants

Group	n	Female (%)	Inner-Peace M (SD)	Physical Core Summary M (SD)
Age 52-64	32	84.4	3.7(0.62)	54.2 (8.9)
Age 65-69	40	82.5	3.6 (0.66)	50.5 (6.83)
Age 70-74	53	86.8	3.9(0.47)	52.0 (8.07)
Age 75-79	27	77.8	3.8(0.68)	49.4 (8.61)
Age 80-91	25	88.0	3.9(0.85)	45.4 (9.33)
Sample ≥65 yrs.	145	84.1	3.8(0.64)	50.1 (8.29)
Total Sample	245	87.8	3.8(0.66)	50.7(8.36)

Correlation between Physical Health and Inner-Peace

The first research question asked if there was an association between the inner-peace and physical health of older adults in Rhode Island.

It was found that at age 65 and over (n=145), the correlation between Inner-Peace and Physical Health was significant at $r=0.185$ ($p<0.05$). For the total sample (n=245, including participants who are below 65 years old), the correlation between Inner-Peace and Physical Health ($r=0.173$) was also significant at ($p=0.007$). Upon closer examination, it was found that the correlation between Inner-Peace and Physical Health differed by age. For the age groups below 80-91, the correlations were not significant. However, for the age group 80-91, the correlation ($r=0.68$) was significant at, $p=0.000$.

In addition, the correlation between Inner-Peace and Physical Health ($r=0.18$) was significant by gender for the total sample. For females (n=209), the correlation was ($p=0.009$). The correlation between Inner-Peace and Physical Health was not statistically significant when compared with marital status. Please refer to Table 4 for the correlations by demographic characteristics.

Table 4: Correlation between Inner Peace and Physical Health by Demographic Characteristics for All Participants

Demographics	n	Correlation between Inner-Peace and Physical Health	
Age	52-64	32	-0.14
	65-69	40	0.25
	70-74	53	-0.10
	75-79	27	0.28
	80-91	25	0.68**
Gender	Female	209	0.18**
	Male	28	0.24
Marital Status	Single	18	0.41
	Married	126	0.15
	Divorced	33	0.09
	Widowed	58	0.22
Sample ≥ 65 yrs	145	0.185*	
Total Sample	245	0.173**	

* $p<0.05$, ** $p<0.01$

Demographic Differences

To answer the secondary research questions this study explored whether or not there were differences by the demographic variables of age, gender and marital status on Inner-Peace and Physical Health.

Inner Peace: For the total sample (n=245), females reported higher inner peace than males (mean difference =0.26, p=0.047). There were no statistically significant differences in inner peace scores by age, mean differences ranged from 0.01 to 0.25 (F=1.0, p=0.40) nor by marital status, mean differences ranged from 0.12 to 0.23 (F=1.81, p=0.145).

Physical Health: There were no significant differences in physical health by gender, mean difference was 0.97 (t=0.57, p= 0.56) and marital status, mean differences ranged from 1.37 to 3.13 (F=1.99, p=0.116). By age group, there were significant differences by age groups F=0.4191, p=0.003. The score of the oldest age group (80-91) was significantly lower than that of the 70-74 age group (Bronferroni post hoc mean difference =-6.5, p<0.05) and that of the 52-64 age group (Bronferroni post hoc mean difference =-8.8, p<0.01). Please see Table 5 for a summary of the Inner-Peace and Physical Health scores and their differences by demographic characteristics.

Table 5: Summary Statistics of Inner-Peace and Physical Health Scores by Demographic Characteristics

Demographic		n	Inner Peace score M (sd)	Physical Health score M (sd)		Diff Inner-peace Δ M	Diff Physical- Δ M
Age	52-64	32	3.7(0.6)	54.2(8.9)	Relative to 80-91	-.14	8.8**
	65-69	40	3.6(0.7)	50.5(6.8)		-.25	5.1
	70-74	53	3.9(0.5)	52.0(8.1)		-.01	6.5*
	75-79	27	3.8(0.7)	49.4(8.6)		-.12	4.1
	80-91	25	3.9(0.9)	45.4(8.3)		-	-
Gender	Female	214	3.8(0.6)	50.9(8.2)	Relative to Males	0.26	0.97
	Male	30	3.5(0.7)	49.9(9.1)		-	-
Marital Status	Single	18	3.8(0.7)	50.0(8.5)	Relative To Widowed	-0.12	1.4
	Married	126	3.7(0.7)	51.6(8.1)		-0.23	3.0
	Divorced	33	3.8(0.4)	51.7(9.5)		-0.16	3.1
	Widowed	58	3.9(0.8)	48.5(8.3)		-	-

* p<0.05 **p<0.01

CHAPTER 5

DISCUSSION

The research questions in this study explored whether (1) there is a correlation between Inner-Peace and Physical Health among Rhode Island older adults; (2) whether there is correlation between Inner-Peace and Physical Health and gender; (3) whether there is correlation between Inner-Peace and Physical Health and age; and (4) whether is a correlation between Inner-Peace and Physical Health and marital status?

Examining the data collected from 145 individuals of age 65 or above at the time of this survey from the Osher Lifelong Learning Institute at the University of Rhode Island, a small but statistically significant correlation was observed between Inner-Peace and Physical Health among older adults. In our study, the correlation between inner-peace and physical health is actually the strongest and most significant for the oldest group of adults (age 80-91).

This finding is consistent with some developmental theories, such as Jung's (1933) Introversion Perspective, and Tornstam's (2000) Gerotranscendence Theory. According to Jung, the ego moves from extraversion to introversion as people get older. They shift their focus from the external world to the inner world, finding meaning in inner exploration in old age. This theory might explain why the group of oldest people in this study reported significantly higher scores in inner-peace than the younger group of people.

Similarly, Tornstam's Gerotranscendence theory suggests that older adults shift their perspective from a materialistic to a more cosmic and transcendent one, exploring spirituality and their inner selves. They become more selective in their meaningful relationships and less interested in material goods. According to Tornstam, gerotranscendent people move towards maturation and wisdom, redefining space, time, life, death and self. This entails a shift away from materialism, activity, superficial social contacts, rationality and preoccupation with the physical body. This might explain why older adults reported significantly higher inner-peace scores, despite their significantly lower physical health scores. This finding is also consistent with Erikson's ego integrity theory (Erikson, Erikson and Kivnick, 1986), in which an older adult is challenged to reach a fundamental acceptance of her or his personal life, regardless of how bad or good it has been, and be satisfied with the past.

No previous literature was found on correlation between inner-peace and physical health among older adults, but the finding from this study is consistent with previous research finding on correlation between health and emotions. Chida & Steptoe (2008) wrote that the connection between health and emotions may be strong, particularly in the latter part of human life. Based on their findings, the researchers suggested that positive psychological well-being has a positive effect on survival in both diseased and healthy populations.

In this study, females reported significantly higher scores in Inner Peace than the males. In addition, the correlation between Inner-Peace and Physical Health was significant for females. Inner harmony was reflected by the subjects' strong sense of satisfaction with self and life. In spite of limitations, failures, and ill health, self-

esteem remained high, and they accepted themselves and their life situations with equanimity. The importance of positive attitude and self-determination was cited as important to maintaining inner peace. Subjects were observed to make their own decisions and to have a positive attitude even when terminally ill (Hungelmann, Kenkel-rossi, Klassen, and Stollenwerk, 1985). This result is consistent with an emerging notion that women are somehow naturally more peaceful, although they are equally capable of committing violence. The belief that women are more peaceful by nature is longstanding (Charlesworth, 2008).

There were no correlations found between Inner-Peace and Physical Health and marital status. As His Holiness, the 14th Dalai Lama advised, Inner peace is the key. “If you have inner peace, the external problems do not affect your deep sense of peace and tranquility. Without this inner peace, no matter how comfortable your life is materially, you may still be worried, disturbed or unhappy because of circumstances” (Lama, D., 1989). The findings from this study concur with this proposition that inner peace and physical health could be independent of one’s circumstances such as marital status.

Limitations

This study addressed a research gap in the correlation between Inner-Peace and Physical Health, through the responses of a sample of Rhode Island older adults from diverse backgrounds. However, the findings from this study would not be able to clarify or help us determine if these two factors have a causal effect on the other. There is also a potential bias in the sample collection, as all the participants are affiliated with Osher Lifelong Learning Institute at URI. This affiliation with a higher

education institution may not be representative of the older adult population in Rhode Island, since people who were uninterested in lifelong learning are less likely to join OLLI. In addition, there were 68 participants who did not disclose their age on the survey due to an unwillingness or discomfort in doing so. As the SF12v2 form requires this information, this limitation perhaps could have been mitigated by placing the question at the end of the survey rather than at the beginning. The study would also have benefited from having more male participants.

Implications of Findings

The findings from this research provide implications for future research. This study showed that there is a small, but significant, correlation between Inner-Peace and Physical Health within this sample of Rhode Island older adults who belonged to the Osher Lifelong Learning Institute at URI. This finding leads to possible future research questions such as whether or not there is a cause and effect relationship between Inner-Peace and Physical Health. If so, which one of them serves as the cause and which one of them occurs as the result?

Another finding from this study is that older adults seemed to be able to maintain a high level of Inner-Peace even when their Physical Health score is low. This indicates that Inner-Peace is not necessarily dependent on good Physical Health. Therefore, future studies may need to be carried out to investigate what makes it possible to maintain strong Inner-Peace despite one's increasing age. Yet, another question to research is why do females score significantly higher in Inner-Peace than males, although there is no significant difference in Physical Health score. Does gender play a role in generating Inner-Peace?

Conclusion

A recent report on stress and health stated that stress is endemic in our culture, so too is heart disease. Over twelve million people in the United States have coronary heart disease, and 335,000 people a year die suddenly of coronary artery disease. An INTERHEART study has found that psychological stress is responsible for almost 40 percent of myocardial infarction (Sheps, 2011). The findings from this study build on the previous literature indicating that psychological well-being can have a positive impact on physical health. It is hoped that this study will highlight the significance of Inner-Peace among the older adult population and contribute to the knowledge of healthful aging. Since this is an initial exploratory research, future research needs to be conducted.

APPENDIX A

March 15, 2013

Study Title: Inner-Peace and Physical Health

A Correlation Study between Peace of Mind and Physical Health among Rhode Island Older Adults

IRB Approval Reference # HU1213-126

Dear OLLI member,

My name is Thupten Tendhar. I am a graduate student in the Education Department at the University of Rhode Island. I am conducting a research study for my thesis as part of the requirements of my master's degree in Adult Education, and I would like to invite you to participate in this study.

I am studying the relationship between Inner-Peace and Physical Health among older adults (Age 65 or older) in the state of Rhode Island. If you decide to participate, you will be asked to complete surveys using the World Health Organization's Quality of Life Measure-Spiritual, Religious, and Personal Beliefs (WHOQOL-SRPB), and the Short Form 12 Health Survey (SF-12v2) questionnaires.

In particular, you will be asked questions about inner-peace and physical health. The study will take place during the Spring 2013 semester at OLLI, URI or we can also mail it to your given address if you choose. The questionnaires should only last about ten minutes. Although you probably won't benefit directly from participating in this study, we hope that others in the community in general and the field of education and gerontology will benefit from the outcomes of this study.

Participation is anonymous, which means that no one (not even the researchers) will know your answers. So, please do not write your name or other identifying information on any of the study materials. Taking part in the study is your decision. You do not have to be in this study if you do not want to. You may also quit being in the study at any time or decide not to answer any question you are not comfortable answering.

We will be happy to answer any questions you have about the study. You may contact me at (510) 610-5060 thuptendar@mail.uri.edu or my major advisor, Dr. David Byrd (401) 874-5484 dbyrd@uri.edu if you have questions, problems or just like to talk about this study. If you have any questions about your rights as a research participant, you may contact the office of the Vice President for Research, 70 Lower College Road, Suite 2, University of Rhode Island, Kingston, Rhode Island, telephone: (401) 874-4328.

Thank you for your kind consideration. If you would like to participate, please read the consent form, open the attached survey packet and begin completing the study materials. When you are done, please hand it over to the researcher or return it to the OLLI office, 210 Flagg Road, Room 212, Kingston, RI 02881.

With kind regards,

Thupten Tendhar
50 Lower College Rd. Unit # 5576
Kingston, RI 02881
(510) 610-5060
thuptendar@mail.uri.edu

WHOQOL-SRPB

ABOUT YOU

Before you begin we would like to ask you to answer a few general questions about yourself by checking the correct answer or by filling in the space provided.

What is your gender? Female Male Age: _____

What is your marital status? Single Married Divorced
Widowed

*The following questions ask how your Inner-Peace has affected different aspects of your quality of life in the past two weeks. For example, one question asks "How much are you able to feel peaceful when you need to?" If you were able to experience this completely, circle the number below "completely". If you were not able to experience this at all, circle the number below "Not at all". You should circle one of the numbers in between if you wish to indicate your answer lies somewhere between "Not at all" and "completely". Questions refer to the **last two weeks**.*

SP6.1 To what extent do you feel peaceful within yourself?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6.2 To what extent do you have inner peace?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6.3 How much are you able to feel peaceful when you need to?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6.4 To what extent do you feel a sense of harmony in your life?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SF-12v2™ Health Survey

This survey asks for your views about your health during the last 4 weeks. This information will help keep track of how you feel and how well you are able to do your usual activities. Please check off your chosen response with a pen or pencil.

1. In general, would you say your health is:

- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Excellent | Very Good | Good | Fair | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

2. The following questions are about activities you might do during a typical day now limit you in these activities? If so, how much?

- | | Yes,
limited
a lot | Yes,
limited
a little | |
|---|--------------------------|-----------------------------|-----------------------|
| a. <u>Moderate</u> activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Climbing <u>several</u> flights of stairs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

3. During the past 4 weeks, how much of the time have you had any of the follow your work or other regular daily activities as a result of your physical health?

- | | All of
the
time | Most
of the
time | Some
of the
time | |
|--|-----------------------|------------------------|------------------------|-----------------------|
| a. <u>Accomplished less</u> than you would like | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Were limited in the <u>kind</u> of work or other activities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

4. During the past 4 weeks, how much of the time have you had any of the follow your work or other regular daily activities as a result of any emotional problem (depressed or anxious)?

All of the time	Most of the time	Some of the time	
-----------------	------------------	------------------	--

- a. Accomplished less than you would like
- b. Did work or other activities less carefully than usual

5. During the past 4 weeks, how much did pain interfere with your normal work work outside the home and housework)?

- Not at all A little bit Moderately Quite a bit

6. These questions are about how you feel and how things have been with you du weeks. For each question, please give the one answer that comes closest to the feeling. How much of the time during the past 4 weeks...

All of the time	Most of the time	Some of the time	
-----------------	------------------	------------------	--

- a. Have you felt calm and peaceful?
- b. Did you have a lot of energy?
- c. Have you felt downhearted and depressed?

7. During the past 4 weeks, how much of the time has your physical health or en interfered with your social activities (like visiting friends, relatives, etc.)?

- All of the time Most of the time Some of the time A little of the time

Thank you for completing this survey!

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