

Dyadic perceptions of grandmothers' influence on adult granddaughters' beliefs

By

Merea Diann Bentrott

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:
Jennifer Margrett, Major Professor
Kyle Kostelecky
Kim Greder

Iowa State University

Ames, Iowa

2009

Table of Contents

LIST OF TABLES	iii
LIST OF APPENDICES	iv
ACKNOWLEDGEMENTS	v
ABSTRACT	vi
INTRODUCTION	1
LITERATURE REVIEW	3
1. Intergenerational Transmission	3
2. Grandparents' Roles and Interactions with Grandchildren	5
3. Interactional Dynamics	6
4. The Bridge Generation	8
5. Women and Relationships	10
6. The Current Study	14
METHOD	16
1. Overview of the Data Set	16
2. Procedure	16
3. Participants	17
4. Grandparent and Grandchild Matching	17
i. Granddaughter Subsample	17
ii. Grandmother Subsample	17
5. Measures	18
i. Demographic Characteristics	18
ii. Primary Dependent Variables: Network of Relationships Inventory (NRI)	18
iii. Predictor Assessments	19
RESULTS	22
1. Preliminary Analysis	22
i. Missing Data: Identification of Dyads and Mean Substitution	22
ii. Final Analyses Sample	23
iii. Multicollinearity	23
2. Hypothesis Testing	23

i. Similarity of Grandmother and Granddaughter Perceptions	23
ii. Factors Influencing Perception Similarity	27
3. Religious Beliefs	29
4. Moral Beliefs	30
5. Sexual Beliefs	30
6. Family Ideals	30
DISCUSSION	35
1. Research Objective #1	35
2. Research Objective #2	36
3. Bridge Generation	36
4. Proximity	37
5. Family Composition	38
6. Dyadic Characteristics	38
7. Limitations and Future Directions	39
CONCLUSIONS	41
REFERENCES	42
APPENDIX A. IRB Approval	47
APPENDIX B. Adult Grandchild Survey	54
APPENDIX C. Grandparent Survey	99
APPENDIX D. Dyads Affected by Mean Substitution	142

LIST OF TABLES

Table 1. Means, Standard Deviations, and Correlational Relations of Hierarchical Regression Independent Variables	24
Table 2. Means and Standard Deviations for Partners (Grandmother, Adult Granddaughter) by Domain (Religious, Moral, Sexual Beliefs, and Family Ideals)	26
Table 3. Analysis of Variance Test Examining the Influence of Partner by Domain (Religious, Moral, and Sexual Beliefs, and Family Ideals)	26
Table 4. Post-hoc tests examining simple effects between partner means as related to domain.	27
Table 5. Grandmother and Adult Granddaughter Scores on Major Study Constructs	29
Table 6. Hierarchical Regression Analysis Examining Grandmother Influence on Adult Granddaughter Religious Beliefs	31
Table 7. Hierarchical Regression Analysis Examining Grandmother Influence on Adult Granddaughter Moral Beliefs	32
Table 8. Hierarchical Regression Analysis Examining Grandmother Influence on Adult Granddaughter Sexual Beliefs	33
Table 9. Hierarchical Regression Analysis Examining Grandmother Influence on Adult Granddaughter Family Ideals	34
Table 10. Summary of significant contributors to grandmother-granddaughter congruency across belief domains	37

ACKNOWLEDGEMENTS

I would like to express my gratitude to my major professor, Dr. Jennifer Margrett, for her guidance and encouragement throughout this process. She is an incredible mentor and has walked me through an invaluable learning experience. I would also like to thank my committee members, Dr. Kim Greder and Dr. Kyle Kostelecky, for contributing their time and expertise to my thesis. Finally, I'd like to thank my family, especially my husband and children for their patience and support while mom worked towards completing "20th grade."

ABSTRACT

The increasing role, both formally and informally, of grandparents in their grandchildren's lives necessitates greater exploration of the influence grandparents have on their grandchildren. In the current study, intergenerational transmission was defined as the process through which purposely or unintentionally an older generation influences the values and belief systems of a younger generation. Prior research has demonstrated the influence of grandparents on their grandchildren in regards to socioeconomic status, education, and physical health. The current study aim was to investigate similarity (i.e., congruence) between grandmothers' and granddaughters' perceptions of grandmothers' influence across four domains (i.e., religious, moral, and sexual beliefs, and family ideals), and to identify factors predictive of belief congruency between the partners. Perceptions of belief influence were gathered from 45 grandmother-adult granddaughter dyads and assessed by the Network of Relationships Inventory Survey (Furman & Buhrmester, 1985). Results indicated that compared to grandmothers, granddaughters tended to perceive their grandmothers' influence as greater in domains of religious beliefs, moral beliefs and family ideals. Hierarchical regression analyses revealed different individual and dyadic-level predictors of similarity in grandmother and granddaughter's perceptions of influence. Understanding and communication between grandmothers and granddaughters were predictive of congruence of religious beliefs influence, while perceived closeness between the partners predicted congruence of sexual belief influence.

INTRODUCTION

The increasing role, both formally and informally, of grandparents in their grandchildren's lives necessitates greater exploration into the influence of grandparents on their grandchildren. Nearly 11% of U.S. grandparents are currently raising their grandchildren, while an increasing number provide a considerable amount of care and serve in the near-parental role (Lumpkin, 2008). The majority of these grandparents are under the age of 60 (Cooney & Shin An, 2006). This demonstrates how today's grandparents have greater opportunity for influence, as they are entering grandparenthood earlier, which allows for significantly more time with grandchildren compared to generations past (Block, 2000; Barranti, 1985). As noted by Kostecky and Bass (2004) advancements in science and medicine have lowered mortality rates and increased human life expectancy, making it possible for grandparents and their grandchildren to continue their relationship for as many as fifty years. This highlights the importance of grandparents' potential influence on their grandchildren. Of particular interest is the intergenerational transmission of beliefs. Gaining awareness of the transmission process may enable the intergenerational transmission of positive beliefs from grandparents to grandchildren and may prevent the transmission of negative beliefs from grandparents to grandchildren. This leads us to explore perceptions of belief influence among grandmothers and their adult granddaughters in the current study.

Family roles change across the life course, thus it is important for grandparents to understand the significance of their influence on grandchildren. Recognizing potential causal factors and circumstances surrounding similarities in beliefs between grandparents and grandchildren may provide insight into certain behaviors and how they can be managed. For example, identifying factors such as sexism, which contribute to beliefs about a negative

behavior, (e.g., physical abuse) may be beneficial in preventing the transmission of that belief or alter how the grandchild interprets that information.

LITERATURE REVIEW

Clearly, adult granddaughter's beliefs may be particularly affected by the nature of their bond with their grandmother; however, it is necessary to consider other factors that may impact this dyadic relationship. Such factors include family values, such as spiritual values, the type of domain (e.g. political, moral, sexual), family composition, and geographic distance.

Intergenerational Transmission

For the purposes of the present study, intergenerational transmission is defined as the process through which purposely or unintentionally an older generation influences the values and belief systems of a younger generation. Research suggests that grandparents' influence is evident across domains including, admiration, reliable alliance, and affection (Kostelecky & Bass, 2004), and several factors can impact transmission.

A study by Ahlburg (1998) demonstrated intergenerational transmission of influence by grandparents to their adult grandchildren in regard to physical health and education. Ahlburg's evaluation of intergenerational transmission of education and health indicates that transmission may depend on preference. For example, a grandparent may feel partial towards a younger grandchild over an older grandchild. Prior research suggests that fathers typically favor sons while mothers favor daughters (Thomas, 1994). With regard to allocation of household nutritional and health resources, particularly concerning health, mothers distribute more to their daughters (Thomas, 1994). One plausible explanation for this might be that mothers' tend to devote more time to daughters compared to sons (Thomas, 1994), and, consequently, have greater opportunity for sharing, communicating, and establishing close

relationships. Therefore, in the current study, grandmothers may favor granddaughters and determine allocation of their time and beliefs based on sex.

More recently, recognition of adult grandchildren's perceptions of their grandparents' influence on beliefs and cultural sharing habits, such as traditions or customs, has also been observed (Wiscott & Kopera-Frye, 2000). In their study assessing these perceptions, Wiscott and Kopera-Frye interviewed two hundred and forty-six adult grandchildren, who were undergraduates from various psychology classes. Their sample consisted of primarily White grandchildren (78%), with smaller percentages of African Americans (16%) and participants identifying with other racial backgrounds (6%). Utilizing multiple grandparenting scales to measure grandchildren's perceptions of influence the researchers found that the majority of grandchildren believed that their grandparent was a significant influence in their life and reported active involvement with their grandparent. Passing down cultural traditions was considered a key factor in the relationship, which may contribute to the study's overall findings that grandchildren perceived the strongest influences by their grandparent in the areas of religion, family, education, work, moral, and personal identity. Perceptions of lower grandparent influence were reported by grandchildren in regard to political and sexual beliefs.

Apart from the aforementioned research efforts, there is a noticeable lack of analysis regarding perceptions of belief influence within the grandparent-adult grandchild dyad. As noted by Kostecky and Bass (2004), the majority of research regarding this relationship considers only one individual's perspective. Crosnoe and Elder (2004) argue that examining both individuals' perspectives offers greater insight into family dynamics and broader assessment of life course theory's view of "linked lives". Indeed, understanding

individual and dyadic perceptions of influence is important as these perspectives may vary and individual, dyadic, and contextual factors may differentially influence the congruency of perceptions. For the purpose of the present study, congruency is defined as a state of agreement between grandmothers and granddaughters, in perceptions of grandmother influence in various domains. For instance, results of a study conducted by Silverstein and Marengo (2001) indicated that perceptions of grandparents' importance varied by grandparents' educational attainment; greater education was related to increased prominence of the grandparent role, and increased involvement in sharing with grandchildren. The researchers speculated that grandparents with greater education would be more likely to embrace the grandparent role. Those with less education would likely exhibit more of the "symbolic" qualities (e.g., less likely to babysit and become actively involved with grandchildren) (Silverstein & Marengo, 2001).

Grandparents' Roles and Interactions with Grandchildren

Wiscott and Kopera-Frye (2000) suggested that when Social Security was established after the 1930s, grandparents were given some financial relief and the chance to establish new and different types of relationships with their grandchildren. Along with these new relationship possibilities came a social change in how grandparents were viewed (Wiscott & Kopera-Frye, 2000). The grandparent role transitioned from being considered authoritative and demanding of admiration to a softer and more affectionate friendship that is naturally influential and marked by companionship (Wiscott & Kopera-Frye, 2000).

According to Block (2000), influence flows back and forth between grandparents and grandchildren. Additionally, the amount and course of this bidirectional influence assumes to become more evenly distributed throughout the grandchild's development (Block, 2000).

Grandparents exhibit strong influence on younger grandchildren, yet younger grandchildren exhibit less influence in return. As grandchildren mature, their influence on grandparents increases, leveling out the distribution of influence. This suggests that as this dyadic relationship matures, grandchildren and grandparents become more equally influential on one another.

Interactional Dynamics

Two theories are relevant to the study of intergenerational transmission, particularly with regard to communication and understanding, which contribute to sharing, emotional closeness, and similarity of views on life. Life course theory, which helps to explain “the systematic and patterned changes experienced by families as they move through stages and events of their family life course” (p. 89), sees families as groups consisting of individuals who have common history and whose personal development continually interacts over time with their social context (White & Klein, 2002). Among the key principles of this perspective is the belief that transitions among family stages are determined by an individual’s present stage and the amount of time spent in that stage (White & Klein, 2002). For example, a granddaughter in her pre-teenage years who experiences an extended close relationship with her grandmother may carry the influences of her grandmother with her as she matures, allowing these influences to shape her adult beliefs. Likewise, grandmothers may pass down certain family ideals to their granddaughters that associate particular life events or behaviors with transitions into new stages of life. For example, a granddaughter may be influenced by her grandmother to believe that marriage is a life event, which is associated with the transition into adulthood. Similarly, a granddaughter’s family choices such as the appropriate

time to begin a family or the optimal number of children to have, as well as decisions to work or be a stay-at-home parent, may be influenced by her grandmother.

Another key proposition of life course theory suggests that individuals are motivated by both social (group) and individual action in regard to aging experiences (Settersten, 2003, p. 2; Kemp, 2007). Individual and group positions in the social structure influence the choices upon which people establish their lives (Settersten, 2003; Kemp, 2007). This is important to consider when determining the types of social environments and activities that foster strong associations between grandmothers and granddaughters. Kemp suggests these “social and demographic conditions set the general parameters for negotiating grandparent-grandchild ties” (p. 857). Thus, promoting conditions that encourage positive and frequent grandmother-granddaughter interaction may result in greater likelihood of transmission of beliefs. For example, a granddaughter raised in close proximity to her grandmother and encouraged to have frequent contact throughout her lifetime may learn to value her grandmother and consequently mirror her beliefs. Considering the conclusions of these prior research studies, it is expected that if the social environment of the relationship and the demographic conditions afford grandmothers and granddaughters sufficient time spent together, it is likely that, overall, the grandmother will be influential in shaping the values and beliefs of the granddaughter.

Also relevant to the current study is symbolic interactionism. Symbolic interaction theory emphasizes that, while external influences clearly impact behavior, individuals also strive to preserve and strengthen self-meaning (Reitzes & Mutran, 2004). This perspective suggests that individuals attempt to achieve and maintain desirable self-concepts and this in turn motivates behavior that is “role-appropriate” or fulfilling of certain role expectations

(Reitzes & Mutran, 2004). Accordingly, symbolic interaction theorists acknowledge that individuals establish their social roles and construct certain “identities” within their roles. Applied to influence, it can be argued that while grandmothers and granddaughters socially construct their own personal identity, it may include the expectation of belief transmission from a grandmother to a granddaughter (e.g., grandparents are wise and younger generations can learn from elders’ experiences) or the assumption that a granddaughter will adopt many of her grandmother’s beliefs (e.g., learning what it means to be a “good” mother or wife). The theory’s suggestion that individuals ascribe their own inherent meanings to their roles in regard to importance (Reitzes & Mutran, 2004) implies that if a grandmother perceives her role as significant, she will most likely perceive that she has influenced her granddaughter’s beliefs.

The Bridge Generation

According to the life course perspective, individuals’ lives are interdependent and connected throughout the developmental process, such that the conditions of one family relationship, for example, that of a parent and child, has implications for other members of the family (White & Klein, 2002). Therefore, the grandmother-granddaughter relationship cannot be understood without considering other relationships within a family (Kemp, 2007). Prior research by Rossi and Rossi (1990) suggests that children who establish strong relationships with their parents also tend to be close to their grandparents. This implies that healthy relationships between grandmothers and their own adult children or stepchildren stimulate healthy intergenerational family dynamics. These adult children and stepchildren are the parents of grandchildren and are often referred to as the “bridge generation” (Fingerman, 2004). In her study of relationship qualities, Fingerman (2004) assessed the

connection between grandparents and their grandchildren, as well as the relation between grandparents and their own adult children or stepchildren, (i.e., the bridge parents). Findings indicated that grandparents who perceived close relationships with their grandchildren's mother also experienced higher quality relationships with their grandchildren and higher levels of enjoyment (Fingerman, 2004).

Considering past research, it may be expected that children who are raised with loving parents in tight-knit families will exhibit strong ties to kin in adulthood (Rossi & Rossi, 1990). The role of the bridge generation must be considered, however, when determining the grandmother-granddaughter relationship and the amount of opportunity for influence by the grandparent. Uhlenberg and Hammill (1998) consider the grandparent-grandchild relationship as a "contingent one, dependent on a middle generation rather than a direct path between two parties". This infers that bridge parents strongly impact the grandmother-granddaughter relationship and hence the amount of opportunity for influence by the grandmother. For example, a strained grandmother-bridge parent relationship may result in less contact between grandmothers and young granddaughters, which in turn offers fewer opportunities for influence in the early years. Conversely, granddaughters who miss opportunities for grandmother experiences in their early years, may desire relationships with their grandmothers as adults. Harwood and Lin (2000) suggest geographical distance is a barrier frequently encountered by grandparents and grandchildren attempting to forge strong relationships. Typically, it is the bridge parent who chooses where the grandchild will reside, thereby determining the geographical proximity of the relationship, which in turn affects the frequency of contact and face-to-face accessibility.

Larger macro-level trends influence the behavior of grandmothers as well as the bridge generation. For instance increased labor participation by women, reduced fertility, and higher divorce rates influence the amount and type of grandparent-grandchild contact (Kemp, 2007). Remarriage, which introduces new challenges associated with step grandparent-grandchild relationships, transforms families and affects them over multiple generations (Kemp, 2007). These changes call for renegotiation of personal relationships within the family, as well as the extended family as a whole (Connidis, 2003). This implies that perhaps parents of the granddaughters are the greatest influence, as they typically determine the amount of time spent with grandmothers as well as the basis for the relationship. Fingerman (2004) suggests that the quality of the bond with bridge parents matters most. Kivett (1991) describes bridge parents as mediators of the grandparent-grandchild relationship, which set parameters of the relationship by specifying conditions and structuring the roles within. Therefore, it is expected that strong ties between grandmothers and bridge parents will lead to strong ties between grandmothers and their adult granddaughters. Considering the above, the closeness between bridge parent and child may carry over into the grandmother-granddaughter relationship (Rossi & Rossi, 1990).

Women and Relationships

Evidence suggests that women typically maintain closer bonds with their family of origin compared to men (Fingerman, 2004) and are primary forces for enabling intergenerational ties (Walker, Thompson, & Morgan, 1987). Women's tendencies to be kin keeper would suggest closer relationships between grandmothers and granddaughters in comparison to grandfathers and granddaughters. A prior study demonstrated that grandmothers expressed more enjoyment resulting from time spent with grandchildren

compared to grandfathers (Fingerman, 2004). One explanation for this may be that, traditionally, women are considered nurturers and caregivers and, therefore, may spend greater amounts of time with their children and grandchildren. Women also tend to be significantly more active in preserving family relationships throughout their aging process compared to men (Rossi, 1993) and communicate more frequently with their grandchildren compared to grandfathers (Uhlenberg & Hammill, 1998). According to Block (2002), grandmothers regularly provide support for their grandchildren well into early adulthood and continually take an active part in their grandchildren's lives in regard to social support. This is particularly relevant to the current study as it focuses on the relationship of grandmother-adult granddaughter pairs.

Utilizing the data from the current study, Kostecky and Bass (2004) demonstrated that for grandmothers and granddaughters, reliable alliance, affection, relationship satisfaction and admiration for one another are strong indicators of trust, warmth, understanding, respect, and closeness. Each of these relationship provisions fosters strong connections within the dyad, and promotes greater likelihood of belief similarity. Grandmothers displayed high levels of relationship satisfaction with granddaughters who shared their personal feelings and concerns (Kostecky & Bass, 2004). It can be argued that these high levels of satisfaction achieved through closeness and sharing contribute to similarity among beliefs.

Following a life course perspective, Greene (1986) suggests that what most impacts the lives and behaviors of a family in the transition from one developmental phase to the next is the family's value system. With respect to the sharing of culture, prior research implies that strong connections with grandmothers as perceived by granddaughters leads to similar

attitudes and understanding (Wiscott & Kopera-Frye, 2000). According to a study on spirituality transmission within the African American community, older adults are considered vital in the preservation of spiritual values within their culture, and play an essential role in the transmission of these values (Dancy & Wynn-Dancy, 1994).

The influence of grandmothers is likely to also vary across domains. Although little research has been conducted on grandparent's influence on grandchildren's sexual beliefs and sexual matters in general, one prior study indicated reluctance by grandparents to discuss sexuality with their grandchildren (Mangxola, 2007). One reason cited for this reluctance was the uncertainty of the appropriate age for discussing sex (Mangxola, 2007). Additionally, grandparents may be restricted by grandchildren's unwillingness to share their thoughts on sexual matters (Mangxola, 2007). While most grandparents are aware that their grandchildren are discussing sexuality at school, they claim that grandchildren refrain from disclosing specifically what is being discussed and what they may already know (Mangxola, 2007). Thus, mutual communication by both partners appears to significantly contribute to belief congruency.

According to Kivett (1991), grandparenting styles shift as grandchildren develop. Grandparent involvement typically declines throughout the teenage years, just as grandchildren approach the age where it typically becomes more appropriate to discuss the topic of sexual behavior and when sexual activity becomes a greater possibility. Grandparents may consider discussion of sexual behaviors inappropriate with young children who are in these early ages at which grandparent involvement is highest. The current study expects that grandmother closeness will not be a predictor of congruency among sexual beliefs.

As mentioned earlier, geographic proximity impacts the grandparent-grandchild relationship. Bernal and Anuncibay (2008) emphasize the importance of proximity in regard to the grandparent-grandchild relationship in their study of 603 grandparents from Spain. The study examined grandparent relationships with a selected “favorite” grandchild. Results indicated that this favoritism leaned considerably toward grandchildren residing in the same household, city, or neighborhood as their grandparent (Bernal & Anuncibay, 2008). Additionally, “favorite” grandchildren showed more daily interaction with their grandparent, and therefore, received greater amounts of attention, including time spent sharing, playing and learning (Bernal & Anuncibay, 2008). Less distance between grandmothers and granddaughters allows for more time spent together which in turn increases opportunities for sharing, understanding, closeness, and greater overall influence by grandmothers. It may be assumed that grandmothers and granddaughters living in close proximity will spend greater amounts of time together and therefore will have a higher likelihood of influence and belief congruence.

Family composition also impacts the relationship between grandmothers and granddaughters. Prior research indicates that today’s parents are choosing to have children later in life and fewer in number (Fergusson, Maughan, & Golding, 2007), resulting in an increase in ‘beanpole families’ or “long, thin groups of several small generations” (p. 20; Grundy, Murphy, & Shelton, 1999). While granddaughters must compete with cousins and/or siblings for attention and time spent with their grandmother, the recent family trend toward smaller families with fewer children supports closer grandmother-granddaughter relationships. It can be expected that the greater number of grandchildren per grandparent,

the less one-on-one time spent between the grandparent and each individual grandchild, leading to less grandparent influence on the grandchild.

The Current Study

Despite the increasing role of grandparents in their grandchildren's lives, there is a considerable lack of research specifically examining the transmission of influence and beliefs. Perceptions of belief influence within the grandmother-granddaughter dyad, and dyadic perceptions of bridge parent influence calls for greater analysis. The current study examines grandmother influence across four domains and investigates potential predictors of similarities among the beliefs of grandmothers and their adult granddaughters. The first research objective is to characterize grandmothers' and granddaughters' individual perceptions of grandmothers' influence on the following belief systems: moral, religious, sexual, and family ideals. The nature of each domain was considered when determining which domains to analyze. The decision to utilize the moral, religious, and sexual beliefs and family ideal domains was supported by Vann's research (2005), which suggests one element of the grandmothers' role is care-giving, supervising, teaching life skills, exercising patience, and putting energy into relationships, while a second element involves more practical support, such as economic and household matters.

Considering prior research findings, religious, moral, and family ideals belief systems are expected to reveal higher levels of congruency between grandmothers and their adult granddaughters, while the sexual belief system is likely to reveal less congruency. The second research objective is to identify factors that predict belief congruency between the pair. Based on prior literature, the impact of three classes of predictors will be examined including: (a) characteristics of each individual partner, including age difference and number

of grandchildren for grandmothers; (b) characteristics of the dyadic relationship, including emotional closeness, understanding by other, similar views on life and communication; and (c) closeness and influences associated with the bridge generation as perceived by grandmothers and granddaughters. Based on the literature described above, it is expected that grandmother-granddaughter perception similarity in regard to religious and moral beliefs and family ideals will be enhanced by greater perceived closeness, understanding by other, similar views on life, and communication about important things. Greater granddaughter-grandmother perceptions of influence of bridge parents are predicted to reveal more congruence similarity between the dyad with regard to religious and moral beliefs and family ideals as well.

Considering the aforementioned literature suggesting reluctance by grandparents to discuss sexuality with their grandchildren (Mangxola, 2007), it is expected that strong grandmother-granddaughter perceptions of influence of bridge parents will not predict congruency of sexual beliefs. Past research suggests that increases in distance lead to decreases in overall communication and support between grandparents and grandchildren (Kivett, 1991). Such propositions indicate that greater frequency of contact within the past year will enhance belief congruency across the religious, moral and family ideals domains.

METHOD

Overview of the Data Set

The data reported in this current study were collected in 2000 by Kostecky, Bass and Fleming. The sample consists of adult grandchildren and nominated grandparents. The primary goal of the main study was to examine multiple relationship components, including affection, closeness, and relationship satisfaction, and the association of such provisions to grandmother-granddaughter relationship satisfaction (Kostecky & Bass, 2004).

Procedure

Institutional Review Board approval was received for the original data collection as well as the current analysis (Appendix A). Students were recruited from six sections of a liberal arts core course at a Midwestern university. Of the 365 students enrolled in the courses, 341 students participated in the study yielding a 93.4% response rate. All students present on the day of the data collection completed an informed consent and took the survey, which was a traditional paper-pencil survey and took approximately 45 minutes to complete. The data were collected in a one-week time period during the spring 2000 semester. There were no incentives or honoraria offered to participants.

While not all students nominated a grandparent, there were 84 different grandparents nominated by grandchildren, and 86 surveys mailed with an informative letter and consent form to nominees. One grandmother was nominated three times and completed three separate surveys, as she may have been nominated by three granddaughters, who were siblings enrolled in the courses. Sixty-six surveys were returned, resulting in a 76.7% response rate.

Participants

Participants for the study were undergraduate students at a Midwestern university and one of their living grandparents (target grandparent) whom they chose because they considered them their “most important” living grandparent. Participants were informed that the study was anonymous and voluntary.

Grandparent and Grandchild Matching.

The eligible sample consisted of 340 adult grandchildren and 64 grandparents. The majority of granddaughters (97%) and grandmothers (89%) within this sample reported their ethnicity as White, while a smaller percentage of grandmothers reported their ethnicity as Native American (11%)¹. From this sample a subsample of 47 same-sex pairs was taken of granddaughters with participating grandmothers. More detailed information on the final sample can be found in the preliminary analysis section. Pairs possessing incomplete data from one or both partners were excluded from the sample, resulting in 45 pairs.

Granddaughter Subsample

All 45 granddaughters within the subsample were White with an average age of 20 years. Ages ranged from 18-28 years. The majority of granddaughters were unmarried (98%) and indicated that they were healthy (96%). The average number of years spent in formal education was 13.75 for granddaughters, excluding kindergarten.

Grandmother Subsample

The average age for the 45 grandmothers in the subsample was 72 years with a range

¹ Although 11% of grandmothers reported Native American heritage, no granddaughters reported this ethnicity. According to the U.S. Census Bureau’s 2000 Census Summary, Native Americans accounted for .2% of the population in this geographic area. Considering these low population numbers, there is some uncertainty regarding grandmother’s proper interpretation of “Native American” ethnicity.

of 59 years to 87 years. All participants in the subsample were White. Nearly half of the grandmothers were married (48%), with 34% widowed. Grandmothers averaged 12.47 years of formal education. Approximately eighty-one percent of grandparents reported feeling healthy, and reported no presence of a chronic health condition.

Measures

Demographic Characteristics

Demographic characteristics included self-reported ethnicity, age, current marital status, education, and the presence of a chronic health condition. Age was reported as the participants' age at the time of the survey in years and months.

Primary Dependent Variable: Network of Relationships Inventory (NRI)

The relationship quality between grandmothers and their granddaughters was assessed via the Furman and Buhrmester (1985) Network of Relationships Inventory (NRI), as seen in Appendices B and C. The NRI measures self-reported perceptions of the quality of individual relationships among family members (Creasey & Jarvis, 2001). For example, questions address a mother's rating of perceived closeness between herself and her daughter or the perceived level of understanding between a grandchild and a grandparent. Creasey & Jarvis (2001) compared the NRI with the Family Environment Scale, an instrument that is also used to measure self-reported overall perceptions of family relationships from a study by Moos, Insel, and Humphrey (as cited in Creasey & Jarvis, 2001). Participants' responses were measured by each scale and results were compared; findings indicated strong convergent validity (Creasey & Jarvis, 1974).

Data from both grandmothers and granddaughters were examined to characterize grandmothers' and granddaughters' perceptions of grandmothers' influence on

granddaughters. The current study focused on four belief systems, (a) religious, (b) sexual (c) moral and (d) family ideals. The grandmothers and granddaughters were asked to respond to a single item regarding influence within each domain on a five-point Likert scale.

For example, “How much influence does your target grandparent have on your religious beliefs that you have in your life?”

1	2	3	4	5
No influence	A little influence	A moderate amount of influence	Quite a bit of influence	A lot of influence

Thus, a higher score represents endorsement of greater influence within a particular domain.

Predictor Assessments

Individual and dyadic characteristics relevant to the influence of grandmothers on granddaughters’ beliefs were assessed. Age difference and number of grandchildren (for grandmothers) were assessed as individual characteristics, while dyadic characteristics were measured on identical scales for emotional closeness, understanding by other, similarity of views on life, communication between grandmothers and granddaughters concerning things that are important to them, and frequency of contact within the past year. Emotional closeness was measured on a five-point Likert scale, asking participants, while taking everything into consideration, how close they feel their relationship is between themselves and their target grandparent. Responses were coded as follows:

1	2	3	4	5
Not very close	A little close	Somewhat close	Very close	Extremely close

A higher score represents endorsement of greater influence. Understanding by other was measured by asking participants:

“How well do you feel your target grandparent understands you?”

1	2	3	4	5
Not very much	A little	A modest amount	A lot	Extremely Well

Similarity of views on life was measured by asking participants to indicate with an “X”:

“How similar are your views about life to those of your target grandparent?” Possible

responses included:

Extremely different _____	Very different _____	Not too similar ____
Similar in some ways _____	Pretty similar _____	Very similar ____
Extremely similar _____		

Communication was measured by asking participants, “How is communication between you and your target grandparent concerning things that are important to you now?” Possible

responses included:

1	Excellent
2	Moderately good
3	Slightly good
4	Neither good nor poor
5	Slightly poor
6	Moderately poor
7	Very poor

Participants were asked to indicate with an “X” the average amount of contact, in the form of regular visits, extended stays, phone conversations, letters, e-mail and any other kinds of connections that they have had with their target grandparent over the past year. Response options included:

Just about every day _____	About once a week _____	Every couple of weeks ____
About once a month _____	Every few months _____	A few times a year ____
Almost never _____		

Grandmothers’ and granddaughters’ perceptions of bridge generation parents (mothers and fathers of the granddaughters) were also examined. Perceived closeness of the relationships between self and each bridge parent were examined by asking participants to

indicate how close they felt were the relationships between themselves and the mother and father of their granddaughter.

Possible responses are below.

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

Grandmothers were asked to indicate the amount of influence they perceived they had on each bridge parent by responding to the following question:

“How much influence, in general, do you feel you have on the life of the mother of the target grandchild?”

- 1
- 2
- 3
- 4
- 5

Granddaughters’ perceived amount of influence from each bridge parent was assessed by asking participants: “How much influence, in general, do you feel your mother/step-mother has had on your life?”

- 1
- 2
- 3
- 4
- 5

RESULTS

Preliminary analysis begins with an explanation of the researcher's approach to managing missing data, followed by discussion of multicollinearity. Hypothesis testing of research objective #1, similarity of grandmother and granddaughter perceptions, by repeated measures ANOVA is then explained. Lastly, hypothesis testing and results of hierarchical regression analyses are presented for research objective #2, which focused on factors influencing perception similarity within the four belief domains.

Preliminary Analysis

Missing Data: Identification of Dyads and Mean Substitution

Within the 45 dyads of grandmothers and adult granddaughters, single incidents of missing data were encountered. To prevent the loss of these participants' other complete responses, missing scores were substituted with the relevant group (i.e., grandmother or granddaughter) mean. While substituting missing values may reduce within-group variability, excluding these values may decrease overall sample size and, subsequently, reduce power (Stevens, 1996, p. 240).

Appendix D details the dyads affected by mean substitution on independent variables. As noted in the table, the instances of missing data points within the 45 dyads were low. For independent variables included in the hierarchical regression analyses, seven grandmothers of the 45 same-sex pairs were missing data for one score. To account for missing scores from two grandmothers for measure of perceived influence on the bridge parent, a group mean ($M = 2.39$) was calculated. One grandmother did not respond to number of grandchildren and therefore required group mean input ($M = 10.71$). Group mean ($M = 3.20$) was also utilized for three separate missing grandmothers' scores for perceived closeness with the bridge

generation father. Group mean input was also required for one grandmother's perceived closeness with the bridge generation mother ($M = 3.89$). Two granddaughter scores were missing from the independent variables of the hierarchical regression analysis. One granddaughter required a group mean for perceived communication with her grandmother ($M = 2.42$). Another group mean was required for one granddaughter for perceived closeness with the bridge generation father ($M = 3.24$).

Final Analyses Sample

Mean substitution was not utilized on missing dependent variables. Sexual beliefs and moral beliefs were missing one response each from two separate grandmothers, reducing the overall number of dyads for these particular domain analyses to 44.

Multicollinearity

Correlations among variables can be seen in Table 1. Strongest correlations were found between bridge father influence/closeness, bridge mother influence/number of grandchildren, and communication about important things/understanding by other. Significant correlations between communication/similar views on life, understanding by other/closeness, and bridge mother influence/closeness were also found. Weaker correlations were found between communication/number of grandchildren, similar views on life/closeness, and bridge father influence/closeness.

Hypothesis Testing

Similarity of Grandmother and Granddaughter Perceptions

The first study aim was to determine the congruence of grandmothers' and granddaughters' perceptions of grandmother influence across belief domains.

Table 1. Means, Standard Deviations, and Correlational Relations of Hierarchical Regression Independent Variables

Variables	M	SD	Correlation											
			1	2	3	4	5	6	7	8	9	10	11	
1. Age difference	51.67	7.11	--											
2. Number of grandchildren	10.76	6.04	.15	--										
3. Emotional closeness	-.26	.74	.09	-.12	--									
4. Understanding	-.48	1.11	.08	-.23	.41**	--								
5. Similar views	-.65	1.44	-.21	-.17	.31*	.33*	--							
6. Communication	.59	.96	.12	.36*	-.28	-.48**	-.39**	--						
7. Contact frequency (past year)	.15	1.26	.11	.10	.09	.02	-.03	.11	--					
8. Closeness with bridge mother	.09	1.01	.09	.05	.00	-.06	.01	.29*	-.06	--				
9. Closeness with bridge father	-.02	1.42	-.12	-.12	.18	.08	-.08	-.06	-.09	-.03	--			
10. Influence bridge mother	1.63	1.02	.05	.49**	.13	-.02	.18	.16	-.01	.47**	-.21	--		
11. Influence bridge father	1.57	1.42	-.27	.15	.31*	.25	.01	-.07	-.04	-.10	.64**	.06	--	

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

To accomplish this objective, individual perceptions of grandmothers' influence were characterized on the following belief systems: moral, religious, sexual, and family ideals. Using the grandmother-granddaughter dyad as the unit of analysis, a 4 (Domain: religious, moral, and sexual beliefs, and family ideals) x 2 (Partner: grandmother, granddaughter) repeated measures analysis of variance (ANOVA) was conducted in SPSS version 17. The approach to utilize the dyad as the unit of analysis is useful in addressing concerns of independence, and has been used in previous dyadic research (e.g., Smith, Gallo, Goble, Ngu, & Stark, 1998). Means and standard deviations for the partners (grandmother and granddaughter) by domain (religious, moral, sexual beliefs, and family ideals) are depicted in Table 2.

Based on prior literature, it was hypothesized that both grandmothers and adult granddaughters would perceive that grandmothers were most influential on their granddaughter's moral, religious, and family ideals belief systems (Dancy & Wynn-Dancy, 1994), and less influential on adult granddaughter's sexual beliefs (Mangxola, 2007). The total sample consisted of 44 pairs, as one grandmother response for each of the moral and sexual belief domain variables was excluded from analysis due to missing data. Results of the ANOVA are presented in Table 3. The main effect of partner did not reach significance, $F(1,43) = 3.47$, although it did reveal a trend, indicating a tendency for granddaughters ($M = 3.46$) to rate overall influence higher than grandmothers ($M = 3.16$). The main effect of domain was significant, $F(3, 41) = 41.53$, $p = 0.00$, as was the interaction of partner and domain, $F(3,41) = 4.35$, $p = 01$.

Table 2. Means and Standard Deviations for Partners (Grandmother, Adult Granddaughter) by Domain (Religious, Moral, Sexual Beliefs, and Family Ideals).

Domain	<u>Grandmothers</u>		<u>Granddaughters</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Religious Beliefs	2.80	1.15	3.41	1.30
Moral Beliefs	3.61	1.02	3.95	1.03
Sexual Beliefs	2.57	1.11	2.32	1.25
Family Ideals	3.66	1.10	4.14	1.00 ²⁶

Table 3. Analysis of Variance Test Examining the Influence of Partner (Grandmother, Adult Granddaughter) by Domain (Religious, Moral, and Sexual Beliefs, and Family Ideals).

Variable	df	MS	F	η^2	P
Partner	1	7.68	3.17	.07	.08
Domain	3	41.78	61.86	.58	.00
Partner x Domain	3	5.93	3.18	.12	.01

In regard to the main effect of domain, endorsement of influence varied across the belief domains. The religious beliefs domain significantly differed from the moral, sexual, and family ideals domains ($p = .00$). The sexual beliefs domain also indicated significant differences from religious, moral, and family ideals domains ($p = .00$).

In regard to the partner x domain interaction, partners varied in perceptions of influence across domains. Granddaughters rated higher scores of influence compared to grandmothers in the domains of religious beliefs (grandmothers: $M = 2.80$, granddaughters: $M = 3.41$), moral beliefs (grandmothers: $M = 3.61$, granddaughters: $M = 3.95$), and family ideals (grandmothers: $M = 3.66$, granddaughters: $M = 4.14$). In contrast, grandmothers

considered themselves more influential than did granddaughters in regard to sexual beliefs (grandmothers: $M = 2.57$, granddaughters: $M = 2.32$).

The partner by domain effect was analyzed using a simple main effect analyses. Grandmothers yielded significant differences in the domains of religious/moral beliefs, religious beliefs/family ideals and moral/sexual beliefs. Granddaughters revealed significance differences in the domains of religious/moral beliefs, religious beliefs/sexual beliefs, religious beliefs/family ideals and moral/sexual beliefs (Table 4).

Factors influencing perception similarity

The second research objective was to identify factors predictive of dyadic belief congruency. Four three-step hierarchical regression models were conducted, one for each belief system: religious, moral, sexual and family ideals. A grandmother-granddaughter difference score was created, as the variables are unique from one another but conceptually associated (Tisak & Smith, 1994), and used as the respective dependent variables.

Table 4. *Post-hoc Tests Examining Simple Effects between Partner Means as Related to Domain.*

Partner			Mean Difference	Std. Error	Sig.
Grandmothers	Religious Beliefs	Moral Beliefs	-.82	.16	.00**
		Sexual Beliefs	.23	.15	.13
		Family Ideals	-.86	.17	.00**
	Moral Beliefs	Sexual Beliefs	1.05	.16	.00**
		Family Ideals	-.05	.16	.77
		Sexual Beliefs	-1.09	.17	.00**
Granddaughters	Religious Beliefs	Moral Beliefs	-.55	.15	.00**
		Sexual Beliefs	1.09	.21	.00**
		Family Ideals	-.73	.18	.00**
	Moral Beliefs	Sexual Beliefs	1.64	.17	.00**
		Family Ideals	-.18	.13	.16
		Sexual Beliefs	-1.82	.19	.00**

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

A hierarchical approach was used to examine the relationships among the variables because of its capability to use a class of predictor variables to describe or “predict” a particular dependent variable and its theoretical approach to entering predictor variables into analysis (Petrocelli, 2003). Ensuing steps were selected in order to examine the relative utility of individual, dyadic and bridge generation influences.

Step one included age difference and number of grandchildren. Dyadic characteristics were examined in step two, including emotional closeness, understanding by other, similar views on life, communication about important things, and frequency of contact within the past year. Step three focused on characteristics of the bridge generation, which included emotional closeness and influence. Grandmother and adult granddaughter scores on major study constructs are presented in Table 5.

Prior literature by Kivett, (1991), suggests that greater number of grandchildren (for grandmothers) will have little influence on congruence across domains, while significant age differences between grandmothers and granddaughters is expected to predict less congruency. Greater perceived closeness, understanding by other, similar views on life, and communication about important things are assumed to predict similar beliefs between the dyad. Greater perceptions by grandmothers and granddaughters of influence of bridge parents on the grandmother-granddaughter relationship were also expected to relate to congruency among religious and moral beliefs and family ideals between grandmothers and bridge parents.

Considering Kivett’s (1991) research on shifting grandparent roles and prior studies indicating a reluctance by grandparents to discuss sexuality with their grandchildren

(Mangxola, 2007), strong perceptions of influence of bridge parents were not expected to predict congruency of sexual beliefs.

It was expected that greater frequency of contact between the grandmothers and granddaughters within the past year would predict belief congruency across the religious, moral and family ideals domains.

Table 5. *Grandmother and Adult Granddaughter Scores on Major Study Constructs.*

	Matched Pairs			
	Granddaughters (<i>N</i> = 45)		Grandmothers (<i>N</i> = 45)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Overall Influence	3.85	.85	3.04	.87
Closeness	3.81	.90	4.02	.79
Understanding	3.56	1.01	4.00	.68
Overall View Similarity	4.56	1.09	5.15	1.06
Influence on Beliefs				
Moral	3.92	1.03	3.59	1.00
Sexual	2.29	1.30	2.52	1.11
Family Ideals	4.10	.97	3.64	1.07
Religious	3.42	1.29	2.79	1.12

Note. Skewness and kurtosis were checked for distribution symmetry and found to be within acceptable limits.

Religious Beliefs

The third step of the religious beliefs model revealed a coefficient of determination (R^2) for perceived grandmother influence of 0.44, indicating that step three variables (individual level variables) explained 44% of the variance ($\Delta R^2 = .17, p = .03$) in religious belief similarity.

Perceived understanding by other predicted congruence in religious beliefs ($\beta = .41, p = .03$). Therefore, as perceived understanding by other increases, congruency in religious beliefs also increases. Communication between grandmothers and granddaughters was also predictive of religious belief congruence ($\beta = .39, p = .03$), indicating that religious belief congruency increases as communication between grandmothers and granddaughters increases (Table 6).

Moral Beliefs

In the moral beliefs model, step three variables accounted for 40% ($R^2 = .40$) of the variance in perceived grandmother influence on moral beliefs ($\Delta R^2 = .06, p = .07$). Number of grandchildren per grandmother predicted congruence in moral beliefs ($\beta = .38, p = .05$) such that a greater number of grandchildren related to increased belief congruence concerning moral beliefs (Table 7).

Sexual Beliefs

Variables entered in the final step of the sexual beliefs model accounted for 29% ($R^2 = 0.29$) of the explained variance in perceived grandmother influence on sexual beliefs ($\Delta R^2 = .04, p = .33$) (Table 8).

Family Ideals

The hierarchical regression analysis examining family ideals model revealed that full model predictor variables explained 24% ($R^2 = 0.24$) of the variance in perceived grandmother influence on family ideals ($\Delta R^2 = .03, p = .49$) (Table 9).

Table 6. Hierarchical Regression Analysis Examining Grandmother Influence on Granddaughter Religious Beliefs ($N = 45$ dyads)

Variable	<i>B</i>	<i>SE</i>	<i>B</i>	<i>T</i>	<i>Sig</i>	<i>R</i> ²	ΔR^2	<i>SE of estimate</i>	<i>F change</i>
Model 1					.90	.01		1.54	.11
Age difference•	.01	.03	.07	.43	.67				
Number of Grandchildren	.00	.04	.02	.10	.92				
Model 2					.09	.27	.26	1.41	2.67
Age difference•	-.01	.03	-.04	.80	.80				
Number of Grandchildren	.01	.04	.02	.90	.90				
Closeness•	.32	.33	.16	.33	.33				
Understanding by other•	.67	.23	.50	.01	.01*				
Similar views•	-.01	.17	-.01	1.00	.98				
Communication •	.61	.28	.39	.03	.03*				
Contact (past year)•	.04	.17	.03	.84	.84				
Model 3					.03*	.44	.17	1.30	2.57
Age difference•	.03	.03	.14	.39	.39				
Number of grandchildren	-.06	.05	-.23	.21	.21				
Closeness	-.11	.33	-.05	.74	.74				
Understanding by other•	.56	.23	.41	.02	.02*				
Similar views•	.04	.16	.04	.80	.80				
Communication•	.60	.27	.39	.03	.03*				
Contact (past year)•	.07	.16	.06	.66	.66				
Closeness with bridge mother•	-.24	.25	-.16	.35	.35				
Closeness with bridge father•	.17	.21	.16	.44	.44				
Influence bridge mother•	.51	.30	.34	.12	.11				
Influence bridge father•	.34	.23	.32	.16	.16				

* $p < .05$.

Note. • = difference scores (grandmother – granddaughter).

Table 7. *Hierarchical Regression Analysis Examining Grandmother Influence on Granddaughter Moral Beliefs (N = 44 dyads).*

Variable	<u>B</u>	<u>SE</u>	<u>B</u>	<u>T</u>	<u>Sig</u>	<u>R</u> ²	<u>ΔR</u> ²	<u>SE of Estimate</u>	<u>F Change</u>
Model 1					.90	.01		1.54	.11
Age difference•	.01	.03	.07	.43	.67				
Number of grandchildren	.00	.04	.02	.10	.92				
Model 2					.09	.27	.26	1.41	2.67
Age difference•	-.01	.03	-.04	.80	.80				
Number of grandchildren	.01	.04	.02	.90	.90				
Closeness•	.32	.33	.16	.33	.33				
Understanding by other•	.67	.23	.50	.01	.01*				
Similar views•	-.01	.17	-.01	1.00	.98				
Communication•	.61	.28	.39	.03	.03*				
Contact frequency (past year)•	.04	.17	.03	.84	.84				
Model 3					.03*	.44	.17	1.30	2.57
Age difference•	.03	.03	.14	.39	.39				
Number of grandchildren	-.06	.05	-.23	.21	.21				
Closeness•	-.11	.33	-.05	.74	.74				
Understanding by other•	.56	.23	.41	.02	.02*				
Similar views•	.04	.16	.04	.80	.80				
Communication•	.60	.27	.39	.03	.03*				
Contact frequency (past year)•	.07	.16	.06	.66	.66				
Closeness bridge mother•	-.24	.25	-.16	.35	.35				
Closeness bridge father•	.17	.21	.16	.44	.44				
Influence on/from bridge mother•	.51	.30	.34	.12	.11				
Influence on/from bridge father•	.34	.23	.32	.16	.16				

* $p < .05$.

Note. • = difference scores (grandmother – granddaughter).

Table 8. Hierarchical Regression Analysis Examining Grandmother Influence on Granddaughter Sexual Beliefs ($N = 44$ dyads).

Variable	<i>B</i>	<i>SE</i>	<i>B</i>	<i>T</i>	<i>Sig</i>	<i>R</i> ²	<i>ΔR</i> ²	<i>SE of Estimate</i>	<i>F Change</i>
Model 1					.55	.03		1.56	.62
Age difference•	.02	.04	.08	.53	.60				
Number of grandchildren	.04	.04	.14	.89	.38				
Model 2					.14	.25	.22	1.47	2.12
Age difference•	.01	.03	.07	.44	.66				
Number of grandchildren	.05	.04	.21	1.36	.18				
Closeness•	.85	.34	.40	2.47	.02*				
Understanding by other•	-.19	.25	-.14	-.75	.46				
Similar views•	.09	.18	.08	.50	.62				
Communication•	-.25	.29	-.15	-.85	.40				
Contact frequency (past year)•	.13	.18	.11	.76	.45				
Model 3					.33	.29	.04	1.51	.46
Age difference•	.02	.04	.13	.71	.48				
Number of grandchildren	.03	.05	.11	.51	.61				
Closeness•	.69	.39	.34	1.79	.08				
Understanding by other•	-.27	.27	-.20	-.98	.33				
Similar views•	.07	.20	.07	.37	.71				
Communication•	-.35	.32	-.22	-1.10	.28				
Contact frequency (past year)•	.17	.19	.14	.90	.38				
Closeness bridge mother•	.17	.31	.11	.53	.60				
Closeness bridge father•	-.07	.26	-.06	-.26	.80				
Influence on/from bridge mother•	.16	.37	.11	.44	.66				
Influence on/from bridge father•	.21	.27	.19	.77	.45				

* $p < .05$

Note. • = difference scores (Grandmother – Granddaughter).

Table 9. *Hierarchical Regression Analysis Examining Grandmother Influence on Granddaughter Family Ideals (N = 45 dyads)*

Variable	<i>B</i>	<i>SE</i>	<i>B</i>	<i>T</i>	<i>Sig</i>	<i>R</i> ²	ΔR^2	<i>SE of Estimate</i>	<i>F Change</i>
Model 1					.14	.09		1.11	2.07
Age difference•	-.03	.02	-.19	-1.28	.21				
Number of grandchildren	.05	.03	.26	1.76	.09				
Model 2					.23	.21	.12	1.10	1.14
Age difference•	-.03	.03	-.19	-1.24	.22				
Number of grandchildren	.07	.03	.39	2.46	.02				
Closeness•	.01	.26	.00	.02	.98				
Understanding by other•	.21	.18	.20	1.12	.27				
Similar views•	-.02	.13	-.02	-.12	.91				
Communication•	-.23	.22	-.20	-1.07	.29				
Contact frequency (past year)•	-.13	.13	-.15	-1.00	.33				
Model 3					.49	.24	.03	1.15	.35
Age difference•	-.02	.03	-.13	-.71	.48				
Number of grandchildren	.07	.04	.36	1.69	.10				
Closeness	-.11	.29	-.07	-.37	.71				
Understanding by other•	.17	.21	.17	.84	.41				
Similar views•	.02	.14	.02	.13	.90				
Communication•	-.24	.24	-.21	-1.01	.31				
Contact frequency (past year)•	-.12	.14	-.13	-.84	.41				
Closeness bridge mother•	-.01	.22	-.01	-.03	.98				
Closeness bridge father•	.10	.19	.12	.52	.60				
Influence on/from bridge mother•	.04	.27	.03	.14	.89				
Influence on/from bridge father•	.08	.21	.10	.39	.70				

* $p < .05$.

Note. • = difference scores (grandmother – granddaughter).

DISCUSSION

The current study examined belief congruence between 45 grandmother-adult granddaughter dyads in four domains: religious, moral, and sexual beliefs and family ideals. Factors that predicted belief congruency between the partners were also identified. The current study is expected to contribute to the literature examining intergenerational relations by exploring the quality of grandmother-granddaughter relationships as well as grandmothers' transmission of values to granddaughters. This study is unique because it considers the influence of the bridge parent from the perspective of the grandmother and the granddaughter. The study focused on the understanding of intergenerational attitudes regarding influence. The number of grandparents entering grandparenthood earlier and continuing that role longer than previous generations stresses the importance of such research.

Research Objective #1

The first research objective was to determine the congruence of grandmothers' and granddaughters' perceptions of grandmother influence across belief domains. Considering prior research findings, religious, moral, and family ideals belief systems were expected to reveal higher levels of congruency between grandmothers and their adult granddaughters, while the sexual belief system would reveal less congruency. Family ideals revealed the least congruence between grandmothers and granddaughters, followed by religious, moral then sexual belief systems. Granddaughters rated higher scores of influence compared to grandmothers in the domains of religious beliefs, moral beliefs, and family ideals, while grandmothers rated themselves more influential than did granddaughters in regard to sexual beliefs. Symbolic interaction theory suggests that individuals ascribe their own meanings to

their roles with regard to importance (Reitzes & Mutran, 2004). This may suggest that grandmothers consider that one meaning of their role is to educate their grandchildren on sexual beliefs. Therefore she will most likely perceive that she has influenced her granddaughter's sexual beliefs.

Research Objective #2

The second research objective was to identify factors predictive of belief congruency between grandmothers and their adult granddaughters in the domains of religious, moral, and sexual beliefs and family ideals. Outcomes pertaining to grandmother-granddaughter perceptions of influence by bridge generation parents were addressed, followed by discussion of the effects of proximity between grandmothers and granddaughters. Family composition and dyadic characteristics were contemplated as well (Table 10).

Bridge Generation

Results supported prior literature considering shifting grandparent roles (Kivett, 1991), and suggested reluctance by grandparents to discuss sexuality with their grandchildren (Mangxola, 2007). As expected, perceptions of influence of bridge parents did not predict congruence of sexual beliefs between grandmothers and granddaughters. Surprisingly, bridge generation mothers' influence proved less significant than fathers' influence.

Life course perspective suggests that individuals' lives are connected throughout development, such that the conditions of one family relationship, for example, that of a parent and child, has implications for other members of the family (White & Klein, 2002). Therefore, for the grandmother-granddaughter relationship to be understood other relationships within a family must be considered (Kemp, 2007).

Table 10. Summary of Significant Contributors to Grandmother-Granddaughter Congruency Across Belief Domains

Religious Beliefs	Sexual Beliefs	Family Ideals	Moral Beliefs
Communication Understanding by other	Closeness	# of grandchildren	# of grandchildren

Contrary to the study hypothesis, which is based on the expectation that bridge parents ultimately determine the grandmother-granddaughter relationship and hence the amount of opportunity for influence by the grandmother, dyadic perceptions of bridge parents' influence failed to predict congruence between grandmothers and granddaughters with regard to all four domains. The results are inconsistent with past literature, which considers the grandparent-grandchild relationship as dependent on the bridge generation parent (Uhlenberg & Hammill, 1998).

Proximity

Prior research suggests that less physical distance between grandmothers and granddaughters allows for more time spent together which in turn increases opportunities for sharing, understanding, closeness, and greater overall influence by grandmothers (Bernal & Anuncibay, 2008). Life course theory suggests that promoting conditions that encourage regular grandmother-granddaughter interaction may result in greater likelihood of belief transmission. Applied to influence, it may be assumed that a granddaughter raised in close proximity to her grandmother with frequent contact throughout her lifetime may value her grandmother and consequently assume similar beliefs. However, the current study revealed that frequency of contact between grandmothers and granddaughters within the past year did not predict belief congruency across the domains. This may be due to the college student

status of the granddaughters, as oftentimes college students decrease contact with family once they begin living independently, or the location of their school, which may hinder regular contact. Additionally, if greater amounts of time had been considered, rather than “in the past year”, contrary results may have been found.

Family Composition

Recent family trends point to smaller families with fewer children, leaving room for closer grandmother-granddaughter relationships (Fergusson, Maughan, & Golding, 2007). The current study hypothesized that the greater number of grandchildren per grandparent, the less one-on-one time spent between the grandparent and each individual grandchild, and the less likely the grandparents’ influence on the grandchild in all domains. However, results proved otherwise, suggesting that a greater number of grandchildren per grandmother related to stronger congruency in beliefs at the individual level in the moral belief domain. One hypothesis is that greater numbers of grandchildren promote stronger adoption of the grandparent role by grandmothers. Considering the symbolic interaction perspective, grandmothers may relate belief transmission to their role and as the number of grandchildren increases, demonstrate a greater tendency to pass their beliefs to their grandchildren.

Dyadic Characteristics

Predictors of belief congruence were most evident in the religious model. As expected, understanding by other and communication between grandmothers and granddaughters proved predictive of congruence of religious beliefs. However, closeness of the dyad and similarity of views were not predictive of congruency in this domain. Understanding by other, emotional closeness, similarity of views and communication between grandmothers and granddaughters were not predictive of belief congruency in the

domains of moral beliefs and family ideals. In accordance with hypotheses, closeness between grandmothers and granddaughters was predictive of congruence of sexual beliefs.

Although, it was expected that mutual communication by grandmothers and granddaughters would significantly contribute to belief congruency in all four domains, only communication in the religious model predicted religious belief congruence between grandmothers and granddaughters. Strong communication between the pair did not significantly predict congruence in the moral or sexual beliefs and family ideals domains. This may be attributed to grandchildren's unwillingness to share their thoughts on certain topics, such as sexual matters, with grandparents (Mangxola, 2007). Similarity of views and understanding by other also did not prove to be significant predictors of congruency of sexual beliefs.

Limitations and Future Directions

This study offers insight into similarities of grandmothers' and granddaughters' perceptions of grandmother's influence, as well as certain factors influencing perception similarity. Inevitably, there were limitations to the study that must be acknowledged. The relatively small sample size of the current study may be considered a limitation. The similar socioeconomic status, lack of ethnic/cultural diversity of the sample, and the well-educated, unmarried status of the adult granddaughters may also be limiting. Prior research suggests that if socioeconomic status is indeed intergenerational, it opposes the standard of equal opportunity, which may include the opportunity for grandparent influence (Ahlburg, 1998). Thus, socioeconomic status as well as family and household structure may affect the amount and type of grandparent influence. The aforementioned limitations may impede broader generalizations about the dyad's relationship.

As new types of family patterns and relationships emerge, belief influence between stepgrandparents and stepgrandchildren will also require consideration. Further exploration into grandfather-grandson relationships as well as perceptions of bridge parents may prove beneficial, as the present data set was not designed to focus on this subject. The effects of emerging technology (i.e., cell phones, social networking websites, such as Twitter and Facebook) and how such advances impede or shape the grandparent-grandchild relationship and their connectedness would also prove useful. Future research may benefit from assessing the bidirectional influence process between the grandparent and grandchild, as well as changes in mutual influence. It may also be beneficial to examine grandchildren's influence on the grandparents and changes in the type and direction of influence across domains over time.

The current study's consideration of both grandparents' and grandchildren's perspectives may lead to further examination across belief domains. Multigenerational perspectives of grandparents, grandchildren, bridge parents, and siblings may also be considered. Future longitudinal studies may determine broader perspectives of the larger family over greater periods of time.

CONCLUSIONS

As the role of the grandparent continues to evolve and new expectations of this role emerge, it is important to consider the type of influence that grandparents have on their grandchildren. The role of bridge generation parents must also be contemplated, as they are typically contributors to grandchildren's beliefs and, oftentimes, channels for the intergenerational transmission of beliefs from grandparents. As the findings of this study suggest, understanding predictors of congruence in various belief domains sheds light on perceptions of the development of beliefs and demonstrates the strength of the connections between grandmothers and granddaughters. Studies of such predictors of belief congruence might encourage younger generations to consider the transmission of their beliefs and the value of the grandmother-granddaughter relationships.

REFERENCES

- Ahlburg , D. (1998). Intergenerational Transmission of Health. *The American Economic Review*, 88(2), 265-270.
- Block, C. E. (2000). Dyadic and gender differences in perceptions of the grandparent-grandchild relationship. *International Journal of Aging and Human Development*, 51(2), 85-104.
- Block, C. E. (2002). College students perceptions of social support from grandmothers and stepgrandmothers. *College Student Journal*, 36(3), 419-433.
- Connidis, I. A. (2005). The Cambridge handbook of age and ageing. In M. L. Johnson, V. L. Bengtson, P. G. Coleman, & T. B. L. Kirkwood (Eds.), *Sibling ties across time: The middle and later years* (pp. 429-436). New York: Cambridge University Press.
- Cooney, T. M., & Shin An, J. (2006). Women in the middle: Generational position and grandmothers' adjustment to raising grandchildren. *Journal of Women and Aging*, 18(2), 3-23.
- Creasey, G. L., & Jarvis, P. A. (1988). The child's perceptions of familial relationships: Convergence between two assessment techniques. *The Journal of Genetic Psychology*, 150(1), 59-64.
- Crosnoe, R., & Elder Jr., G. H. (2004). Life course transitions, the generational stake, and grandparent-grandchild relationships [Electronic version]. *Journal of Marriage and Family*, 64(4), 1089-1096.
- Dancy, J. Jr., & Wynn-Dancy, M. L. (1994). Aging families and use of proverbs for values enrichment. In V. R. Jackson (Ed.), *Faith of our father (mothers) living still:*

- Spirituality as a force for the transmission of family values within the black community* (pp. 87-102). Binghamton, NY: The Haworth Press, Inc.
- Fergusson, E., Maughan, B., & Golding, J. (2007). Which children receive grandparental care and what effect does it have? *Journal of Child Psychology and Psychiatry*, 49(2), 161-169.
- Fingerman, K. L. (2004). The role of offspring and in-laws in grandparents' ties to their grandchildren. *Journal of Family Issues*, 25(8), 1026-1049.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 1016-1024.
- Gonzalez B., J., & de la Fuente Anuncibay, R. (2008). Intergenerational grandparent/grandchild relations: The socioeducational role of grandparents. *Educational Gerontology*, 67-88.
- Greene, R. R. (2000). *Social work with the aged and their families* (2nd ed.). New York: Aldine de Gruyter.
- Grundy, E., Murphy, M., & Shelton, N. (1999). Looking beyond the household: Intergenerational perspectives on living kin and contacts with kin in Great Britain. *Population Trends*, 19-27.
- Harwood, J., & Lin, M. (2000). Affiliation, pride, exchange, and distance in grandparents' accounts of relationships with their college-aged grandchildren [Electronic version]. *Journal of Communications*, 50(3), 31-47.
- Kemp, C. L. (2007). Grandparent-grandchild ties: Reflections on continuity and change across three generations. *Journal of Family Issues*, 28(7), 855-881.

- Kivett, V. R. (1991). Families: Intergenerational and generational connections. In S. K. Pfeifer & M. B. Sussman (Eds.), *The grandparent-grandchild connection* (pp. 267-290). Binghamton, NY: The Haworth Press, Inc.
- Kostecky, K., & Bass, B. L. (2003). Grandmothers and their granddaughters: Connected relationships. *Journal of Intergenerational Relationships*, 2(1), 47-61.
- Lumpkin, J. R. (2008). Grandparents in a parental or near-parental role. *Journal of Family Issues*, 29(3), 357-372.
- Mangxola, W. E. (2007). *Grandparents' experience of communicating sexual matters to the youth in east London in the eastern Cape province*. Unpublished master's thesis, University of South Africa. Retrieved December 8, 2008, from <http://etd.unisa.ac.za/ETD-db/theses/available/etd-09102007-093527/unrestricted/dissertation.pdf>.
- Petrocelli, J. V. (2003). Hierarchical multiple regression in counseling research: Common problems and possible remedies. *Measurement and Evaluation in Counseling and Development*, 36(1), 9-14.
- Ramirez Barranti, C. C. (1985). The grandparent/grandchild relationship: Family resources in an era of voluntary bonds. *Family Relations*, 34, 343-352.
- Reitzes, D. C., Mutran, E.J. (2002). Self concept as the organization of roles: Importance, centrality, and balance. *Sociological Quarterly*, 43, 647-667.
- Rossi, A. S. (1993). Intergenerational Relations: Gender, norms, and behavior. In V.L. Bengtson & W. A. Achenbaum (Eds.), *The changing contract across generations* (pp. 191-212). New York: Aldine de Gruyter.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the*

- life course* (3rd ed.). New York: Aldine de Gruyter.
- Settersten, R. A. (2003). *Invitation to the life course: Toward new understandings of later life* (Vol. 1). Amityville, NY: Baywood Publishing Company.
- Silverstein, M., & Marenco, A. (2001). How Americans enact the grandparent role across the family life course. *Journal of Family Issues, 22*, 493-522.
- Smith, T. W., Gallo, L. C., Goble, L., Ngu, L. Q., & Stark, K. A. (1998). Agency, communion, and cardiovascular reactivity during marital interaction. *Health Psychology, 17*(6) 537-545.
- Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3rd ed., pp. 237-241). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Thomas, D. (1994). Like father, like son; like mother, like daughter: Parental resources and child height [Electronic version]. *The Journal of Human Resources, 29*(4), 950-988.
- Tisak, J., & Smith, C. S. (1994). Defending and extending difference scores methods. *Journal of Management, 20*(3), 675-682.
- Uhlenberg, P., & Hammill, B. G. (1998). Frequency of grandparent contact with grandchild sets: Six factors that make a difference. *The Gerontologist, 27*6-285.
- Vann, M. S. (2005). *Grandparenting as a functional experience within the extended family*. Dissertation Abstracts International, 65(11-B), 6035.
- Van Uzendoorn, M. H. (1992). *Intergenerational transmission of parenting: A review of studies in nonclinical populations*. Center for Child and Family Studies, Leiden University, 76-99.

- Walker, A. J., Thompson, L., & Morgan, C. S. (1987). Two generations of mothers and daughters: Role position and independence. *Psychology of Women Quarterly*, 195-208.
- White, J. M., & Klein, D. M. (2002). *Family theories* (2nd ed., pp. 88-115). Thousand Oaks, CA: Sage Publications, Inc.
- Wiscott, R., & Kopera-Frye, K. (2000). Sharing of culture: Adult grandchildren's perceptions of intergenerational relations. *International Journal of Aging and Human Development*, 51(3), 199-215.

APPENDIX A.

IRB Approval

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Assurances
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4207

Date: March 9, 2009

To: Merea Bentrott
84 LeBaron Hall

CC: Jennifer Margrett
4380 Palmer Bldg.

From: Jan Canny, IRB Administrator
Office of Research Assurances

Project Title: **Dyadic Perceptions of Grandmothers' Influence on Granddaughters Beliefs**

IRB ID: **09-051**

The Co-Chair of the ISU Institutional Review Board has reviewed the project noted above and determined that the project:

- Does not meet the definition of research according to federal regulations.
- Is research that does not involve human subjects according to federal regulations.

Accordingly, this project does not need IRB approval and you may proceed at any time. We do, however, urge you to protect the rights of your participants in the same ways you would if IRB approval were required. For example, best practices include informing participants that involvement in the project is voluntary and maintaining confidentiality as appropriate.

Please also know that **any change** to this project must be communicated to the IRB to determine if the project has become research with human subjects requiring IRB approval.

Not Human Subjects

IRB

FEB 05 2009

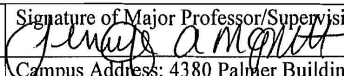
FOR IRB USE ONLY	EXEMPT Per 45 CFR 46.101(b):	Minimal Risk <input type="checkbox"/>	IRB ID: 09-051
			Review Date: 3/6/09

ISU EXEMPT STUDY REVIEW

SECTION I: GENERAL INFORMATION

Principal Investigator (PI): Merea Bentrott	Phone: 515-371-5292	Fax:
Degrees: B.A. Psychology/Sociology	Correspondence Address: 84 LeBaron	
Department: Human Development and Family Studies	Email Address: mbenny@iastate.edu	
Center/Institute: Iowa State University	College: Human Sciences	
PI Level: <input type="checkbox"/> Faculty <input type="checkbox"/> Staff <input type="checkbox"/> Postdoctoral <input checked="" type="checkbox"/> Graduate Student <input type="checkbox"/> Undergraduate Student		

Title of Project: Dyadic Perceptions of Grandmothers' Influence on Granddaughters Beliefs
Project Period (Include Start and End Date): [mm/dd/yy][02/15/2009] to [mm/dd/yy][02/14/2010]

FOR STUDENT PROJECTS	
Name of Major Professor/Supervising Faculty: Jennifer Margrett	Signature of Major Professor/Supervising Faculty: 
Phone: (515)-294-3028	Campus Address: 4380 Palmer Building
Department: Human Development and Family Studies	Email Address: margrett@iastate.edu
Type of Project: (check all that apply)	
<input checked="" type="checkbox"/> Research	<input checked="" type="checkbox"/> Thesis
<input type="checkbox"/> Independent Study (490, 590, Honors project)	<input type="checkbox"/> Dissertation
	<input type="checkbox"/> Class project
	<input type="checkbox"/> Other—Please specify: _____

KEY PERSONNEL

List all members and relevant experience of the project personnel. This information is intended to inform the committee of the training and background related to the specific procedures that each person will perform on the project.

NAME & DEGREE(S)	SPECIFIC DUTIES ON PROJECT	TRAINING & EXPERIENCE RELATED TO PROCEDURES PERFORMED, DATE OF TRAINING
*** Merea Bentrott		1/7/08
Jennifer Margrett		8/25/06

FUNDING INFORMATION

Internally funded, please provide account number: n/a
Externally funded, please provide funding source and account number:
Funding is pending, please provide OSPA GoldSheet ID:
Title on GoldSheet if different from above:
Other: e.g., funding will be applied for later, project not funded.

SCIENTIFIC REVIEW

Yes No Has or will this project receive peer review?

If the answer is "yes," please indicate who did or will conduct the review: thesis committee members

If a review was conducted, please indicate the outcome of the review:

COLLECTION OR RECEIPT OF SAMPLES

Will you be: (Please check all that apply.)

Yes No Receiving biological samples from outside of ISU? See examples below.
 Yes No Sending biological samples outside of ISU? See examples below.

Examples include: genetically modified organisms, body fluids, tissue samples, blood samples, pathogens.

If you will be receiving samples from or sending samples outside of ISU, please identify the name of the outside organization(s) and the types of samples you will be sending or receiving outside of ISU:

--

ASSURANCE

- I certify that the information provided in this application is complete and accurate and consistent with any proposal(s) submitted to external funding agencies.
- I agree to provide proper surveillance of this project to ensure that the rights and welfare of the human subjects or welfare of animal subjects are protected. I will report any problems to the appropriate assurance review committee(s).
- I agree that I will not begin this project until receipt of official approval from all appropriate committee(s).
- I agree that modifications to the originally approved project will not take place without prior review and approval by the appropriate committee(s), and that all activities will be performed in accordance with all applicable federal, state, local and Iowa State University policies.

CONFLICT OF INTEREST

ISU's Conflict of Interest Policy requires that investigators and key personnel disclose any significant financial interests or relationships that may present an actual or potential conflict of interest. A conflict of interest can be defined as a set of conditions in which an investigator's or key personnel's judgment regarding a project (including human or animal subject welfare, integrity of the research) may be influenced by a secondary interest (e.g., the proposed project and/or a relationship with the sponsor). By signing this form below, you are certifying that all members of the research team, including yourself, have read and understand ISU's Conflict of Interest policy as addressed by the ISU Faculty Handbook (<http://www.provost.iastate.edu/faculty>) and have made all required disclosures.

Yes No Do you or any member of your research team have an actual or potential conflict of interest?
 Yes No If yes, have the appropriate disclosure form(s) been completed?

SIGNATURES

Mered Penetralt 2-3-09
 Signature of Principal Investigator Date

Deane D 2-5-09
 Signature of Department Chair Date

FOR IRB USE ONLY:

Project is exempt.
 Project is not exempt. *Project does not involve human subjects*

Kerry A. Agnietel
 IRB Reviewer's Signature

March 11, 2009
 Date

SECTION II. EXEMPTION CATEGORY

The following categories and sub-parts are eligible for exempt status review. Check all applicable categories and sub-parts below. To select a category box, double-click on the check box.

PLEASE NOTE:

All procedures for all subjects in a project must be exempt in order for the project to be reviewed for exemption (i.e., all of the activities that participants will be asked to participate in must be found in one or more of the following categories).

Exemption does not apply if the targeted populations for the research will involve individuals who are legally incompetent, significantly mentally ill or impaired, or those who are vulnerable to extraordinary institutional coercion, such as prisoners, residents of 24-hour nursing facilities or anyone who is involuntarily confined.

Investigators whose research projects involve procedures which do not fit within an exempt category will be asked to complete the ISU New Human Subjects Review Form.

Investigators conducting research that fits into the exempt categories of research are not required to obtain a volunteer's consent to participate using an informed consent document containing all of the elements of consent. However, the IRB requires that the following items be included in an informed consent document or letter of introduction: a statement that the project involves research; a statement that participation is voluntary; a statement that the participant may skip any questions they do not feel comfortable answering in a survey; and the measures that will be used to ensure confidentiality of data collected in the research.

Education Practices: Research conducted in established or commonly accepted educational settings, involving normal educational practices is exempt when:

- research is on regular and special education instructional techniques, or
- research is on the effectiveness of, or the comparison among, instructional techniques, curricula, or classroom management methods.

Educational Tests: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement) is exempt if:

- in the researcher's private data (including field notes), as well as in any published material, information taken from these sources is recorded in such a manner that subjects *cannot* be identified, directly or through identifiers linked to the subjects; or
- the information, if disclosed outside of the research, could *not* reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing, employability, or reputation.

- Surveying or Interviewing:** Research involving, or interview procedures of, adult-aged subjects is exempt if:

- in the researcher's private data (including field notes), as well as in any published material, *responses are recorded anonymously* and in such a manner that the human subjects *cannot* be identified, directly or through identifiers linked to the subjects; **or**
- the responses, if disclosed outside of the research, could *not* reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing, employability, or reputation.

This exemption does not apply if the subjects are minor children or other vulnerable participants.

- Public Observations:** Research involving observation of public behavior is exempt if:

- in the researcher's private data (including field notes), as well as in any published material, information taken from these sources is recorded in such a manner that subjects *cannot* be identified, directly or through identifiers linked to the subjects; **or**
- the information, if disclosed outside of the research, could *not* reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing, employability, or reputation.

This exemption applies to research involving minor children only when the investigator does not participate in the activities observed. Workplace meetings and activities, as well as classroom activities, are not considered "public behavior."

- Public Officials:** All research involving educational tests, survey or interview procedures, or public observations is exempt when the respondents are elected or appointed public officials or candidates for public office.

Managers and staff in public agencies are not "public officials" in most cases.

- Existing Data:** Research involving the collection of existing data, documents, records, pathological or diagnostic specimens is exempt if:

- these sources are publicly available, **or**
- in both the researcher's private data (including field notes) and in any published material, the information is recorded by the researcher in such a manner that subjects *cannot* be identified, directly or through identifiers linked to the subjects.

- Taste and Food Quality:** Research on taste and food quality evaluation and consumer acceptance studies is exempt if:

- wholesome food without additives will be used, **or**
- the food does not contain a food ingredient that is at or below the level found to be safe, or agricultural chemical or environmental containment at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

III. PROTOCOL INFORMATION

1. Please outline the study procedures including a complete description of how subjects will be involved and what type of data collection method will be used. Include study dates, the number of individuals contacted to participate in the study, as well as the number of subjects actually enrolled in the study. Attach a copy of all data collection instruments including surveys, interview or focus group questions, etc.

The data reported in the current study were collected by the University of Northern Iowa in 2000 for the Grandmothers and Their Granddaughters: Connected Relationships study of interpersonal relationships between grandmothers and their young adult granddaughters. Dr. Kyle Kostelecky, currently employed at Iowa State University, and Dr. Brenda Bass served as PI's.

2. List characteristics of your study population (i.e., ages, student status, gender, ethnicity, etc.) and your rationale for choosing them for the study. (Studies with vulnerable populations such as children, adolescents, prisoners, or other institutionalized individuals are not eligible for exempt review.)

n/a-archived data

- 3.

e

scribe any potential risk and assess its level of likelihood and seriousness. Risks could be physical, psychological, social, or legal and can include minor discomfort and/or embarrassment. Describe the procedures to be used for protecting against or minimizing any potential risk, including the risks to disclosure of confidentiality.

Due to the use of archived data, there is no direct contact with participants and no foreseeable risk. The archived data set will not contain participant identifiers.

- 4.

e

scribe the informed consent process to be used for the study. Attach copies of consent forms, information sheets and/or letters of introduction that will be used. Also attach any documents that will be used for advertising purposes.

N/A-archived data

APPENDIX B.

Adult Grandchild Survey

Cover Sheet

Grandparents and their Adult Grandchildren:

Intergenerational Relationship Solidarity

Kyle L. Kostelecky

Design, Family, & Consumer Sciences

The University of Northern Iowa

Cedar Falls, Iowa 50614

Your name: _____ Parent's name: _____

Your address: _____ Parent's address: _____

Now we would like you to select one of your grandparents to become the “target grandparent” for the rest of this questionnaire. This would be a grandparent that you think would be willing to participate in this research project with you. We would like to send them a copy of a similar questionnaire so that we could get some information from them about their family relationships. We are hoping that this target grandparent is one to which you feel particularly close. Your target grandparent doesn’t have to live close but he or she does have to have an address. Who would this target grandparent be?

Maternal grandmother _____ Maternal grandfather _____ (Your mother’s parents)

Paternal grandmother _____ Paternal grandfather _____ (Your father’s parents)

If you know the “target grandparent’s” address, would you please indicate that below. If you don’t, would you please provide a way that we can contact you in the next week or so and get that information from you after you have had time to get it from them or another relative.

Grandparent’s name:

Your phone number or e-mail address so we can contact you later for this information:

Grandparent’s address: _____

Thank you for taking part in our study on grandparents, adult grandchildren and their relationships. It should take you about 45 minutes to complete this questionnaire. Please read the instructions carefully and choose the best possible answer to all questions or statements. It is very important that you answer all of the questions unless otherwise directed to leave it blank. Answering the questions honestly is the only way that we can obtain true information that will help us to better understand people such as yourself and hopefully help create a better environment for your social, emotional, and psychological development. Thank you in advance for your honesty in completing this questionnaire.

First, we would like to find out some basic information about you and your family. Remember, this is all confidential and no one will have access to these questionnaires except those of us working on this project.

1. What is your age in years and months? _____ years _____ months
2. What is your race or ethnic identity?
- _____ Caucasian
- _____ African American
- _____ Native American
- _____ Asian/Pacific Islander
- _____ Mexican American
- _____ Hispanic
- _____ Other (specify)
3. What is your gender? _____ male _____ female

4. What is your present marital status? _____ Single, never been married
_____ Married
_____ Divorced
_____ Remarried
_____ Widowed
5. If you are married, how long have you been married to your current spouse? _____
6. How many children do you have? _____
7. Actual number in years, of school you have completed. _____
8. Do you have a chronic health condition that causes you worry or concern?
_____ yes _____ no
9. What is your college major? _____
10. What are your professional career goals once you graduate from college? _____

11. What was/is your mother/step-mother's career? _____

12. How satisfied do you think your mother/step-mother was/is in her career?

Not at all satisfied _____ A little satisfied _____

Neither satisfied or dissatisfied _____ Satisfied _____

Very satisfied _____

13. What was/is your father/step-father's career? _____

14. How satisfied do you think your father/step-father was/is in his career?

Not at all satisfied _____ A little satisfied _____

Neither satisfied or dissatisfied _____ Satisfied _____

Very satisfied _____

15. What was/is your maternal grandmother's career? _____

16. How satisfied do you think your maternal grandmother was/is in her career?

Not at all satisfied _____ A little satisfied _____

Neither satisfied or dissatisfied _____ Satisfied _____

Very satisfied _____

17. What was/is your maternal grandfather's career? _____

18. How satisfied do you think your maternal grandfather was/is in his career?

Not at all satisfied _____ A little satisfied _____

Neither satisfied or dissatisfied _____ Satisfied _____

Very satisfied _____

19. What was/is your paternal grandmother's career? _____

20. How satisfied do you think your paternal grandmother was/is in her career?

Not at all satisfied _____ A little satisfied _____

Neither satisfied or dissatisfied _____ Satisfied _____

Very satisfied _____

21. What was/is your paternal grandfather's career? _____

22. How satisfied do you think your paternal grandfather was/is in his career?

Not at all satisfied _____ A little satisfied _____

Neither satisfied or dissatisfied _____ Satisfied _____

Very satisfied _____

23. How many siblings do you have? _____

24. How many of these siblings are step-siblings? _____

25. Including yourself, how many grandchildren do your maternal grandparents have?

26. How many of these maternal grandchildren are step-grandchildren? _____

27. Including yourself again, how many grandchildren do your paternal grandparents have?

28. How many of these paternal grandchildren are step-grandchildren? _____

There are six relationships that you may have that we are most interested in. Your maternal grandmother and grandfather (mother's parents), your paternal grandmother and grandfather (father's parents), your mother or step-mother, and your father or step-father. If you have a parent and a step-parent, choose the person that you feel closest to. If you do not have a living maternal or paternal grandmother or grandfather, mother, or father, simply choose the correct response in the questions below and do not fill out any information on those relationship questions in the survey.

1. Do you have a living maternal grandmother? _____ yes _____ no

2. Do you have a living maternal grandfather? _____ yes _____ no

3. Do you have a living paternal grandmother? _____ yes _____ no

4. Do you have a living paternal grandfather? _____ yes _____ no
5. Do you have a living mother? _____ yes _____ no
6. Do you have a living step-mother? _____ yes _____ no
7. Do you have a living father? _____ yes _____ no
8. Do you have a living step-father? _____ yes _____ no
9. Are you going to use your relationship with your mother or step-mother to answer the questions? mother _____ step-mother _____ neither _____
10. Are you going to use your relationship with your father or step-father to answer the questions? father _____ step-father _____ neither _____

Next we want you to answer some questions about your relationship with each of the

following people:

- a) Maternal grandmother
- b) Maternal grandfather
- c) Paternal grandmother
- d) Paternal grandfather
- e) Mother/step-mother (the person that had the most significant mother role during your childhood)
- f) Father/step-father (the person that had the most significant father role during your childhood)

Please provide answers for those grandparents and parents that are still living regardless of whether you have an active relationship with them or not.

Answer each of the following questions for each person listed below. For example, the first question asks, “How much free time do you spend with this person?”. Think about all of your free time that you have had over the past year including the summer break from classes and holiday and weekend breaks. If you spend all of your free time with your father, circle 5 on that line; if you spend no free time with someone, circle 1 on that line. Circle a number for each person asked about. Sometimes the answers for different people might be the same, but often they are not. Please read the answer choices carefully because they are different from question to question.

- EXAMPLE -

0. Example response to how much free time do you spend with the people listed below?

	None	A little	Some	A lot	All my free time
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

1. How much free time do you spend with each of the people listed below?

	None	A little	Some	A lot	All my free time
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

2. How often do you and each person listed below get upset with or mad at each other?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

3. How much does each person teach you how to do things that you don't know?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

4. How satisfied are you with your relationship with each person listed below?

	Not at all satisfied	A little satisfied	Satisfied	Very satisfied	Extremely satisfied
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

5. How often do you talk to this person about things that worry, concern or bother you?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

6. How often do you help this person with things?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

7. How much does each person like or love you?

	Not at all	A little	Some	A lot	Very much
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

8. How much does each person treat you like they admire and respect you?

	Not at all	A little	Some	A lot	Very much
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

9. How sure are you that this relationship will last no matter what?

	Not at all	A little sure	Somewhat sure	Very sure	Extremely sure
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

10. How often do you play around and have fun with each person?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

11. How often do you and each person disagree and quarrel?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

12. How often does each person help you figure out or fix things?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

13. How happy are you with the way things are between you and each person?

	Not at all	A little	Somewhat	Very happy	Extremely happy
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

14. How often do you share secrets and private feelings with each person?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

15. How much do you protect and look out for each person?

	Not at all	A little	Some	A lot	Very much
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

16. How much does each person really care about you?

	Not at all	A little	Some	A lot	Very much
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

17. How often does each person treat you like you're good at many things?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

18. How sure are you that your relationship with each person will last in spite of fights?

	Not at all	A little	Somewhat	Very sure	Extremely sure
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

19. How often do you go places and do enjoyable things with each person?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

20. How often do you and each person argue with each other?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

21. How often does each person help you when you need to get something done?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

22. How good is your relationship with each person?

	Very poor	Poor	Fair	Good	Very good
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

23. How often do you talk to each person about things you don't want others to know?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

24. How much do you take care of each person?

	Not at all	A little	Some	A lot	Very much
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

25. How often does this person show or tell you that they like or love you?

	Never	Seldom	Sometimes	Often	Very often
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

26. How much does each person like or approve of the things you do?

	Not at all	A little	Some	A lot	Very much
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

27. How sure are you that your relationship will continue in the years to come?

	Not at all	A little	Somewhat	Very sure	Extremely sure
a. Maternal grandmother	1	2	3	4	5
b. Maternal grandfather	1	2	3	4	5
c. Paternal grandmother	1	2	3	4	5
d. Paternal grandfather	1	2	3	4	5
e. Mother/step-mother	1	2	3	4	5
f. Father/step-father	1	2	3	4	5

1. You probably have some kind of contact with your “target grandparent”. Remember, this is the grandparent that you feel particularly close to and will likely participate in this study with you. This contact could be in the form of regular visits, extended stays, phone conversations, letters, e-mail and other kinds of connections. Indicate below by putting an “X” in one box that best represents the amount of average contact (any and all kinds) you have had with your target grandparent over the last year.

Just about every day _____ About once a week _____ Every couple of weeks _
 About once a month _____ Every few months _____ A few times a year __
 Almost never _____

2. Using the following scale, please circle how satisfied you are with the contact that you have with your target grandparent.

- 1 Very unhappy
- 2 Unhappy
- 3 Mostly dissatisfied
- 4 Mixed feelings; neither satisfied nor dissatisfied
- 5 Mostly satisfied
- 6 Pleased
- 7 Very pleased

3. Taking everything into consideration, how close do you feel the relationship is between you and your target grandparent?

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

4. How well do you feel your target grandparent understands you?

Not very much _____ A little _____ A modest amount _____
 A lot _____ Extremely well _____

5. How is communication between you and your target grandparent concerning things that are important to you now?

- 1 Excellent
- 2 Moderately good
- 3 Slightly good
- 4 Neither good nor poor
- 5 Slightly poor
- 6 Moderately poor
- 7 Very poor

How much influence does your target grandparent have on the various belief systems that you have in your life? Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

6. Your religious beliefs:

- 1 2 3 4 5

7. Your sexual beliefs:

1 2 3 4 5

8. Your educational beliefs:

1 2 3 4 5

9. Your moral beliefs:

1 2 3 4 5

10. Your political beliefs:

1 2 3 4 5

11. Your family ideals:

1 2 3 4 5

12. Your work ethic:

1 2 3 4 5

13. Your personal identity:

1 2 3 4 5

14. Your career choice:

1 2 3 4 5

15. We would like to get more general now. How similar are your views about life to those of your target grandparent?

Extremely different _____ Very different _____ Not too similar ____

Similar in some ways _____ Pretty similar _____ Very similar ____

Extremely similar _____

Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

16. How much influence, in general, do you feel your target grandparent has had on your life?

1 2 3 4 5

17. How much influence do you feel your target grandparent has had on who you are?

1 2 3 4 5

18. How much influence do you feel your target grandparent has had on how good you feel about yourself?

1 2 3 4 5

19. To what degree do you feel you would have missed something important in your life if you had not known your target grandparent?

- 1 I would have missed out on a lot
- 2 I would have missed out on quite a bit
- 3 I would have missed out on a fair amount
- 4 I would have missed out on a little
- 5 I would not have missed out on anything

20. During the school year, approximately how many miles do you live from your target grandparent? _____

21. When school is not in session, approximately how many miles do you live from your target grandparent? _____

Now we want you to think about the relationship you have with your **mother/step-mother**.

1. You probably have some kind of contact with your mother/step-mother. This contact could be in the form of regular visits, extended stays, phone conversations, letters, e-mail and other kinds of connections. Indicate below by putting an "X" in one box that best represents the amount of average contact (any and all kinds) you have had with your mother/step-mother over the last year.

Just about every day _____ About once a week _____ Every couple of weeks _____
 About once a month _____ Every few months _____ A few times a year _____
 Almost never _____

2. Using the following scale, please circle how satisfied you are with the contact that you have with your mother/step-mother.

- 1 Very unhappy
- 2 Unhappy
- 3 Mostly dissatisfied
- 4 Mixed feelings; neither satisfied nor dissatisfied
- 5 Mostly satisfied
- 6 Pleased
- 7 Very pleased

3. Taking everything into consideration, how close do you feel the relationship is between you and your mother/step-mother?

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

4. How well do you feel your mother/step-mother understands you?

Not very much _____ A little _____ A modest amount _____

A lot _____ Extremely well _____

5. How is communication between you and your mother/step-mother concerning things that are important to you now?

- 1 Excellent
- 2 Moderately good
- 3 Slightly good
- 4 Neither good nor poor
- 5 Slightly poor
- 6 Moderately poor
- 7 Very poor

How much influence does your mother/step-mother have on the various belief systems that you have in your life? Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

6. Your religious beliefs:

1 2 3 4 5

7. Your sexual beliefs:

1 2 3 4 5

8. Your educational beliefs:

1 2 3 4 5

9. Your moral beliefs:

1 2 3 4 5

10. Your political beliefs:

1 2 3 4 5

11. Your family ideals:

1 2 3 4 5

12. Your work ethic:

1 2 3 4 5

13. Your personal identity:

1 2 3 4 5

14. Your career choice:

1 2 3 4 5

15. We would like to get more general now. How similar are your views about life to those of your mother/step-mother?

Extremely different _____ Very different _____ Not too similar ____
 Similar in some ways _____ Pretty similar _____ Very similar ____
 Extremely similar _____

Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

16. How much influence, in general, do you feel your mother/step-mother has had on your life?

1 2 3 4 5

17. How much influence do you feel your mother/step-mother has had on who you are?

1 2 3 4 5

18. How much influence do you feel your mother/step-mother has had on how good you feel about yourself?

1 2 3 4 5

19. To what degree do you feel you would have missed something important in your life if you had not known your mother/step-mother?

- 1 I would have missed out on a lot
- 2 I would have missed out on quite a bit
- 3 I would have missed out on a fair amount
- 4 I would have missed out on a little
- 5 I would not have missed out on anything

20. During the school year, approximately how many miles do you live from your mother/step-mother? ____

21. When school is not in session, approximately how many miles do you live from your mother/step-mother? ____

Now we want you to think about the relationship you have with your **father/step-father**.

1. You probably have some kind of contact with your father/step-father. This contact could be in the form of regular visits, extended stays, phone conversations, letters, e-mail and other kinds of connections. Indicate below by putting an "X" in one box that best represents the amount of average contact (any and all kinds) you have had with your father/step-father over the last year.

Just about every day _____ About once a week _____ Every couple of weeks _____
 About once a month _____ Every few months _____ A few times a year _____
 Almost never _____

2. Using the following scale, please circle how satisfied you are with the contact that you have with your father/step-father.

- 1 Very unhappy
- 2 Unhappy
- 3 Mostly dissatisfied
- 4 Mixed feelings; neither satisfied nor dissatisfied
- 5 Mostly satisfied
- 6 Pleased
- 7 Very pleased

3. Taking everything into consideration, how close do you feel the relationship is between you and your father/step-father?

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

4. How well do you feel your father/step-father understands you?

Not very much _____ A little _____ A modest amount _____
 A lot _____ Extremely well _____

5. How is communication between you and your father/step-father concerning things that are important to you now?

- 1 Excellent
- 2 Moderately good
- 3 Slightly good
- 4 Neither good nor poor
- 5 Slightly poor
- 6 Moderately poor
- 7 Very poor

How much influence does your father/step-father have on the various belief systems that you have in your life? Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

6. Your religious beliefs:

1 2 3 4 5

7. Your sexual beliefs:

1 2 3 4 5

8. Your educational beliefs:

1 2 3 4 5

9. Your moral beliefs:

1 2 3 4 5

10. Your political beliefs:

1 2 3 4 5

11. Your family ideals:

1 2 3 4 5

12. Your work ethic:

1 2 3 4 5

13. Your personal identity:

1 2 3 4 5

14. Your career choice:

1 2 3 4 5

15. We would like to get more general now. How similar are your views about life to those of your father/step-father?

Extremely different _____ Very different _____ Not too similar ____

Similar in some ways _____ Pretty similar _____ Very similar ____

Extremely similar _____

Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

16. How much influence, in general, do you feel your father/step-father has had on your life?

1 2 3 4 5

17. How much influence do you feel your father/step-father has had on who you are?

1 2 3 4 5

18. How much influence do you feel your father/step-father has had on how good you feel about yourself?

1 2 3 4 5

19. To what degree do you feel you would have missed something important in your life if you had not known your father/step-father?

- 1 I would have missed out on a lot
- 2 I would have missed out on quite a bit
- 3 I would have missed out on a fair amount
- 4 I would have missed out on a little
- 5 I would not have missed out on anything

20. During the school year, approximately how many miles do you live from your father/step-father? _____

21. When school is not in session, approximately how many miles do you live from your father/step-father? _____

Relationships with Parents

Each person has ideas or feelings about how other people see them. I am interested in how you think people think about you. The statements listed below are about the way you feel about the person you perceive as your mother/step-mother. These are followed on the next page by statements about perceptions of your father/step-father. These statements can refer to your biological or adopted parents or if there has been a remarriage, a step-parent. Choose the rating you feel is best for you and circle the number provided.

- | | not
much | | some
what | | a lot |
|--|---------------------|---|----------------------|---|--------------|
| 1. I am important to my mother/step-mother: | 1 | 2 | 3 | 4 | 5 |
| 2. I am needed by my mother/step-mother: | 1 | 2 | 3 | 4 | 5 |
| 3. I am missed by my mother/step-mother when I am away: | 1 | 2 | 3 | 4 | 5 |
| 4. When I talk, my mother/step-mother tries to understand
what I am saying: | 1 | 2 | 3 | 4 | 5 |
| 5. I am interesting to my mother/step-mother: | 1 | 2 | 3 | 4 | 5 |
| 6. My mother/step-mother notices my feelings: | | | | | |
| 7. My mother/step-mother gives me credit when I do well: | 1 | 2 | 3 | 4 | 5 |
| 8. My mother/step-mother notices when I need help: | 1 | 2 | 3 | 4 | 5 |
| 9. I matter to my mother/step-mother: | 1 | 2 | 3 | 4 | 5 |

10. People have many things to think about. If your **mother** made a list of all the things she thinks about where do you think you'd be on her list? (place a mark in one of the boxes)

Top

Bottom

11. If your **mother** made a list of all the things she cares about, where do you think you'd be on her list? (place a mark in one of the boxes)

Top

Bottom

The statements listed below are about the way you feel about your **father/step-father**.

Choose the rating you feel is best for you and circle the number provided.

- | | not
much | | some
what | | a lot |
|--|---------------------|---|----------------------|---|--------------|
| 1. I am important to my father/step-father: | 1 | 2 | 3 | 4 | 5 |
| 2. I am needed by my father/step-father: | 1 | 2 | 3 | 4 | 5 |
| 3. I am missed by my father/step-father when I am away: | 1 | 2 | 3 | 4 | 5 |
| 4. When I talk, my father/step-father tries to understand
what I am saying: | 1 | 2 | 3 | 4 | 5 |
| 5. I am interesting to my father/step-father: | 1 | 2 | 3 | 4 | 5 |
| 6. My father/step-father notices my feelings: | 1 | 2 | 3 | 4 | 5 |
| 7. My father/step-father gives me credit when I do well: | 1 | 2 | 3 | 4 | 5 |
| 8. My father/step-father notices when I need help: | 1 | 2 | 3 | 4 | 5 |
| 9. I matter to my father/step-father: | 1 | 2 | 3 | 4 | 5 |

10. People have many things to think about. If your **father** made a list of all the things he thinks about where do you think you'd be on his list? (place a mark in one of the boxes)

Top

-
-
-
-
-

Bottom

11. If your **father** made a list of all the things he cares about, where do you think you'd be on his list? (place a mark in one of the boxes)

Top

-
-
-
-
-

Bottom

Relationships with Target Grandparent

The statements listed below are about the way you feel about your target grandparent.

Choose the rating you feel is best for you and circle the number provided.

	not		some		
	much	what	a lot		
1. I am important to my grandparent:	1	2	3	4	5
2. I am needed by my grandparent:	1	2	3	4	5
3. I am missed by my grandparent when I am away:	1	2	3	4	5
4. When I talk, my grandparent tries to understand what	1	2	3	4	5
5. I am interesting to my grandparent:	1	2	3	4	5
6. My grandparent notice my feelings:	1	2	3	4	5
7. My grandparent gives me credit when I do well:	1	2	3	4	5
8. My grandparent notice when I need help:	1	2	3	4	5
9. I matter to my grandparent:	1	2	3	4	5

10. People have many things to think about. If your Grandparent made a list of all the things they think about where do you think you'd be on their list? (place a mark in one of the boxes)

Top

Bottom

11. If your Grandparent made a list of all the things they cares about, where do you think you'd be on their list?
(place a mark in one of the boxes)

Top

Bottom

APPENDIX C.

Grandparent Survey

Cover Sheet

**Grandparents and their Adult Grandchildren:
Intergenerational Relationship Solidarity**

Kyle L. Kostelecky

Design, Family, & Consumer Sciences

The University of Northern Iowa

Cedar Falls, Iowa 50614

Your name: _____ Target Grandchild's name: _____

Your address: _____

*Your "Target Grandchild" is the one who is
a University of Northern Iowa student and
nominated you to participate in this study.

Thank you for taking part in our study on grandparents, adult grandchildren and their relationships. It should take you about 45 minutes to complete this questionnaire. Please read the instructions carefully and choose the best possible answer to all questions or statements. It is very important that you answer all of the questions unless otherwise directed to leave it blank. All of the information gathered will be kept strictly confidential and only researchers working on the project will have access to any information associated with the study. The cover sheet will be removed and kept in a separate locked file once an identification number has been assigned to the information you provide. Participation in this study is strictly voluntary. You may end your participation in the study at any time. Answering the questions honestly is the only way that we can obtain true information that will help us to better understand people such as yourself and hopefully help create a better environment for your social, emotional, and psychological development. Thank you in advance for your honesty in completing this questionnaire.

First, we would like to find out some basic information about you and your family. Remember, this is all confidential and no one will have access to these questionnaires except those of us working on this project.

1. What is your age in years and months? _____ years _____ months
2. What is your race or ethnic identity?
 - _____ Caucasian
 - _____ African American
 - _____ Native American
 - _____ Asian/Pacific Islander
 - _____ Mexican American
 - _____ Hispanic

- _____ Other (specify)
3. What is your gender? _____ male _____ female
4. What is your present marital status? _____ Single, never been married
_____ Married
_____ Divorced
_____ Remarried
_____ Widowed
5. How long have you been married to your current spouse? _____
6. How many children do you have? _____
7. How many grandchildren do you have? _____
8. How many of these grandchildren are step-grandchildren? _____
9. Actual number in years of school you have completed. _____
10. What is your occupation? _____
11. If you are retired, what was your occupation? _____

12. Do you have a chronic health condition that causes you to worry or to be concerned?

_____ yes _____ no

There are six relationships that you may have that we are most interested in: your target grandchild, other grandchildren, and the parents of the target grandchild. Please choose up to three other grandchildren whom you feel emotionally close to in order to answer the questions below. If a person that we ask questions about is no longer living, check the correct response below and do not fill out any information on those relationship questions in the survey.

1. Is the mother of the target grandchild living? _____ yes _____ no

2. Is the mother of the target grandchild your:

daughter _____ daughter-in-law _____ other _____

3. Is the father of the target grandchild living? _____ yes _____ no

4. Is the mother of the target grandchild your:

son _____ son-in-law _____ other _____

Next we want you to answer some questions about your relationship with each of the following people:

1. Your target grandchild (the one who is a student at the University of Northern Iowa and nominated you to participate in this study)
2. Up to three other living grandchildren with whom you feel most emotionally close
3. The mother of the target grandchild
4. The father of the target grandchild

Your target grandchild is the one that is participating in this study and will remain the same grandchild throughout this questionnaire. Please provide answers for those grandchildren and the parents of the target grandchild that are still living regardless of whether you have an active relationship with them or not. You may have more than three other grandchildren but we are looking for information on the relationships that you have with those three whom you feel most emotionally close.

Answer each of the following questions for each person listed below. For example, the first question asks, “How much free time do you spend with this person?” If you spend all of you free time with your son/son in-law, circle 5 on that line; if you spend no free time with someone, circle 1 on that line. Circle a number for each person asked about. Sometimes the answers for different people might be the same, but often they are not. Please read the answer choices carefully because they are different from question to question.

0. Example response to how much free time do you spend with the people listed below?

	NONE	A LITTLE	SOME	A LOT	ALL MY	free time
a. Target grandchild	1	2	3	4	5	
b. Grandchild #2	1	2	3	4	5	
c. Grandchild #3	1	2	3	4	5	
d. Grandchild #4	1	2	3	4	5	
e. Mother of target grandchild	1	2	3	4	5	
f. Father of target grandchild	1	2	3	4	5	

To help you to complete the next section of the questionnaire, you may want to write in the first names of the people that you have chosen to represent a-f above. You may refer to this list as you answer the next 27 questions about these relationships if it helps.

First Name

- a. Target grandchild** _____
- b. Grandchild #2** _____
- c. Grandchild #3** _____
- d. Grandchild #4** _____
- e. Mother of target grandchild** _____

f. Father of target grandchild _____

1. How much free time do you spend with each of the people listed below?

	None	A little	Some	A lot	All my free time
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

2. How often do you and each person listed below get upset with or mad at each other?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5

f. Father of target grandchild 1 2 3 4 5

3. How much does each person teach you how to do things that you don't know?

Never Seldom Sometimes Often Very
often

a. Target grandchild 1 2 3 4 5

b. Grandchild #2 1 2 3 4 5

c. Grandchild #3 1 2 3 4 5

d. Grandchild #4 1 2 3 4 5

e. Mother of target grandchild 1 2 3 4 5

f. Father of target grandchild 1 2 3 4 5

4. How satisfied are you with your relationship with each person listed below?

Not at all A little Satisfied Very Extremely
satisfied satisfied satisfied satisfied

a. Target grandchild 1 2 3 4 5

b. Grandchild #2 1 2 3 4 5

c. Grandchild #3 1 2 3 4 5

d. Grandchild #4 1 2 3 4 5

e. Mother of target grandchild 1 2 3 4 5

f. Father of target grandchild 1 2 3 4 5

5. How often do you talk to this person about things that worry, concern or bother you?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

6. How often do you help this person with things?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

7. How much does each person like or love you?

	Not at all	A little	Some	A lot	Very much
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

8. How much does each person treat you like they admire and respect you?

	Not at all	A little	Some	A lot	Very much
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

9. How sure are you that this relationship will last no matter what?

	Not at all	A little sure	Somewhat sure	Very sure	Extremely sure
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

10. How often do you play around and have fun with each person?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

11. How often do you and each person disagree and quarrel?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

12. How often does each person help you figure out or fix things?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

13. How happy are you with the way things are between you and each person?

	Not at all	A little	Somewhat	Very happy	Extremely happy
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

14. How often do you share secrets and private feelings with each person?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

15. How much do you protect and look out for each person?

	Not at all	A little	Some	A lot	Very much
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

16. How much does each person really care about you?

	Not at all	A little	Some	A lot	Very much
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

17. How often does each person treat you like you're good at many things?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

18. How sure are you that your relationship with each person will last in spite of fights?

	Not at all	A little	Somewhat	Very sure	Extremely sure
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

19. How often do you go places and do enjoyable things with each person?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

20. How often do you and each person argue with each other?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

21. How often does each person help you when you need to get something done?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

22. How good is your relationship with each person?

	Very poor	Poor	Fair	Good	Very good
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

23. How often do you talk to each person about things you don't want others to know?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

24. How much do you take care of each person?

	Not at all	A little	Some	A lot	Very much
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

25. How often does this person show or tell you that they like or love you?

	Never	Seldom	Sometimes	Often	Very often
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

26. How much does each person like or approve of the things you do?

	Not at all	A little	Some	A lot	Very much
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

27. How sure are you that your relationship will continue in the years to come?

	Not at all	A little	Somewhat	Very sure	Extremely sure
a. Target grandchild	1	2	3	4	5
b. Grandchild #2	1	2	3	4	5
c. Grandchild #3	1	2	3	4	5
d. Grandchild #4	1	2	3	4	5
e. Mother of target grandchild	1	2	3	4	5
f. Father of target grandchild	1	2	3	4	5

1. You probably have some kind of contact with your “target grandchild”. Remember, this is the grandchild that attends the University of Northern Iowa and has selected you to participate in this study with them. This contact could be in the form of regular visits, extended stays, phone conversations, letters, e-mail and other kinds of connections. Indicate below by putting an “X” in one box that best represents the amount of average contact (any and all kinds) you have had with your target grandchild over the last year.

Just about every day _____	About once a week _____
Every couple of weeks _____	About once a month _____
Every few months _____	A few times a year _____

Almost never _____

2. Using the following scale, please circle how satisfied you are with the contact that you have with your target grandchild?

- 1 Very unhappy
- 2 Unhappy
- 3 Mostly dissatisfied
- 4 Mixed feelings; neither satisfied nor dissatisfied
- 5 Mostly satisfied
- 6 Pleased
- 7 Very pleased

3. Taking everything into consideration, how close do you feel the relationship is between you and your target grandchild?

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

4. How well do you feel your target grandchild understands you?

Not very much _____ A little _____ A modest amount _____
A lot _____ Extremely well _____

5. How is communication between you and your target grandchild concerning things that are important to you now?

- 1 Excellent
- 2 Moderately good
- 3 Slightly good
- 4 Neither good nor poor
- 5 Slightly poor
- 6 Moderately poor
- 7 Very poor

How much influence do you think you have on the various belief systems of your target grandchild? Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

6. Your target grandchild's religious beliefs:

1 2 3 4 5

7. Your target grandchild's sexual beliefs:

1 2 3 4 5

8. Your target grandchild's educational beliefs:

1 2 3 4 5

9. Your target grandchild's moral beliefs:

1 2 3 4 5

10. Your target grandchild's political beliefs:

1 2 3 4 5

11. Your target grandchild's family ideals:

1 2 3 4 5

12. Your target grandchild's work ethic:

1 2 3 4 5

13. Your target grandchild's personal identity:

1 2 3 4 5

14. Your target grandchild's career choice:

1 2 3 4 5

15. We would like to get more general now. How similar do you think your target grandchild's views about life are to your own views?

Extremely different	_____	Very different	_____	Not too similar	____
Similar in some ways	_____	Pretty similar	_____	Very similar	____
Extremely similar	_____				

Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

16. How much influence, in general, do you feel you have on your target grandchild's life?

1 2 3 4 5

17. How much influence do you feel you have on who your target grandchild is?

1 2 3 4 5

18. How much influence do you feel you have on how your target grandchild feels about
him/herself?

1 2 3 4 5

19. To what degree do you feel your target grandchild would have missed something important in life if he/she had not known you?

- 1 He/she would have missed out on a lot
- 2 He/she would have missed out on quite a bit
- 3 He/she would have missed out on a fair amount
- 4 He/she would have missed out on a little
- 5 He/she would not have missed out on anything

20. During the school year, approximately how many miles do you live from your target grandchild? _____

22. When school is not in session, approximately how many miles do you live from your target grandchild? _____

Now we want you to think about the relationship you have with the **mother of the target grandchild.**

You may have some kind of contact with her (the mother of the target grandchild). This contact could be in the form of regular visits, extended stays, phone conversations, letters, e-mail and other kinds of connections. Indicate below by putting an “X” in one box that best represents the amount of average contact (any and all kinds) you have had with the mother of the target grandchild over the last year.

Just about every day _____	About once a week _____
Every couple of weeks _____	About once a month _____
Every few months _____	A few times a year _____
Almost never _____	

2. Using the following scale, please circle how satisfied you are with the contact that you have with the mother of the target grandchild.

- 1 Very unhappy
- 2 Unhappy
- 3 Mostly dissatisfied
- 4 Mixed feelings; neither satisfied nor dissatisfied
- 5 Mostly satisfied
- 6 Pleased
- 7 Very pleased

3. Taking everything into consideration, how close do you feel the relationship is between you and the mother of the target grandchild?

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

4. How well do you feel she understands you?

Not very much _____ A little _____ A modest amount _____
 A lot _____ Extremely well _____

5. How is communication between you and the mother of the target grandchild concerning things that are important to you now?

- 1 Excellent
- 2 Moderately good
- 3 Slightly good
- 4 Neither good nor poor
- 5 Slightly poor
- 6 Moderately poor
- 7 Very poor

How much influence do you think you have on the various belief systems of the mother of the target grandchild? Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

6. Her religious beliefs:

1 2 3 4 5

7. Her sexual beliefs:

1 2 3 4 5

8. Her educational beliefs:

1 2 3 4 5

9. Her moral beliefs:

1 2 3 4 5

10. Her political beliefs:

1 2 3 4 5

11. Her family ideals:

1 2 3 4 5

12. Her work ethic:

1 2 3 4 5

13. Her personal identity:

1 2 3 4 5

14. Her career choice:

1 2 3 4 5

15. We would like to get more general now. How similar do you think the target grandchild's mother's views about life are to your own views?

Extremely different _____ Very different _____ Not too similar _____
 Similar in some ways _____ Pretty similar _____ Very similar _____
 Extremely similar _____

Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

16. How much influence, in general, do you feel you have on the life of the mother of the target grandchild?

1 2 3 4 5

17. How much influence do you feel you have on who she is?

1 2 3 4 5

18. How much influence do you feel you have on how she feels about herself?

1 2 3 4 5

19. To what degree do you feel she would have missed something important in life if she had not known you?

- 1 She would have missed out on a lot
- 2 She would have missed out on quite a bit
- 3 She would have missed out on a fair amount
- 4 She would have missed out on a little
- 5 She would not have missed out on anything

20. Approximately how many miles do you live from the mother of the target grandchild? ____

Now we want you to think about the relationship you have with the **father of the target grandchild**.

1. You may have some kind of contact with him (the father of the target grandchild). This contact could be in the form of regular visits, extended stays, phone conversations, letters, e-mail and other kinds of connections. Indicate below by putting an “X” in one box that best represents the amount of average contact (any and all kinds) you have had with the father of the target grandchild over the last year.

Just about every day _____	About once a week _____
Every couple of weeks _____	About once a month _____
Every few months _____	A few times a year _____
Almost never _____	

2. Using the following scale, please circle how satisfied you are with the contact that you have with the father of the target grandchild.

- 1 Very unhappy
- 2 Unhappy
- 3 Mostly dissatisfied
- 4 Mixed feelings; neither satisfied nor dissatisfied
- 5 Mostly satisfied
- 6 Pleased
- 7 Very pleased

3. Taking everything into consideration, how close do you feel the relationship is between you and the father of the target grandchild?

- 1 Not very close
- 2 A little close
- 3 Somewhat close
- 4 Very close
- 5 Extremely close

4. How well do you feel he understands you?

Not very much _____ A little _____ A modest amount _____
 A lot _____ Extremely well _____

5. How is communication between you and the father of the target grandchild concerning things that are important to you now?

- 1 Excellent
- 2 Moderately good
- 3 Slightly good
- 4 Neither good nor poor
- 5 Slightly poor
- 6 Moderately poor
- 7 Very poor

How much influence do you think you have on the various belief systems of the father of the target grandchild? Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

6. His religious beliefs:

1 2 3 4 5

7. His sexual beliefs:

1 2 3 4 5

8. His educational beliefs:

1 2 3 4 5

9. His moral beliefs:

1 2 3 4 5

10. His political beliefs:

1 2 3 4 5

11. His family ideals:

1 2 3 4 5

12. His work ethic:

1 2 3 4 5

13. His personal identity:

1 2 3 4 5

14. His career choice:

1 2 3 4 5

15. We would like to get more general now. How similar do you think the target grandchild's father's views about life are to your own views?

Extremely different _____ Very different _____ Not too similar _____
 Similar in some ways _____ Pretty similar _____ Very similar _____
 Extremely similar _____

Using the scale below, please circle the number that best answers the question.

- 1 No influence
- 2 A little influence
- 3 A moderate amount of influence
- 4 Quite a bit of influence
- 5 A lot of influence

16. How much influence, in general, do you feel you have on the life of the father of the target grandchild?

1 2 3 4 5

17. How much influence do you feel you have on who he is?

1 2 3 4 5

18. How much influence do you feel you have on how he feels about himself?

1 2 3 4 5

19. To what degree do you feel he would have missed something important in life if he had not known you?

- 1 He would have missed out on a lot
- 2 He would have missed out on quite a bit
- 3 He would have missed out on a fair amount
- 4 He would have missed out on a little
- 5 He would not have missed out on anything

20. Approximately how many miles do you live from the father of the target grandchild? ____

Relationships with Target Grandchild

Each person has ideas or feelings about how other people see them. I am interested in how you think people think about you. The statements listed below are about the way you feel about your target grandchild. Remember, the target grandchild is the one who attends the University of Northern Iowa and who selected you to participate in this study with them. Choose the rating you feel is best for you and circle the number provided.

	Not	some			
	much	what	a lot		
12. I am important to my target grandchild:	1	2	3	4	5
13. I am needed by my target grandchild:	1	2	3	4	5
14. I am missed by my target grandchild when I am away:	1	2	3	4	5
15. When I talk, my target grandchild tries to understand what I am saying:	1	2	3	4	5
16. I am interesting to my target grandchild:	1	2	3	4	5
17. My target grandchild notices my feelings:	1	2	3	4	5
18. My target grandchild gives me credit when I do well:	1	2	3	4	5
19. My target grandchild notices when I need help:	1	2	3	4	5
20. I matter to my target grandchild:	1	2	3	4	5

21. People have many things to think about. If your target grandchild made a list of all the things they think about where do you think you'd be on their list? (place a mark in one of the boxes)

Top

Bottom

22. If your target grandchild made a list of all the things they care about, where do you think you'd be on their list? (place a mark in one of the boxes)

Top

Bottom

Relationships with the Target Grandchild's Parents

The statements listed below are about the way you feel about the **mother of the target grandchild**. Choose the rating you feel is best for you and circle the number provided.

	not much		some what		a lot
12. I am important to her:	1	2	3	4	5
13. I am needed by her:	1	2	3	4	5
14. I am missed by her when I am away:	1	2	3	4	5
15. When I talk, she tries to understand what I am saying:	1	2	3	4	5
16. I am interesting to her:	1	2	3	4	5
17. She notices my feelings:	1	2	3	4	5
18. She gives me credit when I do well:	1	2	3	4	5
19. She notices when I need help:	1	2	3	4	5
20. I matter to her:	1	2	3	4	5

21. People have many things to think about. If the mother of the target grandchild made a list of all the things she thinks about where do you think you'd be on her list? (place a mark in one of the boxes)

Top

Bottom

22. If the mother of the target grandchild made a list of all the things she cares about, where do you think you'd be on her list? (place a mark in one of the boxes)

Top

Bottom

The statements listed below are about the way you feel about the **father of the target grandchild**. Choose the rating you feel is best for you and circle the number provided.

	not	some			
	much	what	a lot		
12. I am important to him:	1	2	3	4	5
13. I am needed by him:	1	2	3	4	5
14. I am missed by him when I am away:	1	2	3	4	5
15. When I talk, he tries to understand what I am saying:	1	2	3	4	5
16. I am interesting to him:	1	2	3	4	5
17. He notices my feelings:	1	2	3	4	5
18. He gives me credit when I do well:	1	2	3	4	5
19. He notices when I need help:	1	2	3	4	5
20. I matter to him:	1	2	3	4	5

21. People have many things to think

about. If the father of the target

grandchild made a list of all the

things he thinks about where do

you think you'd be on his list?

(place a mark in one of the boxes)

Top

Bottom

22. If the father of the target

grandchild made a list of all the

things he cares about, where do

you think you'd be on his list?

(place a mark in one of the boxes)

Top

Bottom

Finally, to what degree do you feel you would have missed something important in life if you had not known the target grandchild?

APPENDIX D

Dyads Affected by Mean Substitution

Partner	Variable	Number of Missing Dyad I.D.'s	<i>Group Mean</i>
Grandmothers	Perceived closeness with bridge generation father	3	3.21
	Perceived influence on father of grandchild	2	2.39
	Perceived closeness with bridge generation mother	1	3.89
	Number of grandchildren	1	10.71
Granddaughters	Perceived closeness with bridge generation father	1	3.24
	Perceived communication with grandmother	1	2.42