

**Effects of intergenerational perceptions on subjective well-being
of older adults and their adult children**

by

Wen-Hua Hsieh

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE

Major: Human Development and Family Studies

Program of Study Committee:
Peter Martin, Major Professor
Daniel Russell
Meifen Wei

Iowa State University

Ames, Iowa

2011

TABLE OF CONTENTS

LIST OF FIGURES	iii
LIST OF TABLES	iv
ACKNOWLEDGEMENTS	v
ABSTRACT	vi
CHAPTER I. INTRODUCTION	1
CHAPTER II. LITERATURE REVIEW	6
CHAPTER III. METHODS	19
CHAPTER IV. RESULTS	35
CHAPTER V. DISCUSSION	62
REFERENCES CITED	84
APPENDIX A: INSTISUTIONAL REVIEW BOARD APPROVED LETTER	93
APPENDIX B: QUESTIONNAIRE FOR OLDER ADULTS	94
APPENDIX C: QUESTIONNAIRE FOR ADULT CHILDREN	115

LIST OF FIGURES

<i>Figure 1.</i>	Hypothesized model	5
<i>Figure 2.</i>	Hypothesized mediation model	33
<i>Figure 3.</i>	Hypothesized moderation model	34
<i>Figure 4.</i>	Path model of older-adult sample	51
<i>Figure 5.</i>	Alternative model of older-adult sample	53
<i>Figure 6.</i>	Path model of adult-child sample	59

LIST OF TABLES

Table 1.	Demographic Characteristics of Older-Adult and Adult-Child Sample	21
Table 2.	Summary of All Scales by Generation	36
Table 3.	Intergenerational Differences in Various Dimensions	38
Table 4.	Older-Adult Gender Differences in Various Dimensions	41
Table 5.	Older-Adult Age Group Differences in Various Dimensions	42
Table 6.	Older-Adult Residential Location Differences in Various Dimensions	43
Table 7.	Correlation Matrix of All Measures Reported by Older Adults and Adult Children	45
Table 8.	Older-Adult Self-Reports as Predictors of Older Adults' Subjective Well-Being	48
Table 9.	Adult-Child Reports as Predictors of Older Adults' Subjective Well-Being	54
Table 10.	Adult-Child Reports as Predictors of Adult Children's Subjective Well-Being	57

ACKNOWLEDGEMENTS

It is a pleasure to thank those who made this thesis possible. I would like to first express my appreciation deeply to all the participants for generously contributing their precious time and effort to be involved in this study. I also owe deepest gratitude to my major professor, Dr. Peter Martin, for providing excellent guidance, encouraging me throughout this whole journey, devoting a significant amount of time to help me edit my thesis, and always being patient to answer all of my questions. I would also like thank my two other committee members, Dr. Dan Russell, for being very caring and approachable since I entered the program and contributing his expertise in statistics to my thesis, and Dr. Meifen Wei, for always being very supportive and contributing her expertise in cross-cultural perspectives. I also would like to thank Dr. Jennifer Margrett who linked me with great resources for optimizing data collection. Next, I would like to thank the directors at the retirement communities for their coordination and Karla Embleton and Jennifer Redd who helped me with creating online surveys and managing the online data. I would like to thank all the members in the Gerontology Program for coloring my professional and personal life at Iowa State. I will miss all the fun we had and the work we collaborated on together. Finally, I would like to acknowledge my family. I am so grateful for my parents, brother, and grandmother, who are always on my side and giving me unconditional love and support. I always feel warm and recharged when I go back home every evening. I am also very thankful for my wonderful fiancé Burton, who always partakes in my ups and downs and keeps me accompanied and entertained all the time. Lastly, I would like to dedicate my work to my grandparents because they were the reason for me to become so enthusiastic in the field of gerontology.

ABSTRACT

The purpose of this study was to investigate the effect of older adults' functional capacity, self-management ability, and intergenerational solidarity on the subjective well-being of older adults and their adult children. The data were collected from older adults who were 65 years of age or older, as well as from one of their children. Participants of this study included 148 older adults, with a mean age of 80.05, and 87 adult children, with a mean age of 51.99. The older adults were asked to self-rate on all these measures, whereas the adult children were asked to provide their perception of their parents. Older adults reported higher overall perceived health, lower self-management ability, and more positive sentiments in affectual solidarity than adult children. Furthermore, older adults reported higher levels of life satisfaction than adult children did. Older adults' subjective well-being was predicted by better functional capacity, higher levels of self-management ability, and positive intergenerational solidarity, whereas adult children's subjective well-being was predicted by higher levels of intergenerational solidarity. In addition, a couple of suppressor effects were found. Older adults' perceptions of self-management ability and intergenerational solidarity suppressed the effect of older adults' functional capacity on older adults' subjective well-being, and adult children's perceptions of intergenerational solidarity suppressed the effect of geographic proximity on adult children's subjective well-being. The results suggest that older adults' self-management ability is the most predictive factor of their subjective well-being. Intergenerational solidarity was the only factor that predicted both older adults' and adult children's subjective well-being. For the future care of older adults, it is important to consider how older adults' self-management ability and staying closely connected with their adult children can be enhanced.

Chapter I. Introduction

Pursuit of happiness is a common goal for people at any age. What is happiness? What are the associations between happiness and positive well-being? Various terms such as subjective well-being and psychological well-being have been used interchangeably in previous literature for describing happiness or the psychological state of well-being. However, some researchers argue that subjective well-being and psychological well-being describe two distinct but related perspectives of well-being. Subjective well-being describes hedonic well-being, which focuses on more positive affect, less negative affect, and greater life satisfaction, whereas psychological well-being describes eudaimonic well-being, which focuses on a fully functioning and meaningful life (Keyes, Shmotkin, & Ryff, 2002; Ryan & Deci, 2001). Diener, Sapyta, and Suh (1998) suggested both subjective and psychological well-being are essential components of positive well-being. The present study examined older adults' well-being from both hedonic and eudaimonic viewpoints.

Ryff and Keyes (1995) proposed a model of psychological well-being, giving accounts of positive functioning in six subfields of psychology: autonomy, positive relations with others, environmental mastery, personal growth, purpose in life, and self-acceptance. Age differences were found on the measures of psychological well-being. Out of the six dimensions, autonomy, positive relations, and environmental mastery were scored the highest among the old-aged group (65 years or older), whereas personal growth, purpose in life, and autonomy were scored the highest among the young-aged group (18-29 years old). Ryan (1995) and Ryan and La Guardia (2000) suggested that autonomy, competence, and relatedness appear to be the basic human psychological needs that influence psychological

well-being. The eudaimonic approach on well-being emphasizes the degree to which individuals are fully functioning.

Previous studies have shown similar components of psychological well-being, which suggested autonomy, positive relations, and environment mastery or competence are the predominant components of fostering psychological well-being in later life (Ryan, 1995; Ryan & La Guardia, 2000; Ryff & Keyes, 1995). Therefore, the present study examined three components of the positive functioning construct of well-being (i.e., autonomy, positive relations, and competence) and its associations with the affective construct of well-being (i.e., life satisfaction and positive and negative affect) for an elderly population.

With advancing age, the prevalence rate of functional decline tends to increase (Steffen, Hacker, & Mollinger, 2002; Walters, Munro, & Brazier, 2001; Wiener, Hanley, Clark, & van Nostrand, 1990). In the model of psychological well-being (Ryff & Keyes, 1995), autonomy or being independent was found to be one of the important predictors of psychological well-being. Gayman, Turner, and Cui (2008) reported that people with more functional limitations were more depressed. However, Abu-Bader, Rogers, and Barusch (2002) reported that 39% of older adults with difficulties in walking scored higher than the cut-off point in the Life Satisfaction Index. Therefore, further investigation is needed in order to explore how older adults with functional limitations maintain high levels of subjective well-being, and to find out if there are any mediating factors of the associations between functional capacity and subjective well-being.

Other changes in old age are related to family relationships and structures such as the loss of a spouse and receiving help from adult children instead of providing help, and fewer contacts with friends due to mobility limitations and a more limited number of friends in very

old age (Freund & Ebner, 2005; Johnson & Troll, 1992, 1996). Adapting to these aging related changes is challenging for most people. What resources or strategies could help older adults with adapting to these changes for preventing negative subjective well-being or enabling positive adjustments? The answer can be drawn from the theoretical model of psychological well-being (Ryff & Keyes, 1995), in which two types of resources in assistance with adaptation to aging can be categorized: internal and external resources.

Internal resources refer to the dimension of environmental mastery in the model of psychological well-being (Ryff & Keyes, 1995), defined as the capacity to manage one's life and the surrounding world, whereas external resources refer to the dimension of positive relations with others, defined as the possession of quality relations with others. Since functional decline has been commonly found among older adults, it is very important for older adults to be capable of self-regulating the changes associated with aging or self-maintaining their health status and functional capacity to the optimal level. As previously mentioned, older adults are more likely to become widowed and have a limited number of friends in later life. Adult children may be the primary contact and source of help to older adults (Mancini & Blieszner, 1989). Positive intergenerational relationships between older adults and adult children contribute to better psychological well-being among older adults (Ryan & Willits, 2007), and it is more likely for older adults to receive support from adult children and perceive adult children's assistances as available when needed.

The present study adapted Ryff and Keyes' (1995) psychological well-being framework to assess the subjective well-being of older adults; therefore, the three predominant components of fostering psychological well-being in later life (i.e., autonomy, positive relations with others, and environmental mastery) were examined in association with

subjective well-being (i.e., positive affect and life satisfaction). The purpose of this study was not only to look at the associations of psychological functioning with subjective well-being among adults age of 65 or older, but also to examine whether competence of self-management and positive intergenerational relationships are supportive resources for adaptation to old age and contribute to psychological well-being in elderly populations. Therefore, the associations between functional capacity and subjective well-being of older adults with the mediating or moderating factors of older adults' self-management abilities and intergenerational solidarity were examined in the present study. The hypothesized mediation and moderation models are shown in Figure 1. The hypothesized model suggests older adults' functional capacity directly predicts subjective well-being of older adults and their adult children, and indirectly through older adults' self-management ability and intergenerational solidarity. Furthermore, older adults' self-management ability and intergenerational solidarity may moderate the association between older adults' functional capacity and subjective well-being of older adults and adult children.

This study is innovative because it examined the achievement and maintenance of positive subjective well-being in occurrence with the functional limitations in later life, whereas past studies have primarily focused on the strategies to cope with the functional limitations in order to prevent higher levels of depression, loneliness, or other negative subjective well-being (Couture, Larivière, & Lefrançois, 2005; Kahn, Hessling, & Russell, 2003; Silverstein, Chen, & Heller, 1996). Furthermore, data were collected from older adults aged of 65 years and older as well as from one of their adult children for the purpose of understanding the old adults' functional capacity, self-management ability, and intergenerational solidarity from an intergenerational perspective.

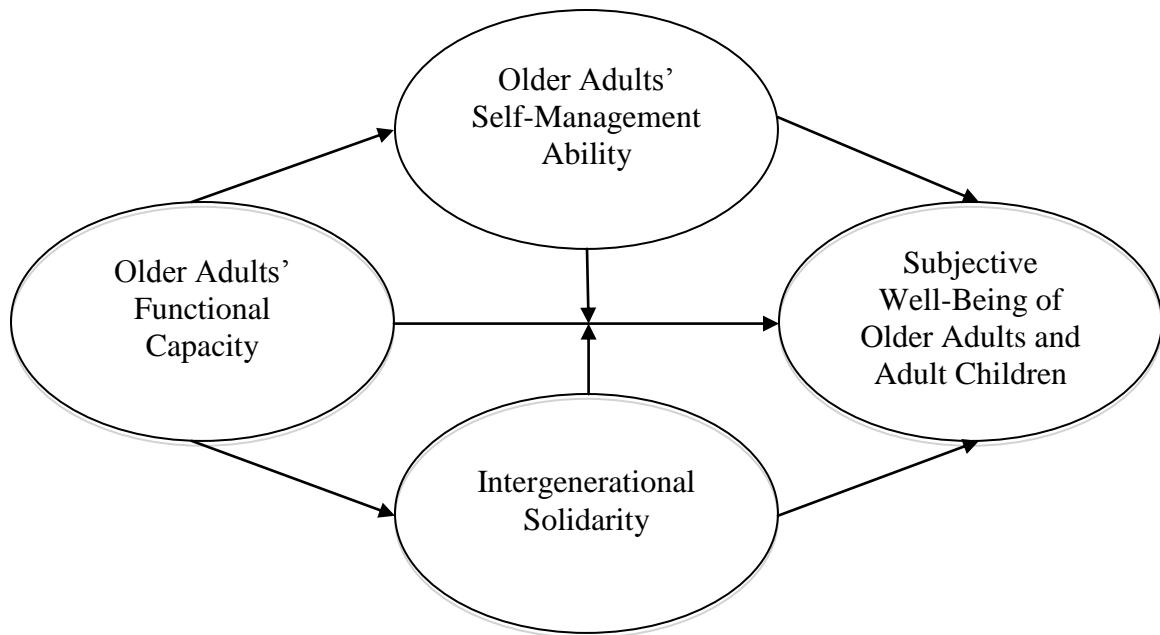


Figure 1. Hypothesized model.

Chapter II. Literature Review

The following section reviews the literature concerning the concepts of subjective well-being, functional capacity and self-management ability of older adults, intergenerational solidarity in aging families, and subjective well-being of older-adult and adult-child generations.

Concepts of Subjective Well-Being

Earlier researchers identified three separate components of subjective well-being: positive affect, negative affect, and life satisfaction. Positive and negative affects represent primary dimensions of mood, and life satisfaction refers to the cognitive-judgmental aspect of the construct (Diener, Emmons, Larsen, & Griffin, 1985). Ryff and Keyes (1995) proposed a multidimensional model of well-being, suggesting that six dimensions account for positive psychological functioning (i.e., autonomy, positive relations with others, environmental mastery, personal growth, purpose in life, and self-acceptance).

Ryan and Deci (2001) viewed subjective well-being as being different from psychological well-being, where subjective well-being is dealing with happiness, or the affective construct (hedonic approach), and psychological well-being is dealing with human potentials and positive functioning in psychology (eudaimonic approach). However, Keyes et al. (2002) suggested both subjective and psychological well-being are essential for optimizing total well-being. The present study adapted Ryff and Keyes' multidimensional framework for psychological functioning as the predictors of happiness in an elderly population. Three predominant components of psychological functioning for older adults (i.e., autonomy, competence, and positive relations with others) were examined as predictors of subjective well-being, or happiness. Autonomy was assessed by older adults' functional

capacity, competence was assessed by self-management ability, and positive relations with others was assessed by intergenerational solidarity. The associations between subjective well-being and each component are discussed in the following sections.

Functional Capacity Among Older Adults

Changes in health and functional capacity are expected to occur in later life. Difficulties with performing everyday tasks have been reported as a serious problem among older adults (Beckett et al., 1996). Previous studies have shown significant functional decline with increasing age (Beckett et al., 1996; Reynolds & Silverstein, 2003). Hébert (1997) reported functional decline occurs each year in nearly 12% of Canadians who are age of 75 years and older. Wiener et al. (1990) examined eleven U.S. national surveys which included information on the activities of daily living (ADLs) status of older adults who were 65 years of age and older, concluding 5 to 8.1% of noninstitutionalized older adults and nearly 92% of institutionalized older adults were unable to carry out at least one of the five activities of daily living (i.e., bathing, dressing, transferring, toileting, and eating) independently.

Functional limitation is defined as the inability to perform an action and is associated with losing the ability of being independent and increasing the likelihood of being dependent on others (Wang, Badley, & Gignac, 2004). One of the common ways in previous studies assessing older adults' functional capacity is to examine the ability of carrying out everyday tasks, which is required for maintaining self-care or living independently. Instrumental activities of daily living (IADLs, Lawton & Brody, 1969) and activities of daily living scales (ADLs, Fillenbaum, 1988; Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963) are the most familiar self-report measurements for assessing functional capacity.

The rate and onset of decline in ADLs and IADLs are predicted by a number of factors. Reynolds and Silverstein (2003) used a longitudinal data set to examine the onset of disability in performing ADLs and IADLs. Medical and demographic factors (e.g., chronic illness, age, gender, ethnicity), baseline behavioral factors (e.g. negative affect, cognition, health behaviors), and change in baseline characteristics were examined as predictors of the onset of ADLs and IADLs decline. Reynolds and Silverstein treated ADLs and IADLs as two different dependent variables as well as examined both of them on item-levels, from which they found that the predictors of the onset of ADLs and IADLs decline were similar, but not exactly the same. When the two dependent variables were treated on the item-level, different factors predicted specific items. For instance, having diabetes predicted the onset of problems with bathing, bed transfer, using the phone, and grocery shopping, but not the onset of disabilities with dressing, eating, toileting, preparing meals, taking medications, and managing money. Only age was found to be the predictor of both ADLs and IADLs as well as item-level activities.

Alternatively, functional capacity has been used as predictor of psychological distress and mental illness (Couture et al., 2005; Westerhof & Keyes, 2010). For instance, lower levels of functional capacity predicted higher levels of psychological distress and mental illness. Gayman et al. (2008) conducted a two-wave study to examine older adults' functional limitations and depressive symptoms at two time points, as well as the reciprocal influence between physical limitation and depression. They found that functional limitations predicted the change in depressive symptoms; however, depressive symptoms did not predict change in functional limitations. The findings of Gayman et al. (2008) suggest that the effect of functional limitations on depression is stronger than it is in the reverse direction.

Therefore, the present study examined functional capacity as a predictor of subjective well-being.

Self-Management Ability Among Older Adults

Human beings are goal-oriented by nature; therefore, the pursuit of fulfilling fundamental needs (e.g. autonomy, competence, relatedness; Ryan, 1995) is an essential goal. People want to continue to be autonomous as long as they can and maintain their health status and functional capacity to the optimal level; however, these goals become difficult to attain due to the decline in functional capacity as people age. When older adults are no longer able to carry out daily activities independently or to sustain the functions in a desirable way, their level of life satisfaction decreases and level of depression increases (Berg, Hassing, McClearn, & Johansson, 2006; Couture et al., 2005). Therefore, older adults find ways to adapt or manage the changes associated with aging in order to maintain their psychological well-being. Older adults who regulate or manage the aging process well are more likely to age successfully (Schuurmans et al., 2005).

Several research groups have proposed different models of adapting to age-related changes in order to attain desired goals and adjust positively to old age. The well-known model of selective optimization with compensation (SOC) by Baltes and Baltes (1990) suggested that people should be selective to the goal domains on which to focus one's preserving resources and use the preserving resources to maximize the potential in achieving goals as well as minimize and compensate the losses associated with aging. In other words, older adults should be selective about goals that are more likely to be achieved. If a goal is not attainable, then older adults should try to compensate in other ways in order to adapt to the changes associated with aging.

Another model of coping with age-related changes is the dual-process model of assimilative and accommodative coping proposed by Brandtstädtter and Renner (1990), which focuses on the process of optimizing the balance of gains and losses in human development. Assimilative coping reflects the ability to adjust actively to life circumstances in order to attain goals, whereas accommodative coping reflects the ability to alter the goals based on self-competency. Brandtstädtter and Renner (1990) suggested that people try their best to achieve the original goals by putting as much effort as they can (assimilative coping or tenacious goal pursuit); however, if people realize the goals are not achievable, then they will make adjustments to these goals (accommodative coping or flexible goal adjustment). Ebner and Freund (2007) found that older adults have better subjective well-being if the goals are able to be fulfilled by using coping strategies such as selectivity of pursuing goals and compensation of losses and assimilative and accommodative modes of coping.

Rather than focusing on the association between goal attainment and subjective well-being, Schuurmans et al. (2005) and Steverink, Lindenberg, and Slaets (2005) suggested subjective well-being is dependent on how capable older adults are managing age-related changes in their lives. Furthermore, older adults with better self-management ability tend to be more successful in adapting to change in old age. Schuurmans et al. (2005) suggested that self-management is not only related to how well older adults can manage their lives by themselves, but also related to how well direct resources would be available to them. For example, if older adults manage to have good relationships with other family members, then they are more likely to receive help from family members.

Schuurmans and colleagues asserted there is no appropriate scale for measuring abilities of self-managing the declines that older adults encounter in relation to subjective-

well-being (Schuurmans et al., 2005). Therefore, they developed a 30-item scale, the Self-Management Ability Scale (SMAS-30), to assess the self-management abilities which are important for older adults to sustain their subjective well-being. Behavioral self-management ability refers to taking initiatives to invest resources and practice healthy behaviors, whereas cognitive self-management ability refers to keeping a positive frame of mind and knowing one's self-capabilities. The present study adopted the SMAS-30 to examine older adults' competency in self-managing their lives.

Intergenerational Solidarity in Aging Families

As a result of increasing life expectancy, the number of shared years between two generations has been increasing (Lowenstein, 1999). Taking care of older adults is now a very common experience for adult children (Peek, Coward, Peek, & Lee, 1998; Silverstein, Gans, & Yang, 2006); therefore, the parent-child relationships and intergenerational support in later life became an important topic for discussion.

The most well-known theory of intergenerational relationships was proposed by Bengtson and Roberts (1991): the intergenerational solidarity theory. The theory describes the intergenerational relationship in six dimensions: affectual, associational, consensual, functional, normative, and structural solidarity. Affectual solidarity refers to the degree of closeness, warmth, and other positive sentiments between older adults and adult children. Associational solidarity refers to the frequency of contact. Consensual solidarity refers to the degree of agreement on values, attitudes, and beliefs between older adults and adult children. Functional solidarity refers to the degree of assistance provided to and received from other generations. Normative solidarity refers to the norm of familial roles. Structural solidarity refers to the opportunity of contact, for example, the distance to and number of family

members (Bengtson & Roberts, 1991). This present study focused on examining affectual and functional solidarity between older adults and adult children.

Affectual solidarity is defined as the nature and the degree of positive sentiments between older adults and adult children, which determines the quality of intergenerational relationships (Gronvold, 1988). The construct of affect concerns the emotional bonding between older adults and their adult children. For instance, feelings of love, trust, respect, and intimacy are contributing to better emotional bonding. In the review of important research themes in intergenerational relations, Mancini and Blieszner (1989) suggested higher levels of affectual solidarity determine the intergenerational relationship quality and older adults' and adult children's subjective well-being. This finding is consistent with other studies, which suggested better relationship quality between older adults and adult children was associated with better subjective well-being in both generations (Merz, Consedine, Schulze, & Schuengel, 2009; Merz, Schuengel, & Schulze, 2009). Moreover, intergenerational relationship quality was found to be more important in predicting older adults' subjective well-being than frequency of contact.

If the intergenerational relationship between older adults and adult children is strong, then it is more likely for older adults to receive support from adult children, and the older adults are more likely to perceive adult children's assistance as available when needed. Cicirelli (1983) reported adult children's feelings of closeness with their older-adult parents were strongly associated with the commitment to provide help, and Rossi and Rossi (1990) reported adult children tended to provide more support if two generations have close or intimate relationships. Moreover, the functional capacity of older adults is associated with the amount of support that adult children provide (Silverstein et al., 2006). Adult children

provide more support to their older-adult parents who show more functional decline and limitations on performing ADLs (Peek et al., 1998; Silverstein et al., 2006).

Another intergenerational solidarity dimension is concerned with the degree of intergenerational support and perception of reciprocity (functional solidarity; Bengtson & Roberts, 1991). Support exchange is defined as the giving and receiving of assistance among family members, which refers to the aspect of interdependent relationships among family members (Hancock, Mangen, & McChesney, 1988). Previous findings of the effect of intergenerational support on older adults' psychological functioning were inconsistent due to different types and various amounts of support. Some older adults do not like to receive an excessive amount of functional support because they feel they are being dependent and lose their autonomy or sense of control; therefore, previous findings have shown a negative impact of functional support on care recipients' subjective well-being (Merz et al., 2009; Reinhardt, Boerner, & Horowitz, 2006; Silverstein et al., 1996). However, older adults received emotional support has shown a positive association with older adults' subjective well-being (Merz et al., 2009). For adult children, the effect of providing intergenerational support on their subjective well-being depends on the level of support provided, adult children's work status, older-adult parents' health condition, and size of care networks. Some positive effects of providing intergenerational support such as providing intrinsic rewards, improving problem solving abilities, and a growing sense of competence have been reported to enhance the subjective well-being of adult children (Silverstein & Giarrusso, 2010).

The intergenerational solidarity scale was developed by Bengtson in the 1970s. The present study adopted Bengtson's intergenerational solidarity subscales of affectual and

functional solidarity (Bengtson & Schrader, 1982) to examine the effects of affectual and functional solidarity on subjective well-being of both older-adult and adult-child generations, as well as its associations with older adults' functional capacity and self-management ability.

Subjective Well-Being Between Generations

Studies have shown consistent associations between intergenerational relationship quality and subjective well-being of both older-adult and adult-child generations (Mancini & Blieszner, 1989; Merz et al., 2009). The quality of intergenerational relationship was found to be positively correlated with both older adults' and adult children's subjective well-being. Interdependent associations were found between older adults' ratings on intergenerational relationship quality and adult children's well-being, and vice versa (Merz et al., 2009). Furthermore, older-adult parents' subjective well-being was reported to be positively correlated with adult children's subjective well-being, meaning that the higher the older-adult parents' level of subjective well-being is, the higher the adult children's level of well-being will be, and vice versa.

Various approaches and measures were used for assessing well-being. The present study assessed well-being from a hedonic approach perspective by examining positive and negative affect, as well as overall life satisfaction.

Residential Settings and Locations

Many older adults move into retirement communities for a number of reasons such as amenities, companionship, activities, and the availability of assistance (Adams, Sanders, & Auth, 2004). Three possible levels of care are typically offered in retirement communities: independent living, where the residents are able to carry out ADLs independently, assisted living, where the assistance with ADLs performance is available to the residents if needed,

and nursing care, where the residents need constant health care and assistance with most of the ADL tasks. Different predictors of subjective well-being have been found among older adults who reside in different care facilities. Adams et al. (2004) examined the association between types of visitors the independent living older adults had (i.e., adult children, friends, and neighbors) and mental health of older adults (i.e., depression and loneliness). They found frequent visitation from friends and neighbors were resilient factors of depression and loneliness, whereas visitation from adult children was not associated with depression or loneliness. However, Gaugler and Kane (2007) and Mitchell and Kamp (2000) found family involvement was associated with subjective well-being among assisted living older adults. In assisted living facilities, most of the instrumental needs are provided by professionals in the assisted living or nursing care facilities, but family members continue to fulfill older adults' emotional needs (Gaugler & Kane, 2007). Another study conducted by Mitchell and Kamp (2000) reported positive associations between the frequency of family contacts and life satisfaction of older adults living in assisted living facilities.

The older-adult sample in the present study included older adults who lived in private homes and retirement communities with different care levels. Mean differences of their functional capacity, self-management ability, intergenerational solidarity, and subjective well-being among different residential settings and locations were examined. In the data analyses, residential location was treated as a control variable when testing the hypothesized models.

Research Purpose and Hypotheses

Based on the concepts of optimal well-being and the literature review on functional capacity, self-management ability, and intergenerational solidarity of older adults, the present

study investigated the association between older adults' functional capacity and subjective well-being, with an investigation on the mediating and moderating effects through older adults' self-management abilities and intergenerational solidarity. The data were collected from older adults who were 65 years of age or older, as well as from one of the older adults' corresponding children. The older adults were asked to self-report their functional capacity, self-management ability, intergenerational solidarity, and subjective well-being. The referent adult children were asked to evaluate their parents' functional capacity, self-management ability, intergenerational solidarity toward their parents, and self-report their own subjective well-being by completing a similar set of measures. The purpose of administering both older-adult and adult-child ratings on the older adults' functional capacity and self-management ability was to compare the mean scores and examine the correlations between two different reports. Furthermore, intergenerational data allowed us to be able to compare the intergenerational solidarity and subjective well-being of both generations.

The following research hypotheses were tested.

1. No mean difference will be obtained of the older-adult and adult-child ratings of older adults' overall general health status, functional capacity, and self-management ability; however, higher levels of intergenerational solidarity reported by older adults were expected when compared to adult children's reports. This assumption was based on the intergenerational stake hypothesis (Bengtson, 2001), which suggested older adults tend to report higher levels of intergenerational solidarity toward their adult children than adult-children report intergenerational solidarity toward their older-adult parents. Lastly, no mean differences will be obtained between older adults' and adult children's subjective well-being.

2. Means were computed by gender, age groups (i.e., young-old, from 65-74 years of age, old-old, from 75-84 years of age, and oldest-old, 85 years or older), and residential location (i.e., individual homes and retirement communities). No mean differences were expected.
3. It is hypothesized that all variables (i.e., functional capacity, self-management ability, intergenerational solidarity, and subjective well-being) reported by older adults are positively correlated. Better functional capacity is associated with better self-management ability, higher levels of intergenerational solidarity, and better subjective well-being. Moreover, better self-management ability and higher levels of intergenerational solidarity are associated with better subjective well-being among older adults.
4. Older-adult and adult-child ratings of older adults' functional capacity and self-management abilities are positively correlated. The two generations' perceptions of intergenerational solidarity are also positively related. Finally, the subjective well-being of the two generations are positively related as well. Moreover, the adult children's subjective well-being is positively related to reports of their perception of older adults' functional capacity and self-management abilities, as well as their reports of intergenerational solidarity toward their parents.
5. Older-adult ratings of their self-management ability and intergenerational solidarity mediate between functional capacity and subjective well-being, meaning that older adults' functional capacity betters older adults' subjective well-being through self-management ability and intergenerational solidarity. The same mediation will be found in the adult-child report, meaning that adult-child perceptions on older adults' functional

capacity betters adult children's subjective well-being through their perceptions on older adults' self-management ability and intergenerational solidarity.

6. Level of older adults' self-management ability and intergenerational solidarity moderate the effects of functional capacity on subjective well-being in the older-adult sample. The same moderation will be found in the adult-child report, meaning that the older adults' self-management ability and intergenerational solidarity perceived by adult children moderate the effect of adult-child perceptions on older adults' functional capacity on adult children's subjective well-being.

Covariates. Demographic variables were treated as control variables. Covariates for older adults included age, gender, ethnicity, marital status, residential location, number of children, and overall perceived health. For adult children, covariates included age, gender, ethnicity, marital and work status, number of children, geographic proximity to their parents, and perception of older-adult parents' overall health.

Chapter III. Methods

The data consisted of 148 older adults and 87 adult children, so 87 intergenerational pairs were generated. Data collection was conducted during the months of May through July in 2011. The following section summarizes the demographic characteristics of participants, data collection procedures, measures, and methods of data analysis.

Participants

Older adults who are 65 years of age and older were recruited from eight retirement communities, two churches, a senior center, a group of retired staff and faculty members, and a Bridge club who gathered at a local bookstore in Iowa. A total of 148 older adults participated in this study by completing a questionnaire. The older adults were asked the number of children presently living and if the older adults would nominate one of their adult children for participation in order to obtain information from the adult children's perspective. Of the older adult sample, 97.9% ($n = 140$) indicated that they had at least one living child, with a mean number of three children, $SD = 1.25$. Within the group of older adults who had at least one living child, 80% of them ($n = 112$) provided their adult children's name and contact information. Eighty-seven of the adult children completed the questionnaire, representing a return rate of 77.7%.

In the older-adult sample, there were 101 women and 47 men. Age of the older adults ranged from 65 to 95 years old, with a mean age of 80.05, $SD = 6.69$. Except for one older-adult participant who reported her ethnicity to be Asian, all of the older-adult participants reported their ethnicity as White/Caucasian ($n = 147$). Of the older-adult sample, 53.4% were married ($n = 79$), 41.2% were widowed ($n = 61$), 3.4% were divorced ($n = 5$), and 2% were single or had never been married ($n = 3$). For the older adults' residential locations,

75.5% of the older-adult sample ($n = 111$) lived in retirement communities and 24.5% ($n = 36$) lived in private homes or apartments. The older adults who lived in retirement communities were significantly older ($M = 81.70$, $SD = 5.93$) than older adults who lived in private homes ($M = 74.86$, $SD = 6.45$), $F(1,144) = 33.96$, $p < .001$. Within the group of older adults who lived in retirement communities, 96.4% lived in independent living units ($n = 107$), 2% of them lived in assisted units ($n = 3$), and one older adult lived in the health care unit. Older adults' demographic information is summarized in Table 1.

In the adult-child sample, there were 67 women and 20 men. The age of the adult children ranged from 31 to 69 years old, with a mean age of 51.99, $SD = 8.21$. Except for one adult-child participant who reported her ethnicity to be Asian, all of the adult-child participants reported their ethnicity as White/Caucasian ($n = 86$). Of the adult-child sample, 77% were married ($n = 67$), 10.3% were single or had never been married ($n = 9$), 10.3% were divorced ($n = 9$), and 2.3% were widowed ($n = 2$). The majority of the adult children worked full-time (62.1%, $n = 54$), 20.7% worked part-time ($n = 18$), 9.2% were retired ($n = 8$), 2.3% were doing volunteer work ($n = 2$), and the remaining 5.7% were not employed ($n = 5$). More than half of the adult-child sample indicated that their geographic proximity to their parents was more than 100 miles (54%, $n = 47$), 24.1% lived less than 10 miles ($n = 21$), and the remaining 21.8% between 11 to 100 miles ($N = 19$) away from their parents. A total 80% of the adult children ($N = 64$) indicated that they had children, with a mean number of children as 1.69, $SD = 1.30$. Adult children's demographic information is also summarized in Table 1.

Table 1

Demographic Characteristics of Older-Adult and Adult-Child Sample

	Older-Adult Sample (N = 148)				Adult-Child Sample (N = 87)			
	N	M	SD	Range	N	M	SD	Range
Age (years)	147	80.05	6.69	65-95	87	51.99	8.21	31-69
Number of Children	141	3.00	1.25	0-7	86	1.69	1.30	0-9
	N		%		N		%	
Gender	148				87			
Female	101		68.2		67		77.0	
Male	47		31.8		20		23.0	
Ethnicity	147				87			
White/Caucasian	146		99.3		86		98.9	
Asian	1		0.7		1		1.1	
Marital Status	148				87			
Single	3		2.0		9		10.3	
Married	79		53.4		67		77.0	
Divorced	5		3.4		9		10.3	
Widowed	61		41.2		2		2.3	
Residence	147				-			
Private Home	36		24.5		-		-	
Retirement Comm.	111		75.5		-		-	

(table continues)

Table 1 (*continued*)

	Older-Adult Sample		Adult-Child Sample	
	N	%	N	%
Allowed Child Contact	139		-	-
No	27	19.6	-	-
Yes	112	80.4	-	-
Work Status	-	-	87	
Full-time	-	-	54	62.1
Part-time	-	-	18	20.7
Retired	-	-	8	9.2
Volunteer	-	-	2	2.3
Not employed	-	-	5	5.7
Proximity	-	-	87	
< 10 miles	-	-	21	24.1
11 – 30 miles	-	-	5	5.7
31 – 50 miles	-	-	6	6.9
51 – 100 miles	-	-	8	9.2
> 100 miles	-	-	47	54.0

Note. Percentages may not add up to 100 due to rounding.

Procedure

Before data collection proceeded, approval from the Institutional Review Board at Iowa State University was obtained (Appendix A) to ensure the rights and safety of participants were protected. All older-adult and adult-child participants were given choices of either completing the questionnaire booklet (paper copy) or online questionnaire created by online survey software SurveyGizmo.

Directors at eight senior retirement communities in Iowa were contacted and agreed to assist with recruitment of older-adult participants and conduct data collection at their facilities. One data collection session was scheduled at each retirement community. Other older-adult participants were recruited from several community groups, in which the majority of the members were older adults. The groups were: a group of retired staff and faculty members from Iowa State University, a Bridge club that gathered weekly at a local books store, and two older-adult bible study groups from two churches.

A total of 122 older adults chose to complete the questionnaire on paper. Purpose and procedure of the study were orally explained to them and the modified consent forms were distributed in the beginning of the data collection session. One section of the questionnaire that asked the permission of contacting one of their living children for obtaining the information from the adult-child generation in order to test the intergenerational differences was specifically explained. The older adults who were interested in participation, but did not want to provide the contact information of their adult children were also included in the study. Twenty-six older adults chose to complete the questionnaire online. An e-mail with study information along with the link of online informed consent and questionnaire were sent

to them. The content on both forms of the questionnaire was identical. An example of the full questionnaire for older-adult participants can be found in Appendix B.

Recruitment of adult-child participants was conducted by using the contact information (i.e., phone number or e-mail address) provided by the older-adult participants. A total of 112 adult children were contacted. The procedure of conducting surveys with Dillman's total design method (1978) was adapted and modified as the strategy for optimizing the rate of responses from the adult-child participants. Three follow-up contacts were made to the adult children who did not complete the questionnaire after about one week of the initial contact (first reminder), after about two weeks of the second contact (second reminder), and after four weeks of the third contact (third reminder). The returning rate was 77.7% ($N = 87$), which was higher than the average of mail survey responses rate (74%) reported by Dillman (1978). Of all the 87 responses from adult children, 85 responses were received from online questionnaire and two responses from mailing questionnaire booklets. The full questionnaire for adult-child participants can be found in Appendix C.

One-way analysis of variance (ANOVA) was conducted to compare demographic characteristics (i.e., age, gender, ethnicity, marital status, and residential location) of the group of older adults whose adult children participated in this study compared to the group of older adults whose adult children did not. No significant differences were found between the two groups, suggesting that the participation of adult children was not due to certain demographic characteristics of older adults.

Measures

Seven measures were used in this study to obtain the information on older adults' general physical health status, functional capacity, self-management ability, intergenerational

solidarity, and subjective well-being from intergenerational perspectives. Instead of using the subscales from Ryff's psychological well-being, Fillenbaum's (1988) older adults' self-care capacity, Bengtson's (Bengtson & Schrader, 1982) intergenerational solidarity, and Schuurmans et al.'s (2005) Self-Management Ability Scale (SMAS) were used in this study to assess older adults' autonomy, positive relations with others, and competency, respectively. These measures were selected because they seemed to be more adequate for assessing autonomy, positive relations with others, and competency in the older-adult population.

Summary scores were computed for measures of functional capacity, affectual solidarity, functional solidarity, self-management ability, satisfaction with life, and positive and negative affect by generation. The items for affectual solidarity and functional solidarity were summed up and a composite score was computed for the construct of intergenerational solidarity. The items of the Satisfaction With Life Scale and Positive and Negative Affect Schedule were summed up and a composite score was computed for the construct of psychological well-being. Due to different scaling, all items were standardized (i.e., means equal to zero and standard deviations equal to one) before the composite scores were computed.

The older-adult and adult-child participants received similar sets of questionnaires that consisted of all measures. The older adults were asked to self-rate on all these measures, whereas the adult children were asked to provide their perception of their parents' overall health status, functional capacity, self-management ability, and intergenerational solidarity toward their parents. Finally, adult children were asked to self-rate their subjective well-being.

General physical health. A section in the Older Americans Resources and Services Scale (OARS; Fillenbaum, 1988) concerning older adults' general physical health status was used. This measure consists of two questions, asking about older adults' overall health (scale ranged from 1 to 4, "poor" to "excellent") and to what extent the health problems preventing older adults from doing things (scale ranged from 1 to 3, "a great deal" to "not at all"). Higher scores indicated better physical health. Cronbach's alpha has been reported to be .74 (Fillenbaum, 1988). In this study, Cronbach's alpha was computed as .71 for older adults and .78 for adult children.

Functional capacity. Another section in the OARS concerning older adults' self-care capacity or functional capacity (Fillenbaum, 1988) was used. This measure consists of fourteen items assessing older adults' functional capacity in performing instrumental and physical activities of daily living. Instrumental activities of daily living (IADL) are concerned with older adults' independent living skills such as using the telephone, preparing meals, going shopping, etc., whereas activities of daily living (ADL) are concerned with older adults' abilities to perform everyday tasks such as eating, dressing, walking, etc. Older-adult participants were asked to rate their abilities to perform ADL and IADL on a scale from 0 to 2, where "0" indicates "*unable to perform the described tasks completely*," "1" indicates "*able to perform the described tasks with some help*," and "2" indicates "*able to perform the described tasks without any help*." Higher scores indicated more abilities to perform IADL and ADL tasks. Both IADL and ADL scales have been reported with high reliabilities, with Cronbach's alphas of .87 and .84, respectively (Fillenbaum, 1988). For the present study, the older-adult sample had a reliability of Cronbach's alpha = .72 for IADL and Cronbach's alpha = .38 for ADL, and the adult-child sample had a reliability of

Cronbach's alpha = .74 for IADL and Cronbach's alpha = .55 for ADL. Although the reliability for ADL was low for both older-adult and adult-child samples, the reliabilities for the full scale, which was used for data analysis in the present study, for both samples was high, with Cronbach's alphas = .73 for older adults and Cronbach's alphas = .77 for adult children.

General physical health and self-care capacity dimensions were not only reported having content and consensual validity, but also criterion validity, which was confirmed by physicians' ratings on the same physical health scale and by agreements with the physical therapists' ratings on participants' self-care capacity based on home visits (Fillenbaum, 1988).

Self-management. The Self-Management Ability Scale (SMAS; Schuurmans et al., 2005) is a self-report instrument for assessing older adults' behavioral and cognitive abilities in managing sustainable well-being in later life. Older adults were asked to rate their perception of self-management abilities, and adult children were asked to rate their perception of their parents' self-management abilities. The scale consists of 30 items categorized in six dimensions: take initiatives (e.g., "How often do you take initiative to get in touch with people who are dear to you?"), investment behavior (e.g., "Do you make sure that you get enough physical exercise in order to stay fit longer?"), variety (e.g., "How many hobbies or activities do you have on a regular basis?"), multifunctionality (e.g., "The activities I enjoy, I do together with others"), self-efficacy (e.g., "Are you capable of taking good care of yourself?"), and positive frame of mind (e.g., "When you have a bad day, how often do you think that things will be better tomorrow"). High scores indicate better self-management abilities. This scale has been reported with high reliability, with a Cronbach's

alpha of .91 (Schuurmans et al., 2005). In this study, reliabilities were high for both generations, with Cronbach's alphas of .93 for older adults and .96 for adult children.

Schuurmans et al. (2005) examined the scale validity by measuring the correlations between SMAS and other measures such as psychological distress, life satisfaction, and overall well-being. The overall score of SMAS was negatively correlated with psychological stress ($r = -.30$) and positively correlated with life satisfaction and overall well-being, with correlation coefficients of .46 and .72, respectively.

Intergenerational solidarity. Two of the five intergenerational solidarity dimensions were assessed in this study: affectual and functional solidarity. The Positive Affect Index (Bengtson & Schrader, 1982) was used to examine affectual solidarity or the family relations between older adults and adult children. The scale consists of ten items concerning the degree of five dimensions of positive affect toward and perceived by the other generation. The five dimensions of positive affect are: understanding, fairness, trust, respect, and affection. In this study, older adults were asked if they felt they understood the referent child and if they felt the referent child understood them on a six-point scale (scale ranged from 1 to 6, “*not well*” to “*extremely well*”), and vice versa, the referent adult children were asked to complete the same set of questions asking about their sentiments to their parents. Higher scores indicated higher level of intergenerational solidarity. This scale has been reported with high reliability, with a Cronbach's alpha of .92 (Bengtson & Schrader, 1982). In this study, the reliabilities were high for both generations, with Cronbach's alphas of .92 for older adults and .95 for adult children.

In addition to the ten-item scale, a global item, “Generally, how well do you and your father (mother/child) get along together?” was used as an indicator of the scale validity. The

coefficients of the correlation between the global item and the affectual solidarity scale ranged from .74 to .77 (Gronvold, 1988). In this study, the coefficients of the correlation between the global item and the affectual solidarity scale were .79 for older adults and .86 for adult children, meaning that the convergent validities were high for both generations.

The intergenerational functional solidarity scale consists of five items, which assess the degree of financial exchange on a four-point scale (scale ranged from 1 to 4, “*not at all*” to “*regularly*”) and the frequency of support and gift exchanges on an eight-point scale (scale ranged from 1 to 8, “*almost never*” to “*almost every day*”). The reliability for this scale was not reported in the previous literature. In this study, the reliabilities were computed, with Cronbach’s alphas of .47 for older adults and .50 for adult children.

For data analysis, the two dimensions of affectual and functional solidarity were treated as one construct measuring intergenerational solidarity; therefore, the reliability of the two scales was also computed after all the items were standardized, with Cronbach’s alphas of .86 for older adults and .90 for adult children.

Subjective well-being. Two scales were given to the older adults and adult children for assessing subjective well-being. The Satisfaction With Life Scale (SWLS; Diener et al., 1985; Diener, 2000) consists of five items assessing the degree of global life satisfaction on a seven-point scale (scale ranged from 1 to 7, “*strongly disagree*” to “*strongly agree*”). Diener and colleagues suggested the scale is “designed around the idea that one must ask subjects for an overall judgment of their life in order to measure the concept of life satisfaction” (Diener et al., 1985, pp. 71-72). Two examples of the SWLS are: “In most ways my life is close to my ideal” and “The conditions of my life are excellent.” Higher scores indicate high life satisfaction. Criterion validity was examined by comparing the ratings between the self-

reports of the sample (average age of 75) and the average rating of two raters who have interviewed each participant about their life. The correlation between self-reports and the rater evaluations was .46, meaning that the criterion validity was moderate. The SWLS has been reported with high reliability, with a Cronbach's alpha of .87 (Diener et al., 1985). In this study, Cronbach's alpha was .80 for older adults and .91 for adult children.

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was used to measure positive and negative affect. The scale consists of 20 items, of which 10 items measure positive mood and another 10 items measure negative mood. Examples of the PANAS items include, "interested," "excited," "upset," and "scared." The participants were asked to indicate to what extent they have experienced the described mood states during the past week on a five-point scale (scale ranged from 1 to 5, "*very slightly*" to "*very much*"). Higher scores in the dimension of positive affect indicated higher positive affect and higher scores in the dimension of negative affect indicated higher negative affect. Since the present study focused on examining positive aspects of subjective well-being, the 10 items assessing negative affect were reverse-coded, and then a summary score of all items was created. Higher sum scores indicate higher positive affect.

Watson et al. (1988) also conducted several statistical tests to examine the scale's reliability and validity. Both dimensions of the PANAS have been reported with high reliabilities. For positive affect, Cronbach's alpha ranged from .86 to .90; and for negative affect, Cronbach's alpha ranged from .84 to .87 (Watson et al., 1988). In this study, reliabilities for positive and negative affect were both high for both generations. For positive affect, Cronbach's alphas were .89 for older adults and .92 for adult children. For negative affect, Cronbach's alphas were .84 for older adults and .89 for adult children. The

reliabilities for the full scale were computed after the dimension for negative affect was recoded, with Cronbach's alphas .86 for older adults and .92 for adult children. The correlation between positive affect and negative affect has been reported to be negative, with correlation coefficients ranging from -.12 to -.23. In this study, the correlation coefficient between the positive affect and negative affect was $-.20, p < .05$ for older adults, and $-.45, p < .001$ for adult children. The scale also has been reported to have good validity (Watson et al., 1988). For instance, the PANAS had high internal validity, with the common variance of 96.1%, high convergent validity, with the correlation coefficients ranging from .76 to .92, and high discriminant validity, with the correlation coefficients under $-.20$.

Demographic characteristics. The older-adult and adult-child participants were asked to provide basic demographic characteristics. For the older-adult participants, the demographic information included age, gender, ethnicity (i.e., White/Caucasian, African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Hispanic or Latino, or other), marital status (i.e., single or never married, married, divorced, separated, or widowed), residential settings (i.e., private home or retirement community), level of care at retirement communities (i.e., independent living, assisted living, health or nursing care, or other), and number of children presently living. For the adult-child participants, the demographic information included age, gender, ethnicity, marital status, work status (i.e., full-time, part-time, retired, volunteer, and not employed), geographic proximity to their parents (i.e., less than 10 miles, 11-30 miles, 31-50 miles, 51-100 miles, or more than 100 miles), and the number of children presently living. All the demographic variables served as covariates when conducting data analysis. All the demographic information for both samples is summarized in Table 1.

Data Analyses

The results from this study were computed using IBM SPSS Statistics 19. Missing data were handled by listwise deletion, meaning that individuals who had missing scores were omitted from the analysis.

Data analysis began with descriptive analysis, including frequencies, variable means, standard deviations, and score ranges of all the measures within the older-adult and adult-child samples. To test the first hypothesis, paired *t*-tests were conducted to test mean differences between older-adult and adult-child reports on all the variables. Next, descriptive analysis was conducted by older adults' demographic variables: age groups (i.e., young old, old old, and oldest old), gender, and residential settings (i.e., private homes and retirement communities). Three separate one-way ANOVAs were conducted using the demographic variables of age group, gender, and residential setting to test the second hypothesis. In the third step of data analysis, bivariate correlations were computed with older-adult and adult-child reports together exploring the third and fourth hypothesis concerning the correlations of all the measures reported by older adults and adult children.

In the fourth step of data analysis, to test the fifth hypothesis, blocked regression analyses were conducted to examine the predictive factors of subjective well-being of older adults and adult children. Blocked regression analyses were computed separately by generation. The covariates for the older-adult sample included older adults' age, gender, marital status, residential location, and number of children. For the adult-child sample, covariates included adult children's age, gender, marital and work status, number of children, geographic proximity to their parents, and their perceptions on parents' overall general health. The hypothesized mediation model is shown in Figure 2. The positive signs indicate

the expected positive associations among functional capacity, self-management ability, and intergenerational solidarity, and subjective well-being of older adults and their adult children.

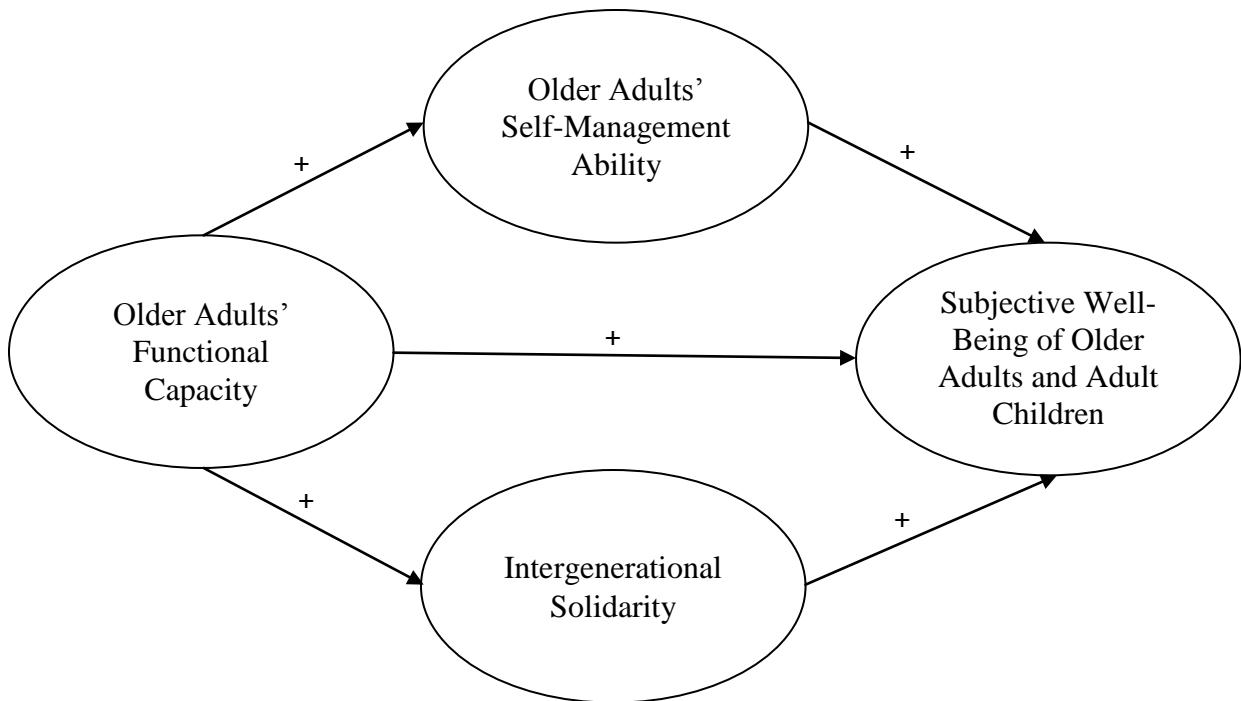


Figure 2. Hypothesized mediation model.

In the fifth step of data analysis, to test the sixth hypothesis, interaction terms were added to the blocked regressions to test the moderating effects of older adults' functional capacity X older adults' self-management ability and older adults' functional capacity X intergenerational solidarity on subjective well-being of older adults and adult children. The same procedure as in the previous step was used, except the Aiken and West (1991) procedures for centering the means of independent variable (i.e., functional capacity) and moderators (i.e., self-management ability and intergenerational solidarity) were followed. The hypothesized moderation model is shown in Figure 3.

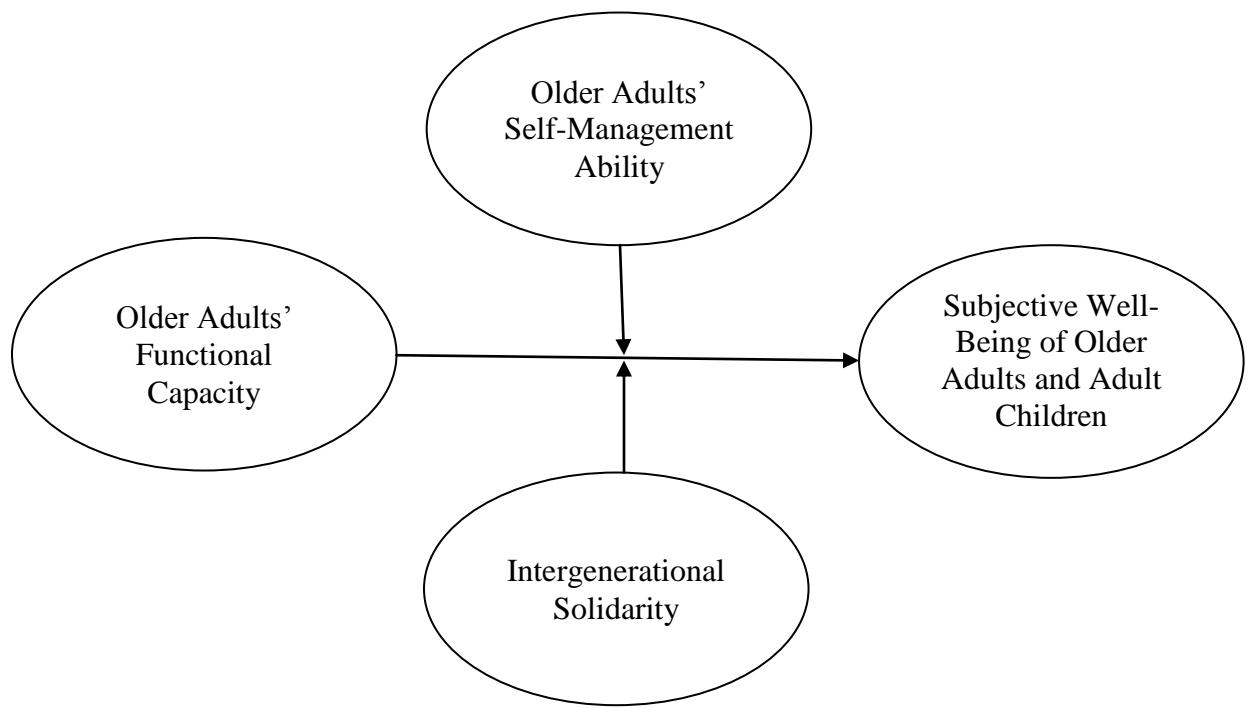


Figure 3. Hypothesized moderation model.

Chapter IV. Results

The results of this study are presented in the following sections. First, descriptive analyses of all the measures were conducted within the older-adult and adult-child sample. Next, intergenerational mean comparisons were computed, followed by mean comparisons by gender, age groups, and residential settings within the older-adult sample. Third, bivariate correlations were computed to examine the concordance between the intergenerational reports. Finally, multiple regression analyses were computed by generation to explore if older adults' functional capacity, self-management ability, and intergenerational solidarity were predictive of subjective well-being of older adults and adult children.

A summary of the means, standard deviations, and possible score ranges of all the measures by generation is presented in Table 2. The average level of older adults' overall perceived health was reported to be good by older adults, and adult children reported older adults' overall perceived health as fair to good. The level of older adults' functional capacity was reported to be very high by both older adults and adult children, meaning that both older adults and adult children perceived older adults to be very capable of performing the described ADL and IADL tasks. Both generations reported high levels of affectual solidarity and fairly low levels of functional solidarity. The overall self-management ability of older adults was reported to be high by older adults, and adult children's reports on older adults' overall self-management ability was even higher than the older adults' self-reports. Finally, both generations reported themselves having fairly high levels of life satisfaction and high levels of positive affect.

Table 2

Summary Of All Scales By Generation

Scales	Older Adults			Adult Children		
	N	M	SD	N	M	SD
G1 Overall Health (1-4)	147	3.02	0.67	87	2.87	0.78
G1 Functional Capacity (0-28)	140	26.79	1.74	75	26.91	1.75
G1 SMA Overall ^a (20-100)	133	78.63	8.74	77	83.77	11.25
G1 SMA/Initiatives (20-100)	145	80.55	12.36	87	85.33	14.81
G1 SMA/Investment (20-100)	147	79.27	13.26	87	86.21	15.76
G1 SMA/Variety (20-100)	143	66.90	12.91	81	74.94	15.64
G1 SMA/Self-Efficacy (20-100)	142	90.93	8.85	85	95.44	7.51
G1 SMA/Multifunctionality (20-100)	145	77.90	9.14	87	86.07	11.20
G1 SMA/Positive Mind (20-100)	146	74.77	13.65	84	77.74	17.01
G1, G2 Family Affection (10-60)	128	54.06	4.84	84	53.29	7.16
G1, G2 Family Support (5-32)	127	10.09	2.82	86	10.28	3.00
G1, G2 Intergenerational Solidarity ^a	119	0.10	8.59	83	-0.13	9.65
G1, G2 Life Satisfaction (7-35)	145	29.24	3.46	85	27.41	6.56
G1, G2 Positive Affect (20-100)	132	82.68	7.90	80	81.26	11.11
G1, G2 Subjective Well-Being ^a	130	0.30	12.66	78	-0.17	16.00

Note. Possible scale ranges are in parentheses. SMA Overall = Self-Management Ability overall scale as the mean of the sub-scale scores. Intergenerational Solidarity = the composite score of family affection and support. Subjective Well-Being = the composite score of Satisfaction with Life Scale and Positive Affect. G1 variables = older adults or adult children report on older adults' status. G1, G2 variables = older adults and adult children report on their own.

^aStandardized scales.

p* < .05. *p* < .01. ****p* < .001.

Intergenerational Differences

A total of 87 adult children who were the children of the older-adult sample participated in the study. The mean differences between the intergenerational reports on older adults' overall perceived health, functional capacity, self-management ability, intergenerational solidarity, and subjective well-being of both generations were compared by conducting paired *t*-tests.

Mean differences were found between the older-adult and adult-child ratings on older adults' overall perceived health, family affection, and self-management ability (Table 3). Older adults scored higher on overall health, $t(86) = 2.48, p < .05$, which suggested older adults viewed themselves as being healthier than the adult-child perceptions of their parents' overall health. Adult children scored higher on older adults' self-management ability, $t(67) = -3.34, p < .001$, which suggested adult children perceived their parents as more capable of managing sustainable well-being in later life than older adults did. Among the six sub-dimensions of older adults' self-management ability, adult children rated their parents as higher on five of them: taking initiatives $t(84) = -2.30, p < .05$, investment behavior, $t(85) = -4.01, p < .001$, variety, $t(76) = -3.13, p < .01$, self-efficacy, $t(86) = -3.96, p < .001$, and multifunctionality, $t(85) = -7.51, p < .001$. Older adults scored higher on family affection, $t(79) = 2.17, p < .05$, which suggested older adults viewed themselves as having higher levels of affectual solidarity toward their children than adult children's perceptions on affectual solidarity toward their parents. Comparing the components of subjective well-being between older adults and adult children, older adults scored higher on life satisfaction, $t(84) = 2.97, p < .01$, which suggested older adults were being more satisfied with their lives than their adult children. Besides the mean differences that were found between intergenerational

Table 3

Intergenerational Differences in Various Dimensions

Scales	Older Adults		Adult Children		<i>t</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
G1 Overall Health	3.06	0.67	2.87	0.78	2.48*	86
G1 Functional Capacity	26.88	1.50	26.88	1.81	.00	67
G1 SMA Overall ^a	79.22	7.79	83.56	11.20	-3.34***	67
G1 SMA/Initiatives	82.16	11.08	85.53	14.60	-2.30*	84
G1 SMA/Investment	80.27	12.33	86.58	15.44	-4.01***	85
G1 SMA/Variety	68.31	13.72	75.28	14.98	-3.13**	76
G1 SMA/Self-Efficacy	91.28	8.70	95.47	7.59	-3.96***	82
G1 SMA/Multifunctionality	76.84	7.88	85.91	11.16	-7.51***	85
G1 SMA/Positive Mind	74.82	13.98	77.47	16.93	-1.23	82
G1, G2 Family Affection	54.78	3.94	53.23	7.28	2.17*	79
G1, G2 Family Support	9.86	2.86	10.33	2.82	-1.62	79
G1, G2 Intergenerational Solidarity ^a	1.09	7.32	-0.12	9.12	1.19	72
G1, G2 Life Satisfaction	29.65	3.41	27.41	6.56	2.97**	84
G1, G2 Positive Affect	83.18	7.74	80.97	10.90	1.27	72
G1, G2 Subjective Well-Being ^a	1.10	12.28	-0.57	15.97	0.64	70

Note. SMA Overall = Self-Management Ability overall scale as the mean of the sub-scale scores. Intergenerational Solidarity = the composite score of family affection and support. Subjective Well-Being = the composite score of Satisfaction with Life Scale and Positive Affect. G1 variables = older adults or adult children report on older adults' status. G1, G2 variables = older adults and adult children report on their own.

^aStandardized scales.

p* < .05. *p* < .01. ****p* < .001.

reports, most of the standard deviations in adult-child report were greater than adult-child report. For instance, the standard deviations of intergenerational solidarity and self-management ability in adult-child reports were 9.12 and 11.20, respectively, whereas in older-adult reports, the standard deviations of intergenerational solidarity and self-management ability were 7.32 and 7.79, respectively.

Demographic Differences Among Older Adults

Mean group differences were computed by older adults' gender, age groups (i.e., young-old, old-old, and oldest old), and residential locations (i.e., private homes and senior retirement communities). The means, standard deviations, and score ranges of all the measures and composite scores by gender, age groups, and residential locations are summarized in Tables 4, 5, and 6, respectively. One-way analyses of variance (ANOVA) were conducted to examine mean differences between genders, age groups, and residential locations of all measures.

Before conducting ANOVA, multivariate analysis of variance (MANOVA) was conducted to examine the multivariate effect for the six subscales of self-management ability as a group in relation to older adults' gender, age groups, and residential locations. The six subscales assessed self-management ability from multidimensional aspects including taking initiatives, investment behavior, variety, multifunctionality, self-efficacy and positive frame of mind. Wilks' Lambda = .94, .90, and .92, $p > .05$, for older adults' gender, age groups, and residential locations, respectively, suggested there were no overall differences in older adults' demographic characteristics when considering the six subscales of self-management ability as a group.

Older-adult gender differences were found in self-management ability, affect, and subjective well-being (Table 4). Female older adults scored higher on the overall self-management ability score, $F(1,131) = 5.35, p < .05$, which suggested female older adults perceived themselves as being more capable of managing sustainable well-being in later life than male older adults. Among the six sub-dimensions of self-management ability, female older adults scored higher on four of them: taking initiatives, $F(1,143) = 4.97, p < .05$, variety, $F(1,141) = 6.03, p < .05$, self-efficacy, $F(1,140) = 4.10, p < .05$, and positive frame of mind, $F(1,144) = 4.28, p < .05$. Comparing the components of subjective well-being, female older adults scored higher on positive affect, $F(1,143) = 6.54, p < .05$, and overall subjective well-being, $F(1,128) = 7.20, p < .01$, which suggests female older adults had higher levels of positive mood state and higher overall levels of subjective well-being than male older adults. The results are shown in Table 4.

Three age groups of older adults were formed: young old, from 65-74 years of age, old old, from 75-84 years of age, and oldest old, 85 years or older. Mean differences were found in functional capacity, $F(2,136) = 11.87, p < .001$ (Table 5). Scheffé's test was conducted for post-hoc analyses. The young old did not differ from the old old in functional capacity; however, the young old and the old old scored higher on functional capacity than the oldest old, which suggested the older adults between 65 to 84 years of age had higher functional capacity in performing instrumental and physical activities of daily living than oldest-old adults. The results are shown in Table 5.

Older adults who lived in private homes and older adults who lived in retirement communities were also compared on all the measures (Table 6). Mean differences were found for age and functional capacity. The average age of older adults from retirement

Table 4

Older-Adult Gender Differences in Various Dimensions

Variables	G1 Men (n = 47)		G1 Women (n = 100)		F	df
	M	SD	M	SD		
G1 Age	81.62	6.93	79.32	6.48	3.84	(1,145)
G1 Overall Health	3.09	0.78	2.99	0.61	0.65	(1,145)
G1 Functional Capacity	27.00	1.68	26.69	1.76	0.94	(1,138)
G1 SMA Overall ^a	76.13	8.49	79.82	8.65	5.35*	(1,131)
G1 SMA/ Initiatives	77.19	11.68	82.07	12.42	4.97*	(1,143)
G1 SMA/ Investment	76.74	11.30	80.43	13.96	2.47	(1,145)
G1 SMA/ Variety	63.12	11.95	68.69	13.02	6.03*	(1,141)
G1 SMA/ Multifunctionality	76.61	9.72	78.51	8.84	1.36	(1,143)
G1 SMA/ Self-Efficacy	88.78	8.37	91.96	8.93	4.10*	(1,140)
G1 SMA/ Positive Mind	71.42	13.95	73.36	13.28	4.28*	(1,144)
G1 Family Affection	53.26	4.21	54.45	5.10	1.72	(1,126)
G1 Family Support	9.84	3.36	10.23	2.50	0.54	(1,125)
G1 Intergenerational Solidarity ^a	-1.14	8.28	0.73	8.73	1.25	(1,117)
G1 Life Satisfaction	28.89	3.65	29.41	3.36	0.72	(1,143)
G1 Positive Affect	80.29	8.58	83.92	7.26	6.54**	(1,130)
G1 Subjective Well-Being ^a	-3.70	14.48	2.42	11.10	7.20**	(1,128)

Note. SMA Overall = Self-Management Ability overall scale as the mean of the sub-scale scores. Intergenerational Solidarity = the composite score of family affection and support. Subjective Well-Being = the composite score of Satisfaction with Life Scale and Positive Affect. G1 variables = older adults or adult children report on older adults' status. G1, G2 variables = older adults and adult children report on their own.

^aStandardized scales.

*p < .05. **p < .01.

Table 5

Older-Adult Age Group Differences in Various Dimensions

Variables	G1 65-74 (n = 31)		G1 75-84 (n = 75)		G1 85+ (n = 40)		F	df
	M	SD	M	SD	M	SD		
G1 Overall Health	3.13	0.62	3.07	0.68	2.85	0.66	1.91	(2,143)
G1 Functional Capacity	27.53 ^a	0.73	27.03 ^a	1.43	25.73 ^b	2.33	11.87***	(2,136)
G1 SMA Overall ^a	79.12	9.35	79.28	8.78	76.63	8.16	1.05	(2,129)
G1 SMA/ Initiatives	80.65	12.57	81.93	11.64	77.57	13.55	1.55	(2,141)
G1 SMA/ Investment	78.06	14.40	80.88	13.29	76.75	12.03	1.40	(2,143)
G1 SMA/ Variety	68.56	11.40	68.36	12.93	62.61	13.57	2.81	(2,139)
G1 SMA/ Multifunctionality	78.45	7.91	78.51	9.41	76.11	9.60	0.95	(2,141)
G1 SMA/ Self-Efficacy	92.13	10.05	91.78	8.38	88.32	8.54	2.30	(2,138)
G1 SMA/ Positive Mind	73.98	14.77	75.42	13.24	74.62	13.69	0.13	(2,142)
G1 Family Affection	52.45	6.29	54.71	3.95	54.19	4.92	2.24	(2,124)
G1 Family Support	9.93	2.27	9.91	2.99	10.59	2.88	0.71	(2,124)
G1 Solidarity ^a	-2.67	10.82	0.95	7.22	0.86	8.71	1.85	(2,116)
G1 Life Satisfaction	28.52	3.86	29.78	3.48	28.83	2.96	1.89	(2,142)
G1 Positive Affect	83.11	8.79	83.77	7.95	80.17	6.61	2.53	(2,129)
G1 Subjective Well-Being ^a	0.64	14.21	1.78	12.89	-2.84	10.59	1.56	(2,127)

Note. SMA Overall = Self-Management Ability overall scale as the mean of the sub-scale scores. Solidarity = Intergenerational Solidarity scale, the composite score of family affection and support. Subjective Well-Being = the composite score of Satisfaction with Life Scale and Positive Affect. G1 variables = older adults or adult children report on older adults' status.

^aStandardized scales.

*** $p < .001$

Table 6

Older-Adult Residential Location Differences in Various Dimensions

Scales	G1 Private Homes (n = 35)		G1 Retirement Community (n = 111)		F	df
	M	SD	M	SD		
G1 Age	74.86	6.45	81.70	5.93	33.96***	(1,144)
G1 Overall Health	3.11	0.62	3.00	0.68	0.76	(1,144)
G1 Functional Capacity	27.47	0.90	26.58	1.89	7.00**	(1,137)
G1 SMA Overall ^a	80.45	8.94	78.05	8.64	1.85	(1,131)
G1 SMA/ Initiatives	82.87	12.24	80.06	12.07	1.45	(1,142)
G1 SMA/ Investment	80.28	15.08	79.09	12.63	0.22	(1,144)
G1 SMA/ Variety	68.57	12.27	66.29	13.17	0.82	(1,140)
G1 SMA/ Multifunctionality	80.34	9.02	77.17	9.11	3.22	(1,142)
G1 SMA/ Self-Efficacy	92.24	9.13	90.52	8.76	0.97	(1,140)
G1 SMA/ Positive Mind	73.52	15.10	74.95	13.03	0.30	(1,143)
G1 Family Affection	53.80	5.77	54.10	4.55	0.09	(1,125)
G1 Family Support	10.00	2.34	10.14	2.95	0.05	(1,124)
G1 Solidarity ^a	0.08	8.92	0.07	8.59	0.00	(1,116)
G1 Life Satisfaction	28.84	3.91	29.35	3.33	0.58	(1,142)
G1 Positive Affect	84.03	8.16	82.25	7.80	1.24	(1,130)
G1 Subjective Well-Being ^a	2.16	12.90	-0.29	12.60	0.88	(1,128)

Note. SMA Overall = Self-Management Ability overall scale as the mean of the sub-scale scores. Solidarity = Intergenerational Solidarity, the composite score of family affection and support. Subjective Well-Being = the composite score of Satisfaction with Life Scale and Positive Affect. G1 variables = older adults or adult children report on older adults' status.

^aStandardized scales.

p* < .01. *p* < .001.

communities was 6.84 years older than the age of older adults from private homes, $F(1,144) = 33.96, p < .001$. Older adults from private homes scored higher on functional capacity than older adults from retirement communities, $F(1,137) = 7.00, p < .01$, which suggests that the older adults from private homes had higher functional capacity in performing instrumental and physical activities of daily living than the older adults from retirement communities. The results are shown in Table 6.

Bivariate Correlations

Bivariate correlations were computed for older-adult and adult-child reports to explore the correlations of all the measures reported by both generations. Affectual solidarity and functional solidarity were treated as one construct for intergenerational solidarity, and satisfaction with life and positive and negative affect were treated as one construct for subjective well-being; therefore, the composite scores for intergenerational solidarity and subjective well-being were used. The correlation matrix is shown in Table 7.

The correlations were strong for the intergenerational agreement on measures of overall perceived health, functional capacity, self-management ability, and intergenerational solidarity, $r(87) = .55, p < .001$, $r(68) = .78, p < .001$, $r(68) = .41, p < .001$, and $r(73) = .46, p < .001$, respectively. The strong positive correlations between the intergenerational reports indicated agreement between older-adult self-reports and adult children's reports were high.

In the older adults' self-reports, older adults' subjective well-being was positively associated with older adults' overall perceived health, $r(129) = .41, p < .001$, functional capacity, $r(122) = .24, p < .01$, self-management ability, $r(119) = .60, p < .001$, and intergenerational solidarity, $r(105) = .38, p < .001$. The overall perceived health and functional capacity reported by older adults was positively correlated, $r(139) = .37, p < .001$.

Table 7

Correlation Matrix of All Measures Reported by Older Adults and Adult Children

Measures	1	2	3	4	5	6	7	8	9	10
1. G1-G1 Overall Health	1.00	-	-	-	-	-	-	-	-	-
2. G1-G1 IADL/PADL	.37***	1.00	-	-	-	-	-	-	-	-
3. G1-G1 SMA	.23**	.08	1.00	-	-	-	-	-	-	-
4. G1-G1 Solidarity	.06	-.12	.29**	1.00	-	-	-	-	-	-
5. G1-G1 SWB	.41***	.24**	.60***	.38***	1.00	-	-	-	-	-
6. G2-G1 Overall Health	.55***	.40***	.42***	.17	.45***	1.00	-	-	-	-
7. G2-G1 IADL/IADL	.34**	.78***	.15	-.18	.17	.55***	1.00	-	-	-
8. G2-G1 SMA	.25*	.05	.41***	.25*	.34**	.40***	.13	1.00	-	-
9. G2-G1 Solidarity	.01	-.13	-.01	.46***	-.05	.17	-.06	.45***	1.00	-
10. G2-G2 SWB	.01	-.11	-.10	.11	-.18	.07	-.02	.18	.54***	1.00

Note. IADL/PADL = Instrumental and Physical Activities of Daily Living, functional capacity. SMA = Self-Management Ability Scale. Solidarity = Intergenerational Solidarity, the composite score of affectual and functional solidarity. SWB= Subjective Well-Being, the composite score of Satisfaction with Life Scale and Positive Affect Schedule. G1-G1 = older adults' self-ratings. G2-G1 = adult children's report on older adults. G2-G2 = adult children's self-ratings.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Only older adults' report on overall perceived health correlated with self-management ability, $r(132) = .23, p < .01$, but no significant correlation was found between functional capacity and self-management ability reported by older adults, $r(127) = .08, p > .05$. Older adults' report on intergenerational solidarity were neither correlated with older adults' report on overall perceived health, $r(119) = .06, p > .05$, nor with older adults' functional capacity, $r(113) = -.12, p > .05$.

In the adult children's reports, the only variable correlated with adult children's self-report on subjective well-being was intergenerational solidarity, $r(74) = .54, p < .001$. Adult children's perception on older adults' overall health was significantly associated with adult children's perceptions on older adults' functional capacity, $r(75) = .55, p < .001$. Like older adults' reports, only adult children's perceptions on older adults' overall health was positively associated with self-management ability reported by adult children, $r(77) = .40, p < .001$. Adult children's perceptions on older adults' overall health was not significantly associated with intergenerational solidarity reported by adult children, $r(83) = .17, p > .05$. Finally, adult children's perceptions on older adults' functional capacity was neither associated with older adults' self-management ability reported by adult children, $r(70) = .13, p > .05$, nor with intergenerational solidarity, $r(74) = -.06, p > .05$.

Multiple Regression Analyses By Generation

Multiple regression analyses were computed to assess potential effects of functional capacity, self-management ability, and intergenerational solidarity on older adults' and adult children's subjective well-being. The hypothesized mediating effects of older adults' functional capacity through older adults' self-management ability and intergenerational solidarity on older adults' and adult children's subjective well-being, and hypothesized

moderating effects of self-management ability and intergenerational solidarity on the relationship of functional capacity of older adults on older adults' and adult children's subjective well-being were also assessed. Older adults' demographic characteristics were treated as covariates when assessing older adults' subjective well-being, and adult children's demographic characteristics were treated as covariates when assessing adult-children's' subjective well-being.

Self-perceptions of older adults predicting older adults' subjective well-being.

Table 8 shows the predictors of older adults' subjective well-being reported by older adults. Older adults' demographic characteristics (i.e., age, gender, marital status, residential locations, number of children, and overall perceived health) were examined in the first block (Model 1 in Table 8). A total of 25% of the variance in older adults' subjective well-being was explained by older adults' demographic variables, in which overall perceived health ($\beta = .46, p < .001$) was the only significant predictor of older adults' subjective well-being indicating that better overall health condition predicted higher levels of subjective well-being.

In Model 2 (Table 8), demographic variables of older adults were covariates in the first block and older adults functional capacity was entered in the second block to examine if it was predictive of older adults' subjective well-being. Overall perceived health ($\beta = .41, p < .001$) of older adults was again significant in predicting older adults' subjective well-being, but older adults' self-reported functional capacity was not, $\beta = .15, p = .18$. The change in F from Model 1 to 2 was not significant, $\Delta F = 1.87, p > .05$, which indicated that adding functional capacity did not improve the model.

Table 8

Older-Adult Self-Reports as Predictors of Older Adults' Subjective Well-Being (N = 90)

Variables	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
Block 1- G1 Demographics									
G1 Age	.07	.21	.04	.16	.22	.09	.14	.18	.08
G1 Gender	3.28	2.61	.13	3.63	2.61	.14	2.41	2.18	.09
G1 Marital Status	-4.25	2.55	-.17	-4.12	2.54	-.16	-2.03	2.16	-.08
G1 Number of Children	.17	1.01	.02	.06	1.01	.01	-.21	.84	-.02
G1 Residence	-3.08	3.25	-.11	-2.90	3.24	-.10	-.14	2.72	-.01
G1 Overall Health	8.86	1.94	.46***	7.95	2.04	.41***	4.58	1.78	.24*
Block 2- Independent Variable									
G1 Functional Capacity				1.04	.76	.15	1.32	.64	.19*
Block 3- Mediators									
G1 Self-Management Ability							.64	.13	.42***
G1-G2 Solidarity							.35	.12	.24**
R ²		.25		.26			.51		
ΔF		4.50***		1.87			19.65***		

(table continues)

Table 8 (*continued*)

Variables	Model 4a			Model 4b		
	B	SE	β	B	SE	β
Block 1- G1 Demographics						
G1 Age	.11	.18	.06	.14	.18	.07
G1 Gender	2.21	2.17	.09	2.40	2.20	.09
G1 Marital Status	-1.86	2.15	-.07	-1.99	2.22	-.08
G1 Number of Children	-.20	.84	-.02	-.21	.84	-.02
G1 Residence	-.03	2.71	-.00	-.14	2.74	-.01
G1 Overall Health	4.94	1.79	.25**	4.57	1.79	.23*
Block 2- Independent Variable						
G1 Functional Capacity	1.23	.64	.18	1.33	.65	.19*
Block 3- Mediators						
G1 Self-Management Ability	.62	.13	.41***	.64	.13	.42***
G1-G2 Solidarity	.38	.13	.26**	.35	.13	.24**
Block 4a- Interaction						
G1 FC X G1 SMA	-.09	.07	-.11			
Block 4b- Interaction						
G1 FC X G1 Solidarity				.01	.07	.01
R ²		.52			.51	
ΔF		1.60			.01	

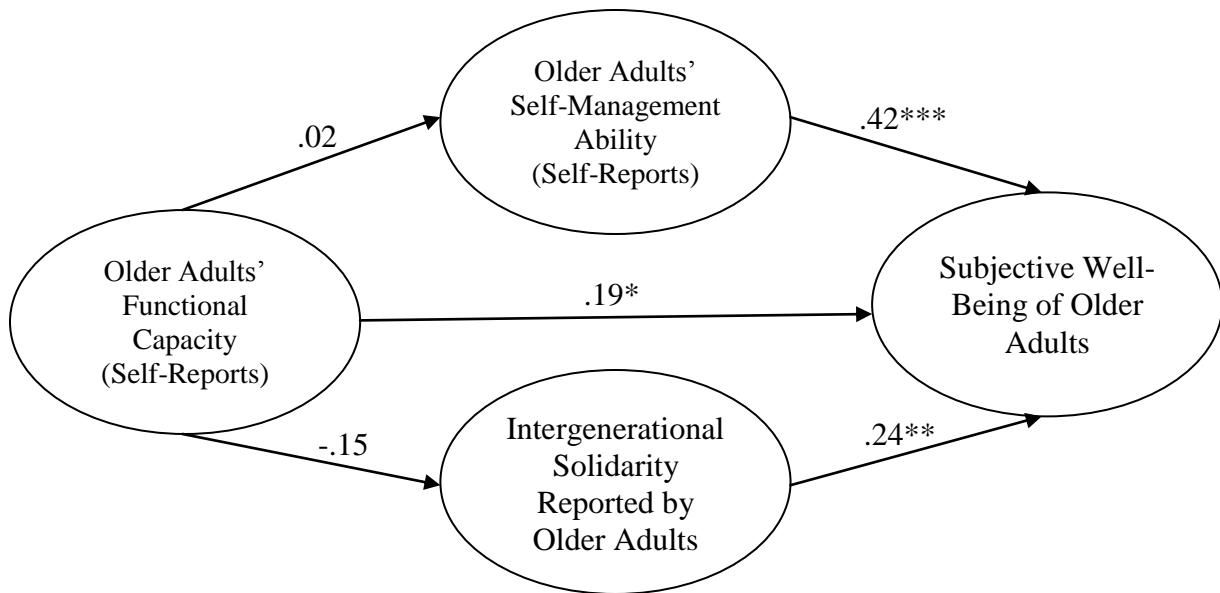
Note. Gender: 1 = male, 2 = female. Marital Status: 0 = single, divorced, or widowed, 1 = married. Residence: 1 = private homes, 2 = retirement community. G1 variables = older adults self report on their status. G1-G2 Solidarity = older adults' report on intergenerational solidarity toward their adult children. FC = Functional Capacity. SMA = Self-Management Ability.

p* < .05. *p* < .01. ****p* < .001.

In Model 3 (Table 8), the two additional predictors older adults' self-management ability and intergenerational solidarity were added in the third block. Overall perceived health remained significant, $\beta = .24, p < .05$. Older adults' functional capacity became a significant predictor of older adults' subjective well-being ($\beta = .19, p < .05$), suggesting a suppressor effect. Older adults' report on self-management ability ($\beta = .42, p < .001$) and intergenerational solidarity ($\beta = .24, p < .01$) were significant predictors of older adults' subjective well-being. The overall model, Model 3, explained 50.5% of the variance. The change in F from Model 2 to 3 was significant, $\Delta F = 19.65, p < .001$, indicating that adding the additional predictors of self-management ability and intergenerational solidarity improved the model by 24.3%.

Older adults' functional capacity was examined as a predictor of older adults' self-management ability and intergenerational solidarity reported by older adults. The results showed older adults' functional capacity was not predictive of older adults' self-management ability, $\beta = -0.02, p > .05$, and intergenerational solidarity, $\beta = -0.15, p > .05$. To test the hypothesized mediation models, the required steps for testing mediation models based on Baron and Kenny (1986)'s criteria were as followed: 1. Test the effects of independent variable (i.e., functional capacity) on the dependent variable (i.e., subjective well-being), 2. Test the effects of functional capacity on hypothesized mediators (i.e., intergenerational solidarity and self-management ability), 3. Test the effects of functional capacity with intergenerational solidarity and self-management ability on subjective well-being. No mediation was established since two of the three steps were not met (Figure 4).

In addition to the previous three models, moderation effects were also examined. Interaction terms of older adults' functional capacity and self-management ability (shown in



* $p < .05$. ** $p < .01$. *** $p < .001$.

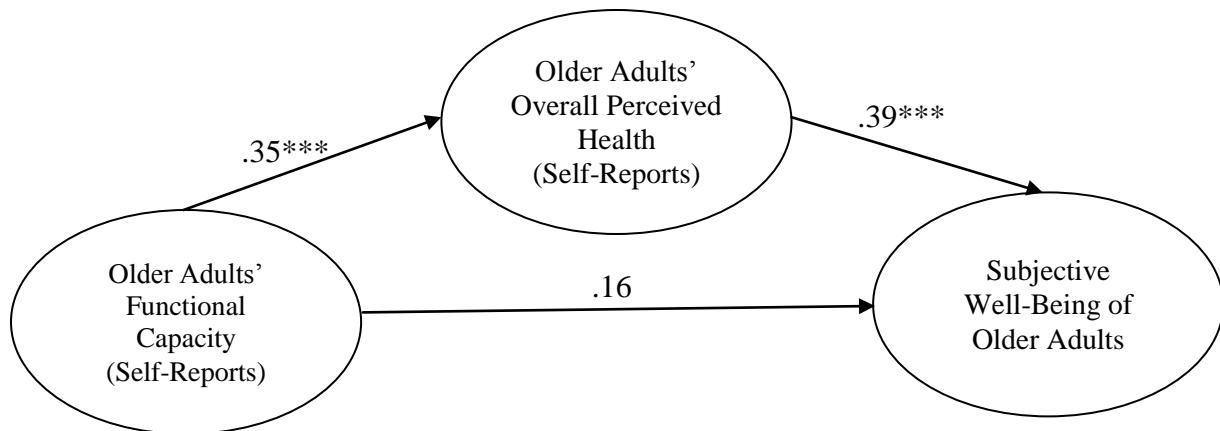
Figure 4. Path model of older-adult sample.

In addition to the previous three models, moderation effects were also examined.

Interaction terms of older adults' functional capacity and self-management ability (shown in Table 8 Model 4a), and older adults' functional capacity and intergenerational solidarity (shown in Table 8 Model 4b) were separately added in the fourth block. The interaction of older adults' functional capacity X older adults' self-management ability was not a significant predictor of older adults' subjective well-being, $\beta = -0.11$, $p > .05$. The change in F from Model 3 to 4a was not significant, $\Delta F = 1.60$, $p > .05$, indicating that adding the interaction of older adults' functional capacity X self-management ability did not improve the overall model. Another interaction of older adults' functional capacity X older adults' intergenerational solidarity also did not predict older adults' subjective well-being, $\beta = 0.01$, $p > .05$. The change in F from Model 3 to 4b was not significant, $\Delta F = .01$, $p > .05$,

indicating that adding the interaction of older adults' functional capacity X self-management ability did not improve the overall model.

Follow-up analysis. Older adults' subjective well-being was found to be predicted by older adults' overall perceived health, which was treated as one of the control variables in the path analysis. Older adults' overall perceived health was significantly related to older adults' functional capacity, and older adults' functional capacity became predictive ($\beta = .29$, $p < .01$) when older adults' overall perceived health was not a control variable. Older adults' functional capacity was also found to be predictive of older adults' overall perceived health ($\beta = .35$, $p < .001$); therefore, an alternative mediation model including older adults' functional capacity as independent variable, older adults' overall perceived health as mediator, and subjective well-being as dependent variable was tested (Figure 5). The direct effect of older adults' functional capacity was diminished from $\beta = .29$, $p < .01$, to $.16$, $p = .11$, when older adults' overall perceived health was added as mediator, indicating older adults' overall perceived health completely mediates the association between older adults' functional capacity and subjective well-being. Since all of Baron and Kenny (1986)'s criteria were met, the Sobel test (1982) was conducted to examine whether older adults' overall perceived health was a significant mediator of the effect of older adults' functional capacity on older adults' subjective well-being. Results showed that older adults' overall perceived health was a significant mediator between functional capacity and subjective well-being of older adults, $t = 2.84$, $p < .01$, and the indirect effect was calculated at $.14$.



** $p < .01$. *** $p < .001$.

Figure 5. Alternative model of older-adult sample.

Adult-child perceptions predicting older adults' subjective well-being. The following analyses assessed whether the same predictors of older adults' subjective well-being were found in the adult children's reports; therefore, adult children's perceptions on older adults' overall perceived health, self-management ability, and intergenerational solidarity were examined as predictors of older adults' subjective well-being. Older adults' demographic characteristics (i.e., age, gender, marital status, residential locations, number of children) and adult children's perception on older adults' overall perceived health were examined in the first block (Model 1 in Table 9). Adult children's perception on older adults' overall perceived health was significant in predicting older adults' subjective well-being, $\beta = .29$, $p < .05$. The overall model explained 11.2% of the variance in older adults' subjective well-being.

In Model 2 (Table 9), older adults' demographics and adult children's perception on older adults' overall perceived health were controlled as covariates in the first block, older

Table 9

Adult-Child Reports as Predictors of Older Adults' Subjective Well-Being (N = 62)

Variables	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
Block 1- Demographics									
G1 Age	.06	.24	.04	.12	.26	.08	.03	.26	.02
G1 Gender	.43	3.12	.02	.74	3.16	.03	-.03	3.16	-.00
G1 Marital Status	-1.32	2.88	-.06	-1.38	2.89	-.07	-2.17	2.90	-.11
G1 Number of Children	-.17	1.15	-.02	-.33	1.18	-.04	-.89	1.21	-.10
G1 Residence	-3.78	3.57	-.16	-3.37	3.63	-.14	-2.73	3.60	-.11
G2-G1 Overall Health	4.36	1.98	.29*	3.51	2.31	.24	2.30	2.51	.15
Block 2- Independent Variable									
G2-G1 Functional Capacity				.94	1.30	.12	.70	1.30	.09
Block 3- Mediators									
G2-G1 SMA							.28	.16	.29
G2-G1 Solidarity							-.17	.15	-.16
R ²		.11			.12			.17	
ΔF		1.16			.53			1.67	

Note. Gender: 1 = male, 2 = female. Marital Status: 0 = single, divorced, or widowed, 1 = married. Work Status: 0 = retired, volunteer, or not employed, 1 = full or part time. Proximity: 1 = less than 10 miles, 5 = more than 100 miles. G1 variables = older adult self-report on their own. G2 variables = adult children self-report on their own. G2-G1 variables = adult children's report on older adults. SMA = Self-Management Ability. Solidarity = Intergenerational Solidarity.

*p < .05.

adults functional capacity reported by adult children was entered in the second block to examine if it was predictive of older adults' subjective well-being. Older adults' functional capacity reported by adult children was not predictive of older adults' subjective well-being, $\beta = .12, p > .05$. Overall perceived health reported by adult children became not significant in predicting older adults' subjective well-being, $\beta = .24, p > .05$. The overall model 2 explained 12.1% of the variance and the change in F from Model 1 to 2 was not significant, $\Delta F = .53, p > .05$, indicating that adding the predictor of adult children's perception on older adults' functional capacity did not improve the model.

In Model 3 (Table 9), the two additional predictors older adults' self-management ability and intergenerational solidarity reported by adult children were added in the third block. Both variables were not predictive of older adults' subjective well-being, $\beta = .29, p > .05$ for adult children's perception on older adults' self-management ability, and $\beta = -.16, p > .05$ for intergenerational solidarity reported by adult children. The overall Model 3 explained 17.4% of the variance and the change in F from Model 2 to 3 was not significant, $\Delta F = 1.67, p > .05$, indicating that adding the additional predictors did not improve the model.

The overall model suggests that adult children's perception on older adults' functional capacity, self-management ability, and intergenerational solidarity were not predictive of older adults' subjective well-being. Older adults' self-perceptions of functional capacity, self-management ability, and intergenerational solidarity were found to be better predictors of older adults' subjective well-being ($R^2 = .52$).

Adult-child perceptions predicting adult children's subjective well-being.

Predictors of adult children's subjective well-being were examined next. Adult children's

demographic characteristics (i.e., age, gender, marital and work status, number of children, and proximity) and perception of older adults' overall health status were covariates entered in the first block (Table 10). Adult children's age ($\beta = .30, p < .05$) was found to be predictive of adult children's subjective well-being, indicating that adult children who were older had higher levels of subjective well-being. In this model, 19.3% of the variance in adult children's subjective well-being was explained by the covariates.

In Model 2 (Table 10), demographic variables of adult children and adult children's perceptions of older adults' overall health were controlled as covariates in the first block, and functional capacity of older adults as reported by adult children was entered in the second block to examine if it was predictive of adult children's subjective well-being. Age ($\beta = .28, p > .05$) of adult children became not significant in predicting adult children's subjective well-being. Adult-child reports on functional capacity was not predictive of adult children's subjective well-being, $\beta = -.09, p > .05$. Model 2 explained 19.7% of the variance. The change in F from Model 1 to 2 was not significant, $\Delta F = .31, p > .05$, indicating that adding the additional predictor of older adults' functional capacity reported by adult children did not improve the overall model.

In Model 3 (Table 10), two additional predictors older adults' self-management ability and intergenerational solidarity reported by adult children were added in the third block. Adult children's age became significant in predicting adult children's subjective well-being, $\beta = .26, p < .05$, so did the variable geographic distance between older adults and adult children predicting subjective well-being ($\beta = .28, p < .05$), suggesting a suppressor effect. Adult children's report on older adults' self-management ability ($\beta = -.17, p > .05$) was not a significant predictor of adult children's subjective well-being, but adult-child ratings on

Table 10

Adult-Child Reports as Predictors of Adult Children's Subjective Well-Being (N = 63)

Variables	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
Block 1- G2 Demographics									
G2 Age	.60	.27	.30*	.56	.29	.28	.52	.23	.26*
G2 Gender	5.42	5.19	.13	5.02	5.27	.12	.81	4.33	.02
G2 Marital Status	5.15	4.67	.14	5.53	4.75	.15	2.98	3.91	.08
G2 Work Status	-3.81	5.34	-.09	-4.06	5.39	-.10	-8.14	4.43	-.19
G2 Number of Children	.41	1.59	.04	.42	1.60	.04	-.33	1.33	-.03
G2 Proximity	.88	1.15	.10	.97	1.17	.10	2.61	.99	.28*
G2-G1 Overall Health	5.23	2.80	.24	6.25	3.36	.28	3.14	2.85	.14
Block 2- Independent Variable									
G2-G1 Functional Capacity				-.77	1.39	-.09	.14	1.14	.02
Block 3- Mediators									
G2-G1 SMA							-.26	.19	-.17
G2-G1 Solidarity							1.12	.21	.66***
R ²			.19			.20			.50
ΔF			1.88			.31			15.46***

57

(table continues)

Table 10 (*continued*)

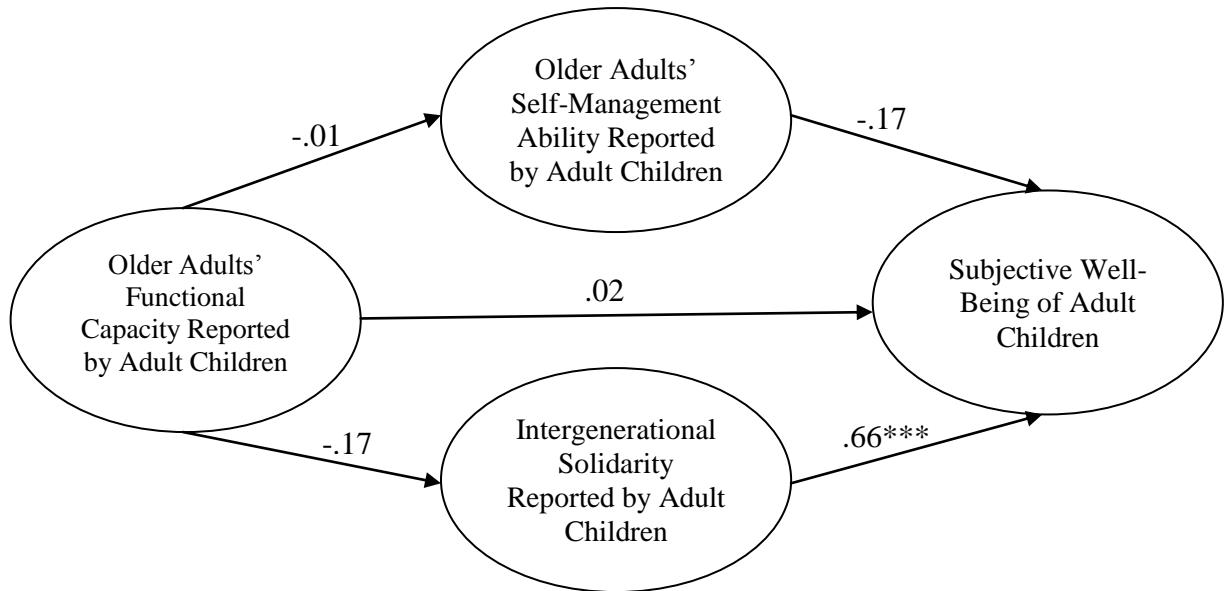
Variables	Model 4a			Model 4b		
	B	SE	β	B	SE	β
Block 1- G2 Demographics						
G2 Age	.56	.23	.28*	.56	.23	.28*
G2 Gender	1.20	4.24	.03	1.21	4.31	.03
G2 Marital Status	2.98	3.82	.08	2.97	3.89	.08
G2 Work Status	-7.48	4.34	-.18	-7.38	4.44	-.18
G2 Number of Children	-.21	1.30	-.02	-.43	1.32	-.04
G2 Proximity	2.49	.97	.27	2.77	1.00	.30**
G2-G1 Overall Health	3.56	2.80	.16	3.19	2.84	.15
Block 2- Independent Variable						
G2-G1 Functional Capacity	.55	1.13	.06	.96	1.29	.11
Block 3- Moderators						
G2-G1 Self-Management Ability	-.30	.19	-.19	-.27	.19	-.17
G2-G1 Solidarity	1.17	.20	.69***	1.20	.21	.71***
Block 4a- Interaction						
G1 FC X G1 SMA	-.20	.11	-.19			
Block 4b- Interaction						
G1 FC X G1 Solidarity				-.19	.14	-.16
R ²		.53			.51	
ΔF		3.48			1.68	

Note. Gender: 1 = male, 2 = female. Marital Status: 0 = single, divorced, or widowed, 1 = married. Work Status: 0 = retired, volunteer, or not employed, 1 = full or part time. Proximity: 1 = less than 10 miles, 5 = more than 100 miles. G2 variables = adult children self-report on their own. G2-G1 variables = adult children's report on older adults. FC = Functional Capacity. SMA = Self-Management Ability. Solidarity = Intergenerational Solidarity.

p* < .05. *p* < .01. ****p* < .001.

intergenerational solidarity was significantly associated with adult children's subjective well-being, $\beta = .66, p < .001$. The overall Model 3 explained 49.7% of the variance. The change in F from Model 2 to 3 was significant, $\Delta F = 15.46, p < .001$, indicating that adding the additional predictor of adult-child ratings on intergenerational solidarity improved the overall model.

Adult children's perceptions about older adults' functional capacity was examined as predictor of adult children's perceptions on older adults' self-management ability and intergenerational solidarity. The results showed older adults' functional capacity was not predictive of older adults' self-management ability, $\beta = -.01, p > .05$, and intergenerational solidarity, $\beta = -.17, p > .05$. No mediation was established because Baron and Kenny's (1986) required steps were not met (Figure 6).



*** $p < .001$.

Figure 6. Path model of adult-child sample.

Moderation effects on adult children's subjective well-being were also examined. The interaction terms of adult children's ratings on older adults' functional capacity X adult children's perception of older adults' self-management ability (shown in Table 10 Model 4a), and adult children's ratings on older adults' functional capacity X adult children's rating on intergenerational solidarity (shown in Table 10 Model 4b) were added separately in the fourth block. The interaction of adult children's ratings on older adults' functional capacity X adult children's perception of older adults' self-management ability was not a significant predictor of older adults' subjective well-being, $\beta = -.19, p > .05$. The change in F from Model 3 to 4a was not significant, $\Delta F = 3.48, p > .05$. Another interaction of older adults' functional capacity reported by adult children X intergenerational solidarity reported by adult children also did not predict older adults' subjective well-being, $\beta = -.16, p > .05$. The change in F from Model 3 to 4b was not significant, $\Delta F = 1.68, p > .05$. The results indicated adding either interaction terms did not improve the overall model.

Summary

In summary, older-adult self-reports and adult children's reports on all scales were positively correlated; however, there were mean differences between intergenerational ratings on older adults' overall health status, self-management ability, and affectual solidarity. Older adults' self-perceptions of overall health was higher than adult-child perceptions; however, it was the opposite for the older adults' self-management ability, where adult-child perceptions on older adults' self-management ability was higher than older adults' self-perceptions. Finally, older adults perceived higher levels of affectual solidarity toward their adult children than adult children's perceptions of affectual solidarity toward the

older-adult parents. With regard to the variability of scales, adult-children's reports had larger standard deviations than older-adult reports.

Some demographic differences of older adults in various dimensions were found. Female older adults reported being more competent in self-management ability and having higher levels of subjective well-being. Older adults who lived in retirement communities were significantly older and had more limitations in performing ADL and IADL than older adults who lived in private homes.

The older-adult self-reports showed direct effects of older adults' self-perceptions of functional capacity, self-management ability, and intergenerational solidarity toward their adult children on older adults' subjective well-being. However, older adults' subjective well-being was not significantly associated with adult-child perceptions of older adults' functional capacity, self-management ability, and intergenerational solidarity. The adult-child reports showed that intergenerational solidarity was the only predictor of adult children's subjective well-being. Mediating effects of older adults' functional capacity through older adults' self-management ability and intergenerational solidarity on older adults' and adult children's subjective well-being, as well as moderating effects of self-management ability and intergenerational solidarity on the relationship of functional capacity of older adults on older adults' and adult children's subjective well-being were tested, but neither mediation nor moderation was found. However, a couple of suppressor effects were found. Older adults' perceptions of self-management ability and intergenerational solidarity suppressed the effect of older adults' functional capacity on older adults' subjective well-being, and adult children's perceptions of intergenerational solidarity suppressed the effect of geographic proximity on adult children's subjective well-being.

Chapter V. Discussion

The purpose of this study was to understand older adults' functional capacity, self-management ability, and intergenerational solidarity from an intergenerational perspective by examining the similarities and differences between older-adult self-reports and adult-child reports. From an intergenerational perspective, the present study provided insights into how older adults' functional capacity, self-management ability, and intergenerational solidarity toward their adult children influence subjective well-being of older adults, as well as how adult children's perceptions of their older-adult parents' functional capacity, self-management ability, and intergenerational solidarity toward their older-adult parents influence subjective well-being of adult children.

The scale reliabilities were high in both older-adult and adult-child reports, except for a subscale measuring functional capacity and a subscale measuring intergenerational solidarity. ADL, a subscale of functional capacity, is concerned with older adults abilities to perform everyday tasks including dressing, taking care of appearance, walking, getting in and out of bed, taking a bath or shower, and toileting. Cronbach's alphas were .38 in the older-adult self-reports and .55 in the adult-child reports. Except for the item assessing whether older adults have trouble getting to bathroom on time, 95% to 100% of the older adults self-reported having no problem with performing all other everyday tasks. About 93% to 100% of the adult children reported older adults having no problems with performing all of the everyday tasks. Lack of variability of this scale was reported by both older adults and adult children, which might be the cause for low reliability. Another scale with low reliability was functional solidarity. This scale is concerned with the frequency of financial, support, and gift exchanges between the two generations. Cronbach's alphas were .47 in the older-adult

self-reports and .50 in adult-child reports. During the data collection sessions, some older-adult participants pointed out that this scale did not seem applicable to them due to living at a distance from their adult children; therefore, some older-adult participants did not answer some of the items in this scale. Another probable explanation for the low reliability in this scale assessing functional solidarity might be that providing one type of support does not increase the likelihood of providing another type of support, because helping out with chores and errands is different from providing financial assistance.

Three major findings emerged from the present study: first, differences were found between intergenerational reports on various dimensions. Second, mean differences were found by older adults' demographics, and several demographic characteristics of older adults predicted older adults' subjective well-being. Third, older-adult self ratings on their functional capacity and self-management ability, and intergenerational solidarity toward the adult children are important factors in subjective well-being of older adults; however, for the adult-child sample, adult children's perception on older adults' functional capacity and self-management ability were not associated with adult children's subjective well-being; the only factor in relation to adult children's subjective well-being was intergenerational solidarity. The next sections are organized by discussing these three major findings consecutively.

Intergenerational Differences

Older-adult self-reports were compared to adult-child reports on older adults' overall perceived health, functional capacity, and self-management ability, as well as intergenerational solidarity between older adults and adult children. The original hypothesis stated that except for the older-adult ratings on intergenerational solidarity, no differences were expected. Furthermore, subjective well-being of older adults and adult children were

also compared, and no differences were expected. However, intergenerational differences were found in overall perceived health and self-management ability of older adults, and in affectual solidarity. Older adults reported themselves as healthier than adult children's perceptions of older adults' overall perceived health, older adults reported having lower self-management ability when compared to adult children's perceptions, and older adults reported having more positive sentiments and closer relationships with adult children than adult children did.

Overall perceived health evaluates health-related issues from a very broad perspective. Benyamini, Leventhal, and Leventhal (2003) explored the reasons underlying older adults' ratings of overall perceived health. Their findings suggested that different individuals have different views of the health-related factors when they judge their overall health conditions. Some examples of the important factors of older adults' overall perceived health include the ability to do the things they need or want to do, what the physician says about their health, level of energy, and general level of physical activity (Benyamini et al., 2003). Another study (Poon et al., 2010) indicated overall perceived health was positively associated with functional health, negatively associated with functional problems (e.g., chest discomfort, arthritis, numbness), and was more dependent on ADL performance. Therefore, the ratings of overall perceived health may be more ambiguous depending on individual interpretations.

A probable explanation for the differences between the intergenerational reports on older adults' overall perceived health might be the different criteria that older adults and adult children used when they rated the overall health of older adults. Cheng, Fung, and Chan (2007) tried to explain the phenomenon that older adults still self-rate their overall health as good, even when their physical functioning declines. They found associations

between older adults' overall perceived health and older adults' perceptions on the health condition of other people who are similar in age. When older adults perceived themselves as healthier than others who are similar in age, older adults are more likely to perceive themselves as having better overall health (Cheng et al., 2007). Henchoz, Cavalli, and Girardin (2008) also found that older adults tend to compare their health status with other people who are similar in age but with more health problems. This finding suggests that older adults who apply downward social comparison are more likely to consider their overall health as good even though they have low levels of functional capacity (Henchoz et al., 2008). When adult children are asked to report on their older-adult parents' overall health, they may give answers based on what they see, what the doctors say, or what older-adult parents say about their health conditions, instead of making social comparisons.

Second, intergenerational differences were found in self-management ability. Self-management ability (Schuurmans et al., 2005) assessed how well older adults manage direct resources that contribute to physical and social well-being in the long run. The direct resources are, for instance, investing in healthy behavior, maintaining good social relationships, and having positive perspectives regarding the future. In Schuurmans et al. (2005), two different groups with mean ages of 78.4 and 74.2 years were tested using the SMAS-30, and their averages of total scores were 63.3 and 62.4, respectively. The mean age of the older-adult sample in the present study ($M = 80.05$) was similar to the two groups in Schuurmans et al. (2005), but the mean of total score reported by older adults was 78.63, about 15 points higher than the mean scores reported by Schuurmans et al. (2005), suggesting the sample of the older adults in the present study reported higher ability in self-management.

The results from the present study suggest that adult children perceived their older-adult parents as more capable of managing their lives than the older adults perceived themselves. It is hard to explain why the intergenerational perspectives of older adults' self-management ability differed from each other. A probable explanation for the present result might be older adults carry negative aging stereotypes, which may turn into self-fulfilling prophecies. Levy (2003) reviewed the development of aging stereotypes and discussed the cognitive and physical effects of aging stereotypes. She reported that previous studies have shown that the development of aging stereotypes was internalized since early childhood. The majority of children rate becoming an older adult as negative and consider being very old as hopeless and incapable of taking care of oneself. These aging stereotypes starting in childhood can become stereotypes when people reach old age (Levy, 2003); therefore, older adults might rate themselves as being less capable than they really are, hence the present findings that older adults' self-perceptions on their self-management ability was lower than adult children's perceptions on older-adult parents' self-management ability.

Another plausible explanation for the intergenerational differences in the ratings of older adults' overall perceived health and self-management ability might be that the perspectives of aging from middle-aged adults are different from those of older adults, because the experiences and priorities of later life are very different from other parts of the life span. Previous studies also found differences between the perspectives of older adults and their adult children in other dimensions. For instance, a study examined whether adult children have good knowledge about older-adult parents' psychosocial preferences (e.g., participation in clubs, attendance in cultural events, environmental preference; Carpenter, Lee, Ruckdeschel, van Haitsma, & Feldman, 2006). Older-adult parents' and adult

children's reports were different on approximately 50% of the scale assessing psychosocial preferences, suggesting the views of adult children about their older-adult parents' psychosocial preferences are somewhat different. Another noteworthy finding was that older adults' functional capacity reported by older adults was not different from the adult children's perceptions, even though intergenerational differences were found in older adults' overall perceived health and self-management ability. One plausible explanation is the lack of variability in older adults' functional capacity obtained in the present older-adult sample. About 99% of the older adults reported their functional capacity in the range of 23.31 to 28, indicating that the majority of the older-adult sample was able to perform IADLs and PADLs with some help or without any help.

The total scores of intergenerational solidarity were not different between intergenerational reports; however, when the two dimensions of solidarity, affection and function, were examined separately, affectual solidarity reported by older adults was higher than adult children's reports, which confirmed the intergenerational stake hypothesis, indicating older adults tend to report higher levels of intergenerational solidarity toward their adult children than adult-children reporting intergenerational solidarity toward their older-adult parents (Bengtson, 2001). The scale of affectual solidarity assessed positive sentiments toward and perceived by the other generation. The possible scale range of affectual solidarity was between 10 and 60. Both generations reported high scores on the affectual solidarity scale, with 99% of older adults scoring between 46.9 and 60 and 99% of adult children scoring between 38.7 and 60. These scores suggest that older adults and their adult children in the present study have very close intergenerational relationships and positive sentiments toward and perceived by each generation.

The other dimension of intergenerational solidarity, functional solidarity, assessed financial, instrumental, and gift exchanges between older-adult parents and adult children. The possible scale range of functional solidarity was between 5 and 32. Both samples reported low score ranges, with 99% of the older adults scoring between 5 and 15.6 and 99% of the adult children scoring between 5 and 16. During the data collection sessions in retirement communities, some participants pointed out that they did not engage much in instrumental support exchange due to the fact that they lived very far apart from each other. About half of the adult children (54%) reported they lived more than 100 miles away from their older-adult parents; therefore, it was not a surprise that both older adults and their adult children reported low scores for functional support.

Subjective well-being of older adults and adult children was also compared. The means of subjective well-being scores between older adults and adult children were not different; however, when the two scales of subjective well-being, life satisfaction and positive and negative affect, were examined separately, older adults scored higher on subjective well-being than adult children, suggesting that older adults are more satisfied with their lives than their adult children. Previous studies reported inconsistent associations between subjective well-being and age. A review of subjective well-being of older Americans (Larson, 1978) reported subjective well-being declines with advancing age; however, when the factors of health and demographic characteristics such as financial resources, widowhood, and loss of friends were controlled, the associations between subjective well-being and age became not significant. Diener and Suh (1997) found the levels of life satisfaction were similar across different age groups despite the decline in other resources such as income and becoming widowed. Previous study findings were not

confirmed by the present study, in which adult children's level of life satisfaction was lower than that of older adults.

In summary, mean differences were found between older-adult and adult-child reports on older adults' overall general health and self-management ability, and one dimension of intergenerational solidarity (i.e., affection) in the present study; moreover, mean differences were also found in one domain of subjective well-being (i.e., life satisfaction) between older adults' and adult children's self-reports. Therefore, the first hypothesis was partially supported.

The standard deviations of most of the scales in the adult-child reports were greater than in the older-adult reports. Greater standard deviations found in adult-child reports might be due to the various living locations between older adults and adult children. About 24% of the adult children lived less than ten miles away from their older-adult parents, whereas 54% of them lived more than hundred miles away from their older-adult parents. Adult children who lived closer might have more opportunities of physical visits with their older-adult parents, meaning that they might have more opportunities for direct observations of older adults than the adult children who lived far away. The adult children who lived less than ten miles away from their older-adult parents might have different perceptions of older adults than the adult children who lived more than one hundred miles away; therefore, standard deviations or the variability of the scales reported by adult children was greater than that of older-adult self-reports. Selectivity may be another plausible explanation for this. Older adults had to be at least 65 years of age in order to be included in the older-adult sample. The mean age of the older adults in this study was 80.05 years. Individuals who survive into old age may share specific characteristics, which may contribute to less variability.

Demographical Differences Among Older Adults

Older adults' demographic characteristics were treated as control variables. Even though these control variables were not the focus of the study, several age, gender, and residence differences were found. Gender differences were found in older adults' self-management ability and positive affect. Female older adults reported higher levels of self-management ability and positive affect. Few studies have examined gender differences in self-management ability. Steverink and Lindenberg (2008) examined the associations among self-management ability, physical and social resource deficits, and subjective well-being. They did not find a significant correlation between gender and self-management ability. As was done in the present study, gender and other demographic variables of older adults were treated as control variables in Steverink and Lindenberg's study (2008). With regard to positive affect, the present finding is inconsistent with previous findings; the present study showed female older adults reporting higher levels of positive affect than male older adults, whereas previous studies reported similar levels of positive affect between female and male older adults (Isaacowitz & Smith, 2003; Steverink & Lindenberg, 2008). Positive and negative affect were treated as two distinctive constructs in the previous studies; however, the present study treated both positive and negative affect as one construct by creating a summary score. The items measuring negative affect were reverse-coded before summary scores were created; therefore, the scale presented affect in a positive direction. Another plausible explanation for the inconsistent finding with the previous studies might be that the sample of the present study was mostly from retirement communities, whereas the sample from previous studies (e.g., Isaacowitz & Smith, 2003; Steverink & Lindenberg, 2008) included only community-dwelling older adults. In future studies, gender differences in

positive affect among older adults who live in retirement communities need to be further addressed.

Age group differences were found in older adults' functional capacity. The oldest-old participants reported lower levels of functional capacity than the young-old and the old-old participants. This result supports previous studies indicating a decline in functional capacity with increasing age (Beckett et al., 1996; Reynolds & Silverstein, 2003). Finally, residential location differences were found in older adults' age and functional capacity. Older adults who lived in private homes were younger in age and reported higher levels of functional capacity than older adults who lived in retirement communities. In this study, older-adult participants were at least 65 years of age. The mean age of older adults who lived in private homes was 74.86, which was 6.84 years younger than the age of older adults who lived in retirement communities. As previously mentioned, older adults' functional capacity declines with advancing age; therefore, it was not surprising that older adults who lived in private homes reported higher levels of functional capacity. The sample sizes of older adults who lived in private homes and retirement communities were unequal. The number of older adults who lived in retirement communities was three times higher than the number of older adults residing in private homes; therefore, differences in functional capacity between older-adult residential locations might also be due to the unequal sample sizes of older adults who lived in private homes and retirement communities.

Factors of Subjective Well-Being

Predictors of older adults' subjective well-being. Older adults' demographic characteristics (i.e., age, gender, marital status, number of children, residential locations, and overall perceived health), older adults' self-perceptions of their functional capacity and self-

management ability, and intergenerational solidarity toward adult children were examined as predictors of older adults' subjective well-being. Older adults' overall perceived health was the only significant demographic variable that was associated with older adults' subjective well-being. Older adults' self-report on overall perceived health showed stronger associations with their subjective well-being than older adults' self-report on functional capacity. The same associations have been reported by Abu-Bader et al. (2002), indicating overall perceived health had stronger associations with older adults' life satisfaction than functional capacity; furthermore, Abu-Bader et al.'s study suggested that overall perceived health might be a better predictor of older adults' life satisfaction than functional capacity. In the present study, older adults' overall perceived health was treated as a covariate because it could be confounding the effects of older adults' functional capacity, self-management ability, and intergenerational solidarity on older adults' subjective well-being.

The results of the present study showed older adults' functional capacity was not associated with older adults' subjective well-being, but older adults' self-management ability and intergenerational solidarity were related to older adults' subjective well-being. Furthermore, older adults' functional capacity became significant of older adults' subjective well-being when older adults' self-perceptions on self-management ability and intergenerational solidarity were added to the model. This finding might be the result of standard error reduction from .76 to .64, and an increase in the unstandardized coefficient from 1.04 to 1.32. An alternative explanation for this finding could be that older adults' self-perceptions on self-management ability and intergenerational solidarity suppressed the effect of older adults' functional capacity on subjective well-being of older adults, indicating that when the effects of self-management ability and intergenerational solidarity reported by older

adults were removed, older adults' self-perceptions on functional capacity was predictive of older adults' subjective well-being. The scale of self-management ability asked how well older adults manage the resources that contribute to physical and social well-being, and intergenerational solidarity assessed the positive sentiments between older adults and adult children and the exchange in functional support. If older adults have other resources assisting them in performing some of the ADL and IADL tasks (e.g., staff from retirement communities, adult children), they do not actually carry out the ADL and IADL tasks in daily life, but they believe that they are able to do it if no assistance was available to them. The belief of being able to do the tasks independently is somewhat different than their actual ability in carrying out the ADL and IADL tasks. Therefore, after removing the suppressors of older adults' activities of daily living on self-management ability and intergenerational solidarity, the remaining effect of older adults' self-perceptions on functional capacity predicted older adults' subjective well-being.

The hypothesis that older adults' self-management ability and intergenerational solidarity would mediate the associations between older adults' functional capacity on subjective well-being of older adults was not supported. Lack of direct associations between older adults' functional capacity and the mediators were noted; therefore, no mediating effects were found. Another hypothesis that older adults' self-management ability and intergenerational solidarity would moderate the effects of older adults' functional capacity and subjective well-being was also not supported. Neither older adults' self-management ability nor intergenerational solidarity moderated the relationship between older adults' functional capacity and subjective well-being of older adults.

According to Ryff and Keyes' (1995) multidimensional framework of psychological well-being, autonomy, competence, and positive relations with others were the predominant components of psychological functioning for older adults that predict the subjective well-being in later life. Therefore, the present study was expected to find the same type of effects on older adults' subjective well-being. Competence and positive relations with others, which was assessed by self-management ability and intergenerational solidarity, confirmed the framework of competence and positive relations as significant components of psychological functioning and predictors of older-adults' subjective well-being; however, autonomy, which was assessed by older adults' functional capacity, did not seem to have direct effect on older adults' subjective well-being. However, in the alternative model, older adults' functional capacity was found to be predictive of older adults' subjective well-being when older adults' overall perceived health was treated as mediator but not control variable. Older adults' functional capacity was predictive of older adults' overall perceived health, meaning that older adults would perceive their overall health better if they stay engaged with carrying out the tasks of ADLs and IADLs independently. The present study reported strong correlations between older adults' overall perceived health and functional capacity, which is consistent with previous literature. For instance, Pinquart's (2001) meta-analysis of the correlates of overall perceived health suggested that older adults' functional health (i.e., ADLs) has strong correlations with overall perceived health of older adults. Since the present study was cross-sectional, causal relationships between older adults' functional capacity and overall perceived health can not be determined.

Self-management reported by older adults turned out to be the most influential factor of predicting their subjective well-being, accounting for 42% of the variance. Self-

management ability has consistently been reported as a significant predictor of life satisfaction and overall well-being of older adults (Schuurmans et al., 2005). With advancing age, older adults are expected to experience some functional decline (Beckett et al., 1996; Reynolds & Silverstein, 2003); therefore, how well older adults can manage the resources that contribute to physical and social well-being might have a stronger effect on older adults' subjective well-being than functional capacity. Intergenerational solidarity accounted for 24% of the variance in subjective well-being of older adults, which is consistent with previous findings that higher levels of intergenerational solidarity predict better subjective well-being of older adults (Mancini & Blieszner, 1989).

In summary, results from the older-adult sample did not support the original mediating or moderating hypotheses, but an alternating mediating effect of older adults' functional capacity through older adults' overall perceived health on older adults' subjective well-being was found. Older adults' subjective well-being was influenced by direct effects of older adults' overall perceived health, self-management ability, and intergenerational solidarity and a suppresser effect of older adults' self-perceptions on functional capacity.

When examining the adult children's perceptions as predictors of older adults' subjective well-being, no significant associations were found. Adult children's perceptions did not replicate the associations of older-adult self-perceptions on older adults' subjective well-being, which suggests that adult children might not see the same situation or use the same criteria as older adults when rating older adults' health status and self-management ability. This result suggests that practitioners need to be cautious when using adult children as informants of older adults' health status. The result of the present study also suggests that older-adult self-perceptions rather than adult children's perceptions are more predictive of

older adults' subjective well-being. Some older-adult participants were curious about what their adult children would say about them in the adult-child reports. Since the older adults might not be familiar with their adult children's perceptions of older adults' functional capacity and self-management ability, the older adults' subjective well-being might not be associated with adult children's perceptions. Other probable explanations of the lack of significant associations between adult children's perceptions and older adults' subjective well-being may be due to the relative smaller sample size of adult children, $n = 62$ for adult children and $n = 92$ for older adults, or the effect of older-adult self-perceptions cancelled out the effect of adult-child perceptions on older adults' subjective well-being. Future research may want to control for the effect of older-adult self-perceptions when assessing the effect of adult-child perceptions of older adults' subjective well-being, if larger samples of both generations are recruited.

Predictors of adult children's subjective well-being. Adult children's demographic characteristics (i.e., age, gender, marital and work status, number of children, and geographic proximity), adult-child perceptions of their older-adult parents' overall perceived health, functional capacity, self-management ability, and intergenerational solidarity toward their older-adult parents were examined as predictors of adult children's subjective well-being. The original hypothesis stated that adult children's subjective well-being was predicted by adult-child perceptions of older adults' functional capacity and self-management ability, as well as adult-child ratings of intergenerational solidarity.

For the demographic characteristics of adult children, age was the only significant demographic variable associated with adult children's subjective well-being. Adult-child perceptions of older adults' functional capacity and self-management ability were not

predictive of adult children's subjective well-being; however, intergenerational solidarity reported by adult children was positively associated with adult children's subjective well-being. This present study finding suggested that adult children's perceptions on how well their older-adult parents can carry out IADL and ADL tasks and self-management does not affect adult children's subjective well-being. Intergenerational solidarity reported by adult children is positively associated with adult children's subjective well-being, which is consistent with previous studies, indicating that intergenerational solidarity contributes to better subjective well-being of both generations (Mancini & Blieszner, 1989; Merz et al., 2009).

Comparing the predictors of older adults' subjective well-being with the predictors of adult children's subjective well-being, intergenerational solidarity was found to be the only mutual predictor of subjective well-being for both older adults and adult children. The beta coefficient of intergenerational solidarity in the adult-child model ($\beta = .66$) was higher than in the older-adult model ($\beta = .24$), indicating that the effect of intergenerational solidarity on adult children's subjective well-being is stronger than on older adults' subjective well-being. Adult children's subjective well-being was more strongly associated with intergenerational solidarity than the association between older adults' subjective well-being and their reported intergenerational solidarity. A previous study also reported that differences were found between effects of intergenerational solidarity on older-adult parents' and adult children's loneliness (Long & Martin, 2000). In Long and Martin (2000), affective solidarity was negatively associated with older adults' loneliness and associative solidarity was not associated with older adults' loneliness; however, for the adult children, affective solidarity was not associated with adult children's loneliness, but associative solidarity was negatively

related to adult children's loneliness. The present study examined intergenerational solidarity by including affectual and functional solidarity in one construct; therefore, it is unclear if one or both dimensions of intergenerational solidarity contributed to the different effects of intergenerational solidarity on older adults' and adult children's subjective well-being.

Geographic proximity became significant in predicting adult children's subjective well-being when adult children's perceptions of older adults' self-management ability and intergenerational solidarity were added in Model 3. This finding indicates adult children's perceptions of older adults' self-management ability and intergenerational solidarity suppressed the effect of geographic proximity on subjective well-being. Between the two variables, adult children's perceptions of intergenerational solidarity toward older-adult parents is most likely the stronger suppressor because intergenerational solidarity reported by adult children was predictive of adult children's subjective well-being, but older adults' self-management ability was not. Therefore, this finding suggests geographic proximity between older-adult parents and adult children was predictive of adult children's subjective well-being when the effects of adult children's perceptions on older adults' self-management ability and intergenerational solidarity were removed. Geographic proximity was positively associated with adult children's subjective well-being, indicating that adult children who lived further away from their parents reported higher levels of subjective well-being. More than 50% of the adult-child participants indicated they lived more than 100 miles away from their older-adult parents, which makes it more difficult for them to assist their older-adult parents with caregiving tasks than the adult children who lived close by. Adult children who lived close by older-adult parents are more likely to be involved with caregiving tasks. With all other

tasks that the adult children are involved in (e.g., work, their own families), adult children living close by their parents might feel the burden of caregiving. Adult children living further away are less likely to experience caregiving burden, which is negatively associated with adult children's subjective well-being. Therefore, after removing the suppressor of adult children's perceptions of intergenerational solidarity, the remaining effect of geographic proximity between older adults and adult children predicts adult children's subjective well-being.

Mediating effects of adult children's perceptions on older adults' functional capacity through adult children's perceptions of older adults' self-management ability and intergenerational solidarity on adult children's subjective well-being were expected. However, no significant associations between adult children's subjective well-being and adult children's perceptions of older adults' functional capacity were found; moreover, lack of direct associations between adult children's perception on older adults' functional capacity and the mediators were noted. Therefore, no mediating effects were found. Another hypothesis stated that older adults' self-management ability and intergenerational solidarity reported by adult children would moderate the effects of adult children's perceptions on older adults' functional capacity and adult children's subjective well-being; however, neither self-management ability nor intergenerational solidarity reported by adult children moderated the relationship between adult children's perceptions of older adults' functional capacity and subjective well-being of adult children.

In summary, adult children's subjective well-being was influenced by direct effects of age, intergenerational solidarity, and a suppresser effect of geographic proximity between

older-adult parents and adult children. The mediating or moderating hypotheses were not supported by the present study finding.

Limitations and Practical Applications

There are several limitations of this study including sample, measures and missing data. The sample of older adults was recruited from only one Midwestern state, so the findings of this study cannot be generalized to all the North American older adults. The majority of the older adults were community dwelling or lived in an independent living unit at retirement communities and were able to perform most of the described ADL and IADL tasks without help. Therefore, the present study findings might be biased due to lack of variability in functional capacity of older adults.

The selected measures for the present study might not be the most appropriate ones for the present study sample of older adults. As previously mentioned, lack of variability in older adults' functional capacity was found. Therefore, Fillenbaum's (1988) older adults' self-care capacity scale might not assess older adults' functional capacity in this particular group of older adults. Moreover, several older adults have indicated that the scale for assessing functional solidarity did not apply to them, because their adult children lived far away from them; therefore, older adults were not likely to receive supports from their adult children and were less able to provide supports to their adult children from the distance. This might be the reason of the relatively low scores of functional solidarity reported by older adults and adult children.

Missing data was another limitation in this study. Several older-adult participants missed an entire page of questions by accident. A few older-adult participants did not have any child, so the questions assessing intergenerational solidarity were not applicable to them.

The instruction for answering the questions in the intergenerational solidarity section indicated that the older adults should consider the relationship with the adult children that they nominated for participation in the same study as referent children. Some of the older-adult participants were not willing to nominate a referent child, but no clear instruction in the booklet was given to these older adults for how they should answer the section of assessing intergenerational solidarity. The older adults who did not nominate a referent child either did not complete the section assessing intergenerational solidarity or completed the section; we were not able to identify if the older adults considered the intergenerational solidarity toward one particular child or all of their children when answering the questions in the intergenerational solidarity section. In future studies, clear instructions should be provided to older adults who do not wish to nominate a referent child, so that their answers will be more consistent.

Despite these limitations, this study suggests even though there are some differences between the intergenerational reports on the mean level, intergenerational perceptions are significantly correlated in a positive direction. For the subjective well-being of older adults and adult children, predictors of older adults' subjective well-being are different from the predictors of adult children's subjective well-being. The most important predictor of older adults' subjective well-being was self-management ability. Therefore, how well older adults can adapt to the aging changes and manage the direct resources predict older adults' subjective well-being. Older adults who lived in retirement communities are able to voice their opinions, but are not always able to make their own decisions. This finding suggests to practitioners and researchers that assisting older adults with activities of daily living is

essential for older adults, and that assisting older adults with managing the direct resources is very important for older adults in promoting better subjective well-being.

For the adult children, intergenerational solidarity toward older-adult parents was the most important predictor of adult children's subjective well-being. Adult children might have expected to see older-adult parents with more health problems and functional limitations in advancing age; therefore, older adults' functional capacity and self-management ability were not predictive of adult children's subjective well being. Intergenerational solidarity was also a significant predictor of older adults; therefore, intergenerational solidarity is an important factor of subjective well-being for both generations. Adult children often live far away from their older-adult parents due to work, their own families, or other reasons. Distal communication might be helpful for the two generations to stay connected and feel close to each other even at a distance. In this study, only two of the five dimensions of intergenerational solidarity were selected for assessing intergenerational solidarity. Future research should include the dimension of association for assessing frequency of contact between the two generations, and examine the associations between frequent contact, family affection and subjective well-being of older adults and adult children.

Due to the rapid improvements of technology, there are more ways for distal communication such as using telephones, E-mail, and video calls. However, older adults have been exposed less to new technologies than the younger generation, and some technologies are not available to older adults who live in a retirement community. If older adults can become more familiar with the use of technology and have more access to the technology, they will have more options when they want to get in touch and stay in close

contact with their adult children or their loved ones who live far away. This is also the case for adult children: they can reach their older-adult parents in different ways. More programs should be provided to older adults for introducing these technologies and more older-adult-user-friendly technologies should also be developed. If the use of technologies can enhance more frequent contact, older adults' self-perceptions might be more in concordance with adult children's perceptions and both generations might have better communication toward each other, resulting in subjective well-being of both generations.

All in all, this study provided insights into how older-adult perceptions are different from their adult children on several dimensions and how subjective well-being of older adults and adult children is influenced by different factors. Both generations need to accept the fact that their perceptions may not be in agreement. The study also revealed that close intergenerational relationship predicts subjective well-being in both generations; therefore, having good intergenerational relationships is a very important factor of happiness throughout adulthood. For older adults, their subjective well-being is not only influenced by their functional capacity in performing activities of daily living, older adults' abilities in managing sustainable well-being in later life are also very important.

References

- Abu-Bader, S., Rogers, A., & Barusch, A. (2002). Predictors of life satisfaction in frail elderly. *Journal of Gerontological Social Work, 38*, 3–17.
doi:10.1300/J083v38n03_02
- Adams, K. B., Sanders, S., & Auth, E. A. (2004). Loneliness and depression in independent living retirement communities: Risk and resilience factors. *Aging & Mental Health, 8*, 475–485. doi:10.1080/13607860410001725054
- Aiken, L., & West, S. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Baltes, P., & Baltes, M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1–34). New York: Cambridge University Press.
- Baron, R., & Kenny, D. (1986). The moderator- mediator variable distinction in social psychological research: Conceptual, strategic, and statistic considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.
doi:10.1037/0022-3514.51.6.1173
- Beckett, L., Brock, D., Lemke, J., Mendes de Leon, C., Guralnik, J., Fillenbaum, G., Branch, L., Wetle, T., & Evans, D. (1996). Analysis of change in self-reported physical function among older persons in four population studies. *American Journal of Epidemiology, 143*(8), 766–778.
- Bengtson, V. (2001). Beyond the nuclear family: The increasing importance of multigenerational bonds. *Journal of Marriage and Family, 63*, 1–16.

- doi:10.1111/j.1741-3737.2001.00001.x
- Bengtson, V., & Roberts, R. (1991). Intergenerational solidarity in aging families: An example of formal theory construction. *Journal of Marriage and the Family*, 53, 856-870. doi:10.2307/352993
- Bengtson, V., & Schrader, S. (1982). Parent-child relations. In D. Mangen and W. Peterson (Eds.), *Research instruments in social gerontology Vol. 2* (pp. 115-186). Minneapolis, MN: University of Minnesota Press.
- Benyamin, Y., Leventhal, E., & Leventhal, H. (2003). Elderly people's ratings of the importance of health-related factors to their self-assessments of health. *Social Science & Medicine*, 56, 1661-1667. doi: 10.1016/S0277-9536(02)00175-2
- Berg, A., Hassing, L., McClearn, G., & Johansson, B. (2006). What matters for life satisfaction in the oldest-old? *Aging & Mental Health*, 10, 257-264. doi:10.1080/13607860802342227
- Brandtstädtter, J., & Renner, G. (1990). Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilative and accommodative strategies of coping. *Psychology and Aging*, 5, 58-67. doi: 10.1037/0882-7974.5.1.58
- Carpenter, B., Lee, M., Ruckdeschel, K., Van Haitsma, K., & Feldman, P. (2006). Adult child as informants about parents' psychosocial preferences. *Family Relations*, 55, 552-563. doi: 10.1111/j.1741-3729.2006.00425.x
- Cheng, S-T., Fung, H., & Chan, A. (2007). Maintaining self-rated health through social comparison in old age. *Journal of gerontology: Psychological Sciences*, 62B, P227-P285.

- Cicirelli, V. (1983). Adult children's attachment and helping behavior to elderly parents: A path model. *Journal of Marriage and the Family, 45*, 815-825. doi:10.2307/351794
- Couture, M., Larivière, N., & Lefrançois, R. (2005). Psychological distress in older adults with low functional independence: A multidimensional perspective. *Archives of Gerontology and Geriatrics, 41*, 101-111. doi:10.1016/j.archger.2004.12.004
- Diener, E. (2000). Subjective well-being: The science of happiness, and a proposal for a national index. *American Psychologist, 55*, 34-43. doi: 10.1037/0003-066X.55.1.34
- Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75. doi:10.1207/s15327752jpa4901_13
- Diener, E., Sapyta, J., & Suh, E. (1998). Subjective well-being is essential to well-being. *Psychological Inquiry, 9*, 33-37. doi:10.1207/s15327965pli0901_3
- Diener, E., & Suh, E. (1997). Subjective well-being and age: An international analysis. In K. W. Schaie & M. P. Lawton (Eds.), *Annual Review of Gerontology and Geriatrics, 17*, (pp. 304-324). New York: Springer Publishing Co., Inc.
- Dillman, D. (1978). *Mail and telephone surveys: The total design method*. New York, NY: Wiley-Interscience.
- Ebner, N., & Freund, A. (2007). Personality theories of successful aging. In J. Blackburn, & C. Dulmus (Eds.), *Handbook of gerontology: Evidence-based approaches to theory, practice, and policy* (87–108). Hoboken, New Jersey: John Wiley & Sons, Inc.
- Fillenbaum, G. (1988). *Multidimensional functional assessment of older adults: The Duke Older Americans Resources and Services Procedures*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Freund, A., & Ebner, N., (2005). The aging self: Shifting from promoting gains to balancing

- losses. In W. Greve, K. Rothermund, & D. Wentura (Eds.). *The adaptive self: Personal continuity and intentional self-development* (pp. 185–202). Ashland, OH: Hogrefe & Huber Publishers.
- Gaugler, J., & Kane, R. (2007). Families and assisted living. *The Gerontologist*, 47, 83-99.
doi:10.1093/geront/47.Supplement_1.83
- Gayman, M., Turner, R., & Cui, M. (2008). Physical limitations and depressive symptoms: Exploring the nature of the association. *Journal of Gerontology: Social Sciences*, 63(4), S219-S228.
- Gronvold, R. (1988). Measuring affectual solidarity. In D. Mangen, V. Bengtson, & P. Landry (Eds.), *Measurement of intergenerational relations* (pp. 74-97). Beverly Hills, CA: Sage Publications, Inc.
- Hancock, P., Mangen, D., & McChesney, K. (1988). Measuring affectual solidarity. In D. Mangen, V. Bengtson, & P. Landry (Eds.), *Measurement of intergenerational relations* (pp. 74-97). Beverly Hills, CA: Sage Publications, Inc.
- Hébert, R. (1997). Functional decline in old age. *Canadian Medical Association Journal*, 157(8), 1037-1045.
- Henchoz, K., Cavalli, S., & Girardin, M. (2008). Health perception and health status in advanced old age: A paradox of association. *Journal of Aging Studies*, 22, 282-290.
doi:10.1016/j.jaging.2007.03.002
- Isaacowitz, D.M., & Smith, J. (2003). Positive and negative affect in very old age. *Journal of Gerontology: Psychological Sciences*, 58B, P143-P152.
doi:10.1093/geronb/58.3.P143

- Johnson, C. & Troll, L. (1992). Family functioning in late life. *Journal of Gerontology: Social Sciences*, 47, S66-S72. doi:10.1093/geronj/47.2.S66
- Johnson, C. & Troll, L. (1996). Family structure and the timing of transitions from 70 to 103 years of age. *Journal of Marriage and the Family*, 58, 178-187. doi:10.2307/353386
- Kahn, J., Hessling, R., & Russell, D. (2003). Social support, health, and well-being among the elderly: What is the role of negative affectivity? *Personality and Individual Differences*, 35, 5-17. doi:10.1016/S0191-8869(02)00135-6
- Katz, S., Ford, A., Moskowitz, R., Jackson, B., & Jaffe, M. (1963). The index of ADL: A standardized measure of biological and psychological function. *Journal of the American Medical Association*, 185, 914-919.
doi:10.1001/jama.1963.03060120024016
- Keyes, C., Shmotkin, D., & Ryff, C. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82, 1007-1022.
doi:10.1037/0022-3514.82.6.1007
- Larson, R. (1978). Thirty years of research on the subjective well-being of older Americans. *Journal of Gerontology*, 33, 109-125. doi:10.1093/geronj/33.1.109
- Lawton, M. P., & Brody, E. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9, 179-186.
doi:10.1093/geront/9.3_Part_1.179
- Levy, B. (2003). Mind matters: Cognitive and physical effects of aging self-stereotypes. *Journal of Gerontology: Psychological Sciences*, 58B, P203-P211.
doi:10.1093/geronb/58.4.P203

- Long, M., & Martin, P. (2000). Personality, relationship closeness, and loneliness of oldest old adults and their children. *Journals of Gerontology: Psychological Sciences*, 55, P311-P319. doi:10.1093/geronb/55.5.P311
- Lowenstein, A. (1999). Intergenerational family relations and social support. *Zeitschrift für Gerontologie und Geriatrie*, 32, 398-406. doi:10.1007/s003910050136
- Mancini, J., & Blieszner, R. (1989). Aging parents and adult children: Research themes in intergenerational relations. *Journal of Marriage and the Family*, 51, 275-290. doi:10.2307/352492
- Merz, E-M., Consedine, N., Schulze, H-J., & Schuengel, C. (2009). Wellbeing of adult children and ageing parents: Associations with intergenerational support and relationship quality. *Aging and Society*, 29, 783-802. doi:10.1017/S0144686X09008514
- Merz, E-M., Schuengel, C., & Schulze, H-J. (2009). Intergenerational relations across 4 years: Well-being is affected by quality, not by support exchange. *The Gerontologist*, 49, 536-548. doi:10.1093/geront/gnp043
- Mitchell, J., & Kamp, B. (2000). Quality of life in assisted living homes: A multidimensional analysis. *Journal of Gerontology: Psychological Sciences*, 55B, P117-P127. doi:10.1093/geronb/55.2.P117
- Peek, M., Coward, R., Peek, C., & Lee, G. (1998). Are expectations for care related to the receipt of care? An analysis of parent care among disabled elders. *Journal of Gerontology: Social Sciences*, 53B, S127-S136. doi:10.1093/geronb/53B.3.S127
- Pinquart, M. (2001). Correlates of subjective health in older adults: A meta-analysis. *Psychology and Aging*, 16, 414-426. doi:10.1037/0882-7974.16.3.414

- Poon, L., Martin, P., Bishop, A., Cho, J., da Rosa, G., Deshpande, N., Hensley, R., MacDonald, M., Margrett, J., Randall, K., Woodard, J., & Miller, S. (2010). Understanding centenarians' psychosocial dynamics and their contributions to health and quality of life. *Current Gerontology and Geriatrics Research*, 2010, 1-13. doi:10.1155/2010/680657
- Reinhardt, J., Boerner, K., & Horowitz, A. (2006). Good to have but not to use: Differential impact of perceived and received support on well-being. *Journal of Social and Personal Relationships*, 23, 117-129. doi:10.1177/0265407506060182
- Reynolds, S., & Silverstein, M. (2003). Observing the onset of disability in older adults. *Social Sciences and Medicine*, 57, 1875-1899. doi:10.1016/S0277-9536(03)00053-4
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Ryan, R. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, 63, 399-425. doi:10.1111/j.1467-6494.1995.tb00501.x
- Ryan, R., & Deci, E. (2001). On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141-166. doi:10.1146/annurev.psych.52.1.141
- Ryan, R., & La Guardia, J. (2000). What is being optimized? Self-determination theory and basic psychological needs. Psychology and the aging revolution: How we adapt to longer life. In S. Qualls, & N. Abeles (Eds.), *Psychology and the aging revolution: How we adapt to longer life* (pp. 145-172). Washington, DC: American Psychological Association. doi:10.1037/10363-008

- Ryan, R., & Willits, F., (2007). Family ties, physical health, and psychological well-being. *Journal of Aging and Health*, 19, 907-920. doi:10.1177/0898264307308340
- Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719-727. doi:10.1037/0022-3514.69.4.719
- Schuurmans, H., Steverink, N., Frieswijk, N., Buunk, B., Slaets, J., & Lindenberg, S. (2005). How to measure self-management abilities in older people by self-report. The development of the SMAS-30. *Quality of Life*, 14, 2215-2228. doi:10.1007/s11136-005-8166-9
- Silverstein, M., Chen, X., & Heller, K. (1996). Too much of a good thing? Intergenerational social support and the psychological well-being of older parents. *Journal of Marriage and the Family*, 58, 970-982. doi:10.2307/353984
- Silverstein, M., Gans, D., & Yang, F. (2006). Intergenerational support to aging parents: The role of norms and needs. *Journal of Family Issues*, 27, 1068-1084. doi:10.1177/0192513X06288120
- Silverstein, M., & Giarrusso, R. (2010). Aging and family life: A decade review. *Journal of Marriage and Family*, 72, 1039-1058. doi:10.1111/j.1741-3737.2010.00749.x
- Sobel, M. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290-312. doi:10.2307/270723
- Steffen, T., Hacker, T., & Mollinger, L. (2000). Age- and gender-related test performance in community-dwelling elderly people: Six-minute walk test, Berg Balance Scale, timed up & go test, and gait speeds. *Physical Therapy*, 82(2), 128-137.

- Steverink, N., Lindenberg, S., & Slaets, J. (2005). How to understand and improve older people's self-management of wellbeing. *European Journal of Ageing*, 2, 235-244. doi:10.1007/s10433-005-0012-y
- Steverink, N., & Lindenberg, S. (2008). Do good self-managers have less physical and social resource deficits and more well-being in later life? *European Journal of Ageing*, 5, 181-190. doi:10.1007/s10433-008-0089-1
- Walters, S., Munro, J., & Brazier, J. (2001). Using the SF-36 with older adults: A cross sectional community-based survey. *Age and Ageing*, 30, 337-343. doi:10.1093/ageing/30.4.337
- Wang, P., Badley, E., & Gignac, M. (2004). Activity limitation, coping efficacy and self-perceived physical independence in people with disability. *Disability and Rehabilitation*, 26, 785-793. doi:10.1080/09638280410001684578
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Westerhof, G., & Keyes, C. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development*, 17, 110-119. doi:10.1007/s10804-009-9082-y
- Wiener, J., Hanley, R., Clark, R., & van Nostrand, J. (1990). Measuring the activities of daily living: Comparisons across national surveys. *Journal of Gerontology: Social Sciences*, 45(6), S229-S237. doi:10.1093/geronj/45.6.S229

APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVED LETTER



Institutional Review Board
 Office for Responsible Research
 Vice President for Research
 1138 Pearson Hall
 Ames, Iowa 50011-2207
 515 294-4566
 FAX 515 294-4267

Date: 5/6/2011

To: Wen-Hua Hsieh
 1094 Elm Hall

CC: Dr. Peter Martin
 1085 Elm Hall

From: Office for Responsible Research

Title: Effects of Intergenerational Solidarity and Self-Management Ability on Psychological Well-Being of Older Adults with Different Functional Capacity

IRB Num: 11-168

Approval Date:	5/4/2011	Continuing Review Date:	5/3/2012
Submission Type:	New	Review Type:	Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University. Please refer to the IRB ID number shown above in all correspondence regarding this study.

Your study has been approved according to the dates shown above. To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- **Use only the approved study materials** in your research, including the recruitment materials and informed consent documents that have the IRB approval stamp.
- Obtain IRB approval prior to implementing any changes to the study by submitting the "Continuing Review and/or Modification" form.
- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.
- Stop all research activity if IRB approval lapses, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Research investigators are expected to comply with the principles of the Belmont Report, and state and federal regulations regarding the involvement of humans in research. These documents are located on the Office for Responsible Research website <http://www.compliance.iastate.edu/irb/forms/> or available by calling (515) 294-4566.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

APPENDIX B. QUESTIONNAIRE FOR OLDER ADULTS

Participate ID _____
Date _____

ISU IRB # 1	11-168
Approved Date:	4 May 2011
Expiration Date:	3 May 2012

Effects of intergenerational perceptions on subjective well-being
of older adults and their adult children

Questionnaire for Older Adults

Wen-Hua Hsieh, M.S. Candidate
Gerontology Program
Human Development and Family Studies
Iowa State University

Supervisor: Peter Martin, Ph.D.
Director of the Gerontology Program
Iowa State University

Demographics

Instruction: Please *fill in the blank* or *select one* (place an 'X' in the box) that describes you the best.

1. Age: _____

2. Gender

- Male
- Female

3. Ethnic Background

- White/ Caucasian
- African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Hispanic or Latino Origin
- Other (Please specify) _____

4. Marital Status

- Single/ Never married
- Married
- Divorced
- Separated
- Widowed

5. Residential Location

- Private home/ apartment
- Retirement community

Name of the community: _____

Living arrangement at the retirement community (please select one)

- Independent living unit/ apartment/ townhome
- Assisted living unit
- Health/ nursing care unit
- Other (please specify) _____

6. How many children do you have? _____

7. May I contact one of your children for participating in this study?

- No
- Yes

[If “YES”]

Please choose one of your children and provide me with the following information:

Name of your child: _____

Why did you choose this child to be contacted with?

Telephone number: _____

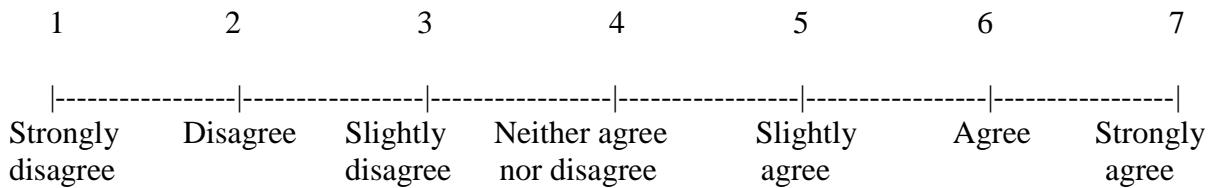
E-mail address: _____

Your name: _____

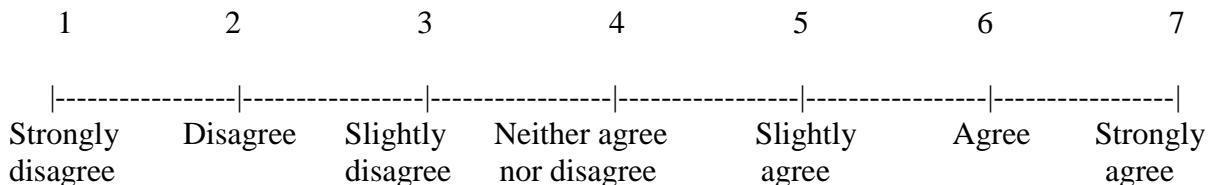
Satisfaction with Life

Instruction: The next five statements describe your **present state of well-being**. You may agree, disagree, or neither agree nor disagree with each statement. **Please use the scale and circle your response.**

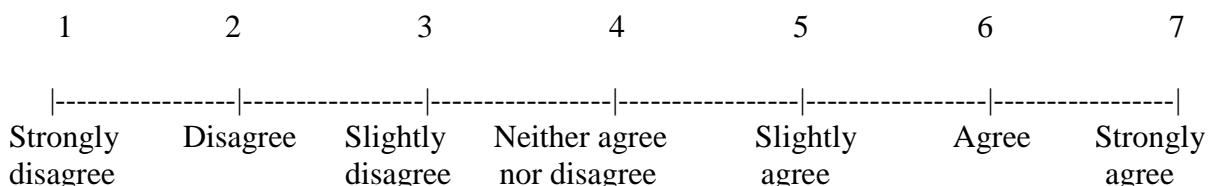
1. In most ways my life is close to my ideal.



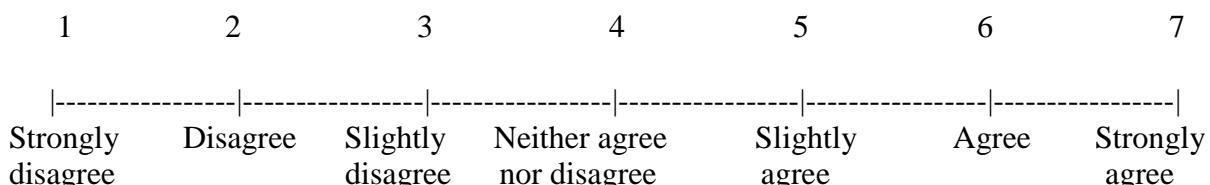
2. The conditions of my life are excellent.

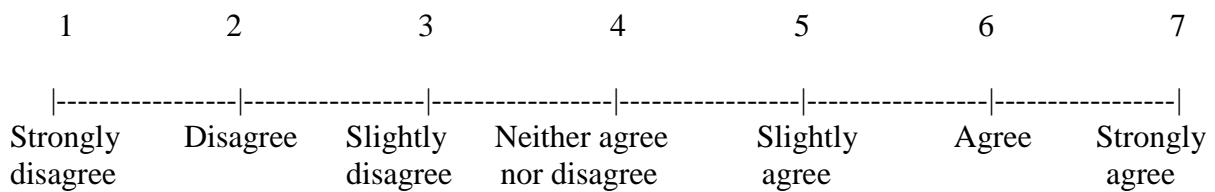


3. I am satisfied with my life.



4. So far I have gotten the important things I want in life.

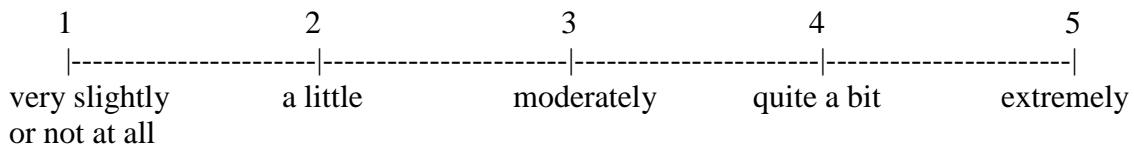


5. If I could live my life over, I would change almost nothing.

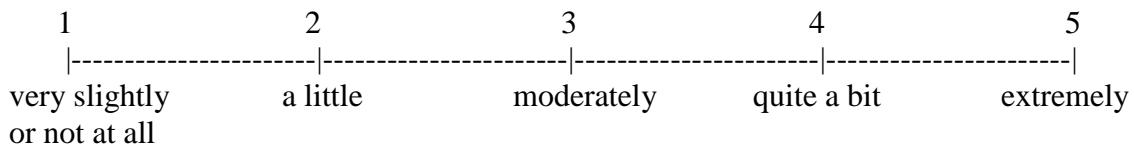
Mood Questionnaire

Instruction: The scale consists of a number of words that describe different feelings and emotions. **Read each item and then circle the appropriate response on the scale.** Indicate to what extent you have felt this way *during the past week*.

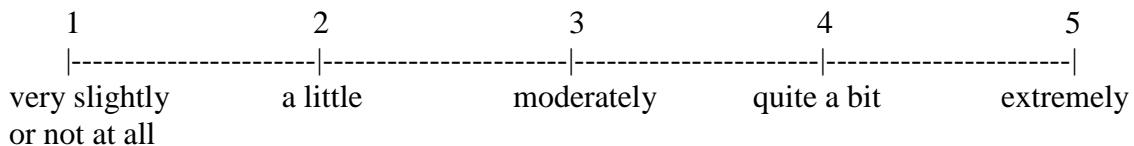
1. Interested



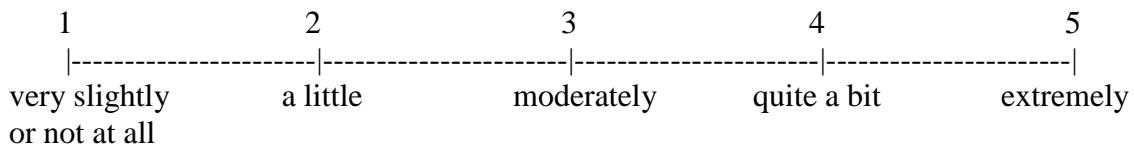
2. Distressed



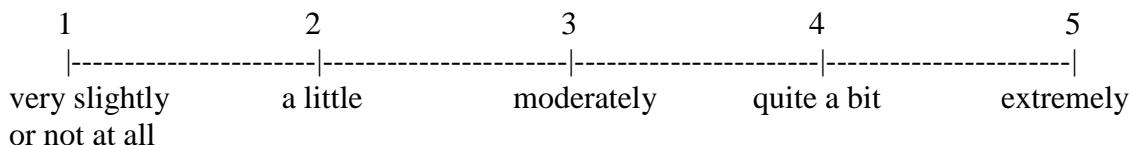
3. Excited

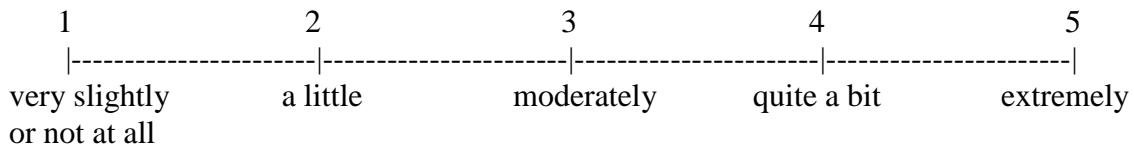
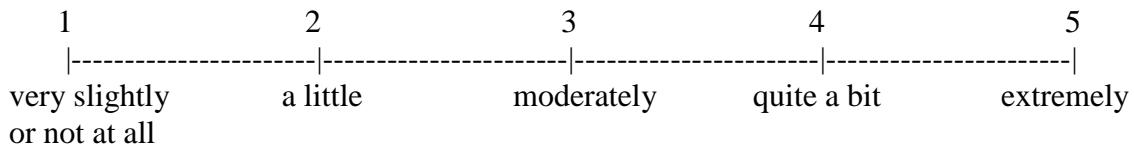
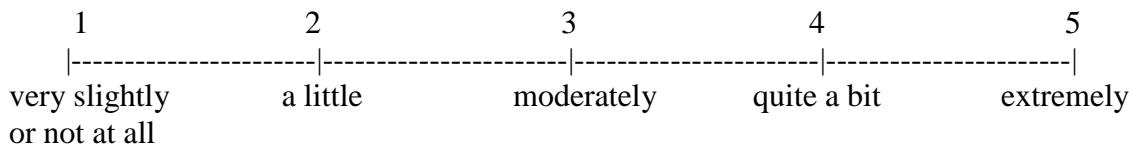
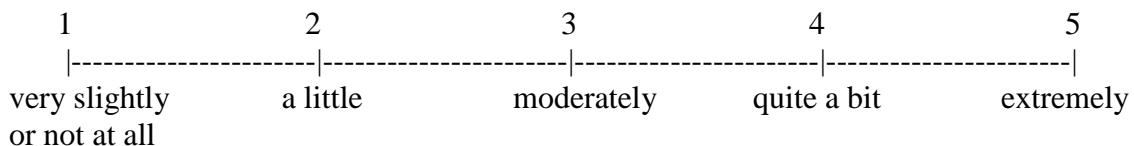
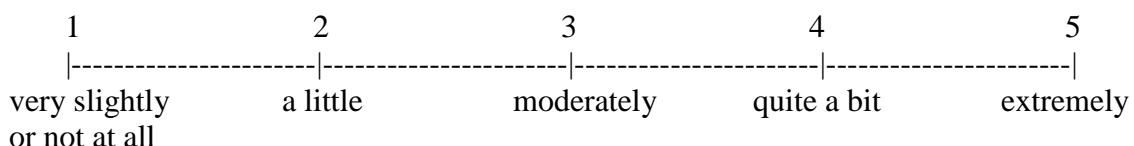
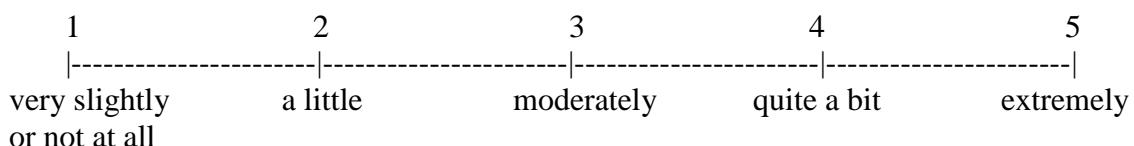


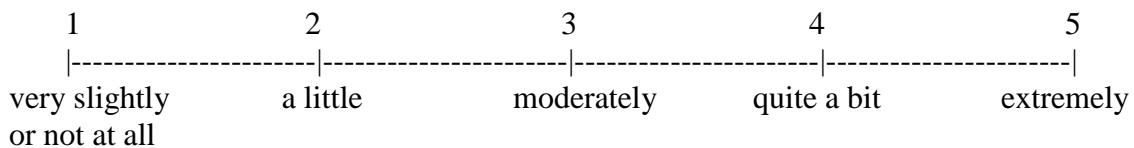
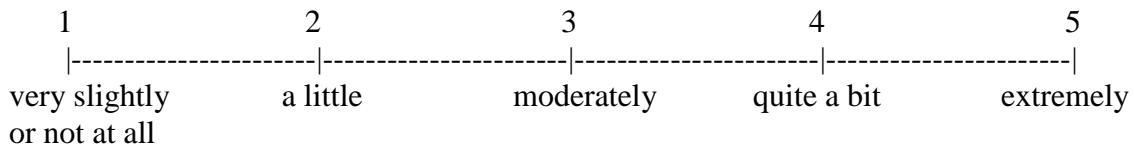
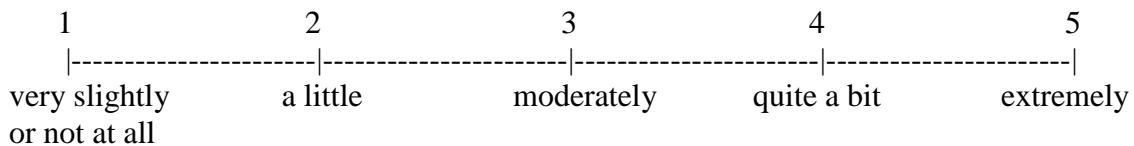
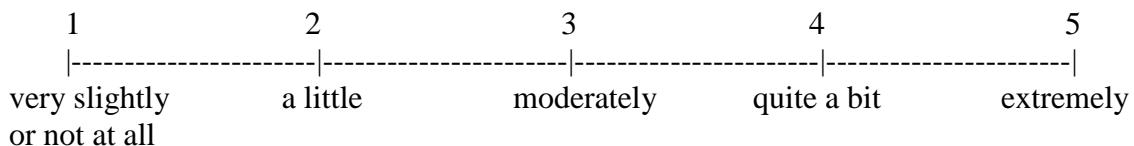
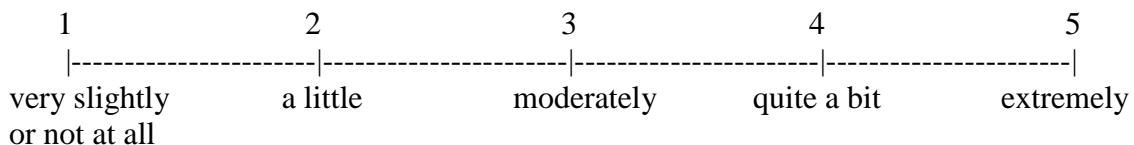
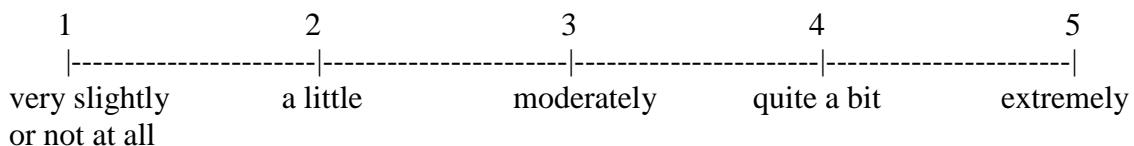
4. Upset

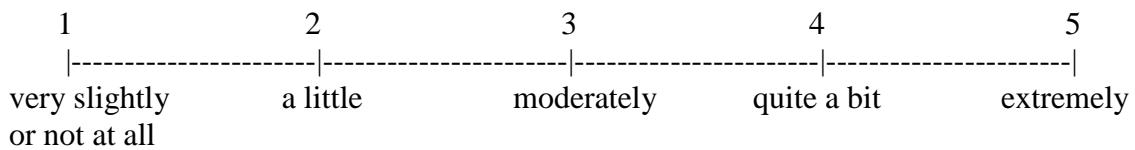
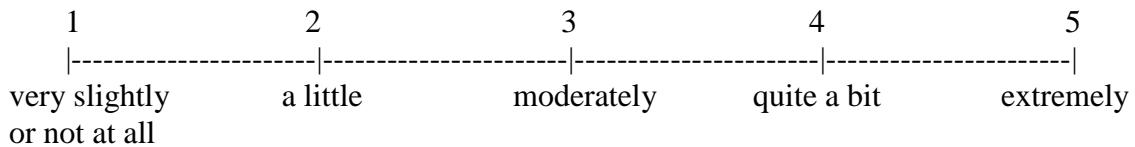
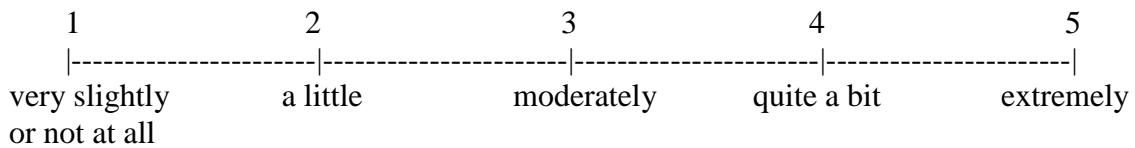


5. Strong



6. Guilty**7. Scared****8. Hostile****9. Enthusiastic****10. Proud****11. Irritable**

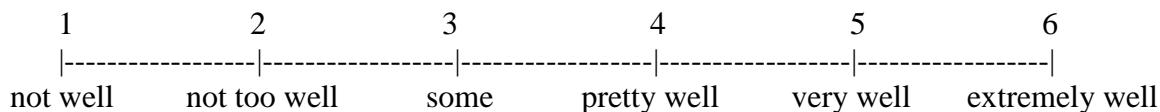
12. Alert**13. Ashamed****14. Inspired****15. Nervous****16. Determined****17. Attentive**

18. Jittery**19. Active****20. Afraid**

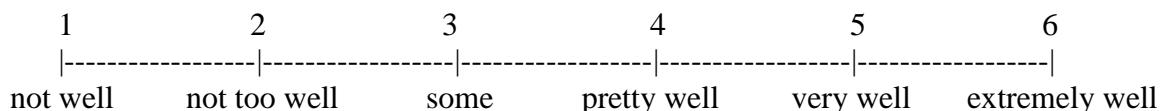
Family Relations

Instruction: This section concerning the relationship between parent and adult child. Please use the scale and circle your response by considering your relationship with the child whom you provided me with his/her contact information in the beginning of the questionnaire only.

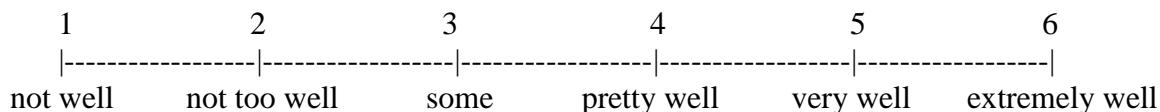
1. How well do you feel this child understands you?



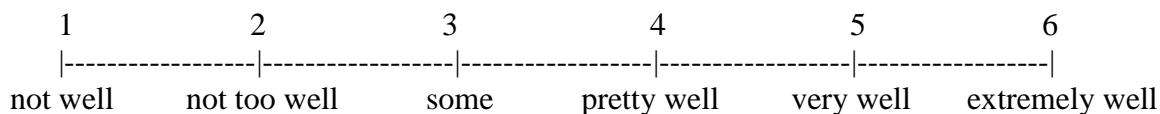
2. How well do you feel this child trusts you?



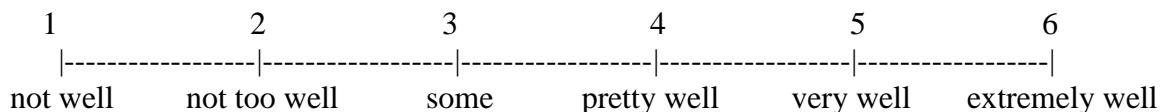
3. How fair do you feel this child is toward you?



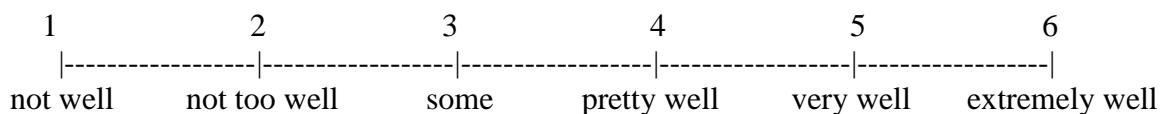
4. How much respect do you feel from this child?

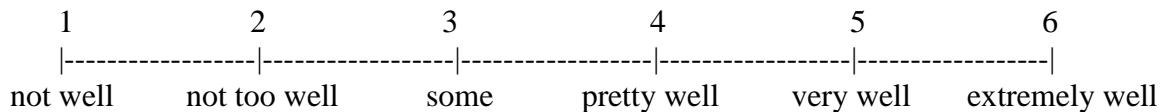
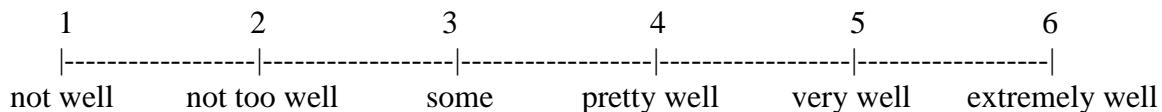
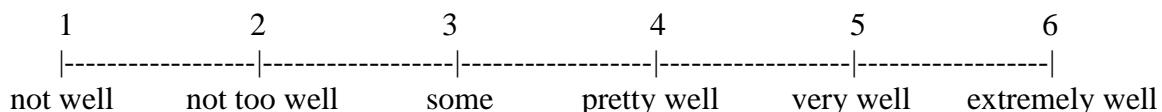
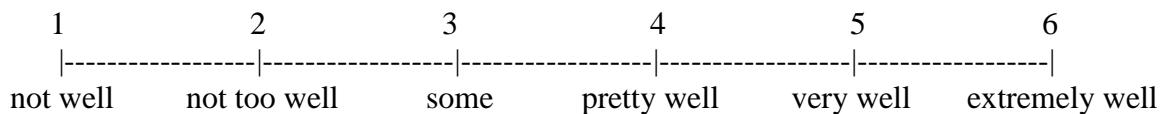
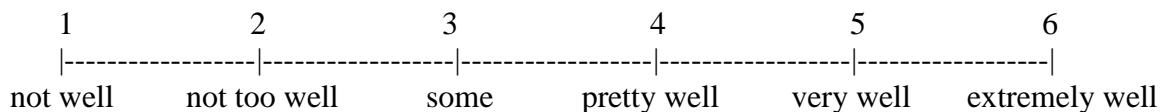


5. How much affection do you feel this child has for you?



6. How well do you understand this child?



7. How much do you trust this child?**8. How fair do you feel you are toward this child?****9. How much do you respect this child?****10. How much affection do you have toward this child?****11. Taking everything into consideration, how close do you feel, in the relationship between you and this child?**

Family Support

Instruction: This section concerning support exchange between parent and adult child. Please select your response (place an 'X' in the box) by considering *how often do you and the child whom you provided me with his/her contact information in the beginning of the questionnaire do the following only.*

1. In the past year have you *received* any financial assistance from this child?

- No, not at all
- Infrequently
- Regularly – the child partially supports me
- Regularly – I get most of my support from the child.

2. In the past year have you *given* any financial assistance to this child?

- No, not at all
- Infrequently
- Regularly – I partially support my child
- Regularly – the child gets most of their support from me.

3. How often does *this child helping you out* with chores or errands?

- Almost never
- About once a year
- Several times a year
- Every other month or so
- About once a month
- About once a week
- Several times a week
- Almost every day

4. How often do you *help this child out* with chores or errands?

- Almost never
- About once a year
- Several times a year
- Every other month or so
- About once a month
- About once a week
- Several times a week
- Almost every day

5. How often do you do *gift exchanges* with this child?

- Almost never
- About once a year
- Several times a year
- Every other month or so
- About once a month
- About once a week
- Several times a week
- Almost every day

General Physical Health

Instruction: The following section concerning your health status. **Please select one (place an 'X' in the box) that describes *your current health status*.**

1. How would you rate your overall health at the present time?

- Poor
- Fair
- Good
- Excellent

2. How much do your health troubles stand in the way of your doing the things you want to do?

- A great deal
- A little (some)
- Not at all

Self-Care Capacity

Instruction: The following section concerning some of the activities of daily living, things that we all need to do as a part of our daily lives. **For each described activities, please rate if you can do these activities without any help at all, or if you need some help to do them, or if you are unable to do them at all.**

1. Can you use the telephone...

- without help, including looking up numbers and dialing;
- with some help (can answer phone or dial operator in an emergency, but need a special phone or help in getting the number or dialing)
- completely unable to use the telephone

2. Can you get to places out of walking distance...

- without help (drive your own car, or travel alone on buses, or taxis)
- with some help (need someone to help you or go with you when traveling)
- unable to travel unless emergency arrangements are made for a specialized vehicle like an ambulance

3. Can you go shopping for groceries or clothes (assuming that you have transportation)...

- without help (taking care of all shopping needs yourself, assuming you had transportation)
- with some help (need someone to go with you on all shopping trips)
- completely unable to any shopping

4. Can you prepare your own meals...

- without help (plan and cook full meals yourself)
- with some help (can prepare some things but unable to cook full meals yourself)
- completely unable to prepare any meals

5. Can you do your housework...

- without help (can clean floors, etc.)
- with some help (can do light housework but need help with heavy work)
- completely unable to do any housework

6. Can you take your own medicine...

- without help (in the right doses at the right time);
- with some help (able to take medicine if someone prepares it for you and/or reminds you to take it)
- completely unable to take your medicines

7. Can you handle your own money...

- without help (write checks, pay bills, etc.);
- with some help (manage day-to-day buying but need help with managing your checkbook and paying your bills)
- completely unable to handle money

8. Can you eat...

- without help (able to feed yourself completely);
- with some help (need help with cutting, etc.);
- completely unable to feed yourself

9. Can you dress and undress yourself...

- without help (able to pick out clothes, dress and undress yourself)
- with some help
- completely unable to dress and undress yourself

10. Can you take care of your own appearance, for example combing your hair and (for men) shaving...

- without help
- with some help
- completely unable to maintain your appearance yourself

11. Can you walk...

- without help (except from a cane)
- with some help from a person or with the use of a walker, or crutches, etc.
- completely unable to walk

12. Can you get in and out of bed...

- without any help or aids
- with some help (either from a person or with the aid of some device)
- totally dependent on someone else to lift you

13. Can you take a bath or shower...

- without help;
- with some help (need help getting in and out of special attachments on the tub); or
- completely unable to bathe yourself

14. Do you ever have trouble getting to the bathroom on time?

- No

- Yes
- Have a catheter or colostomy

[IF "YES"]

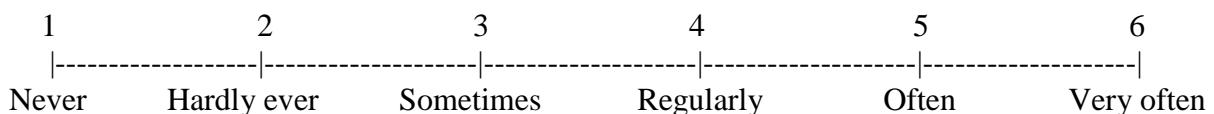
14 a. How often do you wet or soil yourself (either day or night)?

- Once or twice a week
- Three times a week or more

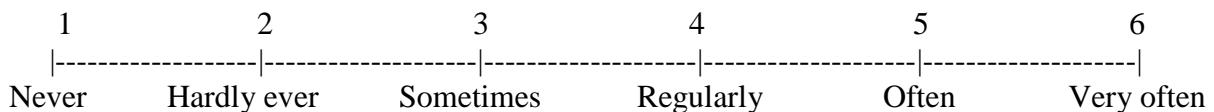
Self-Management

Instruction: The last section concerning about **your self-management ability**. Please use the scale and *circle* the best response for each statement.

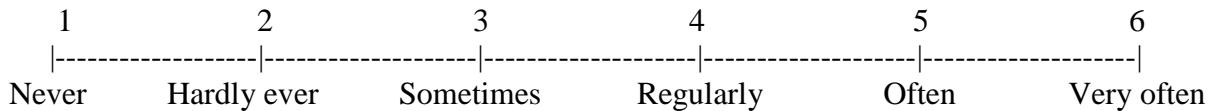
1. How often do you take the initiative to keep yourself busy?



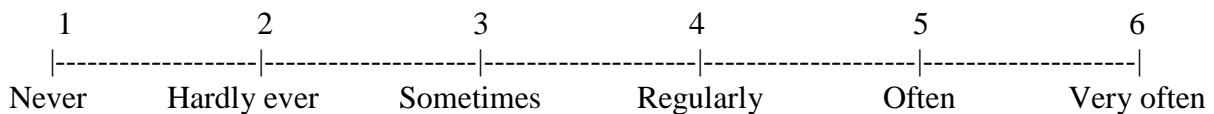
2. How often are you engaged in making your home or room as comfortable as possible?



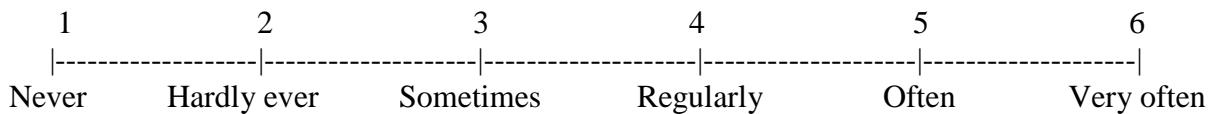
3. How often do you take the initiative to get in touch with people who are dear to you?



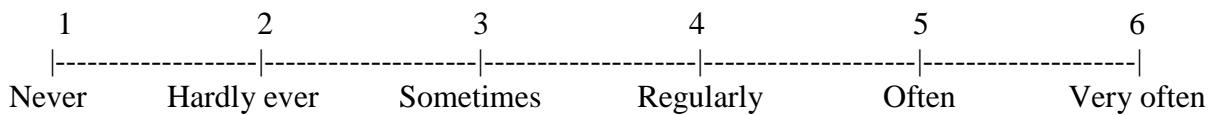
4. Do you sometimes try to be good at something?

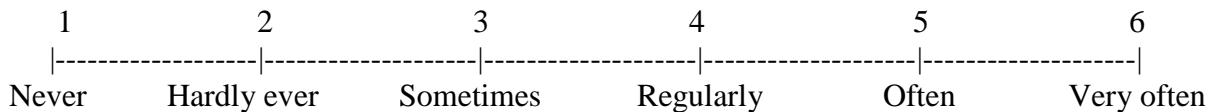
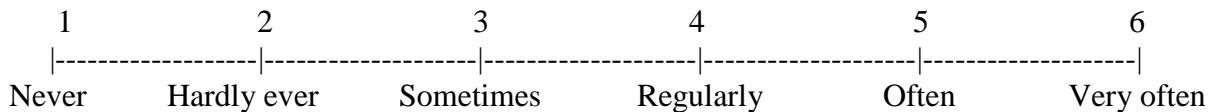
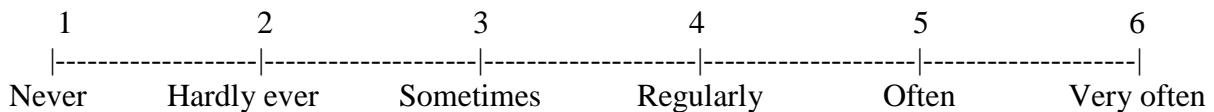
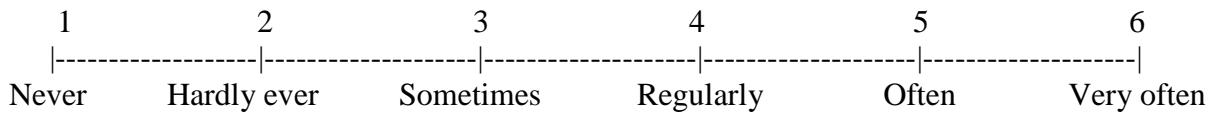


5. How often do you make an effort to have friendly contacts with other people?



6. Do you ensure that you have enough interests on a regular basis (such as a hobby) to keep you active?



7. Do you make sure that you get enough physical exercise in order to stay fit longer?**8. Do you occasionally do something so that your contact with your acquaintances remains good?****9. Do you devote some time and attention to those who are dear to you in order to maintain good contact?****10. Do you keep busy with the things you are good at so that you stay good at them?****11. How many hobbies or activities do you have on a regular basis? (select one)**

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

12. Do you have different ways to relax when necessary? (select one)

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

13. Do you have different occasions on which you have friendly contacts with others?

(select one)

- None
 - 1
 - 2
 - 3 ~ 4
 - 5 ~ 6
 - More than 6

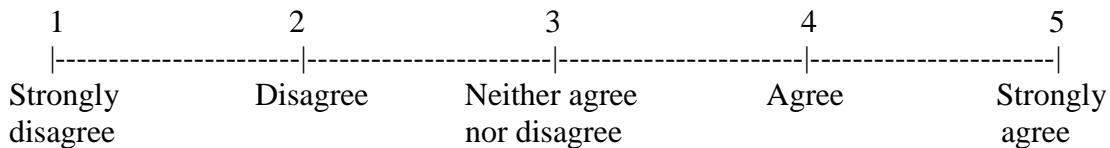
14. With how many people do you have a confidential relationship? (select one)

- None
 - 1
 - 2
 - 3 ~ 4
 - 5 ~ 6
 - More than 6

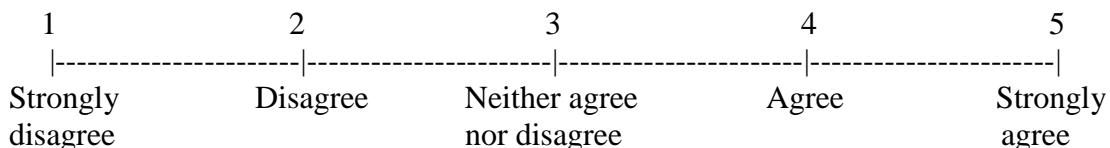
15. Are there certain things that you are good at? (select one)

- None
 - 1
 - 2
 - 3 ~ 4
 - 5 ~ 6
 - More than 6

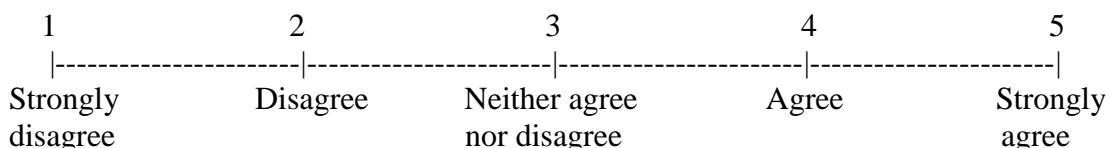
16. The activities I enjoy, I do together with others.



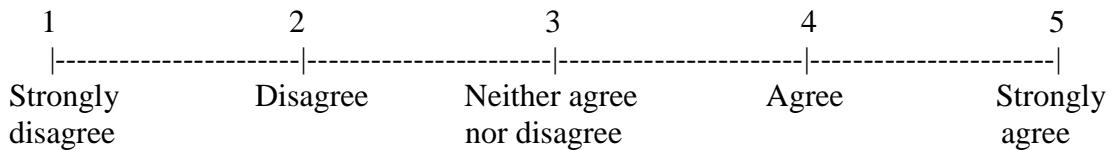
17. I sometimes help the people I care about.



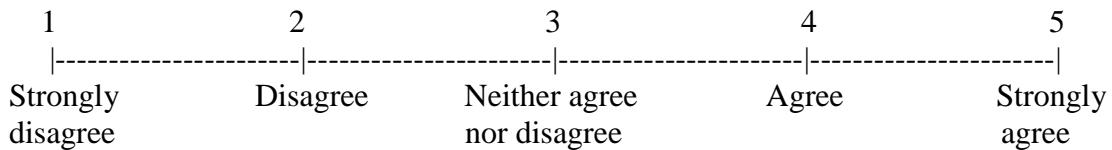
18. Others benefit from the things I do for my pleasure.



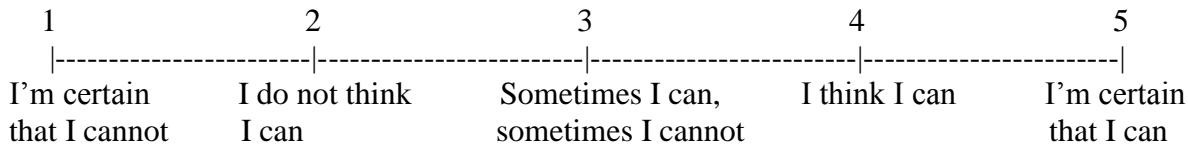
19. I generally spend my holidays with others.



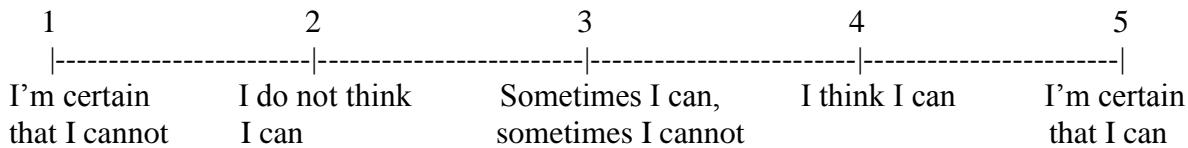
20. I practice my hobbies together with others.



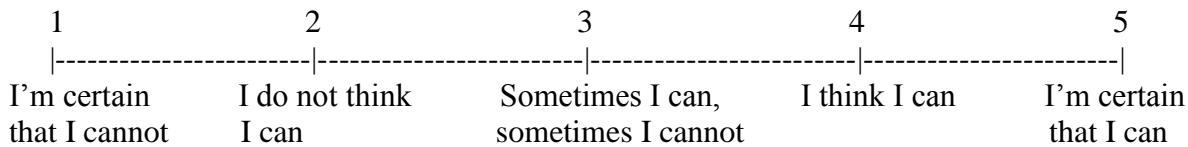
21. Are you able to find agreeable activities?



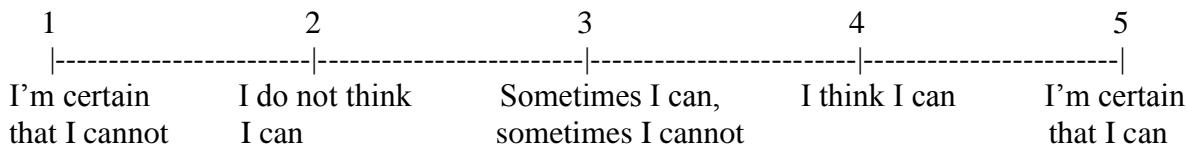
22. Are you capable of taking good care of yourself?

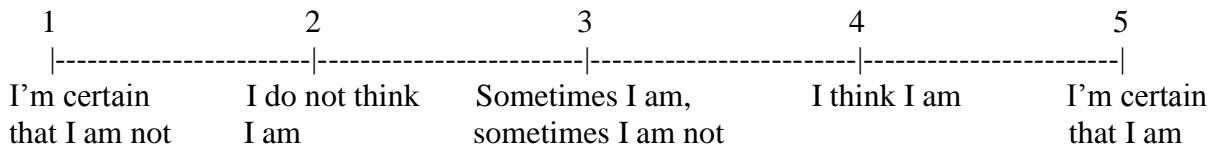
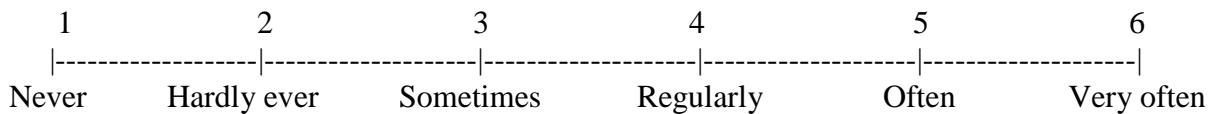
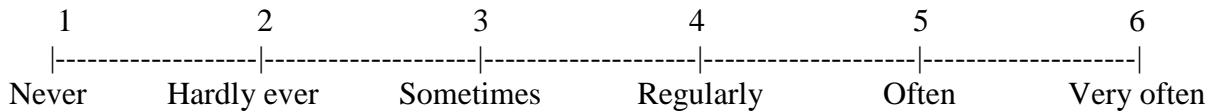
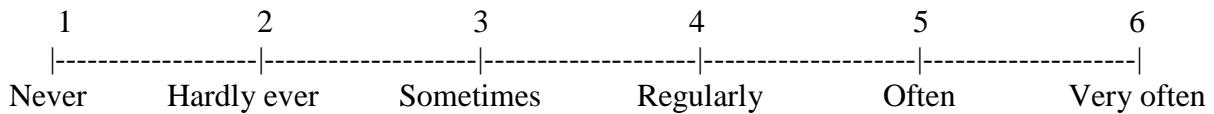
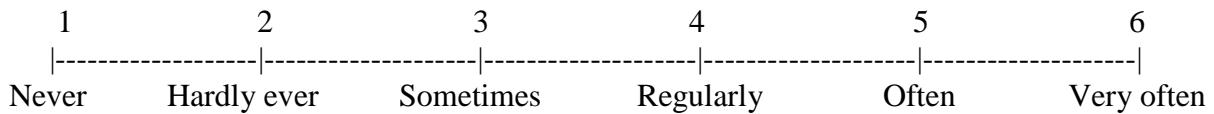
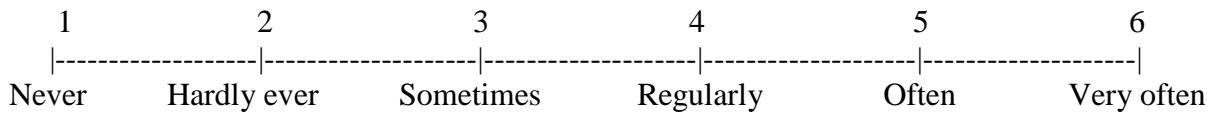


23. Are you able to have friendly contacts with others?



24. Are you able to let others know that you care about them?



25. Are you good at something?**26. How often are you able to see the positive side of the situation when something disagreeable happens?****27. When things go against you, how often do you think that it could always be worse?****28. When you are not doing well, how often do you think that there are others who are worse off?****29. When you have a bad day, how often do you think that things will be better tomorrow?****30. When things are not going so well, how often do you succeed in thinking positively?**

The end of the questionnaire

Thank you very much for your participation.

APPENDIX C. QUESTIONNAIRE FOR ADULT CHILDREN

Participate ID _____
Date _____

ISU IRB # 1	11-168
Approved Date:	4 May 2011
Expiration Date:	3 May 2012

Effects of intergenerational perceptions on subjective well-being
of older adults and their adult children

Questionnaire for Adult Children

Wen-Hua Hsieh, M.S. Candidate
Gerontology Program
Human Development and Family Studies
Iowa State University

Supervisor: Peter Martin, Ph.D.
Director of the Gerontology Program
Iowa State University

Demographics

Instruction: Please *fill in the blank* or *select one* that describes you the best.

Age: _____

Gender

- Male
- Female

Ethnic Background

- White/ Caucasian
- African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Hispanic or Latino Origin
- Other (Please specify) _____

Marital Status

- Single/ Never married
- Married
- Divorced
- Separated
- Widowed

Work Status

- Full-time
- Part-time
- Retired
- Volunteer
- Not employed

Number of your children: _____

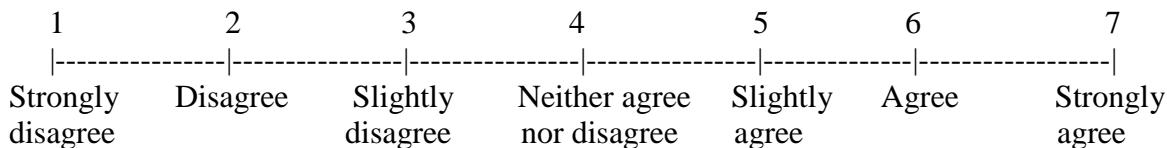
Geographic proximity to your parents

- Less than 10 miles
- 11 – 30 miles
- 31 – 50 miles
- 51 – 100 miles
- More than 100 miles

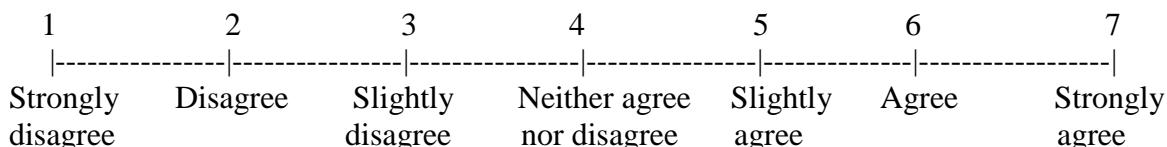
Satisfaction with Life

Instruction: The next five statements describe **your present state of well-being**. You may agree, disagree, or neither agree nor disagree with each statement. **Please use the scale and select your response.**

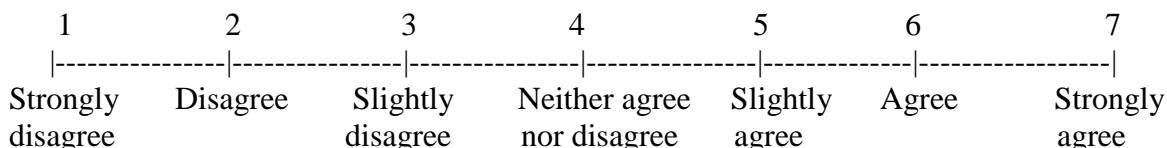
1. In most ways my life is close to my ideal.



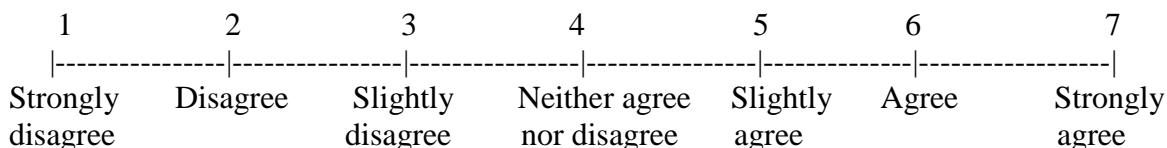
2. The conditions of my life are excellent.



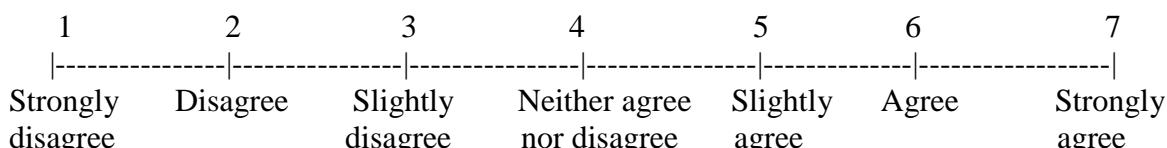
3. I am satisfied with my life.



4. So far I have gotten the important things I want in life.



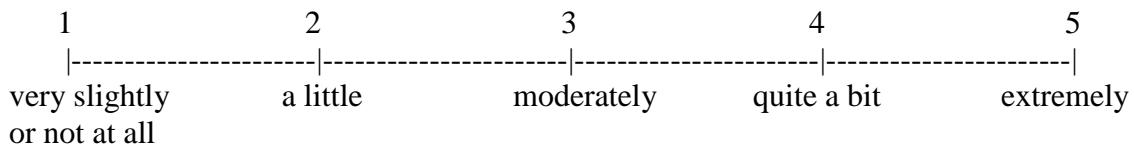
5. If I could live my life over, I would change almost nothing.



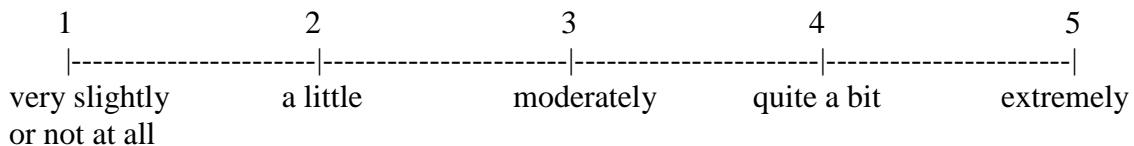
Mood Questionnaire

Instruction: The scale consists of a number of words that describe different feelings and emotions. **Read each item and then select the appropriate response on the scale.**
Indicate to what extent you have felt this way during the past week.

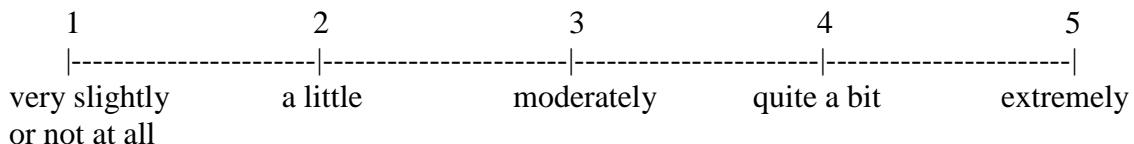
1. Interested



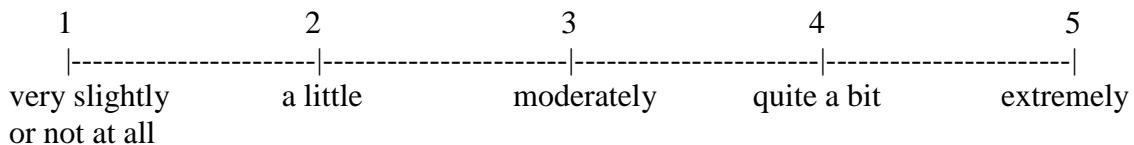
2. Distressed



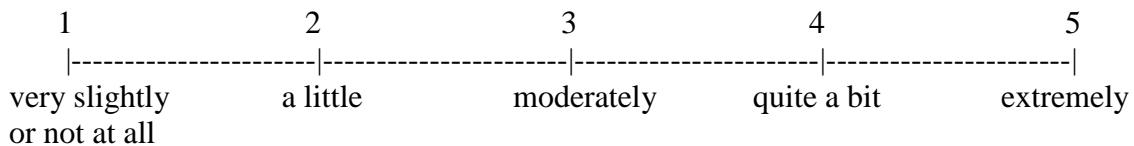
3. Excited

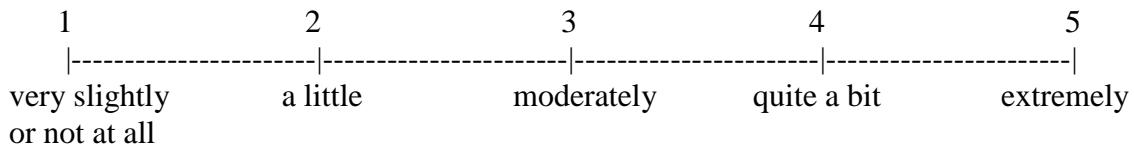
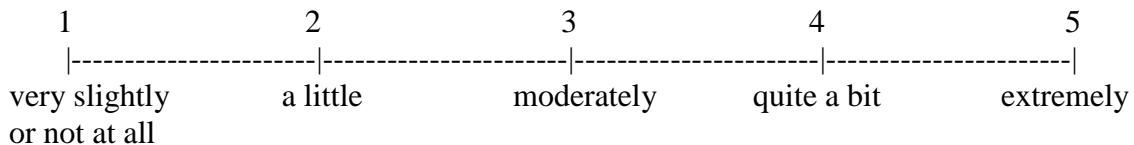
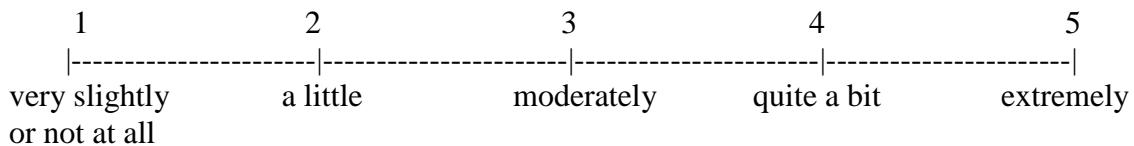
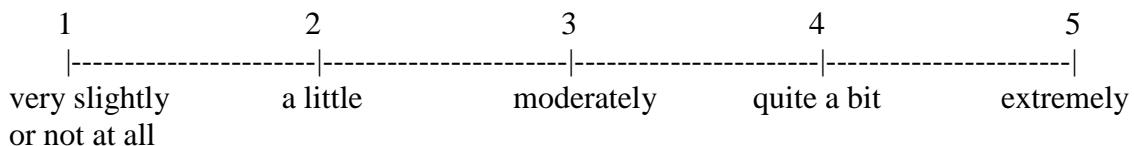
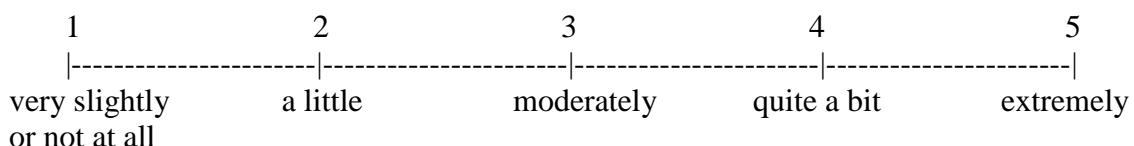
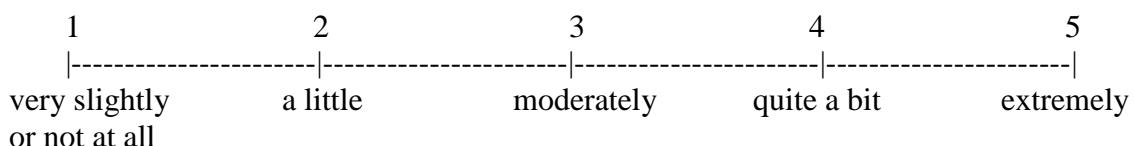


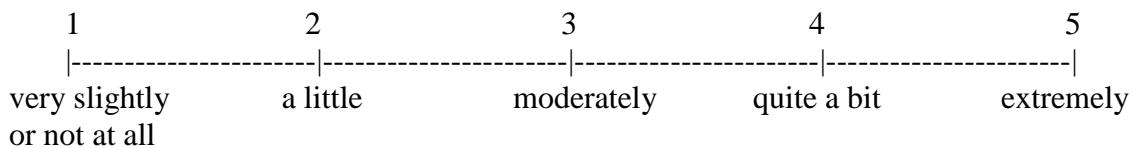
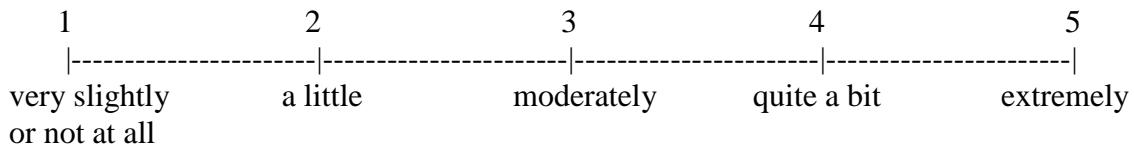
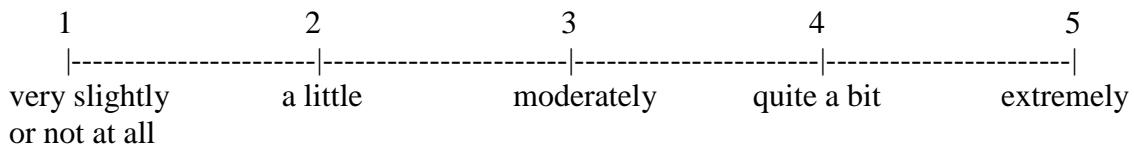
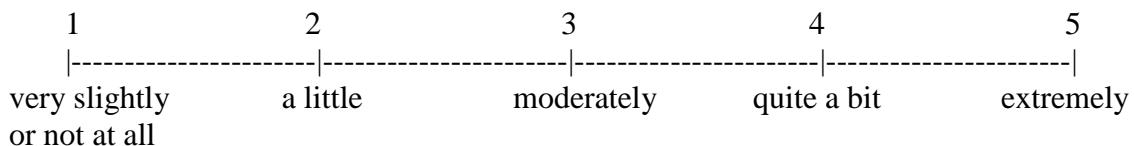
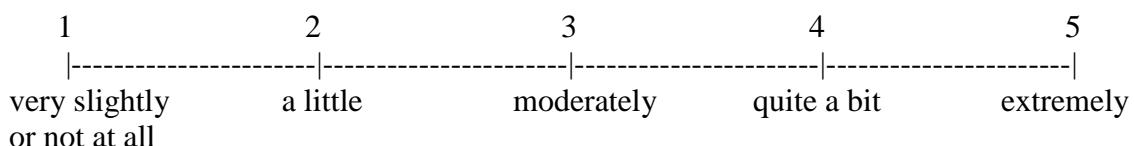
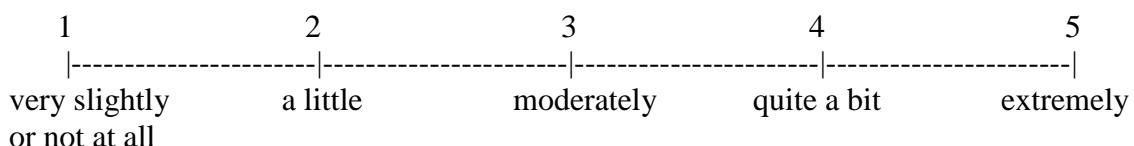
4. Upset

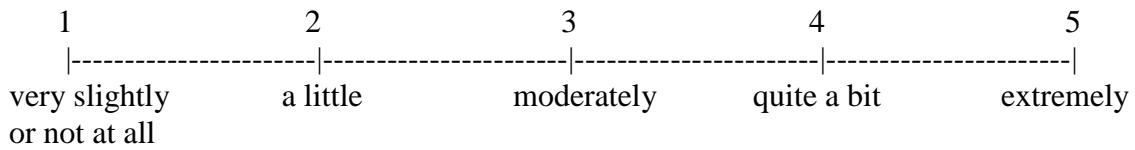
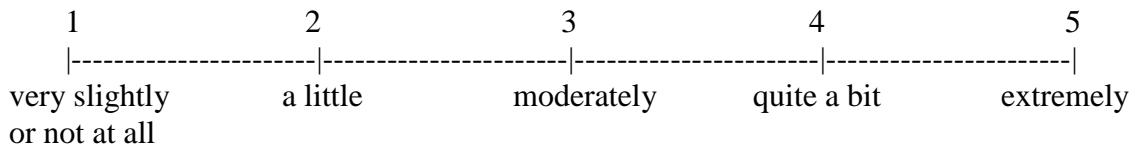
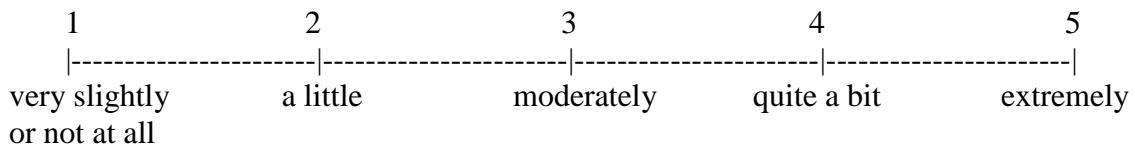


5. Strong



6. Guilty**7. Scared****8. Hostile****9. Enthusiastic****10. Proud****11. Irritable**

12. Alert**13. Ashamed****14. Inspired****15. Nervous****16. Determined****17. Attentive**

18. Jittery**19. Active****20. Afraid**

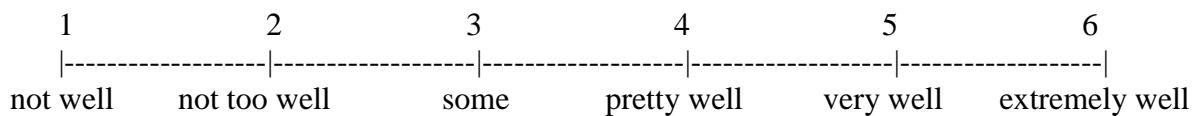
Attention!!

The following sections concerning the relationships with your parent, your parent's health status, and your parent's self-management ability. When you answer the following questions, please think of the parent who nominated you for participating in this study.

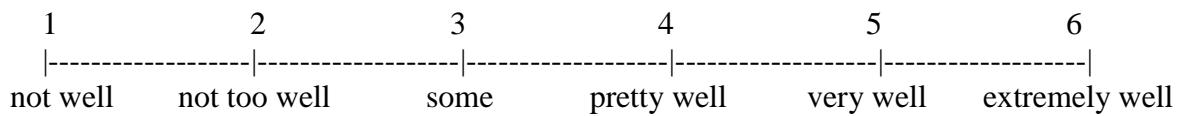
Family Relations

Instruction: This section concerning the **relationship between parent and adult child.** Please use the scale and select your response by considering your relationship with the parent who also participated in this study.

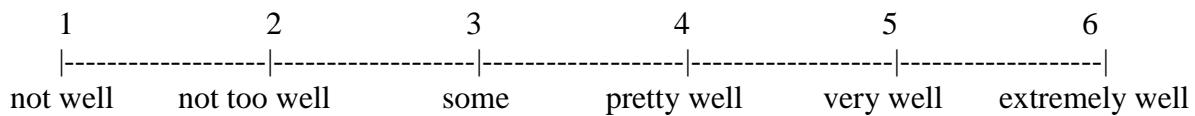
1. How well do you feel this parent understands you?



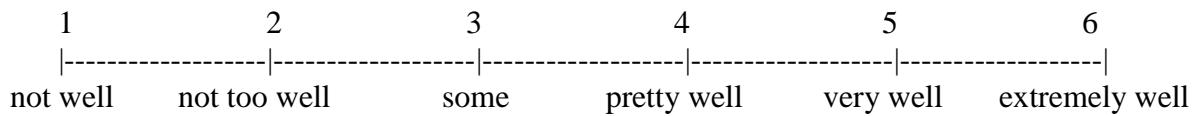
2. How well do you feel this parent trusts you?



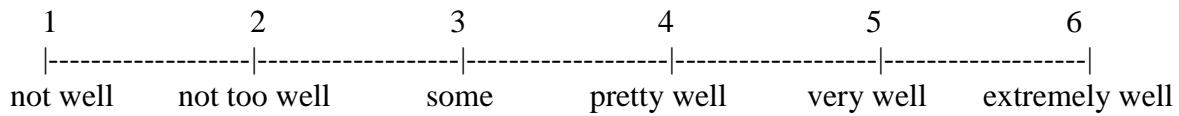
3. How fair do you feel this parent is toward you?



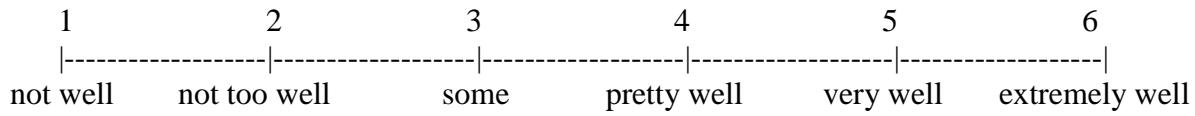
4. How much respect do you feel from this parent?

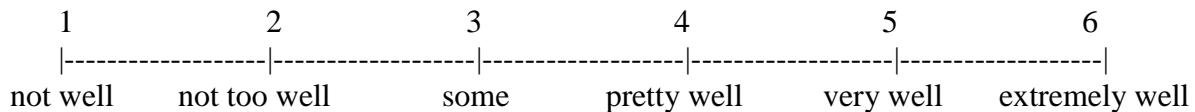
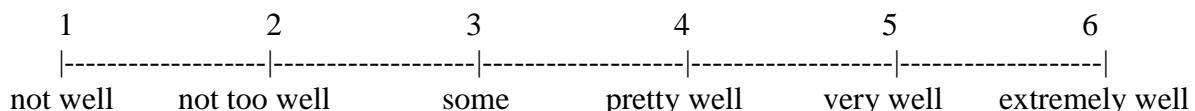
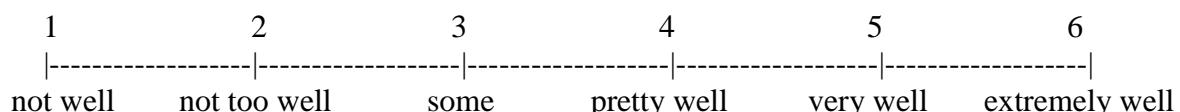
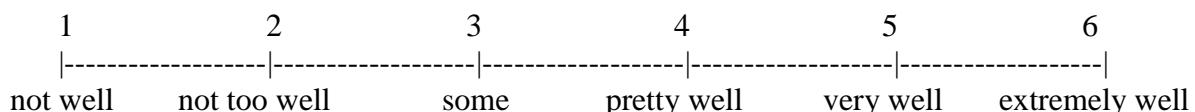
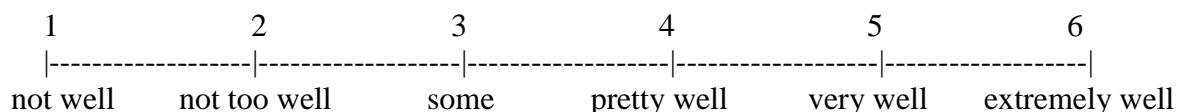


5. How much affection do you feel this parent has for you?



6. How well do you understand this parent?



7. How much do you trust this parent?**8. How fair do you feel you are toward this parent?****9. How much do you respect this parent?****10. How much affection do you have toward this parent?****11. Taking everything into consideration, how close do you feel, in the relationship between you and this parent?**

Family Support

Instruction: This section concerning support exchange between parent and adult child.
Please use the scale and select your response by considering how often do you and the same parent do the following.

1. In the past year have you *received* any financial assistance from this parent?

- No, not at all
- Infrequently
- Regularly – the parent partially supports me
- Regularly – I get most of my support from the parent.

2. In the past year have you *given* any financial assistance to this parent?

- No, not at all
- Infrequently
- Regularly – I partially support my parent.
- Regularly – the parent gets most of his/her support from me.

3. How often does *this parent help you out* with chores or errands?

- Almost never
- About once a year
- Several times a year
- Every other month or so
- About once a month
- About once a week
- Several times a week
- Almost every day

4. How often do you *help this parent out* with chores or errands?

- Almost never
- About once a year
- Several times a year
- Every other month or so
- About once a month
- About once a week
- Several times a week
- Almost every day

5. How often do you do *gift exchanges* with this parent?

- Almost never
- About once a year
- Several times a year
- Every other month or so
- About once a month
- About once a week
- Several times a week
- Almost every day

Parent's General Physical Health

Instruction: The following section concerning **your parent's health status**. Please select one that describes **your parent's current health status**.

1. How would you rate this parent's overall health at the present time?

- Poor
- Fair
- Good
- Excellent

2. How much do this parent's health troubles stand in the way of his/her doing the things he/she wants to do?

- A great deal
- A little (some)
- Not at all

Parent's Self-Care Capacity

Instruction: The following section concerning some of the activities of daily living, things that we all need to do as a part of our daily lives. For each described activities, please rate if your parent can do these activities without any help at all, or if your parent needs some help to do them, or if your parent is unable to do them at all.

1. Can this parent use the telephone...

- without help, including looking up numbers and dialing;
- with some help (can answer phone or dial operator in an emergency, but need a special phone or help in getting the number or dialing)
- completely unable to use the telephone?

2. Can this parent get to places out of walking distance...

- without help (drive his/her own car, or travel alone on buses, or taxis)
- with some help (need someone to help him/her or go with him/her when traveling)
- unable to travel unless emergency arrangements are made for a specialized vehicle like an ambulance

3. Can this parent go shopping for groceries or clothes (assuming that he/she has transportation)...

- without help (taking care of all shopping needs him/herself, assuming him/her had transportation)
- with some help (need someone to go with him/her on all shopping trips)
- completely unable to any shopping

4. Can this parent prepare his/her own meals...

- without help (plan and cook full meals him/herself)
- with some help (can prepare some things but unable to cook full meals him/herself)
- completely unable to prepare any meals

5. Can this parent do his/her housework...

- without help (can clean floors, etc.)
- with some help (can do light housework but need help with heavy work)
- completely unable to do any housework

6. Can this parent take his/her own medicine...

- without help (in the right doses at the right time);
- with some help (able to take medicine if someone prepares it for him/her and/or reminds him/her to take it)

- completely unable to take his/her medicines

7. Can this parent handle his/her own money...

- without help (write checks, pay bills, etc.);
- with some help (manage day-to-day buying but need help with managing his/her checkbook and paying his/her bills)
- completely unable to handle money

8. Can this parent eat...

- without help (able to feed him/herself completely);
- with some help (need help with cutting, etc.);
- completely unable to feed him/herself

9. Can this parent dress and undress him/herself...

- without help (able to pick out clothes, dress and undress him/herself)
- with some help
- completely unable to dress and undress him/herself

10. Can this parent take care of his/her own appearance, for example combing his/her hair and (for men) shaving...

- without help
- with some help
- completely unable to maintain his/her appearance him/herself

11. Can this parent walk...

- without help (except from a cane)
- with some help from a person or with the use of a walker, or crutches, etc.
- completely unable to walk

12. Can this parent get in and out of bed...

- without any help or aids
- with some help (either from a person or with the aid of some device)
- totally dependent on someone else to lift him/her

13. Can this parent take a bath or shower...

- without help;
- with some help (need help getting in and out of special attachments on the tub); or
- completely unable to bathe him/herself

14. Does this parent ever have trouble getting to the bathroom on time?

- No

- Yes
- Have a catheter or colostomy

[IF "YES"]

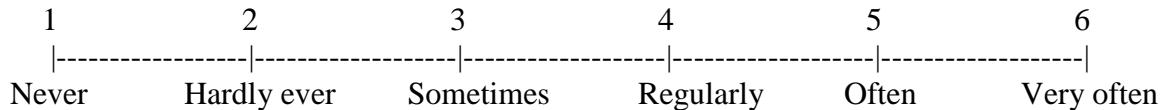
14 a. How often does this parent wet or soil him/herself (either day or night)?

- Once or twice a week
- Three times a week or more

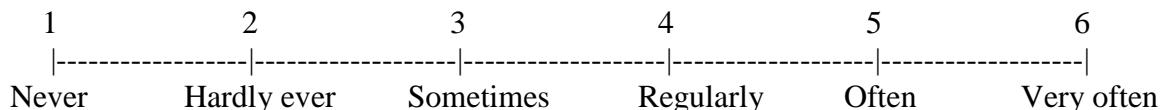
Parent's Self-Management Ability

Instruction: The last section concerning about *your parent's self-management ability.*
Please use the scale and select the best response for each statement.

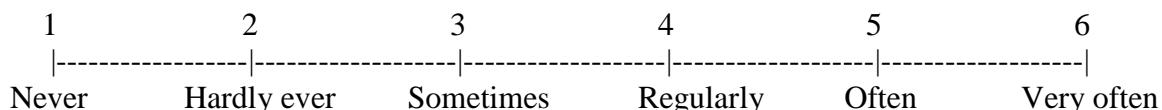
- 1. How often does this parent take the initiative to keep him/herself busy?**



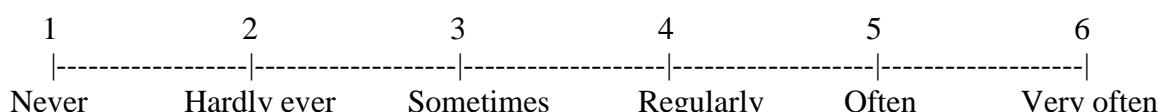
- 2. How often is this parent engaged in making his/her home or room as comfortable as possible?**



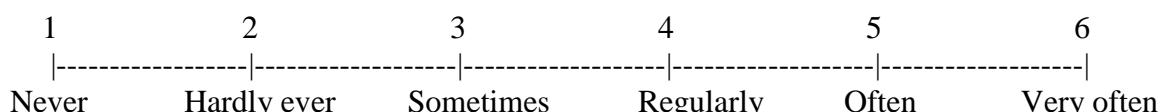
- 3. How often does this parent take the initiative to get in touch with people who are dear to him/her?**



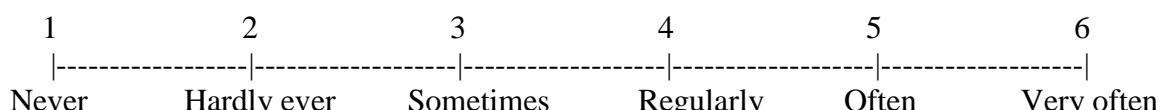
- 4. Does this parent sometimes try to be good at something?**



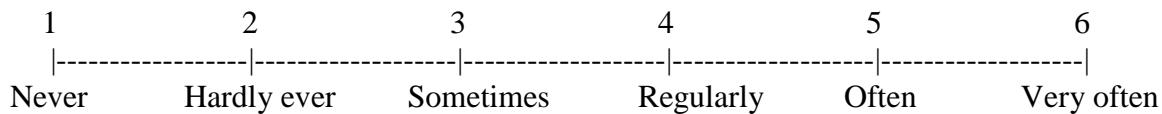
- 5. How often does this parent make an effort to have friendly contacts with other people?**



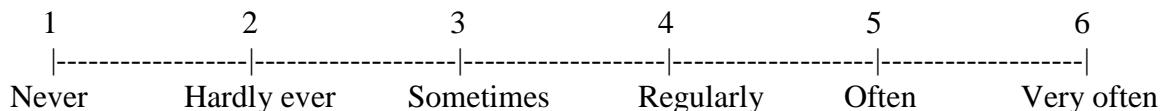
- 6. Does this parent ensure that he/she has enough interests on a regular basis (such as a hobby) to keep him/her active?**



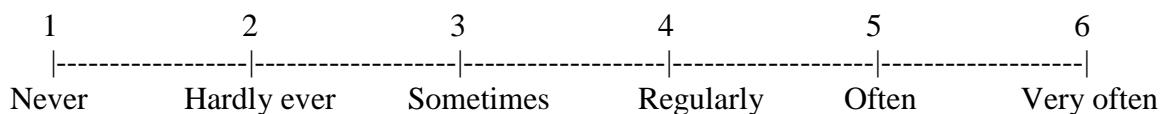
7. Does this parent make sure that he/she gets enough physical exercise in order to stay fit longer?



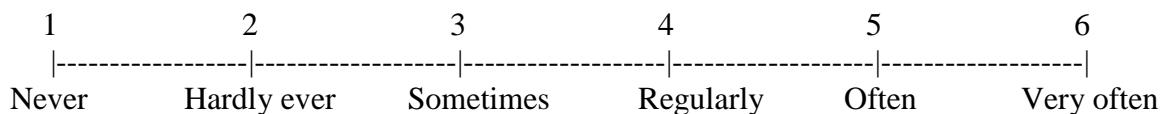
8. Does this parent occasionally do something so that his/her contact with his/her acquaintances remains good?



9. Does this parent devote some time and attention to those who are dear to him/her in order to maintain good contact?



10. Does this parent keep busy with the things he/she is good at so that he/she stays good at them?



11. How many hobbies or activities does this parent have on a regular basis?

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

12. Does this parent have different ways to relax when necessary?

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

13. Does this parent have different occasions on which he/she has friendly contacts with others?

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

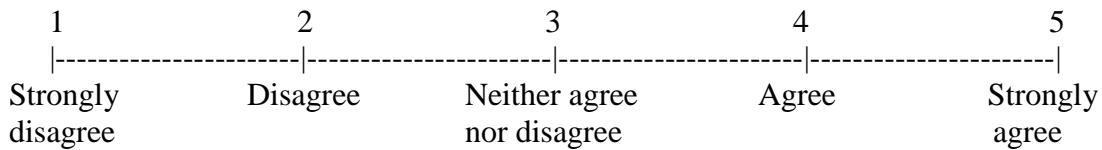
14. With how many people does this parent have a confidential relationship?

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

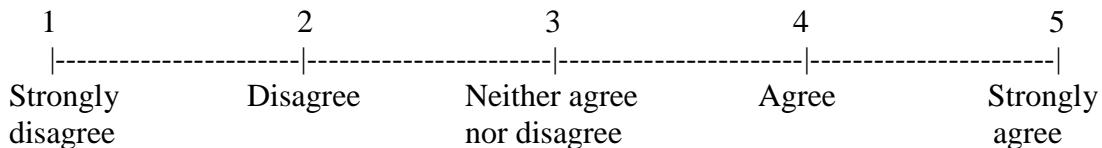
15. Are there certain things that this parent is good at?

- None
- 1
- 2
- 3 ~ 4
- 5 ~ 6
- More than 6

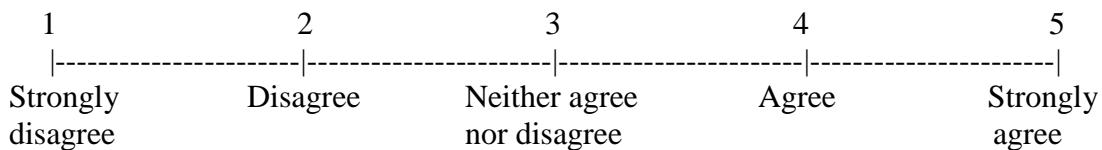
16. The activities this parent enjoys, he/she does together with others.

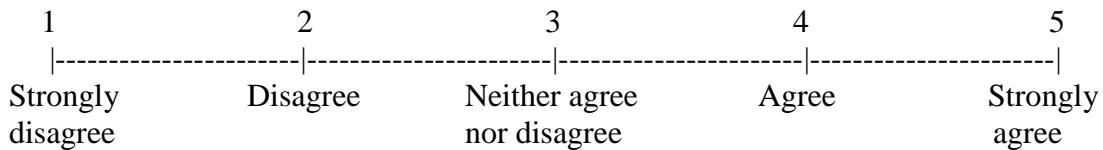
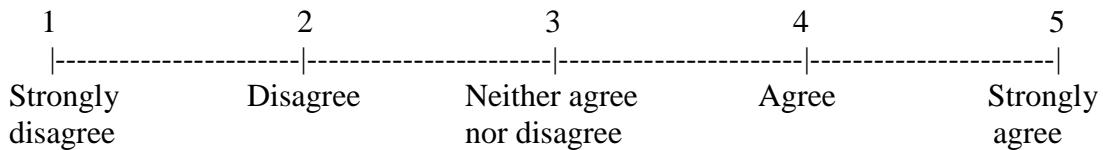
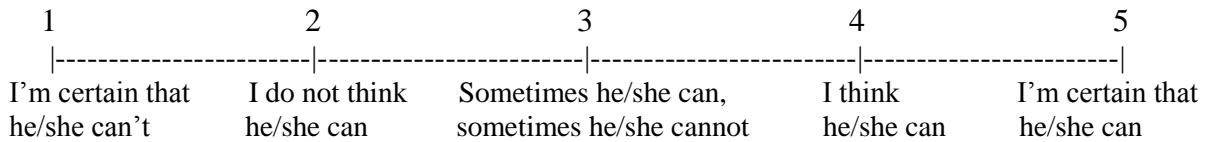
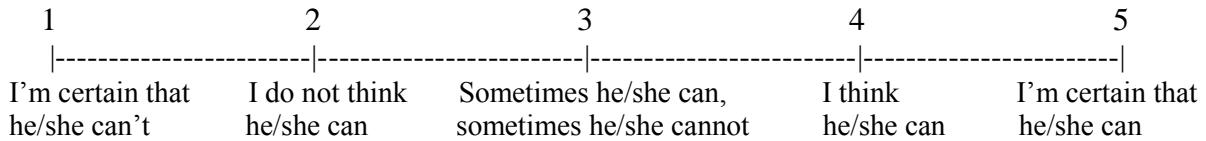
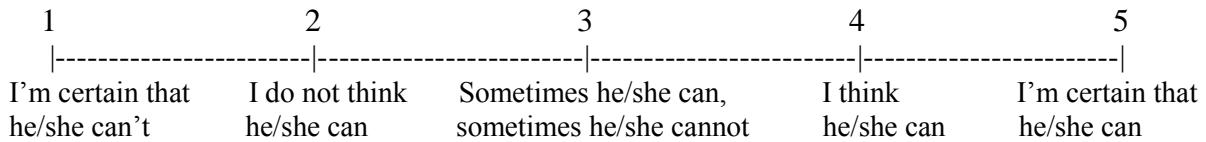
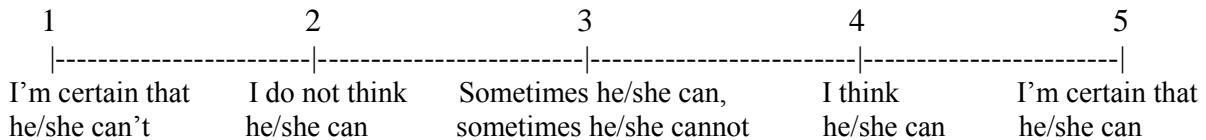


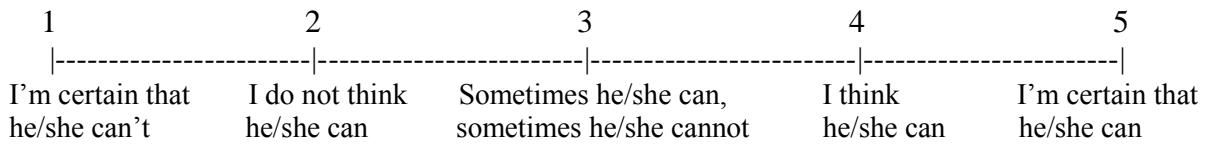
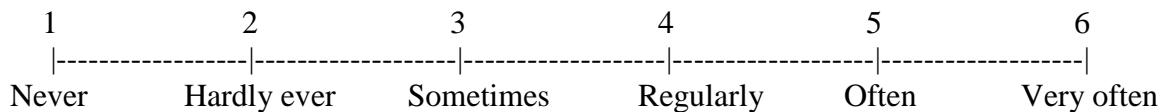
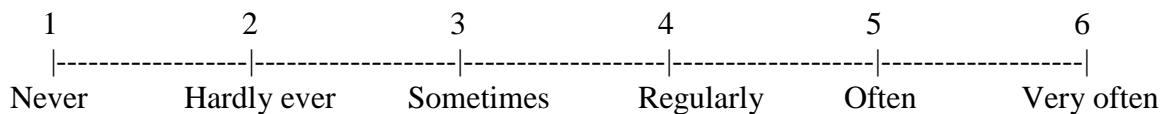
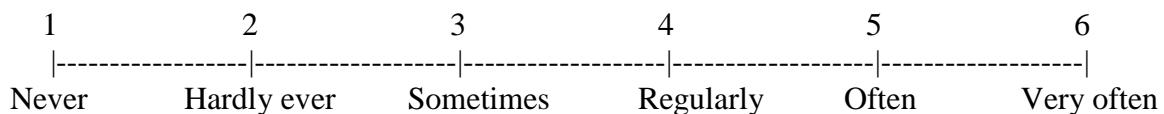
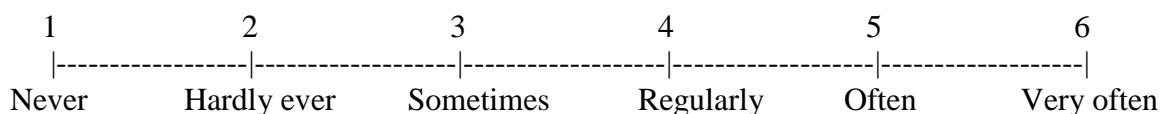
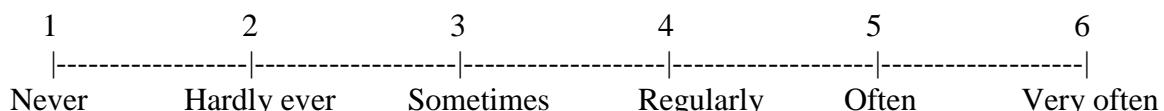
17. This parent sometimes helps the people he/she cares about.



18. Others benefit from the things this parent does for his/her pleasure.



19. This parent generally spends his/her holidays with others.**20. This parent practices his/her hobbies together with others.****21. Is this parent able to find agreeable activities?****22. Is this parent capable of taking good care of him/herself?****23. Is this parent able to have friendly contacts with others?****24. Is this parent able to let others know that he/she cares about them?**

25. Is this parent good at something?**26. How often is this parent able to see the positive side of the situation when something disagreeable happens?****27. When things go against this parent, how often does he/she think that it could always be worse?****28. When this parent is not doing well, how often does he/she think that there are others who are worse off?****29. When this parent has a bad day, how often does he/she think that things will be better tomorrow?****30. When things are not going so well, how often does this parent succeed in thinking positively?**

The end of the questionnaire

Thank you very much for your participation.