



LIBRARY Michigan State University

This is to certify that the thesis entitled

Desired Privacy and Interaction in Intergenerational Family

presented by

Amanda Gale

has been accepted towards fulfillment of the requirements for the

M.A.

Interior Design & Facility Mngt degree in

Mamfyn Fark Major Professor's Signature

August 19, 2005

Date

MSU is an Affirmative Action/Equal Opportunity Institution

PLACE IN RETURN BOX to remove this checkout from your record. TO AVOID FINES return on or before date due. MAY BE RECALLED with earlier due date if requested.

DATE DUE	DATE DUE	DATE DUE
· · · · · · · · · · · · · · · · · · ·		
		<u></u>
· · · · · · · · · · · · · · · · · · ·		
		2/05 c:/CIRC/DateDue.indd-

DESIRED PRIVACY AND INTERACTION IN INTERGENERATIONAL HOMES

By

Amanda J. Gale

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

Department of Human Environment and Design

ABSTRACT

PRIVACY AND INTERACTION IN INTERGENERATIONAL HOMES

By

Amanda J. Gale

Family interaction is important for the psycho-social health of individuals; however, it is also equally necessary for family members to have their own personal space. This balance between interaction and privacy is even more critical in an intergenerational family. This study explored how homes can be designed to support both interaction and privacy for multiple adult generations. The multi-method approach included semi-structured interviews of the aging parent and adult child, activity logs, and observations of the physical setting. The data was analyzed utilizing descriptive statistics and content analysis. The findings demonstrated that both desired privacy and interaction levels were achieved by the aging parent and adult child. Aging parents never felt crowded or had a lack of privacy. The research revealed the larger the home and the greater number of people residing in the home increased the likelihood of aging parents feeling isolated. This study provided encouraging results for intergenerational homes of the future.

DEDICATION

To my parents: You continually support and help me to obtain my goals.

To Phil: You encourage me daily, believe in everything I do, and always provide much needed comic relief.

...Thank you.

ACKNOWLEDGEMENTS

This Master's Thesis would not have been possible without the combined effort of several people. I would like to thank and acknowledge those people who have guided me through this process and provided the expertise, encouragement, and inspirations that I needed to reach my goal.

First, I want to thank my adviser, Dr. Nam-Kyu Park, for your guidance and support. Thank you as well to my committee members Dr. John Schweitzer and Roberta Kilty for your encouragement. I would also like to thank Dr. Diane Doberneck for your thorough editing, reading and re-reading my thesis, and providing the much needed qualitative expertise.

Second, I would like to thank my friends and family who have stuck with me through some stressful times. I was not always able to give you the time and attention you deserve, but you were there for me none-the-less.

Lastly, thank you to all participants of the study; I appreciate you taking the time out of your schedule to open up your home and share with me a part of you life. Those of you who helped me find the participants I am grateful beyond words.

iv

TABLE OF CONTENTS

List of Tables vi	ii
List of Figures vi	iii
Chapter I: Introduction Statement of the Problem Purpose of Study Limitations Assumptions Operational Definitions	1 3 5 6
Chapter II: Review of Literature Introduction Privacy and Interaction in the family Intergenerational Homes	8 9 3
Chapter III: Methods 2 Pilot Study 2 Participants 2 Procedure 2 Instrumentation 2 Questionnaire 2 Interviews 2 Activity Logs 2 Observations 2 Data Analysis 2	20 21 24 25 25 26 27 28
Chapter IV: Results 3 Findings 3 Privacy 3 Interaction 3 Influence of Privacy and Interaction 4 Respondent Themes 4 A joint Household 4 Possessions and Preparation 4 Interference with Space 4 Shared Household Chores 4 Overall Contented 4 Routines to Attain Privacy 4 Communication 4 Routines for Interacting 4	31 32 39 45 46 47 47 47 49 49 50 51

Chapter V: Discussion & Conclusion	53
Discussion	
Conclusion	58
Future Research	59
Appendix A: UCRIHS Approval Letter	60
Appendix B: Consent Form	
Appendix C: Socio-demographic Questionnaire	
Appendix D: Guided Interview Questions	
Appendix E: Sample Activity Log	
Appendix F: Observation & Identification Form	
References	77

LIST OF TABLES

Table 1.	Description of Subjects' Characteristics
Table 2.	Household Characteristics
Table 3.	Percentage of Respondents With the Ability to be Alone
Table 4.	Space by Percentage in Which Respondents Would go to be Alone
Table 5.	Percentage of Activity Respondents Participated in When Alone
Table 6.	Percentage of Space owned by Respondents
Table 7.	Percentage of Respondents with the Ability to be Alone without Being
	Disturbed
Table 8.	Percentage of Respondents' Actual Privacy
Table 9.	Percentage of Respondents' Achieving Desired Amount of Privacy
Table 10.	Results of Paired T-Test for Actual & Desired Amount of Interaction40
Table 11.	Percentage of Respondents' Desired & Actual Amount of Interaction
	Findings from the Questionnaire
Table 12.	Percentage of Respondents' Desired & Actual Amount of Interaction
	Findings from the Interview
Table 13.	Percentage of Room Used for Interaction among Respondents 44
Table 14.	Percentage of Respondents' Activity Type for Interactions

LIST OF FIGURES

Figure 1.	The Results Model of Privacy & Interaction	45
Figure 2.	Respondent Themes	47

Chapter I: Introduction

Statement of Problem

Interaction is important in sustaining family relations; it is also equally necessary for family members to have their own personal space. Individuals need to be able to find private space within their residence for the continuous developmental process of selfidentity to take place (Harrison 1994; Hoglund, 1985). This is even more critical when an aging parent moves in with their grown children. The role of the family as primary caregiver is projected to continue and expand with an aging society (Gitlin, 2003; Stewart-Pollack & Menconi, 2005; Walker, Shin, & Bird, 1990). Normally the children of an aging parent fill this role (Choi, 2004). Although aging in place, which is remaining in the home, is the consistently expressed desire of both older adults and family caregivers, it is not always feasible (Mutchler & Burr, 2003; Wahl & Gitlin, 2003; Wister & Burch, 1987). Most often this occurs for health or monetary reasons, or the recent death of a spouse (Choi, 2003; Choi 2004). It can also occur when the maintenance of the home becomes too overwhelming or the home is no longer functional. The current living situation of separation between age groups is no longer a viable option due to increasing economic constraints and the following demographic trends. People age 65 years and older currently represent 12.4% of the population or 35.9 million in the United States (Federal Interagency Forum, 2000). Of that population the Federal Interagency Forum (2000) found that 7% of men and 17% of women age 65 years and older live with a non-spousal relative, when looking specifically at race this percentage

increases to 33% for Black, Asian, and Hispanic women. On average women have a longer life expectancy, while men tend to remarry instead of remaining single after divorce or the death of a spouse (Administration on Aging [AoA], 2003). This clarifies the significant difference of men versus women living with a non-spousal relative.

The growing population of persons ages 65 years and older is projected to continually grow with the possibility of reaching 71.5 million by the year 2030 or 20% of the population (AoA, 2003). It can then be expected with the projected increase of 7.6 % of the population that the number of elderly residing with their children will also increase. "There is now a growing recognition...that family caregiving will become a more salient...issue in the future because of a number of recent demographic, economic, and social changes," (Beigel & Schulz, 1999, p. 345). This is represented socially and economically with the following figures, 53% of women and 13.9% of men age 75 years and older live alone, 11.6% of that population live in poverty (Federal Interagency Forum, 2000). In 2002 almost half (46%) of all women age 65 years and older were widows (AoA, 2003). Encouragement of unity within intergenerational environments must be developed to accommodate this future movement. Intergenerational unity leads to greater appreciation, a common sharing of knowledge, insights, and worldviews (Vincenti, 2004), and is mutually beneficial and should be encouraged.

It is imperative that home design functionally supports the way families interact in response to the social changes of an aging parent moving in with their grown child while similarly accommodating the privacy of the individual users. Both the aging parent and the adult child need to feel as though they are not intruding or being intruded upon by the living arrangement. The aging parent should keep as much independence as possible

through having options to make decisions and assuming responsibility in the family. When older persons are actively integrated into home life in a positive manner, the activity itself is a constructive way of encouraging physical health and well-being. Mutual assistance and increased understanding are shared intergenerational benefits that can occur (Delaski-Smith, 1984; Mancini & Blieszner, 1989). Stewart-Pollack & Menconi (2005) reinforces this theory by stating "By providing for desired levels of intimacy, privacy facilitates positive social interaction with those from who we need social support, (p. 37). Conversely when there is a lack of privacy or crowding occurs, stress levels can increase (Altman, 1981). The tendency towards aging parents and adult children living separately is due mostly to a desire for privacy in combination with having the freedom to do what one chooses without interference (Wister & Burch, 1987). There is a need to explore how intergenerational families use their home for both private and social aspects. There is a close integration between environmental dimensions of the home with both family and personal well-being (Gitlin, 2003; Gunter, 2000). This research provides an understanding of the desired amount of privacy and interaction for individual members of intergenerational families and recommends design features within intergenerational homes that improve privacy and interaction among family members.

Purpose of the Study

This study explored how well existing homes function with dual adult generations in regard to privacy and interaction. Privacy and the interaction that occur with family members in the home impacts the use and functionality of the residence. Therefore specific questions of this study include:

- Q1: What is the desired amount of privacy for an adult child and aging parent in an intergenerational home?
- Q2: Is there a difference in the amount of privacy needed for the aging parent versus the adult child in an intergenerational home?
- Q3: What environmental factors, including spatial layout, type of rooms, size of the residence, etc., impact the desired amount of privacy in an intergenerational home?
- Q4: What is the desired amount of interaction for an adult child and aging parent in an intergenerational home?
- Q5: Is there a difference in the amount of interaction needed for the aging parent versus the adult child in an intergenerational home?
- Q6: What environmental factors, including spatial layout, type of rooms, size of the residence, etc., have an impact on the desired amount of interaction in an intergenerational home?
- Q7: How do interaction and privacy influence each other in intergenerational families?

This research study was important for several reasons. It assisted in a better understanding of the role privacy and interaction play in the home environment with multiple adult generations residing together. The outcome informed recommendations for design features in intergenerational housing, especially the use and functionality of the home. If interior designers understand privacy and interaction within the intergenerational home, they can incorporate that knowledge in the approach taken to planning and designing homes in the future.

Limitations

While the researcher cannot eradicate the limitations that exist within this study, thorough use of a pilot study to refine the instrument and procedural design reduced many possible threats to validity. The limitations that remain are those of the design, population, and data analysis

A limitation to the design of the study was the relatively short period of data collection which was not as ideal as a longitudinal study. A longitudinal study would have shown how the families adjusted over time and would have allowed the families to feel more comfortable with the researcher's presence. An additional limitation was the use of a single interviewer which allowed for the potential of interviewer bias influencing the interview process. The interview format of the study was semi-structured, which included a series of topics to be covered as well as suggested questions. This helped to control the bias, in that all participants addressed the same topics and general questions.

A restriction of the study involving the population is the limited geographic area the sample was collected from. The sample was limited to the greater mid-Michigan area. There were not any purely metropolitan or rural regions included in the sample. In addition, a consistent physical setting would have been ideal, however; different types of housing with individualized and unregulated qualities was used in order to achieve the

desired number of participants.

Lastly a limitation to the data analysis was the moderately small sample size which restricted the ability to conduct inferential statistical analysis and to make broad generalizations and recommendations to the greater population.

Assumptions

The researcher assumed that participants of this study answered all questions honestly and correctly. It is also assumed that the method of data collection accurately measured the desired levels of privacy and interaction of the participants. It is also assumed that there was not any communication as requested between the aging parent and adult child regarding the questions asked in the study in those situations where the interviews took place on different days.

Operational Definitions

Acoustical Properties: Finishes, amount of enclosure, and size of a space can have an impact on whether the space has acoustical privacy, which inhibits the travel of sound, or contrarily enhances sound (Stewart-Pollack & Menconi, 2005).

Environmental Factors: Factors in the physical environment consist of the following: spatial layout, number and size of rooms of the home, number of occupants, acoustical properties of the home (Marshall, 1972), and type of home (Pruchno, Dempsey, Carder, & Koropecky-Cox, 1993).

Interaction: When two or more members of the family participate in an activity together; such as watching television, conversation, or eat together (Miller & Maxwell, 2003). For this study, interaction between family members consisted only of the adult child and aging parent.

Intergenerational Family: Two or more generations sharing resources is considered an intergenerational family (DeLaski-Smith, 1984). For this study, families resided in the same household, and consisted of parent-child relations.

Intergenerational Homes: The residence in which the intergenerational family live together. For this study, intergenerational homes consisted of the aging parent living with his or her daughter or the adult child moving in with his or her aging parent while taking over ownership and maintaining the home.

Privacy: Privacy is the process of control over and regulation of social contact between oneself and others (Altman, 1975; Margulis, 2003). It can be in the form of acoustical, visual, or informational (Betchel, 1997) privacy.

Chapter II: Review of Literature

Introduction

Previous research investigating the relationship of privacy, interaction, and environmental design features from both perspectives of the adult child and aging parent in intergenerational families is minimal. Over the past thirty years, many studies have been conducted on supporting issues such as identifying factors relating to the relationship between the caregiver and the recipient (Lee, Netzer, & Coward, 1995; Mercier, Shelley, & Wall, 1997; Pyke, 1999; Walker, Pratt, Shin, & Jones, 1995), behavioral environments involved in aging (Golant, 2003; Koncelik, 2003; Pynoos, Tabbarah, Angelelli, & Demiere, 1998), the impact of crowding (Booth & Edwards, 1976; Evans, Maxwell, & Hart, 1999; Evans, Lepore, & Schroeder, 1996; Gove, Hughes, & Galle, 1979), and home design (Boschetti, 1990; Evans, Wells, Chan, & Saltzman, 2000; Fernandez, Perez, & Abuin, 2004; Miller & Maxwell, 2003). This research will build on the already existing knowledge base of intergenerational families (Choi, 2003; DeLaski-Smith, 1984; Mindel & Wright, 1982; Pruchno et al.; 1993) and privacy (Altman, 1985; Berado, 1998; Chan, 2000; Hoglund, 1985; Margulis, 2003; Pederson & Frances 1990; Sebba & Churchman, 1983). These factors are categorized in the following paragraphs as privacy and interaction in the family and intergenerational homes.

Privacy and Interaction in the Family

The two leading theories in privacy originate with Westin (1970) and Altman (1975). Westin (1970) focuses on privacy as a social issue as well as a psychological and behavioral concept by introducing states and functions of privacy. He defines four states of privacy, which include: *solitude*, the state of being alone and free from observation; *intimacy*, the connection of intimate relations with others; *anonymity*, remaining unobserved and unrecognized in public; and *reserve*, the capacity to protect personal information. Westin also classifies four functions of privacy, which enable the individual to achieve: personal autonomy, emotional release, self-evaluation, and protected communication.

Altman's (1975) theory of privacy focuses on privacy as a process of regulating social contact as well as the importance of the dynamic relationship between people and their environment. He views it is as a limited access approach relying not only on the physical separation from others, but the ability to control the interactions, which can be visual or verbal. A constant balancing act takes place to get the desired level of privacy with too little resulting in crowding and overly excessive amounts resulting in isolation. Desired and achieved privacy are essential to Altman's privacy model, desired privacy is an individuals ideal level of contact with others at any specific point in time, where as achieved privacy refers to the actual level of contact experienced by an individual at a particular point in time (Altman, 1975; Harris, 1994; Kaya & Weber, 2003). A minimum degree of desired privacy is fundamental to a healthy residential environment (Altman, 1975; Gunter, 2000; Harrison, 1994); however, each individual within the residence may

have a different view of the desired amount of privacy required (Chan, 2000; Stewart-Pollack & Menconi, 2005).

Altman (1975) defines three kinds of territories; primary, secondary, and public. Primary is most essential and crucial to the occupying person, this is where one has the most control. Within the home the primary territory would be classified as the bedroom or sleeping area. Bedrooms frequently represent the individual territory of the occupant, which is used as a retreat for self-evaluations and relaxation (Veitch & Arkklein, 1995; Gunter 2000). Secondary territories are those that are more public but occupied exclusively for a time. Secondary territories would be considered bathrooms since in most cases they are exclusively occupied. They could also be considered a favorite chair or spot in the living room.

Interaction and privacy are closing related; by obtaining privacy the amount of interaction within a space is being controlled (Altman, 1975; Stewart-Pollack & Menconi, 2005). A strong sense of individuality develops for a user when they have control over the access of their territories (Bechtel, 1997). Conversely when privacy is infringed upon it destroys individual autonomy. This is crucial in the design of living environments since autonomy is an on-going process throughout the lifespan (Altholz, 1986). Holding responsibility over for a particular area is an important aspect of whether the individual has control over it (Sebba & Churchman, 1983). Sebba and Churchman (1983) found that if clearly defined areas are not established, an area may become a source of conflict and tension. They define territoriality as a connection between individual and physical areas with each area having a set of environmental behaviors. They examined how individual family members to classified each area and piece of

furniture in terms of ownership. On average, each family member answered consistently with other family members as to which area belonged to whom. The areas, which could not be defined, were areas without set boundaries. Chan (2000) found within the home, a spouse is consistently given the most freedom to be invited into privacy boundaries while the boundaries are somewhat less open to parents and children

Privacy influences many different aspects within human nature. Altman (1981) uses privacy mechanisms, such as territoriality, to define the limits and boundaries of the individual. Most territorial behaviors are aimed at protecting privacy; while feelings of crowding culminate from lack of privacy. The effects on families living in a crowded setting have been linked to poor mental health and social relationships within the home (Evans et al., 1999; Gove et al., 1979). Gove et al. (1979) studied crowding subjectively though excessive social demands and lack of privacy; and objectively through people per room analysis. The study utilized a questionnaire with a lack of privacy scale in coordination with a felt demand scale. It classified physical and psychological levels of withdraw. The findings connected the occurrence of excessive demands and lack of privacy within the crowded home environment.

More recently Evans et al. (1999) confirmed the correlation with poor social relations, showing that parents in more crowded homes were less responsive to their children and conversed in less complex ways, which could lead to poor verbal communication skills. They, like previous, researchers classified crowding within the home as people per room. The longitudinal analysis observed family interaction, specifically language diversity, in one-hour periods for two and a half years.

One of many different aspects of housing quality that Evans et al. (2000) examined was privacy, which was classified by having to walk through a bedroom to get to another room. Other aspects of housing quality were building structure, hazards, cleanliness, and building height or floor level. The findings showed that improved housing quality was associated with reduced psychological distress.

The home environment should provide appropriate degrees of both privacy and interaction with others (Veitch & Arkkelin, 1995). It is healthy for family unity to have spaces within the home where interaction can occur as well as private space where individuals can be alone (Gunter, 2000). Many consider home in general a private place, but it is also a space within which smaller zones of privacy are constructed and used for retreat (Fahey, 1995). Individual family members can use privacy as a visual or acoustical barrier from both internal and external social penetration (Berado, 1998). The use of privacy can also serve as a major function of sustaining family relations (Berado, 1998), by providing experiences that sustain normal individual functions, stable interpersonal relationships, and on-going personal development (Margulis, 2003). Fahey (1995) reinforces this theory by stating "one of the main functions of the modern family is to serve as a refuge from harshness, anonymity, and competitiveness of industrial society," (p.688). Margulis (2003) feels that social relationships are crucial to determining independence by either hindering or helping through both choice and control.

Miller and Maxwell (2003) examined family interaction patterns in the home by exploring parents' design preferences for areas associated with promoting interaction. Self-reported activity logs, open and closed ended interview questions, and a card sort

depicting various design features were utilized. Their study concluded that spaces, which support concurrent activities, best facilitate family interactions. The kitchen, and family or living rooms were spaces cited as being used most often. Interestingly though, a finished basement, which would support concurrent activities, was rarely found to be used due to the limited visual access.

According to Berado (1998), recent literature regarding privacy is lacking in an area that that focuses on "the ways in which spatial limitations imposed by the home configure patterns of family privacy need" along with arrangements of space and differential privacy orientation of individual family members, (p.16).

Intergenerational Homes

The living environment can impact people residing in it in several different ways. Crowding, health, well-being (Gitlin, 2003), and interaction (Miller & Maxwell, 2003) can all be influenced through the design of the residence. More time is spent in the home than in any other environment (Evans et al., 2000; Fernandez et al., 2004). The home is a link between satisfaction with home life and perceived control over one's social circumstances within the home (Gunter, 2000). It is often the place where individuals feel safe, secure, and most comfortable (Fahey, 1995). In addition the home is the location where maintenance of interpersonal relationship occurs (Gunter, 2000), so it has a large impact on family life. The residence of an intergenerational family, an aging parent residing with their adult child, therefore can play an important role in the lives of both the aging parent and adult child.

In order to gain a complete understanding of how a residential setting can influence its occupant's emotional responses, behaviors, and overall quality of life, it is critical to take a holistic approach of elderly individuals' lives and environments. It is important to be aware of the physical changes occurring during the aging process since they will have an impact on the individuals' behavior toward the environment. For older individuals, vision is slower to respond and they experience a decrease in hearing capability with increased difficulty in tuning out back ground noise (Hess & Markson, 1980; Koncelik, 2003). In addition to sensory changes, muscle mass decreases by roughly 40% in older individuals by the age of 70, specifically in the quadriceps and arm muscles. Frequently this is connected with the trembling of hands and reduced strength to perform tasks (Koncelik, 2003). Visual impairment, reduced muscle strength, and reaction times result in increased risk of falling, which coincides with increases in age (Pinto et al., 1999; Rogers, Rogers, Takeshima, & Islam, 2004).

Elderly individuals are also frequently attached to their home (Boschetti, 1990; Eshelman & Evans, 2002), which may no longer meet their needs due to their declining health (Rubinstein & Parmelee, 1992). They often feel isolated and frustrated by no longer being able to accomplish the household tasks they used to. This can include hobbies or more fundamental activities such as driving a car, opening a door, or negotiating the stairs.

Adaptations made to living environments to increase the ease of use, safety, security, and independence are necessary, but often do not occur due to monetary circumstances (Pynoos et al., 1998). These modifications can be minor, such as rearrangement of furniture, increased lighting, lever door handles instead of knobs, and

installing raised toilets; or major modifications such as, widening doorways, adding ramps, and installing hand rails and grab bars. These changes result in necessary successful adaptations that can increase the elderly persons contentment within the home.

In addition to design features for the physical transition of aging, there are also suggested elements for the psychological aspect of aging. Altholz (1986) believes that in order for the aging parent to keep their independence, their living arrangements "should provide opportunities for interaction and intimacy, as well as for personal development and privacy," (p. 79). Elderly individuals need to feel challenged by their environment as much as they need to feel supported and at ease by it (Regnier, 2003). The sense of being at home is enhanced by familiar things, which can ease the transition to a new location for the aging parent (Boschetti, 1990; Eshelman & Evans, 2002). These personal items provide the individual with a sense of control over their surroundings and their own existence (Koncelik, 2003) thus connecting the aging adult with the ongoing process of self-identity (Boschetti, 1995). This comfort is important because the amount of time people spend inside their home increases with age. This can be accomplished through incorporating the aging parent's belongings, such as furniture and accessories, into the household, as well as having input into the decisions of furniture selection and arrangement (Altholz, 1986; Boschetti, 1990; Koncelik, 2003). This may not be feasible throughout the home if there are opposing preferences; however, it should be encouraged in their bedroom. Eshelman & Evans (2002) suggest providing an easily accessible location to display and integrate personal possessions into the parent's bedroom if not the rest of the home. They found that true satisfaction occurs when their home is a reflection of their individual unique personality.

Boschetti (1990) suggests a space for family gathering and for the aging parent's bedroom to have windows and seating near by so viewing of the outside environment is possible. In addition seating should be arranged around windows in the rest of the home, as well as porches with accommodations to sit since they provide opportunity to observe their surroundings and feel connected to the outside world. The aging individual has a great attachment to their personal space and objects; it signifies their personal history, reflects their identity, and instills their environment with personality. Elderly individuals residing alone have greater levels of privacy, but less social interactions, where as elderly individuals in intergenerational homes have more self satisfaction and social interactions, but at the expense of privacy (Bechtel, 1997). The frequency with which an aging parent has contact with their adult child as well as sense of filial obligation enhances the quality of their relationship as shown in Mercier et al. (1997) study. They measured trust and security felt by the adult child for the aging parent, in relation to filial obligation.

In addition to suggested design features for elderly housing, there are several different housing options available for intergenerational families. The most common is a single detached dwelling in which the aging parent uses a spare bedroom and preferably separate bathroom. A variation of this option is "Granny flats" or an "Elder cottage" in which pre-manufactured units with separate accommodations are constructed on the adult child's property. Other options include; a duplex, with the adult child in one unit and the aging parent in another unit or a "tandom" home that provides joint living space with private bedroom suites for each generation (DeLaski-Smith, 1984).

Previous studies, although few, have been conducted on intergenerational families (Mindel & Wright, 1982; Pruchno et al., 1993). Mindel and Wright (1982) studied

characteristics of the primary caregiver and the dependent elderly relative, as well as ecological characteristics. The levels of social activity and dependency were the main characteristics regarding the elderly relative. The findings revealed that family life satisfaction in intergenerational homes increased if there were no feelings of inconvenience concerning the living arrangements. Additionally, the more active the elderly was correlated with lower perceptions of inconvenience by the primary caregiver.

Pruchno's et al. (1993) study looked at household characteristics in relation to perceptions of household space, and caregiving stress in multigenerational families, consisting of three-generations. They found a correlation with loss of privacy and interference with household space to burden of caregiving. The greater the inference, the more burden and less satisfied the daughters were with the caregiving role. They also found the increased amount of time an elderly parent spent in shared living spaces, the more negative the daughter's husband's perception of the residence became. In looking at conversions or additions made to the home 55% (30) families made some sort of conversion to their homes such as; making rooms into a bedroom from a den, study or living room. The daughter and her husband viewed these conversions negatively when they restricted areas previously open to the family. Only 16% (9) families had made additions such as building bathroom, bedroom, or family room. Similarly Hess & Markson (1980) believe that intergenerational housing could lead to loss of personal privacy, increase family chores as caring for elderly, limit leisure and social activities and may dictate physical rearrangement of space within home.

Fernandez et al. (2004) studied housing satisfaction, with respect to the elements of the residential environment, of residents aged 65 years and older. Satisfaction with

access to the building, functionality in the home in regard to ease of movement, and the quality of construction were specific areas among others that were analyzed. The relationships existing between the specific components that bring satisfaction and the characteristics of the residents sampled through survey found differences in the elderly population's residential satisfaction, associated to gender, age, perceived health status, social class, income and structure of the home in which they live.

Conclusion

The literature review has shown that it is important for aging parents to feel integrated into the household by having control over their new setting. This control will assist them in the adaptation process, as will having both privacy and interaction with others. Earlier studies are lacking the perspective of both the aging parent and adult child. They also fail to consider potential differences in the desired amount of privacy and interaction between the two generations residing together. In addition, previous research on privacy and interaction has been conducted for the most part in mass quantities on a convenience sample of college students. There is a need to develop a more thorough, in-depth understanding taking age and point in an individual's life into consideration. It has been noted that age is integral to privacy preference as stated by Stewart-Pollack & Menconi (2005) "We experience privacy differently depending upon our age and upon the stage of life we are living," (pg.199) The proposed research will begin to fill this gap in literature by investigating the perspective of both the aging parent and adult child in regard to the desired amount of privacy and interaction. These

participants are at various stages in their lives which will broaden the field. Privacy and interaction work together to create a harmonious balance. Veitch & Arkkelin (1995) state, "The environment and its inhabitants never stay the same, each is constantly changing as a result of its interactions with the other" (p. 31).

Chapter III: Method

This study aimed to develop exploratory information regarding home environments, specifically looking at the privacy and interaction of aging parents and their adult child living in intergenerational homes. Each intergenerational family was considered uniquely by the use of case studies in this exploratory research. A case study is a research method that attempts to describe, understand, and/or explain a particular or multiple cases in detail (Gillham, 2000;Yin, 2003). A mainly qualitative method was used, permitting us to hear the participants through their own words.

This chapter will outline the methods used to collect and interpret the data. It will included sections on pilot study, participants, instrumentation, procedure, and data analysis.

Pilot Study

The pilot study was designed to serve two distinct purposes: 1) to test the interview format and questions, such as the standardized content, and to discover problems or ambiguities with the wording of the questions, 2) to gain experience with the approach for the interview. Due to the difficulties of obtaining the limited sample, two adult children who had their aging parent living with them at one time were used in the pilot study. The participants were identified through a mass e-mail sent out from Michigan State University's Eldercare list. Both interviews were held in the week of May 15, 2005 and took place in the participants' respective offices. During the

interview, the researcher took some notes but relied mainly on the use of a tape recorder to document the interview. Immediately following the interviews, the researcher transcribed the information. None of the data gathered through the pilot test went into the study because the pilot participants did not fit the set criteria.

Following the pilot test, the researcher made three adjustments to methods for data collection. First, the less note taking the researcher participated in the more detailed information gained from the participant. Second, the sequence of the guided interview questions was modified for a smoother transition. Third, the activity log was slightly modified by adding shading to every other row for ease of vision.

Participants

The target population for this study was aging parents, 65 years and older, and adult children, 30 years and older, residing in the same home. The sample population was limited to families residing in Michigan, whose aging parent was not suffering from dementia or Alzheimer. This was in an effort to limit the introduction of additional variables. Subject families were recruited through community centers, support groups, and religious institutions found throughout Mid-Michigan. However, this method failed to produce any volunteer families. Instead the ten subject families were found through criterion purposive sampling with a snowball effect.

The total sample size consisted of ten families found in the greater Mid-Michigan area. Varying family compositions were incorporated in the study. The sample included 9 adult female children, 1 adult male child, 8 female aging parents, and 2 male aging

parents. The most frequent age range of the adult child was 55 to 59 years old; where as the most frequent age range of the aging parent was 80 to 84 years old. Racially 90% were white, 5% were Asian, and 5% were multiracial. All (100%) of the aging parents were retired, while 90% of the adult children were currently working. All (100%) of the aging parents were widowed, while 50% of the adult children were married, 20% were single, 20% were divorced, and the remaining 10% were widowed. The most frequent annual family income range was below \$100,000 (see Table 1). In the overwhelming majority of the cases (80%), the aging parent moved in with his or her adult child. In 10% of the cases the adult child and aging parent always lived together. The households range in size from 2 to 4, with a mean of 3 people (see Table 2). All (100%) of the families owned their home.

Prior to contacting subjects to gain their participation in the study, the researcher applied and was granted permission to use human subjects by the University Committee on Research Involving Human Subjects (UCRIHS), IRB # 05-206, (see Appendix A).

Table 1.

Description	of Subjects'	Characteristics
-------------	--------------	-----------------

Characteristics	No.	%
Aging Parent	10	50
Adult Child	10	50
Age		
30-39	2	10
40-49	0	0
50-59	7	35
60-69	2	10
70-79	3	15
80-89	5	25
90 +	1	5
Gender		
Male	3	15
Female	17	85
Marital Status		
Single	2	10
Married	5	25
Divorced	2	10
Widowed	11	55
Ethnicity		
White	18	90
Asian	1	5
Multiracial	1	5
Family Income ^a		
Below \$40	1	10
\$40 - 50	3	30
\$50 - 60	1	10
\$60 - 70	1	10
\$70 - 80	1	10
\$80 - 90	0	0
\$90 - 100	0	0
Above \$100	3	30
Length of Time in Home		
0 - 4 yrs.	4	20
5 - 9 yrs.	7	35
10 -14 yrs.	1	5
15 - 19 yrs.	4	20
20 yrs. and above	4	20

^a Number given in the \$10,000

Table 2.

House	hold	Characteristics

	N	Minimum	Maximum	Mean	SD
Square Footage	10	1200	2400	1705	457.3
No. of Bedrooms	10	2	6	3.6	1.1
No. of People	10	2	4	2.9	0.7
No. of Generations	10	2	3	2.3	0.5

Procedure

The data collection began during the week of June 1, 2005 and was completed within 7 weeks. All of the 10 families contacted by the researcher participated in the study. Once the families contact information was given to the researcher, a call was made to explain the purpose of the study and to verify that the family met the set criteria. The researcher then emailed the participants the consent form and activity log. A followup call was made to determine if the participants had any questions concerning the study, and at that time, the date was set for the interview to occur. Participation was voluntary and subjects were asked to read and sign the consent form (See Appendix B) prior to the start of the interview. During the interview, the researcher verified that the participants understood how to fill out the log properly. Standardization of the survey process occurred from the initial phone call to the arrival at the participants' home; the researcher used the same wording as used in the consent form to explain the purpose of the study and confidentiality. Participant agreement and confidentiality forms were be given to the individuals to confirm their understanding of the proposed study and to obtain consent to use an oral recording device. In 80% of the cases the first interview was with the aging

parent and the second interview at a separate visit to the home was with the adult child. Observations were made regarding room and home layout, traffic patterns, and furniture arrangements during the first interview and were verified during the second interview. The last steps of data collection were to transcribe the entire recorded discussion into a verbatim transcript of the interview. The activity logs were mailed back to the researcher with self-addressed stamped envelopes provided by the researcher (80%) or were completed prior to the interview (20%).

Instrumentation

The instruments utilized in this exploratory multiple-case study were a semistructured interview using both closed and open-ended questions, an activity log, observations, and a questionnaire. The family perspective utilized in this study required responses from multiple family members. In this research, the dependent variables were privacy and interaction. The independent variable was intergenerational families.

Questionnaire

A questionnaire containing a series of socio-demographic questions were included to identify any extraneous variables such as, annual family income, age, gender, ethnicity, marital status, and length of time residing in the home. Categorical variables, such as gender, ethnicity, age, and martial status were coded while quantitative variables such as square footage of the home, and length of time resided in the home were left open

so the subject could manually fill them in. Included in the survey were two items based on Harris's (1994) study measuring the ideal amount of interaction an individual wants and the amount of interaction an individual actually has with his/her family in their apartments. These two items were adapted by substituting "your home" for "apartment." In order to determine their desired interaction level participants were asked to indicate how much interaction they would like to have with their family members when they were in their home and then how much interaction they actually have with their family members when they were home. Answers were recorded using a 7 point rating scale from 1 (*little interaction*) to 7 (*a lot of interaction*). These questions were in the given format to determine if participants would answer the same way orally as opposed to written, while using a validity check of responses. The survey can be found in Appendix C.

Interviews

Semi-structured interviews have a series of topics to be covered as well as suggested questions; yet allow the option to change the sequence or the form of questions depending on the given situation (Kvale, 1996). Personal interviews were conducted with both the aging parent and the adult child who was biologically related to the parent. The guided interview questions (see Appendix D) were semi-structured to invite an open response and lasted approximately 20 minutes.

Privacy, questions 8 through 12, addressed the process of control over and regulation of social contact between oneself and others (Altman, 1975; Margulis, 2003).

It was considered spatially as well as with control/availability factors. Questions 8 and 10 were previously used in Marshall's (1972) study to classify environmental variables regarding privacy by determining the capacity in which regulation of social contact occurs. There should be an establishment of control and availability of a private area within the home for each member of the household that is uninfringeable to other individuals (Veitch & Arkklein, 1995). Question 9 measured territoriality in the home (Sebba and Churchman 1983), while question 11 measured household space perceptions (Pruchno et al., 1993).

Interaction, questions 13 through 19, were considered when two or more family members participate in an activity together (Miller & Maxwell, 2003). These interactions can be planned or spontaneous, formal or informal; such as watching television or preparing a meal together. Interaction and privacy are closely related; by obtaining privacy the amount of interaction within a space is being controlled. Question 15 was taken from the lack of privacy scale (Gove et al., 1979). The original question read "In general do you have as much privacy as you want?" For this study, the word privacy was replaced with the word interaction. Questions 16 through 19 are from the Interaction Index (Bengtson, 1973).

Activity Logs

An activity log was used to help verify and confirm information gathered through the interview process, as well as to document family interaction and privacy patterns in the home. The activity log used in this study (see Appendix E) was initially used in a previous study by Miller and Maxwell (2003) concerning the fostering of family interaction. Some of the categories were modified and a new section, "Participating with:" was added with appropriate options. The logs were to be completed by either the aging parent or adult child when both parent and child were home together. In most cases (90%), the adult child was designated. Directions were given to each participant to select a continuous two hour period on two week days and one weekend for filling in the log.

Observations

In addition, direct observations were conducted of the living environment as part of the multi-method approach to gather further information for the purpose of study. Direct or detached observations gain insight into the use of environmental conditions, and are conducted in a formal and highly structured manner (Gillham, 2000; Yin, 2003). The physical relationship of the home was examined in regard to the spatial factor of privacy and interaction. Room sizes and square footages were noted, as was adjacency and location of rooms, furniture arrangements, room finishes, and entertainment options available. These observations were depicted through sketches of the furniture arrangement, room location and adjacency; the form can be found in Appendix F.

Data Analysis

The management, analysis, and interpretation of qualitative materials is a complex process (Denzin & Lincoln, 2003). Despite the fact that methods in qualitative data

analysis have seen tremendous progress and change in the last few decades, there is still variability in rules for analysis of the data (Gillham, 2000; Yin, 2003). Content analysis is often used in conjunction with other methods and is extremely valuable in analyzing interview data (Denzin & Lincoln, 2003; Kvale, 1996; Rubin & Rubin, 1995). In this study, content analysis was combined with both descriptive and inferential statsistics.

The researcher used constant comparative analysis, generative coding, and memoing in the iterative process of analyzing the qualitative data. The researcher used a generative, iterative process throughout the data analysis. Generative or open coding as used in the grounded theory consisting of developing categories of concepts and themes from the emerging data (Kerlin, 2002; Kvale, 1996). The researcher read and reread the interview transcripts several times to get a general sense of the content. Preliminary notes were made in the expanded margins of the transcripts to begin breaking the data (Kvale, 1996) into the main themes of privacy, interaction, and general information. The interview transcripts were then categorized further into emerging ideas within the main themes of privacy, interaction, and general information. From there, the categories were entered into an analysis grid with aging parent's responses in one column and the corresponding adult child's responses in another column. The aging parent was given a capitalized alphabetical code, with the corresponding lower case alphabetical code given to the adult child (i.e. first aging parent = B; first adult child = b). The grid was reorganized several times using the constant comparative method to further identify emerging categories, to understand their relationships to one another and to interpret and connect categories and themes. When categories, themes or patterns began to appear in the text of one interview, the researcher would re-read the other interviews to look for

those categories, themes, or patterns. As the process was repeated a list of themes and categories emerged from the data.

The researcher used a questionnaire, activity log, and observations of the physical environment to validate and collaborate categories, themes, and patterns by providing supporting and supplemental information.

In addition to the qualitative analysis used, descriptive statistics were used to analyze the demographic data by providing mean, frequency and standard deviations. Descriptive statistics were also used in analyzing data gathered specifically on the research questions with frequencies and percentages. After the qualitative analysis was completed, inferential statistics were used to see if any of the findings were statically significant. Numerical variables were analyzed using a *t* test. Categorical variables were analyzed using a Pearson Chi-Square test.

Chapter IV: Results

This chapter reports the findings of this study and answers the research questions. It is organized into two main sections findings and respondent themes. This chapter makes use of descriptive quotes from interviews in order to substantiate the conclusions drawn. The findings report the study's results in relation to the research questions. The final section, respondent themes do not directly answer the study's research questions; however, the section gives context for interpreting the study's data and findings by providing background about the participants. The respondent themes also explain the themes and categories found through the interviews using content analysis.

Aging parents often answered questions indirectly and thus their responses required interpretation of inflection of voice and phrasing of words by the researcher. Any references to individual names were removed to secure anonymity by replacing with a noun indicating the relationship to the speaker in brackets. The aging parents and adult children were given an alphabetical code (i.e. aging parent B, adult child b) to be referred to by as another means of securing anonymity.

Findings

This section presents the results and findings for each of the study's seven research questions. They are separated under the themes of privacy (Q1-3), interaction (Q4-6), and the influence of privacy and interaction (Q7).

Privacy

Several questions were asked concerning privacy in an effort to lead up to the main questions that were used to measure desired levels of privacy. These leading questions are discussed below and give context and insight into individual circumstances. In each of the questions a quantitative analysis was conducted using Chi-square. There was no significance found using the significance level of p < .05.

All (100%) of the aging parents had a place in the home where they could be alone if they desired. The overwhelming majority (80%) of the adult children felt they had a space within the home where they could be alone if they desired, however the remaining 20% of the adult children felt they had no place where they could be alone. These findings are represented in Table 3.

Table 3.

Percent of Respondents With the Ability to be Alone

	No	Yes
Aging Parent	0%	100%
Adult Child	20%	80%

Adult child m explains, "Bless her heart she always wants to help me but I just can't ever be alone...if I am in the back yard, she's in the back yard, if I am in the front yard she's in the front yard...she wants to be with me you know. It's just ahhhh!" The majority of both aging parents (70%) and adult children (75%) specified the bedroom as the place to go to be alone. Twenty percent of the aging parents listed their bedroom in combination with a living area, and 25% of the adult children cited the bedroom in combination with an office. The percentages for the rooms cited can be found in Table 4.

Table 4.

Space by Percentage in Which Respondents Would go to be Alone

	Bedroom	Anywhere ^a	Living Area	Office
Aging Parent	90%	30%	30%	0%
Adult Child	80%	10%	0%	20%

^aConditional depending on the time of day.

Note: Due to multiple responses percentages will add up to more than 100%.

Typical activities of the aging parent when alone were watching television, doing cross-word puzzles, reading, and eating. The adult children's main activity when alone was to read, then use the computer, or watch television. The activities cited can be seen in Table 5.

Table 5.

Percentage of Activity Respondents Participated in When Alone

	TV	Hobby	Read	Eat	Computer	Relax
Aging Parent	70%	40%	50%	20%	10%	0%
Adult Child	40%	10%	70%	0%	40%	20%

Note: Due to multiple responses percentages will add up to more than 100%.

Three aging parents displayed feelings of loneliness but, when verbalizing it, they did so indirectly. Aging parent B, "I've got plenty of time to myself now, but I'll tell you the dogs are awful good company. Oh yeah I would be lonely without them." Aging parent C, "I am alone now that she's found this friend. I don't mind, I can take care of myself." Aging parent E, "at my age I am contented with what I do. I get lonely like any

one else would, but if I felt like it I could go visiting, you know what I mean, or I could go some place. It's my choice."

In addition to having a space where they could be alone, participants were asked if they felt there was a space that belonged to them. The majority (80%) of the aging parents felt a space in the home belonged to them. Of the 80%, 50% reported the bedroom, 20% reported the bedroom in combination with a living space, and 10% reported the entire home. Twenty percent of the aging parents felt there was no space in the home that belonged to them, for instance aging parent K said, "I don't have any space, actually I feel like I am homeless." The majority (60%) of the adult children felt there was no space in the home that belonged to them, for instance adult child j states, "No, but it's not a problem." The remaining 40% felt as though a space belonged to them. Thirty percent cited the bedroom, and 10% cited the bedroom in combination with a living space. The percentages and rooms reported can be seen in Table 6.

Table 6.

Percentage of	of Space owned	by Respondents

	Bedroom	Living Rm.	Entire Home	None
Aging Parent	70%	10%	10%	20%
Adult Child	40%	10%	0%	60%

All (100%) of the aging parents and 70% of the adult children felt they could be in a space within the home and not be disturbed. The remaining 30% of the adult children felt as though they could not be anywhere in the home without being disturbed. Adult child h explained her situation, "[My mother] stays up very late at night...she'll

have a last minute thought and come upstairs at 11:30 at night and look to see if the lights are on and talk to me, so sometimes I think I can let down my guard but I can't." Adult child j mentioned she would not physically be disturbed however, "It doesn't stop anyone from yelling up at me." These findings can be seen in Table 7.

Table 7.

Percentage of Respondents with the Ability to be Alone Without Being Disturbed

	No	Yes
Aging Parent	0%	100%
Adult Child	30%	70%

Research Question #1: What is the desired amount of privacy for an adult child and aging parent in an intergenerational home?

The interview questions, "Do you have time to yourself," and "Would you like more or less time to yourself," that lead to the findings of research question one were both quantitatively and qualitatively analyzed. The quantitative analysis used a chisquare test, but resulted in no significance using the significance level of p < .05.

During the interview, all (100%) of the aging parents reported that they had time to themselves, meaning that they were achieving privacy. For instance, in response to the interview question in general "Do you have time to yourself," aging parent H stated, "Oh yes. I don't mind being by myself...I get tired kind of easily." When asked if they would like more or less time to themselves, 70% of the aging parents answered similarly to aging parent F, "I think it's pretty even keel," verifying that they have optimal levels of privacy. The remaining 30% of the aging parents implied experiencing feeling isolated,

meaning that they have too much privacy and are not achieving the desired level. For instance, in response to the interview question, "Do you have time to yourself," aging parent M said, "More time than I like." These findings can be seen in Tables 8 and 9.

Table 8.

Percentage of Respondents' Actual Privacy

	No	Yes
Aging Parent	0%	100%
Adult Child	30%	70%

Table 9.

Percentage of Respondents' Achieving Desired Amount of Privacy

	No	Yes
Aging Parent	30%	70%
Adult Child	30%	70%

In regard to the adult children's desired amount of privacy, 70% reported that, in general, they had time to themselves. They were achieving actual and desired levels of privacy. The remaining 30% stated that they do not have time to themselves. For instance, in response to the question, "Do you have time by yourself," adult child k said, "When I feel like I want privacy I don't always get it, because [my mother will] come walking in doing whatever." Adult child m corroborated this feeling, "With her constantly truckin' through my bedroom, I feel like this is my one private area and you're just always in it, you know, and I resent it." Adult child e who said she did not have time to herself, when asked what she would do with more time to herself she responded, "I

would . . . I don't know, it's been so long since I've had time."

In summary, 100% of the aging parents actually have privacy; of those parents 70% are also achieving their individual desired level of privacy. The remaining 30% were not achieving their desired level of privacy; they were experiencing too much privacy. In regard to the adult children, 70% actually have privacy, whereas 30% do not. The 70% that do have privacy were also achieving their individual desired level of privacy. The remaining 30% who were not achieving any privacy were experiencing too little.

Research Question #2: Is there a difference in the amount of privacy needed for the aging parent versus the adult child?

Seventy percent of the aging parents and adult children in this study of intergenerational homes reported achieving the desired amount of privacy. However, the remaining 30% of the aging parents felt isolated, where as the remaining 30% of the adult children felt crowded. The similar percentages of achieved desired levels of privacy showed that intergenerational living does not lead to a major loss of privacy. In general, aging parents in this sample did not feel as though they had too little privacy. If anything they had too much. The adult children in this study never experienced too much privacy. If anything they had too little.

Research Question #3: What environmental factors including spatial layout, type of rooms, size of the residence, etc., have an impact on the desired amount of privacy in an intergenerational home?

The size of the intergenerational homes as reported from the questionnaire varied from 1,200 sq. ft. to 2,400 sq. ft., with a mean of 1,705 sq. ft. One of the aging parents and both adult children (2) living in homes that had 1,200 sq.ft, cited optimal levels of privacy. However one of the aging parents indirectly verbalized feelings of isolation. All of the participants living in the home that had 2,400 sq.ft, cited optimal levels of privacy.

The overwhelming majority of both aging parents (70%) and adult children (75%) specified the bedroom as the place they would go to be alone. Twenty percent of the aging parents listed the bedroom in combination with a living area, and 25% of the adult children cited the bedroom in combination with an office. Aging parent E explains her feeling about her bedroom and the typical activities she does in her room when she was alone, "watch TV, work the computer, knit, read. Isn't that nice, I can do it all. I am very content within that room."

Adult child g discussed spatial issues involving territoriality, "As soon as I got the job we bought the house, so 'cause I knew I wasn't going to live at her home, that was HER house, this is OUR house, and there is a difference. We do things differently, so I knew that I didn't want to share a living room, or a bedroom, or a bathroom. We share the kitchen, but before we lived together we made rules for both of us, as to agreements of how we would use the kitchen."

Adult child k explains privacy issues she has that relates to the acoustical properties of the home, "The sound carries very much through here. Even when I'm trying to get a little bit of privacy maybe with a phone conversation that I don't particularly want mom to hear. I go upstairs and I know she can still hear it [because]

she'll ask me about it later. If I definitely don't want her to hear the conversation, I'll pick up my cell phone and go outside." Where as aging parent E discussed the acoustical privacy in her home, "The way this house is built it's always quiet. Like they can have the television on in [the living room] and I can have it [on] in my room and they can't [hear it]; it doesn't interfere."

Interaction

Research Question #4: What is the desired amount of interaction for an adult child and aging parent in an intergenerational home?

Varying results were obtained from the interaction questionnaire and the interview questions regarding the desired amount of interaction. These results were quantitatively and qualitatively analyzed. Responses to the interaction questionnaire can result in scores of 0, a negative score, or a positive score. When both the desired and actual scores are the same an optimal level of interaction is achieved. When the desired level is less than the actual level of interaction it results in a negative score, and signifies feelings of crowding. When the desired level is greater than the actual level of interaction it results in a positive score, and signifies feelings of isolation. The quantitative analysis used a chi-square test for the categorical variables from the questionnaire and interview results and a *t* test for the numerical variables from the questionnaire results. Both resulted in no significance using the significance level of p < .05.

Table 10.

		N	Mean	SD	Corr	Sig.	t-value	Sig.
Aging	Desired	10	5.1	1.370	0.881	0.001	1.400	0.102
Parent	Actual	10	4.8	1.399	0.001	0.001	1.406	0.193
Adult	Desired	10	5.1	0.995	0.441	0.202	0.758	0.468
Child	Actual	10	4.8	1.317	0.441	0.202	0.738	0.408
Total	Desired	20	5.1	1.165	0.697	0.001	1.371	0.186
Total	Actual	20	4.8	1.322	0.097	0.001	1.371	0.180

Results of Paired T Test for Actual & Desired Amount of Interaction

Table 11.

Percentage of Respondents' Desired & Actual Amount of Interaction Findings from the

Questionnaire

	Too Little	Too Much	Optimal
Aging Parent	20%	0%	80%
Adult Child	20%	40%	40%

The questionnaire (see Tables 10 and 11) revealed that 80% of aging parents had optimal levels of interaction with their adult child. However, during the interview (see Table 12) only 50% of the aging parents cited that they had optimal levels of interaction with their adult child. For instance, in response to the interview question would you like to do these or other activities most with your child, aging parent M stated, "Actually things work out pretty well the way it is." Where as aging parent C said, "More than what we have now, no, it's good right now, a good balance."

Table 12.

Percentage of Respondents' Desired & Actual Amounts of Interaction Findings from the Interview

	Too Little	Too Much	Optimal
Aging Parent	50%	0%	50%
Adult Child	30%	10%	60%

The questionnaire revealed that 20% of the aging parents were experiencing feelings of isolation. In the interview 50% of the aging parents indicated they would like more interaction with their adult child. The type of interaction could be obtained inside the home, outside the home, or possibly just a different type of desired interaction. Aging Parent H typically interacts with her adult child in the kitchen/dining area. The interaction normally consists of talking. She stated, "I wouldn't mind going places with [my daughter] like concerts...she has suggested that to me, and she's given me a brochure for me to look at." In response to the interview question, "would you like to do these or other activities more with your child," aging parent E said, "Well if [my daughter] had time I think I would," and aging parent D mentioned, "Well I think I would like to do more with the family."

In regard to the adult child's desired amount of interaction, there were varying results between the questionnaire answers and the interview responses. In the questionnaire, 40% of the adult children reported having an optimal amount of desired interaction. In the interview 60% of the adult children were content with the amount of interaction they were receiving. For instance, in response to the question, "Would you like to do these or other activities more you your mother," adult child k said, "I feel like

we do a sufficient amount. I do enjoy our time that we're here together."

In the questionnaire, 40% of the adult child reported having too much interaction with their aging parent; whereas in the interview only 10% stated they would like less interaction. For instance adult child m commented, "She's constantly around. I don't know why it is, it drives me crazy!"

The remaining 20% adult children reported in the questionnaire that they felt isolated from their aging parents. However, in the interview, 30% of the adult children cited feeling isolated. Two of the three children attributed feeling isolated due to the demands of their jobs or other obligations. For instance, in response to the question would you like to do these or other activities more with your parent, adult child f stated, "A little bit more...it's difficult between having a major job where I am on call and so forth, and dealing with various kid things." Adult child g, said, "I don't talk to [my mother] as much as I used to because she can't hear me...it's too much work, I'll weigh what I am saying and I'll just think [it is] not that important. If she would hear better I would like to talk with her more."

In summary, between 50% and 80% of the aging parents in intergenerational homes achieve the amount of interactions they would like to have. In regard to the adult children, between 40% and 60% are achieving the optimal amount of interaction.

Research Question #5: Is there a difference in the amount of interaction needed for the aging parent versus the adult child?

The difference in the desired amount of interaction was measured using a t test, but resulted in no significance using the significant level of p < .05. In addition to the

quantitative analysis, qualitative analysis of questionnaire and interview revealed more aging parents (50% - 80%) are achieving their desired level of interaction than their adult children (40% - 60%). Both the aging parents and adult children felt isolated; however, more aging parents (20% - 50%) feel that isolated than adult children (20% -30%). The clearest result was that none of the aging parents felt crowded; whereas 10% - 40% of the adult children felt crowded.

Research Question #6: What environmental factors including spatial layout, type of rooms, size of the residence, etc., have an impact on the desired amount of interaction in an intergenerational home?

The size of the intergenerational homes varied from 1,200 sq. ft. to 2,400 sq. ft., with a mean of 1,705 sq. ft. The aging parents (2) and adult children (2) living in homes that had 1,200 sq.ft, all reported optimal levels of interaction. However, both the aging parents (2) living in the 2,400 sq. ft. home reported feelings of isolation. Adult child d discussed why she made an addition to the home, "The downstairs of our house was way too small. If my family came over, the whole family, there was no way. Even now that I've added on six foot out this way, it's still too small for the whole family to be here. We're still kind of all sitting on top of each other."

In all but one case both the aging parent and the adult child identified the same room(s) as to where the most interaction took place. The overwhelming majority cited the kitchen. Most of the kitchens (70%) had an eat-in location and were open (90%) to at least one other room. Other rooms listed were living/family room, dining room, or parent's bedroom as the location where most interactions took place. The frequencies and rooms cited are shown in Table 13.

Table 13.

	Kitchen	Living Rm.	Aging Parent's Bedroom	Dining Rm.
Aging Parent	60%	40%	20%	10%
Adult Child	70%	30%	20%	10%

Percentage of Room Used for Interaction among Respondents

Note: Due to multiple responses percentages will add up to more than 100%.

Adult child h explained interactions she typically has with her mother, "We talk, she usually sits at the table, and I am usually setting the table, and [my husband's] cooking. [The kitchen/dining room] is where most of the family interaction takes place." Aging parent M discussed the interactions she normally has with her daughter, "She built [the family] room on and we just live in it really. It has such a nice view of the garden, and the yard. It's just a nice comfortable room so we spend a lot of time here. We may watch TV, we may take a walk, we may play games, cards or something like that."

The primary activity of interaction identified by the aging parent and adult child during the interview was talking. Watching television was the second activity participated in most often. Most participants identified a couple activities they did simultaneously, like eat and talk or watch television while eating. The findings from the activity log coincided with the answers given during the interview and questionnaire from the participants regarding the kitchen as the area in which most interaction takes place. However, almost as often, the family room was recorded as the room location where families were interacting. In addition, the activity log confirmed the answers given in the interviews as the main activities recorded were talking, watching television, reading, and eating with one another. The results can be seen in Table 14.

Table 14.

	Talking	TV	Cooking	Eating	Hobbies
Aging Parent	80%	40%	10%	10%	10%
Adult Child	50%	50%	20%	30%	10%

Percentage of Respondents' Activity Type for Interactions

Note: Due to multiple responses percentages will add up to more than 100%.

Influence of Privacy and Interaction

Research Question #7: How do interaction and privacy influence each other in intergenerational families?

Privacy and interaction influence each other in fundamental ways in intergenerational families. Both privacy and interaction can result in feelings of isolation or crowding (see Figure 1). Not having enough interaction and having too much privacy resulted in similar feelings of isolation. While not having enough privacy and too much interaction resulted in feelings of being crowded.

Figure 1.

The Results Model of Privacy and Interaction

.

	Too Much	Too Little
Privacy	Isolation	Crowding
Interaction	Crowding	Isolation

An important issue is awareness of how privacy and interaction work in intergenerational families. Aging parent E, "I still do my own thing and they do their own thing. If it's something like they've got the boat in the water, I might go boat riding with them or something. I try to leave their free time to themselves, um. That's the only time they have so I try to stay away so they have got their own time. They need their space too." Aging parent H, "I worry about interfering with their privacy, so I try to, I don't eat dinner there every night. I try not to interfere, you know I don't go up and say 'what are you doing today' and stuff like that. I just stay here." Aging parent E, "at my age I am contented with what I do. I get lonely like any one else would, but if I felt like it I could go visiting, you know what I mean, or I could go some place. It's my choice."

Both aging parents and adult children described feelings of isolation. Through further analysis it became clear that they were describing different feelings. Aging parents were actually feeling isolated, as defined in this study. When adult children described feelings of isolation, they were feeling overwhelmed with not having time they could spend with their parents and were feeling guilty about it.

Respondent Themes

These respondent themes interpreted the common viewpoints of the participants while providing insight into the situation that supports the research questions. These provided background information into the participants living situations. Each theme was broken down into the categories that emerged from the interviews (see Figure 2).

Figure 2.

Respondent Themes

A Joint Household Possessions and Preparation Interference with space Shared Household Chores Overall Contentment Routines to Attain Privacy Communication & Privacy Routines for Interacting

A Joint Household

Assistance (40%) was the main reason cited for having an intergenerational family. Assistance came in the form of mutual, financial or caregiving, by either, the adult child to the aging parent or the aging parent to a grandchild. In addition to assistance, loneliness and convenience were also cited. Loneliness, the desire to no longer live by one's self was cited individually (10%) as well as in combination with both assistance (20%) and proximity (10%). Proximity was cited (10%) in combination with assistance. In all (100%) of the cases the decision for residing together was mutual between the aging parent and adult child.

Possessions and Preparation

The aging parents in the study had a wide range of belongings, varying from a dresser to a fully furnished living and bedroom set. All (100%) of the aging parents had their own bedrooms. Ninety percent had a television and telephone of their own. Eighty percent had their own furniture in their bedrooms. Two of the rooms were previously

furnished when the aging parents moved in. Fifty percent of the aging parents had their own full bathroom. When the other 50% were asked if they would prefer a personal bathroom they responded similarly to aging parent E, "No, it doesn't bother me a bit." Finally, 20% of the aging parents had their own living room, bathroom, and entrance. In addition one aging parent also had a kitchenette and eating area. The degree of integration into the home varied as well, from complete separation to a single bedroom integrated within the main portion of the home.

Similarly the adult children also varied in relation to how much preparation if any was needed on their part for the arrival of the aging parents in their household. Changes to the household were considered to be either *renovations*, including either a structural addition to the home or modifying an existing space by removing or adding walls, or *conversions*, in which an existing space is converted into a bedroom by rearranging furniture and other belongings. In 40% of the homes, a renovation took place. In 30% a conversion occurred. In the remaining 30%, nothing was done to prepare for the aging parent's arrival.

Interference with Space

Twenty percent of the adult children felt that living with their parent had interfered with their use of space in the home. Adult child k stated it was a general feeling she had all the time, "I am more self conscious about things because I have to be, I am living with someone different [and] I am not used to her habits." Adult child m felt the interference only in certain situations, "I feel it mostly on the weekends, not so much during the week."

Shared Household Chores

In response to contributing to household chores, every aging parent (100%) took care of something around the home. In some situations, it depended on what they were physically capable of doing. It varied from mainly handling the dishes to doing almost everything in the home, as adult child e describes, "[My mother] does a lot now. She does the dishwasher, she does the washing and drying of clothes and the ironing, and she vacuums. I do very little now." Adult child b describes, "My dad does a lot around the house . . . I don't expect him to do anything I am just happy he's here with me. But I think he feels that he should be doing something, you know, to help out. So, you know, he'll take care of the dishes and put them in the dishwasher, and um, sometimes he'll use the Swiffer if he sees the floor got a little sticky out in the kitchen."

Overall Contentment

All participants voiced that overall they were content with their living situation. The aging parents preferred living with their adult children over their previous living situation. Aging parent M said, "I am just thankful I have such great kids. I feel like a very lucky person." In response to the question do you have too much time to yourself, aging parent H said, "Not since I've been [with my daughter], I used to." The adult

children also would prefer to have their parents residing with them than an alternative solution of a nursing home or assisted living. For instance, as stated by adult child h, "Personally I feel like this is the best...situation we could have had," or as adult child m said, "I wouldn't want [my mother] to be in a dumpy apartment somewhere or in a nursing home or a senior home."

Routines to Attain Privacy

Three adult children cited using examples of a routine as a means of obtaining privacy. This was usually an implicit arrangement, as was the case for adult child b who said, "My dad goes to bed every night at 7:30. I think he does that so I can have the space to myself for a while, because he doesn't go to sleep until later and then usually about an hour and a half to two hours later he comes trooping down and makes his last go around and...says goodnight." Even though adult child k felt as though there was no place she could go to be alone, she explained, "[My mother] does give me a little bit of time during the day, and so it's kind of like an unspoken sort of arrangement that we have when I get home from work. She'll take [the dog] for his walk and I'll have about an hour alone with [my daughter]." In other cases, as with adult child m, she explained how she achieves some alone time, "At night [my mother will] watch TV in her, and I'll usually watch TV [in the family room] because we don't usually watch the same thing."

The adult children, who talked about a lack of privacy, were afraid to communicate this feeling to their aging parents. This was the case of adult child k, "I never say anything because I do want her to feel welcomed." Adult child m corroborated this feeling, "I just feel like I can't really tell her because, because of the way I know she'll take it. It would crush her . . . she would get real moody, she'll get real, like you know, 'I'm not wanted.' So it's just easier not to say or do anything."

Routine for Interacting

Two adult children and one aging parent cited having a routine for interacting with one another as described by adult child e, "I will normally watch TV in my mom's room. That's how I visit her at night. You know, I go in there and crash on her bed, and we watch movies or talk while she's in her chair knitting and we watch movies." Adult child b, discusses having a routine with her father, "On the weekends I make sure to ask him if there is anything he thinks he wants to do or needs to buy anything, or whatever. I try to make sure that we do that first, so that he's not getting antsy, you know, waiting for me . . . I've learned that if I don't want to get nervous and anxious because he's waiting to do what he wants to do, I just find out what he wants to do and we take care of that. And then the rest of the weekend . . . [there is] nothing that we have to do." Aging parent H describes a routine she has with her daughter, "[My daughter] comes down when she comes home from work to see me and, um, she'll wake me up if I have to go someplace because I can't hear an alarm clock. But, um, it's working out quite well and I'm really happy."

.

Chapter V: Discussion and Conclusion

This chapter covers discussion regarding the findings and concludes with implications of this study and recommendations for future research. Given the exploratory nature of this study, particular attention was paid to improving the current study and exploring new areas based on this study's findings.

Discussion

The objectives of this exploratory study were to gain a better understanding of the role privacy and interaction play in the intergenerational home environment as well as to suggest recommendations for home design. Due to the relatively small sample size, a generalization to the greater population of intergenerational families was not feasible since the results were not found to be statistically significant. However, several strong correlations were found among the different variables. In addition, through the qualitative analysis, some trends emerged from the sample. Some results corroborate with previous studies, whereas others reported contradictory findings.

In this study, aging parent's privacy was never infringed upon, whereas the adult child's privacy was cited as being infringed upon by 30% of the participants. Altman (1975) looked at privacy in two parts, attaining physical separation from others and the ability to control interactions. The findings from this study are in line with Altman's findings. In this study, the aging parents have the ability to control the interactions that they have. Where they are lacking is in the physical separation from others. The adult

children were not able to control when interactions took place or the amount of interaction they received.

Results concerning the desired interaction levels varied between the interview and the questionnaire. This may be explained by the fact that the survey was given out first, so the participants may have had time to think about the situation for the interview question. Another possible answer to the discrepancy is that the participants may have felt more comfortable talking to someone about the situation than writing it down. Even though varying results were detected, the multi-method approach worked well since the interview rationalized and explained some of the results. The difference in the adult children's results of desired amount of interaction between the questionnaire, 40% reported having too much interaction, and the interview, 10% reported wanting less interactions, can also be attributed to the three adult children misunderstanding what the term interaction meant in the questionnaire. They answered the survey question in regard to privacy instead of interaction. They were content with the amount of interaction with their parent, but they lost the ability to control when the interaction (Altman, 1975).

Several correlations were found among the different variables involving the aging parents. There was a strong relationship correlation of -.751 for actual interaction and -.607 for desired interaction among aging parents with age. The older the aging parents' age the less interaction they wanted to and actually had. There was also a strong correlation of -.751 for interaction amount among aging parents with the size of the home. The greater the square footage of the home the more likely the aging parent was to feel isolated due to lack of interaction. In addition there was a strong correlation of -.714

for interaction amount among aging parents with the number of people per household. The more people residing in the home the more isolated the aging parent was likely to feel due to lack of interaction. When the number of people per household was greater than two, it consisted of either a spouse of the adult child, or a third generation which was the child of the adult child. In either case the likelihood of the adult child spending time they may have spent with the aging parent now was spent with the third or even fourth member of the household. The final relationship found among variables was a correlation of -.816 for interaction amount among aging parents with ownership of space. When an aging parent had a space within the home that belonged specifically to them they were more likely to feel isolated due to lack of interaction. This can be attributed to the fact that 90% of the aging parent had a television and telephone in the space they felt belonged to them.

Several of this study's findings supported previous research into privacy, interaction, or intergenerational homes. The overwhelming majority of both aging parents (90%) and adult children (80%) specified the bedroom as the place they would go to be alone (see Table 4). This supports Sebba and Churchman's (1983) finding that the bedroom is most often where an individual feels as though they have the most control and will not be disturbed. Sebba and Churchman used a sample with a different family structure consisting of parents with young children.

Boschetti (1990) found that a *sense of being home* is enhanced by surrounding oneself with familiar things. Similarly Eshelman & Evans (2002) found that true satisfaction with the home occurred when it was a reflection of the individual's personality. In this study, all of the aging parents had something of their own with them.

In two cases, it was a single dresser. In all other cases, they had a complete bedroom set from their previous home. These findings could reinforce why all the aging parents were so pleased with their current living arrangement because they had something that was theirs within their new home.

Pruchno's et al. (1993) study found that 16% of their sample of 54 intergenerational families had made additions to their home. This study found 30% of the 10 families made additions, including building a new room, to their home – nearly double the percentage Pruchno et al. reported. This signifies an increase in spending on the home to accommodate changes in the household. Since annual income was not stated in Pruchno's et al. study, it cannot be determined if that had an impact on the varying figures.

This study also corroborates Miller's and Maxwell's (2003) findings. Their study found that areas which support concurrent activities best facilitate family interaction in regard to homes with young children. This study found that the kitchen and family/living room were cited as the locations in which most family interactions take place. These rooms were all open to each other allowing visual access between the spaces, as well as accommodating multiple activities. The interactions reported as multiple activities occurred simultaneously in the given space. For instance, a kitchen with an eating area would allow someone who is cooking to talk with someone sitting at the eating area, working on a cross-word puzzle.

Many (100%) participants cited that the aging parents contributed to the household chores. Adult child k discussed how chores were handled in their home, "I do my own laundry. I change my bed sheets, and mom pretty much does the rest. She has

taken on all of it, and I feel this big for it. I mean I appreciate it, I love it, I love it, I absolutely love it, but at the same time I feel like I took her in to be my maid. I don't want that, I keep asking her to let me do something but you know every time I'm going to pick up stuff I turn around and she's done it." Some families had an unspoken understanding of handling house work, where as others had a pre-discussed arrangement that was agreed upon. None the less, all of the aging parents had some responsibility for the household chores. This finding conflicts with Hess's & Markson's (1980) finding that having an intergenerational family can lead to an increase in family chores for the adult child. One rationale for this is that the demographics for women as stay-at-home caregivers have changed in the last 25 years. It is possible that the aging parents in this study have different physical capabilities than of the aging parents in Hess's and Markson's study.

Changes to the home's acoustical properties to solve sound transmission issues can be expensive. Consider adult child f's situation, "Now with my father's hearing problem, even with his hearing aides in, we can often hear his TV two to three rooms out." Aging parent G is aware of the situation, "My hearing isn't as good, that's one thing we kind of say something about is, uh, [my daughter] wants me to use the hearing aide more and it's hard for me to get used to, and I have my TV loud and then they can hear it." Adult parent H explains a simpler solution, "When I listen to the TV I always use [head] phones, because it helps me hear better and I can't hear anything that's going on up [stairs]. Their bedroom is right up here [referring to the ceiling directly above her living room] so if I'm watching TV you know it might disturb them if I have it on, I [would] have to have it on pretty loud to hear it."

Conclusion

This study provided designers and others interested in intergenerational family's home environment information about how the home is used to achieve privacy and interaction. The kitchen and family room were cited as spaces where most interaction took place. These interactions took the form of multiple activities occurring simultaneously. The bedroom was reported as the space where most individuals were able to be alone. Even when an individual wanted to be alone in their bedroom, they still wanted to be able to accomplish varying tasks, such as watch TV, read, and work on the computer. Whether the home is supporting privacy or interaction, the aging parent and adult children expected to be able to perform multiple activities in the room they were in. The accommodation of multiple activities within the same space has a great impact on how one would go about designing a space. This means the designer needs to be aware of these circumstances in order to design successful functional spaces while still achieving the desired aesthetic effect.

With the need for the bedroom to serve multiple activities, the design can no longer be limited to simply a bed, night table, and dresser. This will have an impact on the size of the bedroom thus creating a need for larger rooms to accommodate the new desire for televisions, sitting and office areas.

Future Research

Future research could be conducted on a larger sample of intergenerational families from other geographic regions in the United States as well as other countries. In addition, the sample in this study was homogenous in reference to race. According to recent demographics, the races of Blacks, Hispanics, and Asians have a higher percentage of intergenerational homes and are a growing proportion of the US population. Future research should include a variety of ethnic and cultural groups. In addition future research could be conducted on the adult children's working or marital status to see if it has an impact on desired privacy or interaction levels.

Although there was a limited amount of families with three generations residing together in this study, a pattern emerged in which the adult child was unhappy either with 1) not having enough alone time with their child or 2) they did not appreciate it when the aging parent critiqued or reprimanded their child. This pattern could lead to future studies about how three generations interact in one household.

Various support groups for intergenerational families whose parent had dementia or Alzheimer's were found sampling area. Therefore future research could be conducted to see how well intergenerational homes function in regard to privacy and interaction when the aging parent is suffering from dementia or Alzheimer's.

This study provides designers and others interested in intergenerational family's home environment with information about how the home is used to achieve privacy and interaction. Furthermore this study acts as a stepping stone to more in-depth studies on the growing area of intergenerational families and their homes.

APPENDIX A

UCRIHS Approval Letter



Initial IRB Application Approval

April 29, 2005

To: Nam-Kyu PARK 315 Human Ecology

Re: IRB # 05-206 Category: EXPEDITED 2-6 2-7 Approval Date: April 28, 2005 Expiration Date: April 27, 2006

Title: DESIRED PRIVACY AND INTERACTION IN INTERGENERATIONAL HOMES

The University Committee on Research Involving Human Subjects (UCRIHS) has completed their review of your project. I am pleased to advise you that your project has been approved.

The committee has found that your research project is appropriate in design, protects the rights and welfare of human subjects, and meets the requirements of MSU's Federal Wide Assurance and the Federal Guidelines (45 CFR 46 and 21 CFR Part 50). The protection of human subjects in research is a partnership between the IRB and the investigators. We look forward to working with you as we both fulfill our responsibilities.

Renewals: UCRIHS approval is valid until the expiration date listed above. If you are continuing your project, you must submit an *Application for Renewal* application at least one month before expiration. If the project is completed, please submit an *Application for Permanent Closure*.



Revisions: UCRIHS must review any changes in the project, prior to initiation of the change. Please submit an *Application for Revision* to have your changes reviewed. If changes are made at the time of renewal, please include an *Application for Revision* with the renewal application.

Problems: If issues should arise during the conduct of the research, such as unanticipated problems, adverse events, or any problem that may increase the risk to the human subjects, notify UCRIHS promptly. Forms are available to report these issues.

OFFICE OF RESEARCH ETHICS AND STANDARDS Please use the IRB number listed above on any forms submitted which relate to this project, or on any correspondence with UCRIHS.

Good luck in your research. If we can be of further assistance, please contact us at 517-355-2180 or via email at <u>UCRIHS@msu.edu</u>. Thank you for your cooperation.

ersity Committee on Research Involving Sincerely,

2. 1. 2 -

Peter Vasilenko, Ph.D. UCRIHS Chair

c: Amanda Gale 12959 W Melody Ln Grand Ledge, Mi 48837

Human Subjects ichigan State University 202 Olds Hall East Lansing, MI 48824

> 517/355-2180 FAX: 517/432-4503

Web: umanresearch.msu.edu

Mail: ucrihs@msu.edu

APPENDIX B

Consent Form

Consent Form: Desired Privacy and Interaction in Intergenerational Homes

The purpose of this research is an exploratory study to investigate desired privacy and interaction among family members in intergenerational homes. Your input is very important to this study. It will help the investigators to gain more insight into the design of homes to create an environment supportive of interaction and privacy. The interview will take place in your home at your convenience and if permission is granted will be tape recorded for accuracy. The length of the interview will vary depending on your preference, but should be approximately an hour. We would appreciate it if you would take the time to answer each question as honestly as you can.

In addition to the interview an activity log is attached. Directions explaining its use are included; the activity log should be completed prior to the investigators final visit to your home to conduct observations. The total length of time for your participation, including the interview and activity log will be approximately nine hours.

There is no potential risk involved in the study. Your privacy will be protected to the maximum extent allowable by law. Your answers will be kept confidential. Individual names will not be revealed in the report. We only need your honest opinion. You may choose not to participate at all, may refuse to participate in certain procedures or answer certain questions, or may discontinue the interview at any time without penalty.

If you have any questions regarding the study, or wish to make comments and suggestions to us, please contact researchers:

Nam-Kyu Park, Assistant Professor, by mail 204 Human Ecology, East Lansing, MI 48824, phone: 517) 353-4454, or e-mail: <u>parkn@msu.edu</u> Amanda Gale, Graduate Assistant, by mail: 204 Human Ecology, East Lansing, MI 48824, phone: (517) 353-5026, or e-mail: <u>galeaman@msu.edu</u>

If you have any questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact – anonymously, if you wish:

Peter Vasilenko, Ph.D., Michigan Sate University's Chair of University Committee on Research Involving Human Subjects (UCRIHS) by phone: (517) 355-2180, fax: (517) 432-4503, e-mail: <u>ucrihs@msu.edu</u>, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Your signature indicates your voluntary agreement to participate in this study.

Your Signature	Date
0	

Your signature indicates your agreement to allow the use of a tape recorder.

Your Signature _____

Date

Thank you!

APPENDIX C

Socio-demographic questionnaire

Please fill out the following questionnaire; you can leave certain questions blank if so desired. Your time and participation is greatly appreciated.

Please check the following category that you fit in.

1. What is your age?

	□ 64 years & below	□ 65-69 years	□ 70-74 years	□ 75-79 years
	□ 80-84 years	□ 85-89 years	□ 90 years & ab	ove
2.	What is your annual inco	ome?		
	□ Below \$5,000	□ \$5,000-	\$10,000	□ \$10,000-15,000
	□ \$15,000-20,000	□ \$20,000) -25,000	□ \$25,000-30,000
	□ \$30,000-35,000	□ Above S	\$35,000	
3.	Gender?			
	□ Male □	Female		
4.	Marital Status?			
	□ Single □	Married	□ Divorced	□ Widowed
5.	Ethnicity?			
	□ White/Non-Hispan	ic 🗆 Black/No	n-Hispanic 🗆 I	Hispanic 🗆 Asian
	American Indian	□ Pacific Is	lander 🗆	Other

Please answer the following questions about your interactions with family when you are in your home.

Generally, how much interaction do you		Little Interaction			A lot Interaction						
6.	Want with family members when you are in your home?	1	2	3	4	5	6	7			
7.	<u>Actually have</u> with family members when you are in your home?	1	2	3	4	5	6	7			

Part 2: Adult Child

Coding:_____

Please fill out the following questionnaire; you can leave certain questions blank if so desired. Your time and participation is greatly appreciated.

Please answer the following questions:

1. Square footage of the home?_____

2. Length of time residing in this home?_____

Please check the following category that you fit in.

2. What is your age?

□ 30-34 years	□ 35-39 years	□ 40-44 years	□ 45-49 years						
□ 50-54 years	□ 55-59 years	□ 60-64 years	□ 65-69 years						
□ 70-74 years	□ 75 years & above								

3. What is your annual family income?

□ Below \$40,000	□ \$40,000-\$50,000	□ \$50,000-60,000
□ \$60,000-70,000	□ \$70,000-80,000	□ \$80,000-90,000
□ \$90,000-100,000	□ Above \$100,000	

4. Gender?

	□ Male	🗆 Fei	nale				
5.	Marital Status?						
	□ Single	🗆 Ma	rried	Divorce	ed	🗆 Wi	dowed
6.	Ethnicity?						
	□ White/Non-H	□ White/Non-Hispanic		□ Black/Non-Hispanic		panic	🗆 Asian
	American Indian		🗆 Pacifi	c Islander	□ Otł	ner	

Please answer the following questions about your interactions with family when you are in your home.

Generally, how much interaction do you		tle action	1	A lot of Interaction						
7. <u>Want</u> with family members when you are in your home?	1	2	3	4	5	6	7			
8. <u>Actually have</u> with family members when you are in your home?	1	2	3	4	5	6	7			

APPENDIX D

Guided Interview Questions

- 1. Reason for joining household?
- 2. Who made the decision about co-residence?
- 3. The length of time that you have resided in the same home as your child?
- 4. Do you have your own bedroom, bathroom, separate entrance, kitchen, sitting room, television, microwave, refrigerator, and telephone line?
- 5. Do you have any physical impairments or functional difficulties?
 - a. What are they?
- 8. Is there a space within this home that you can be alone?
 - a. What space is this?
 - b. Do you feel you can do what you please without being disturbed?
 - c. What do you normally do in this space?
- 9. Is there a place (or places) within this home that you feel belongs to you?
 - a. What space is this?
 - b. Does this place express yourself?
- 10. Do you think your home allows noisy & quiet activities to occur simultaneously?
- 11. Do you feel that your living with your child has interfered with your use of space in the home?
 - a. How often do you feel this way?
 - b. Is there a certain time (or situation) when you normally feel this way?

- 12. In general do you have time to yourself?
 - a. Would you like to have more time to yourself?
 - b. Do you feel you have too much time by yourself?
- 13. What location in the home do most interactions take place?
- 14. What activities are you participating in when interactions occur?
 - a. Would you like to do these activities more?
- 15. In general do you feel you have enough interaction?
- 16. How often do you talk things over with your child that is important to you?
- 17. How often do you dine together?
- 18. Are there specific chores you do around the house?

- 1. Reason for aging parent joining household?
- 2. Who made the decision about co-residence?
- 3. The length of time that your parent has resided in the same home as you?
- 4. Has there been an increase in spending on the home since the aging parent has move in?
 - a. If so what kind of improvements did you make?
 - b. Who made the decisions?

c. Were these physical changes had been made to the home to accommodate the addition of your parent to the household?

d. Did it occur prior to or after the move occurred?

- 5. Do you have any physical impairments or functional difficulties?
- 6. Number of persons living in home...
 - a. Different generations?
- 7. Number of rooms in the home?
- 8. Is there a space within this home that you can be alone?
 - a. What is this space?
 - b. Do you feel you can do what you please without being disturbed?
 - c. What do you normally do in this space?

9. Is there a place (or places) within this home that you feel belongs to you?

a. What space is this?

- b. Does this place express yourself?
- 10. Do you think your home allows noisy & quiet activities to occur simultaneously?
- 11. Do you feel that your living with your parent has interfered with your use of space in the home?
 - a. How often do you feel this way?
 - b. Is there a certain time (or situation) when you normally (always) feel this way?
- 12. In general do you have time to yourself?
 - a. Would you like to have more time to yourself?
 - b. Do you feel you have too much time by yourself?
- 13. What location in the home do most interactions take place?
- 14. What activities are you participating in when interactions occur?
 - a. Would you like to do these activities more?
- 15. In general do you feel you have enough interaction?
- 16. How often do you talk things over with your parent that is important to you?
- 17. How often do you dine together?
- 18. Are there specific chores you do or your parent does around the house?

APPENDIX E

Sample Activity Log

ACTIVITY LOG

Coding:____

Please complete the following activity log for a continuous 2 hour period on 2 week days and 1 weekend when your aging parent or adult child is home. Please record all information within a week time frame. You may start recording activities at your convenience. Check the boxes that apply to the room, area, and activity you are participating in, and person you are participating with.

Date:	Time														
	F					<u> </u>									
Room:	<u> </u>		<u> </u>			 			ļ						
Living Room	ļ		<u> </u>	 	<u> </u>	ļ		ļ	۱ ۲						
Dining Room	ļ					ļ									
Family Room				1				Ļ							
Kitchen	ļ					<u> </u>									ļ
Bedroom (Yours)	L			Ļ		L									i
Bedroom (Others)						L								 	
Bathroom															ļ
Other:															
Area within Room:															
Sofa															
Easy Chair								İ							
Floor			L			L			L						
Table				L					L						
Desk															
Computer			Ì												
Sink (Kitchen / Bath)															
Counter (Kitchen / Bath)			1	1											
Bed															
Other:															
Activity:						1									
Job-related work					1	Γ									
Eating								1							ĺ
Cooking					1	-			1						1
Cleaning		1	1	1		1	1								
Reading		1		1	1	1									1
Writing		1		1	1			1						1	1
Watching TV/VCR/DVD		1			1				Ì						
Talking with family members				1											
Using the phone		I			1			1	İ						
Using the computer:				l											
e-mail				1											
games			1		1										
other:		1							1						1
Playing board/card/games															
Family project				1											1
(e.g, puzzle, hobby)							I							ļ	<u> </u>
Sleeping							L							L	1
Grooming								1		ļ	L				
Other:											L			¦	
**Left the house															
Participating with:															
By yourself														1	ļ
Parent								1	ļ				L	L	.i
Child			_	1_	_		-					I	 	i +	-
Significant other		1				ļ	1	+			L	<u> </u>	ļ	l	
Other:	1			ĺ.	1						I		<u>.</u>	<u> </u>	

APPENDIX F

Observation & Identification form

,

- 1. Number of levels the residence has?
- 2. Type of home: detached, single dwelling; attached home; townhouse; apartment
- 3. Number of persons per room:
- 4. Observation of: Room Finishes

5. Sketches of :

Furniture Arrangement Room Location & Type Room Adjacencies (Number of rooms open to each other)

REFERENCES

REFERENCES

- Administration on Aging. (2003). *A profile of older Americans: 2003*. Retrieved October13, 2004, from AoA website via U.S. Department of Health and Human Services. Access http://www.aoa.gov/prof/statistics/statistics.aps
- Altholz, J. A. (1986). Fostering Autonomy in living Environments: A Psychological Perspective. Journal of Housing for the Elderly, 5 (1), 67-81.
- Altman, I., (1975). *The Environment and Social Behavior*. Monterey: Brooks/Cole Publishing Company.
- Altman, I. (1981). The Environment and Social Behavior Privacy, Personal Space, Territory, Crowding. New York, New York: Irving Publishers Inc.
- Bechtel, R. B. (1997). *Environments for the Elderly*. Thousand Oaks, California: Sage Publications, Inc.
- Beigel, D. E., Schulz, R. (1999). Introduction: Caregiving and Caregiver Interventions in Aging and Mental Illness. *Family Relations*, 48 (4), 345-354.
- Bengtson, V.L. (1973). Interaction Index. In D. J. Mangen & W. A. Peterson (Eds.). Research instruments in social gerontology V.2 (pp.132-133, 154-155). Minneapolis, MN : University of Minnesota Press
- Berado, F. M. (1998). Family Privacy, Issues and Concepts. Journal of Family Issues, 19 (1), 4-20.
- Booth, A., & Edwards, J. N. (1976). Crowding and Family Relations. American Sociological Review, 41 (2), 308-321.
- Boschetti, M. (1995). Attachment to Personal Possessions: An Interpretative Study of the Older Person's Experience. *Journal of Interior Design*, 21 (1) 1-12.
- Boschetti, M. (1990). Reflections on Home: Implications for Housing Design for Elderly Persons. *Housing & Society*, 17 (3), 57-65.
- Chan, Y. (2000). Privacy in the Family: Its Hierarchical and Asymmetrical Nature. *Journal of Comparative Studies*, 31 (1), 1-17.
- Choi, N. (2004). Stability and Changes in Living Arrangements Among Unmarried Older Persons: The Influence of Housing Environments. Journal of Housing for the Elderly, 18 (2), 68-89.

- Choi, N. (2003). Coresidence Between Unmarried Aging Parents and Their Adult Children. *Research on Aging*, 25 (2), 384-404.
- DeLaski-Smith, D. (1984). Housing the Elderly: Intergenerational Family Setting. *Journal of Housing for the Elderly*, 2 (2), 61-70.
- Denzin, N., & Lincoln, Y. (Eds.) (2003). Collecting and Interpreting Qualitative Materials; Second Edition. Thousand Oaks, California: Sage Publications, Inc.
- Eshelman, P., & Evans, G. (2002). Home Again: Environmental Predictors of Place Attachment & Self-Esteem for New Retirement Community. *Journal of Interior Design*, 28 (1), 1-9.
- Evans, G. W., Wells, N. M., Chan, H. E., & Saltzman, H. (2000). Housing Quality and Mental Health. *Journal of Consulting and Clinical Psychology*, 68 (3) 526-530.
- Evans, G. W, Maxwell, L. E., & Hart, B. (1999). Parental Language and Verbal Responsiveness to Children in Crowded Homes. *Developmental Psychology*, 35 (4), 1020-1023.
- Evans, G. W., Lepore, S. J., & Schroeder, A. (1996). The Role of Interior Design Elements in Human Responses to Crowding. *Journal of Personality and Social Psychology*, 20 (6), 41-46.
- Federal Interagency Forum. (2000). Older Americans 2000: Key Indicators of wellbeing. Retreived October 13, 2004 from Federal Interagency Forum on Aging-Related Statistics website via http://www.agingstats.gov/default.htm
- Fahey, T. (1995). Privacy and the Family: Conceptual & Empirical Reflections. Sociology, 29 (4) 687-702.
- Gillham, B. (2000). Case Study Research Methods. London: Continuum publications.
- Gitlin, L. N. (2003). Conducting research on home environments: Lessons learned And New Direction. *The Gerontologist*, 43 (5), 628-637.
- Golant, S. M. (2003). Conceptualizing time and behavior in environmental gerontology: A pair of old issues deserving new thought. *The Gerontologist*, 43 (5), 638-647.
- Gove, W. R., Hughes, M., & Galle, O. R. (1979). Overcrowding in the Home: An Empirical Investigation of Its Possible Pathological Consequences. *American Sociological Review*, 44 (1), 59-80.
- Gunter, B. (2000). Psychology of the Home. London, England: Whurr Publishers.

- Harris, P. (1994). Privacy regulation and place attachment: predicting attachments to a students family housing facility. Unpublished doctoral dissertation. The university of Utah.
- Harrison, C. (1994). The Development of a desire for Privacy Scale. (Doctoral dissertation)
- Hess, B. & Markson, E. (1980). Aging & Old Age. New York, New York: Macmillan Publishing Co., Inc.
- Hoglund, J. D. (1985). Housing for the Elderly: Privacy and Independence in Environments for the Aging. New York, New York: Van Norstrand Reinhold Co.
- Kaya, N., Weber, M. (2003). Cross-Cultural Differences in the Perception of Crowding and Privacy Regulation; American and Turkish Students. Journal of Enviornmental Psychology, 23 (3), 301-309.
- Kerlin, B. (2002). *Coding Strategies*. Retrieved June 28, 2005, from http://kerlin.net/bobbi/research /nudist/
- Kvale, S. (1996). Interviews: An Introduction to Qualitative Research Interviewing. Thousand Oaks, California: Sage Publications.
- Koncelik, J. A. (2003). The Human Factors of Aging and the Micro-Environment: Personal Surroundings, Technology and Product Development. *Journal of Housing for the Elderly*, 17 (1/2), 117-134.
- Lee, G. R., Netzer, J. K., & Coward, R. T. (1995). Depression among Older Parents: The Role of Intergenerational Exchange. *Journal of Marriage and the Family*, 57 (3), 823-833.
- Mancini, J. A., & Blieszner, R. (1989). Aging Parents and Adult Children: Research Themes in Intergenerational Relations. *Journal of Marriage and the Family*, 51 (2), 275-290.
- Margulis, S T. (2003). Privacy as a Social Issue and Behavioral Concept. Journal of Social Issues, 59 (2), 243-259.
- Mercier, J. M., Shelley, M. C. II, & Wall, B. (1997). Quality of Adult Child-Aging Parent Relationships: A Structural Equations Apporach Using Merged Cross-Generational Data. Family and Consumer Science Research Journal, 26 (2), 160-192.
- Mindel, C. H. & Wright, R. (1982). Satisfaction in Multigenerational Households. *Journal of Gerontology*, 37 (4), 483-489.

- Miller, A. S. & Maxwell, L. E. (2003). Exploring the Role of Home Design in Fostering Family Interaction: The use of Programming Methods in Research. *Journal of Interior Design*, 29 (1&2), 50-65.
- Mutchler, J., & Burr, J. (2003). Living Arrangements Among Older Persons: A Multilevel Analysis of Housing Market Effects. *Research on Aging*, 25 (6), 531-558.
- Pederson, D. & Frances, S. (1990). Regional Differences in Privacy Preferences. *Psychological Reports*, 66, 731-736.
- Pinto, M., De Medici, S., Van Sant, C., Bianchi, A., Zlotnicki, A. & Napoli, C. (1999). Ergonomics, Gerontechnology, and Design for the Home-Environment. Applied Ergonomics, 31, 317-322.
- Pruchno, R., Dempsey, N., Carder, P., & Koropecky-Cox. (1993). Multigenerational Housholds of Caregiving Families: Negotiating Shared Space. *Environment & Behavior*, 25 (3), 349-366.
- Pyke, K. (1999). The Micropolitics of Care in Relationships Between Aging Parents and Adult Children: Individualism, Collectivism, and Power. *Journal of Marriage and the Family*, 61 (3), 661-672.
- Pynoos, J., Tabbarah, M., Angelelli, J., & Demiere, M. (1998). Improving the Delivery of Home Modifications. *Technology and Disability*, 8, 3-14.
- Regnier, V. (2003). Powell Lawton's Contributions to Purpose-Built Housing Design for the Elderly. *Journal of Housing for the Elderly*, 17 (1/2), 39-53.
- Rogers, M., Rogers, N., Takeshima, N., & Islam, M. (2004).
 Reducing the Risks for Falls in the Homes of Older Adults. Journal of Housing for the Elderly, 18 (2), 29-39.
- Rubin, H. & Rubin I. (1995). *Qualitative Interviewing: The art of Hearing Data*. Thousand Oaks, California: Sage Publications.
- Rubinstein, R. L., & Parmelee, P. A. (1992). Attachment to Place and the Representation of the Life Course by the Elderly. In I. Altman and S. Low (Eds.), *Place Attachment* (139-164). New York, New York: Plenum Press
- Sebba & Churchman. (1983). Territories & Territoriality in the Home. Environment & Behaviors, 15 (2), 191-210.
- Stewart-Pollack, J., & Menconi, R. (2005). *Designing for Privacy and Related Needs*. New York: Fairchild Publications, Inc.

- Veitch, R. & Arkklein, D. (1995). *Psychology: An Interdisciplinary Perspective*. Englewood Cliffs, New Jersey: Prentice-Hall Inc.
- Vincenti, V. (2004). Intergenerational Unity Benefits Everyone. Journal of Family and Consumer Sciences, 96 (2) 1.
- Wahl, H.& Gitlin, L. (2003). Furture Developments in Living Environments for Older People in the United States and Germany. In Schaie, W. & Wahl, H. (Eds.) Aging Independently: Living Arrangements and Mobility. Springer Publishing Co., Inc.
- Walker, A. J., Pratt, C. C., Shin, H., & Jones, L. L. (1995). Motives for Parental Care giving and Relationship Quality. *Family Relations*, 39 (1), 51-56
- Walker, A. J., Shin, H., & Bird, D. N. (1990). Perceptions of Relationship Change and Caregiver Satisfaction. *Family Relations*, 39 (2) 147-152
- Westin, A. F. (1970). Privacy and Freedom. New York: Atheneum
- Wister, A. & Burch, T. (1987). Attitudes of the Elderly Towards Living Arrangements: Conceptual & Methodological Issues. *Journal of Housing for the Elderly*, 5 (2) 5-18.
- Yin, R. K. (2003). Case Study Research: Design and Methods 3rd edition. Thousand Oaks, California: Sage publications.

