GEOGRAPHIC DISTANCE, CONTACT, AND FAMILY PERCEPTIONS OF QUALITY NURSING HOME CARE

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The effect of frequency of nursing home contact on family perceptions of quality care is the focus of this research. A family member characteristic, such as geographic distance from the nursing home, affects his or her frequency of contact with the nursing home. Frequency of contact, in turn, affects family perceptions of the care his or her loved one receives in the nursing home. The theoretical framework for this study is based on Allport's intergroup contact theory, which posits that when four contact conditions - institutional support, equal status, common goals, and intergroup cooperation - are present in an intergroup situation, a reduction in anxiety between groups is likely to occur.

Regression analysis tested the stated hypotheses using survey data collected from 275 family members of residents in 10 Dallas-Ft. Worth area nursing homes. This study is among the first to quantify family geographic distance, finding that family geographic distance is a significant negative predictor of nursing home contact. Additionally, results build on Allport's theory by extending its' usefulness to nursing home organizations in two distinct ways. First, findings support Allport's premise that contact alone between groups – i.e., family members and nursing home staff - is insufficient for increasing *or* decreasing family perceptions of nursing home care. Second, three of the four contact conditions included in Allport's theory were statistically supported by the data. In sum, findings of this research provide nursing homes with an empirically tested model for improving family perceptions of quality nursing home care.

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CHAPTER I

INTRODUCTION

Introduction

The purpose of this study is to provide nursing home organizations with a model for understanding how one family characteristic, geographic distance, interacts with nursing home contact to affect family perception of quality nursing home care. Distinctive to this study is the application of G. W. Allport's intergroup contact theory (*The Nature of Prejudice*, 1954) which provides a theoretical framework for understanding how the *right kind of contact* can positively influence perceptions and attitudes between groups.

In the general health care industry health care quality is being increasingly recognized as important because of its influence on patient perceptions. According to Wadhwa (2003),"Perception of quality is important in the health care literature, as expectations about the quality of care have been linked to perceptions of care" (p. 24). Patients define quality, according to Chilgren (2008), as how well a service is delivered, not how technically superior the actual service or clinical component turned out. Recent studies indicate that current health care consumers are more informed than ever before. As such, the literature strongly urges health care leaders to carefully address the aspects of care found most important to consumer's of health services: access to care; relationships between physician and staff; meaningful and understandable information; and, participation in their own health care and treatment decision making processes - all of which, influence patient perception of quality, and can be used by the organization as a way to "objectively measure health care quality" (Wadhwa, 2003, p. 24).

In much the same way, family perception of resident care is important for nursing homes to understand, as perception of care can also measure quality in the nursing home organization. Knowing how various organizational factors can influence family perception of care is arguably valuable for the nursing home, especially when considering this type of long-term care institution has historically struggled with promoting and maintaining a public perception of quality. According to Gaugler (2005a),"Efforts in the public and academic spheres in the United States of America have long focused on the deficiencies of nursing homes and their inability to provide older adults with the choice, control and independence that is so integral to the American ethos" (p. 377). Persistent problems such as low pay, high staff turnover, staff shortages and poor communication between families, physicians and staff have created an overall negative image of the nursing home industry and heightened the level of anxiety among family members of residents (Wetle, Shield, Miller, & Welch, 2005).

Research continues to expose major deficiencies in care. In 2005, for example, approximately 16 % of nursing home facilities were cited for quality of care problems that caused harm or immediate jeopardy to residents (U.S. Government Accountability Office, 2005). During the same year, the Administration on Aging's national ombudsman reporting system received more than 230,000 complaints concerning nursing facility residents' quality of care, quality-of-life problems, and residents' rights (U.S. Administration on Aging, 2007).

Consistent and effective regulations for ensuring quality care in nursing homes have been difficult to achieve, and though public reporting measures have been used in the acute care sector for some time, the strategy of public reporting in long-term care

institutions is more recent (Shekelle et al., 2006). The Omnibus Reconciliation Act of 1987 was one of the first major reform initiatives designed to improve the quality of resident care, as well as, performance information reported to the public by nursing home organizations. Proponents of such initiatives argued that by publicizing quality performance, consumers would be able to make informed choices and, thus, encourage nursing homes to compete on the basis of quality. Most recently, the Centers for Medicare & Medicaid Services [CMS] launched the five star rating system. *A*ccording to CMS (2009), "The primary goal in launching this rating system is to provide residents and their families with an easy way to understand assessment of nursing home quality, making meaningful distinctions between high and low performing nursing homes."

Thus, akin to consumers of general health care services, it is reasonable to assume that consumers of long-term care services – residents and their family members - are too becoming better educated and more aware of the discrepancies found in nursing home care. And, because the general public perceives nursing homes as health care institutions, residents and their family members expect nursing home facilities to deliver quality health care services (Shield, Wetle, Teno, Miller, & Welch, 2005). Though family members are not the direct recipients of care services in nursing homes, they are often the most influential party in facility selection for aged relatives (Castle, 2003). Views of resident's family members are increasingly being considered in long-term care planning and marketing; the assumption being that if the nursing home facility fails to meet the preferences and expectations of family members; as consumers, families and residents will be highly dissatisfied with the product (i.e., the facility and the care) and seek other alternatives (Cooney & McClintock, 2006).

Awareness of the family as the primary consumer in selecting long-term care services is further evidenced by the recent trend toward person-centered models of care delivery. According to Cooney and McClintock (2006), long-term care for older adults is shifting away from the traditional medical model to new, more social models, such as client-centered care (Keating, Fast, Connidis, Penning, & Keefe, 1997); resident-centered care (Bond, Fiedler, Keeran, Ogden, & Richardson, 1996); person-centered care (Rantz & Flesner, 2004); and, the "pioneer movement" (Gold, 2001). Recent studies indicate family members are highly favorable of this individualized approach to nursing home care, where residents are considered members of a community, and not just as objects of care (Phillips, 2001).

Yet, what still appears to be missing from the literature is the consideration of family members who are geographically separated from the nursing home, and thus, have limited face-to-face contact with their relative, nursing staff, and nursing home administration. The research examining geographic distance as a causal variable is somewhat limited within the social science literature, according to Davis (1984). A review of the long-term care literature confirms this limitation, finding very few empirical studies examining the relationship between geographic distance and family members of nursing home residents. One study by Hook, Sobal, and Oak (1982) included geographic distance as a potential predictor of nursing home visitation, and not surprising, found that family members who lived geographically closer were more likely to visit the resident. A similar study by Zarit, Orr, and Zarit (1985) found that family members who lived far away, and had limited contact with the nursing home, experienced heightened levels of stress due to feelings of isolation; or, generally felt

unsupported by the nursing home organization. More recently, Gaugler (2005b) suggested that families who live far from a relative in a nursing home experience different perceptions of nursing home care than families who live close by. Though Gaugler recognized the need to formally identify geographically separated family members as a distinct type of family group, he called on future researchers to inquire as to why geographically separated family members may form differing perceptions of nursing home care. It is the intent of this research study to contribute to the literature by making such inquiry.

Significance of Study

This study has the unique capability of filling a gap in the long-term care literature by examining how geographic distance interacts with nursing home contact to affect family member perception of care. Such an inquiry appears timely when recognizing that in a matter of two short years an unprecedented human phenomenon is set to occur, as the cohort of 78 million baby boomers begin to turn age 65 in 2011 (Toedtman, 2009). This demographic shift in the age of America's population will assuredly have a profound impact on individuals, families, and U.S. society. The Urban Institute (2007) predicts that even under the most optimistic scenario long-term care burdens on families and institutions will increase substantially in coming decades. Projections indicate that between 2000 and 2040 the number of older adults in nursing homes will increase by two-thirds. Over the same period, the number receiving help from their adult children will increase by one-third (Johnson, Toohey & Wiener, 2007).

Most of the literature recognizes that caring for an elderly relative often adds tremendous stress to a family's already overloaded schedule of activities. The diversity

of family structure and their proximity to the nursing home may well complicate such matters, especially if geographic distance does not allow for quick or easy access to a loved one in a nursing home. Particularly interesting to this research study, a recent focus group study by Shugarman and Brown (2006) asked family members of nursing home residents to rank the criteria they considered most important when selecting a nursing home facility. The majority of family members ranked *location* as the single most important criteria for selecting a nursing home. The second most important criteria was that nursing home staff administer *quality care* to all residents.

Despite the increasing interest in family perception of care the literature indicates that, in many cases, family expectations of care do not match family perceptions of care (Marziali, Shulman, & Damianakis, 2006). Therefore, as the long-term care system faces the imminent influx of the largest elder cohort to date, nursing home institutions would be well advised to review, renew, and/or revise the current methods by which they currently maintain contact and nurture relationships with family members; while also cognizant of the potential emotional and perceptual differences of geographically separated family members. Thus, this study argues that the *right kind of contact* matters, and extends the application of Allport's intergroup contact theory (1954) to nursing home organizations; to equip this vital care institution with a contact model designed to lessen anxieties among families, improve relationships between residents, families, and the nursing home; and, increase family perception of nursing home care, whether family members live across town or across country.

CHAPTER II

REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

Introduction

Geographic distance arguably reduces face-to-face contact with a relative in a nursing home. If geographically separated family members perceive Dobrof's (1981) assertion that “nursing home residents whose families visit regularly receive better care” to be true, such perceptions may contribute to what Allport (1954) termed the "normality of prejudgment" (p. 17). Although many nursing home organizations and family members have already experienced the challenge of coordinating resident nursing home care long-distance, it appears reasonable to surmise that with the projected influx of baby boomers, current methods by which nursing home organizations and geographically distant family members maintain contact may well deserve immediate and serious review.

First, however, it is important to understand the significance of in-groups and out-groups regarding their influence on the formation of negative perceptions or even attitudes reflecting prejudice. With this in mind, a discussion of Allport’s (1954) intergroup contact theory will then provide a framework for organizing the factors of quality care found important to family members of nursing home residents.

The Formation of Perception: In-Groups and Out-Groups

Understanding the formation of human perception was pivotal to Allport’s theory of intergroup contact. As Allport (1954) explained:

> Group differences are one thing; how we perceive them and think about them is quite another. Nothing that strikes our eyes or ears conveys its message directly

> to us. We always select and interpret our impressions of the surrounding world….What I sense, what I perceive, and what I think become blended into one single act of cognition. It is important that we never fall into the error of supporting that we perceive group characteristics directly. Perception is more than a simple physical phenomenon; it is a psychic function from which we may draw the most far-going conclusions concerning the inner life. (p. 165)

Simply stated, Crisp and Nicel (2004) define the term in-group as “a group to which someone belongs,” and the term out-group as “a group to which someone does not belong” (p. 248). “This difference in affiliation,” they continue, “has profound and robust effects on people's evaluations of members of the different groups. In-groups appear to have an inherent, and automatic, positivity associated with them, whereas out-groups have an inherent negativity. In other words, people appear to think of their own group in positive terms and of the other group in negative terms, at even preconscious levels” (p. 248).

According to Druckman (2003), studies examining the perceptions of in-groups and out-groups have consistently shown just how easy it is to establish an ethnocentric group identity (even with temporary, ad hoc groups) and how difficult it is to extinguish that identity (Tajfel, 1981). Various researchers have shown that when people are placed into arbitrary groups, they allocate more rewards (Allen & Wilder, 1975; Tajfel, 1970) and overestimate the performance (Sherif, 1966) of in-group members and, overall, evaluate other in-group members more favorably (Brewer, 1979; Locksley, Ortiz, & Hepburn, 1980) than out-group members. In-group bias, thus, affects how members perceive the actions of out-groups (Inman & Baron, 1996).

Negative perceptions have been shown to contribute to intergroup anxiety. Intergroup anxiety refers to feelings of threat and uncertainty that people experience in intergroup contexts (Pettigrew & Tropp, 2008). Such feelings grow out of concerns about how they should act, how they might be perceived, and whether they will be accepted (Berger & Calabrese, 1975; Blascovich, Mendes, Hunter, & Lickel, 2000; Gudykunst, 1985; Mendes, Blascovich, Lickel, & Hunter, 2002; Stephan & Stephan, 1985). If not addressed, repercussions of unresolved anxiety in an intergroup contact situation may potentially escalate to attitudes reflecting prejudice; a process Allport (1954) described as follows. “Ordinarily, the factors leading individuals to form attitudes of prejudice are not piecemeal. Rather, their formation is functionally related to becoming a group member – to adopting the group and its values (norms) as the main anchorage in regulating experience and behavior” (p. 40).

Research on the causes of prejudice has been extensive, and though society has traditionally ascribed factors of prejudice to conscious issues of race, gender, and socioeconomic status, more recent views have broadened the concept. Before 1954, the concepts of prejudice and other attitudes were assumed to operate largely in conscious (explicit, deliberate, controllable, intentional) mode (Wittenbrink, 2004). Since 1954, they have generally become viewed as also operating in a less conscious (implicit, spontaneous, uncontrollable, unintentional) mode (Eagly & Chaiken, 1993; Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Wilson, Lindsey, & Schooler, 2000). Along with other researchers, Wittenbrink (2004) observed that, “Some 20 years of research into the processes that underlie attitudinal responses have firmly established that an evaluation can occur spontaneously, without intent, and without control over or

even awareness of its occurrence" (Devine, 1989; Fazio, Jackson, Dunton, & Williams, 1995; Greenwald, Klinger, & Liu, 1989; Perdue & Gurtman, 1990; Wittenbrink, Judd, & Park, 1997). In other words, spontaneous evaluations which lead to prejudgment do not necessitate a dislike for a particular group of people. All it takes, according to Whittenbrink (2004), is the attainment of knowledge as it is perpetuated in the social environment. Similar research has demonstrated that stereotypes and prejudice can be developed about groups with which the individual has had very little or even no direct contact (Maio, Esses, & Bell, 1994). Thus, it appears these more modern views have helped to "demystify an otherwise troublesome concept like prejudice by placing it squarely within the purview of ordinary cognition" (Banaji, Nosek, & Greenwald, 2004, p. 280).

The Right Kind of Contact - Allport's Intergroup Contact Theory

Much of the research on intergroup contact is attributed to the pioneering work of G. W. Allport. Formally introduced in *The Nature of Prejudice* (1954), Allport's intergroup contact theory is considered a revolutionary effort in the study of contact as a means of reducing negative group prejudice. Allport (1954) argued that "Casual contact does not dispel prejudice; it seems more likely to increase it" (p. 263). The reason, he explained, required an examination of the "perceptual situation in a casual contact" (p. 264).

> Suppose that on the street or in a store one sees a visible out-group member. By the association of ideas there is likely to come to mind a recollection of rumor, hearsay, tradition, or stereotypes by which this out-group is known. Theoretically, every superficial contact we make with an out-group member could by the "law of frequency" strengthen the adverse mental associations that we have. What is

more, we are sensitized to perceive signs that will confirm our stereotypes. Casual contact, therefore, permits our thinking about out-groups to remain on an autistic level. We do not effectively communicate with the outsider, nor he with us. (Allport, 1954, p. 264)

Empirical support for Allport's claim appears strong. Numerous studies have put Allport's contact hypothesis to the test; the majority of which support Allport's original premise - that contact between social groups alone is not sufficient to produce respect, lessen prejudice, or promote an appreciation for individual or group differences (Valentine & MacDonald, 2004; Berryman-Fink, 2006). According to Valentine (2008), "The basis of Allport's argument was that people are uncomfortable with the unknown and so feel anxious about encounters with difference" (p. 324).

To effectively lessen feelings of anxiety and uncertainty between groups thus requires a planned contact. "It is not the mere fact of contact that is decisive," Allport (1954) argued, "it is the forms of resulting communication that matter….We must not assume that contact automatically solves the problem of prejudice. At most we can say that it creates a condition where friendly contacts and accurate social perceptions can occur" (p. 272). The four contact conditions Allport proposed important for achieving positive communication - institutional support, equal status in the situation, common goals, and intergroup cooperation - have repeatedly been supported in research (Pettigrew, 1998 & 2008).

In his early studies on racial desegregation, Allport (1954) found "particularly interesting…differences in social perception" (p. 271). "Those who have closer contact," he observed, "perceive less difference than those who are more remote….The shift

here is from a fear-sustained perception to one sustained by a friendly point of view" (p. 272). The ability to be in close contact, Allport proposed, provides increased opportunity to form friendly relations. The concept of intimacy, in the form of close friendships, was viewed as an important factor to intergroup contact in the classic contact literature, though more recent arguments contend that positive contact effects can occur even without intimate, or close, friendship relationships (Dixon & Rosenbaum, 2004; Jackman & Crane, 1986; Yancey, 2007).

Though Allport's original work was largely a response to blatant racial prejudice in a segregated American society, it has since been applied in a variety of settings; broadening its applicability by examining a variety of prejudice, attitude and contact effects toward a wide range of target groups - the elderly (Caspi, 1984; Drew, 1988), homosexuals (Herek & Capitanio, 1996), the mentally ill (Desforges, Lord, Ramsey, Mason, & Van Leeuwen, 1991), disabled persons (Anderson, 1995), victims of AIDS (Werth & Lord, 1992), and even computer programmers (McGinnis, 1990).

Pettigrew & Tropp's (2006) meta-analysis of 515 contact studies found intergroup contact to be effective in reducing prejudice across a variety of intergroup situations; and, in contexts involving different target groups, age groups, geographical areas, and contact settings. As Wittenbrink (2004) observed, "One of Allport's lasting contributions to our understanding of human nature is the recognition that prejudiced attitudes are not necessarily the result of a hateful ideology, or that of a limited intellect, or a disordered personality" (p. 306).

Allport's Four Conditions of Contact

Allport's contact hypothesis maintains that bringing groups into contact under favorable conditions is an effective way to reduce intergroup tension, hostility, and prejudice (Pettigrew & Tropp, 2008). According to Valentine (2008), applying Allport's model to reduce intergroup anxiety, "lessens feelings of uncertainty by producing a sense of knowledge or familiarity between strangers, which in turn, generates a perception of predictability and control" (p. 324).

Allport emphasized that the relationship between contact, intergroup liking, and evaluation was not a simple process. Additionally, Allport (1954) noted that the "effect of the contact would depend on the nature of the contact that is established" and "upon the kinds of persons involved" (p. 262). He also recognized that even in situations having all four contact conditions, not all group encounters would result in reduced prejudice or decreased anxiety. "It would seem fair to conclude," wrote Allport (1954), "that contact, as a situational variable, cannot always overcome the personal variable in prejudice. This is true whenever the inner strain within the person is too tense, too insistent, to permit him to profit from the structure of the outer situation" (p. 280). Though Allport (1954) acknowledged these potential limitations, his extensive research on the power of effective contact founded his following claim:

> At the same time, given a population of ordinary people, with a normal degree of prejudice, we are safe in making the following general prediction. Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by

> institutional supports (i.e., by law, custom or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups. (p. 281)

Allport's assertion to the interdependent nature of the four contact conditions is evident in his quote above. It is further evidenced by his discussion of each individual contact condition, a brief summary of which is provided below.

Institutional Support

Allport (1954) contended that "strong and forthright action from 'higher up'" was important for establishing an organizational attitude that espoused "fair play and equal opportunity" (p. 276-277). He proposed that formal institutional support was instrumental if an impending contact situation was to have a positive influence on the wider groups represented (Slavin, 1985).

Equal Status

"Oddly enough," Allport (1954) contended, "when a change is introduced without raising the issue for discussion there is usually no more than a flurry of excitement of short duration. Soon the new policy is accepted as a matter of course. The newcomers are tolerated and respected as soon as their merits as individuals become apparent" (p. 275). In other words, a contact situation endorsed by institutional authorities increases the likelihood that all groups involved will accept and recognize each other as status equals.

Common Goals

Allport stated that a contact situation without a clear plan for proceeding would eventually dissolve, and perhaps not before group members experience suspicion, frustration, and distrustful feelings towards each other. “Psychologically,” he wrote, “the error lies in the lack of concretely defined objectives. The focus is unclear. No one can ‘improve [community] relations’ in the abstract” (Allport, 1954, p. 279).

Intergroup Cooperation

Commonly established goals must then be executed through joint action. According to Allport (1954), “The nub of the matter seems to be that contact must reach below the surface in order to be effective in altering prejudice. Only the type of contact that leads people to do things together is likely to result in changed attitudes. It is the cooperative striving for the goal that engenders solidarity” (p. 276-277).

Allport’s Contact Model: Integrating Family Perception of Care

Though much of Allport’s early application of intergroup contact theory focused on the reduction of negative prejudices between racial groups, he also proposed that the fundamental principles underlying each contact condition could be extended to include other types of group situations. This is evidenced by Allport’s recognition of the family as a distinct type of in-group. “Now there is no denying,” wrote Allport (1954), “that the presence of a threatening common enemy will cement the in-group sense of any organized aggregate of people. A family (if it is not already badly disrupted) will grow cohesive in the face of adversity” (p. 42). “One’s family,” he continued, “ordinarily constitutes the smallest and the firmest of one’s in-groups” (p. 43). And, because family

is of “basic importance to the survival and self-esteem of its members,” Allport contended that the development of “partisanship and ethnocentrism” toward family members was a natural phenomenon (p. 42).

Thus, considering Allport’s (1954) explanation of the strong bond and expectations placed on a family’s children - “By virtue of kinship, the child is expected to take on the prejudices of his parents, also to become the victim, of whatever prejudice is directed against his parents” (p. 291), this study refers to family members of nursing home residents as the in-group, as the focus of the study considers their perceptions toward nursing home care. In turn, the nursing home organization assumes the characteristics of the out-group.

As this study is the first to expand Allport’s theory of intergroup contact to groups specific to nursing home environments, it is important to define each contact condition in relation to family perception of quality nursing home care. Thus, melding Allport’s theoretical premise with the factors of care found important to family members of nursing home residents, this study defines the four conditions of contact as follows :

1. Institutional support: Family expectation that the nursing home organization provides care for the resident within a home-like environment, modeling the philosophy of person-centered care.
2. Equal status: Family expectation that the nursing home treats the resident with respect, fosters resident dignity and personhood, and honors resident privacy.
3. Common goals: Family expectation that the nursing home supports resident goals which encourage resident independence and choice.

4. Intergroup cooperation: Family expectation that the nursing home employs a sufficient number of qualified nursing personnel who exhibit positive and caring attitudes and who work cooperatively with the resident to achieve common goals.

Considering the defined concepts above, along with the increasing influence of family on the delivery of nursing home care, the following review of the literature is intended to show how the relationship between family members and nursing homes can be viewed from Allport's perspective when considering Allport's four conditions of contact.

Institutional Support and Family

Allport's condition of authority, or institutional support, for intergroup contact has been widely supported and shown to be an important variable influencing positive affect among groups (Dovidio, Gaertner & Kawakami, 2003). Authorities not only provide structure, but can also promote greater contact. Additionally, authority figures help to create a new social climate which allows more tolerable attitudes to emerge (Gilbert, Fiske & Lindzey, 1998).

According to Montgomery, Jordens, and Little (2008), as a human service organization, the institutional mission of the nursing home "seeks to find the most effective ways to provide support and assistance, in the goal of restoring a sense of security to the individual(s)" (p. 636). Though still few, a growing number of nursing home institutions have elected to change their method of care delivery from a traditional medical-model of care to a more person-centered model care. This shift in "institutional mission" is due, in large part, to the increasing discomfort reported by both residents and family members concerning the unsavory living conditions found primarily in

traditional type nursing homes (Shield et al., 2005). Physical features of a nursing home facility, such as wall color, carpet, drapes and furnishings have been shown to affect family member's perceptions of whether a facility felt institutional or residential (Castle, 2003). Negative images of “institutional care” are typically associated with the medical-model of care which is dominated by a series of policy regulations developed and enforced at the federal and state levels (Applebaum & Kunkel, 1991). According to Wetle et al. (2005), when family members perceive nursing home regulations as reinforcing task-focused rather than person-centered care, it can add to resident and family burden.

In response to this unsettling institutional image, it appears that for a growing number of family members, “the most effective way to provide support and assistance in the goal of restoring a sense of security to the resident” (Montgomery et al., 2008) is the nursing home organization whose mission supports the philosophy of person-centered care; and, delivers that care in a home-like environment. Mounting literature notes the growing popularity of the person-centered approach to care, perceived by families as providing the resident with a “feeling of home” (De Veer & Kerkstra, 2001).

Person-centered nursing homes espouse an array of personalized amenities absent from most traditional medical-centered nursing homes. The literature describes person-centered nursing homes as environments wherein residents have continued connection to and interaction with family, friends and staff members; in settings that resemble the natural aspects of home in terms of the physical features of housing, such as mealtime experience, daily routines, nutrition, safety, and personal choice issues (Gold, 2001; Stevens, 1996). Of significant interest to family members is the recognition

of their role as an active participant in the care of their loved-one. Person-centered nursing homes recognize the importance of involving family members in the planning and monitoring of resident goals, as family members can provide resident information, such as their life history, preferences and interests (Boise & White, 2004).

Equal Status and Family

Allport argued that both groups should expect and perceive equal status in a contact situation (Cohen, 1982; Cohen & Lotan, 1995; Riordan & Ruggiero, 1980; Robinson & Preston, 1996). He also maintained that groups should be distinguished by their expertise and brought together to combine their qualities, without losing their identity. Contact interactions should encourage each group to respect the other's contributions by identifying their ability to benefit from the other group's expertise (Dovidio, Gaertner & Validzic, 1998). According to McClendon (1974), equal status increases the likelihood for perceived similarities between groups and enhances the likelihood for improvement in their relationship.

"Contact at work," said Allport (1954), "is seldom sufficient to overcome psychological separateness. Sometimes the contact is so stratified that the sense of separateness is intensified" (p. 18). The status relationship between nursing home staff, residents and family members is arguably unequal in terms of the role and responsibilities assigned to each group. Yet, the literature indicates one of the foremost expectations of family members is for nursing staff to recognize residents as equals in human terms (Boisaubin, Chu, & Catalano, 2007). Family members consider it disrespectful for residents to be treated in a childlike manner (Rantz et al., 1999). Conversely, family members who perceive nursing staff as preserving the resident's

identity consider this effort to be an important indicator of quality care (Bowers, 1988). Similarly, family members prefer personalized or individualized care that respects resident privacy and shows sensitivity to residents' individual interests and needs (Castle, 2003).

In contrast, care that does not respect resident privacy has been cited as a major concern among family members (Boisaubin et al., 2007; Braun & Rose, 1987). Care that neglects the personal side of the resident is upsetting to family members (Stevens, 1996). Recent research by Shugarman and Brown (2006) lends support to these studies, finding that an increasing number of family members prefer nursing home facilities that offer private rooms for residents.

Common Goals and Family

According to Allport (1954), “Goodwill contact without concrete goals accomplishes nothing. Groups gain nothing from artificially induced mutual admiration” (p. 279). The result of such “futility,” Allport (1954) warned, often makes “matters worse than they were before” (p. 279). To prevent such artificial admiration in nursing home settings, one of the primary goals of person-centered approaches, according to Green (2006), is showing “empathic understanding of the resident’s concerns,” as well as, “unconditional acceptance of the resident as an individual” (p. 298).

A primary worry for many family members identified by Boisaubin and colleagues (2007) is that their “elder relatives will have difficulty adjusting to a long-term care facility, since some basic socialization and desires for independence may not be met” (p. 454). Such worries appear founded, as research documents that the fear of loss of independence is particularly strong in Western societies, which emphasize the value of

independence, autonomy and individualism (Markus & Kitayama, 1991; White & Groves, 1997). A recent study of by Quine and Morrell (2007), for example, reported that apart from the fear of losing one's physical health, the main fear of entering a long-term care facility is losing one's independence. It is, thus, of great importance to family members for nursing home organizations to respect resident choices about how and where to spend their time (Bond et al., 1996). Family members prefer resident goals that encourage resident choice and independence (Kane, Freeman, Caplan, Aroskar, & Urv-Wong, 1990; Keane & Shoesmith, 2005). This includes such things as allowing the resident to make decisions on matters concerning their activities of daily living, as well as, other personal and social matters (Boisaubin et al., 2007).

What family members indicate they do not want are care routines that interfere with goal achievement (Kane, Kane, & Ladd, 1998). Families find it disrespectful when care routines restrict resident's freedom or choice (Braun & Rose, 1987). Families also find it disrespectful when care goals do not encourage resident's ability to care for themselves, including control over their own mental and physical functions (Boisaubin et al., 2007).

Intergroup Cooperation and Family

One of the keys to a successful contact is for both sides to participate jointly in a task, the completion of which is important to both groups (Allport, 1954; Miller & Harrington, 1992). A common goal can only be attained, however, if all the members of different groups work together through intergroup cooperation, and not through competition (Cross & Rosenthal, 1999). This is especially true when cooperation between the groups will lead to successful outcomes (Blanchard, Adelman, & Cook,

1975). “As members of groups interact they are given the opportunity to work together, to communicate, to express values, to argue, to compromise, to reach agreement, and to gain information about in-group and out-group members” (Gaertner & Dovidio, 1999, p. 105). Hence, the way groups interact and their views on their contributions are important factors in determining their subsequent attitudes (Hewstone & Brown, 1986).

The literature suggests that family perception of quality care depends on collaborative care and building meaningful connections between residents and nursing home staff (Ryan & Scullion, 2000; Talerico, O’Brien, & Swafford, 2003). For example, when family members are invited to share personal knowledge of the individual resident, staff are then able to deliver care that is consistent with the resident’s past life and current needs, ultimately leading to a consistent and trusting care giving relationship (Talerico, O’Brien, & Swafford, 2003). Nursing staff who take the intuitive to check and make sure the resident is comfortable, and do little extra things for the resident without being asked is important to family members (McGilton & Boscart, 2007).

Family members also appreciate when staff recognize the unique and personal qualities of the resident (Friedemann, Montgomery, & Rice, 1999). According to Gaugler (2005b), “If a staff member takes the time to mention an activity in which the resident participated, family members may perceive this as recognition of the resident as a person, rather than as just another task object” (p. 96). Duncan and Morgan (1994) reported that families perceive the process of caring for their loved one as not just comprised of a set of tasks that can be assigned to a particular care provider; but rather, an ongoing process that must occur within a meaningful relationship. Similarly, Rantz

and Flesner (2004) found that family members expect staff to listen to the wants and needs of the resident in order to become familiar with the resident's values, preferences, and life experiences. Nursing staff who are dependable, available, and know what to do are highly valued by family members (McGilton & Boscart, 2007).

The literature, however, also finds family member dissatisfaction in the area of cooperative care. A study by Grant, Reimer, and Bannatyne (1996) found families voiced displeasure when their residents did not receive adequate attention, personal interaction, and stimulation. Family members are highly concerned when staff do not care for residents in a timely manner, as evidenced by family member complaints of repeated call buttons that often go unanswered for hours at a time (Wetle et al., 2005). Nursing staff who ignore, neglect, or do not take time to listen to residents' requests for help is highly troubling to family members (McGilton & Boscart, 2007).

Other Factors Important to Family Perception of Care

An examination of geographic distance and nursing home contact requires holding constant basic demographic factors that may affect family perception of nursing home care. This study controls for two family demographic variables - family member gender and family member relationship to the resident.

The long-term care literature suggests that the bulk of familial care giving, both before and after transition to long-term care, typically befalls female family members, most often daughters and/or daughter-in-laws (Blau, 1998; Shields & Sommers, 1988; Teachman, Tedrow, & Crowder, 2000). According to Johnson and Lo Sasso (2006) elder care responsibilities will continue to create special burdens for women who have

always been much more likely than men to serve as the primary caregivers for their parents. Many will likely be forced to cut back on their paid work, threatening their own financial security. Such discussions concerning the so-called “sandwich generation” -- women caught between jobs, children, and older parents--have become common place in the literature (Brody, Brock, & Williams, 1987; Johnson, Toohey, & Wiener, 2007).

Thus, recognizing that adult daughters are most often responsible for the monitoring resident care administered by nursing home staff, it is reasonable to assume that they monitor the delivery of this care with a highly critical eye. As such, it is also the intent of this study to examine whether interpersonal contact responsibilities generally assumed by nuclear female family members holds constant when considering family geographic distance.

Theoretical Model, Research Questions, and Hypotheses

Theoretical Model

To summarize, Allport’s (1954) theory posits that when all four contact conditions—institutional support, equal status, common goals, and intergroup cooperation--are present in an intergroup situation, a reduction in anxiety between groups is likely to occur as they interact with each other. While Allport’s four conditions of contact have been empirically demonstrated in a variety of intergroup contact situations, no known study has applied Allport’s (1954) intergroup contact theory to the relationship between residents’ family members and nursing home institutions.

The application of Allport’s theory to the family member-nursing home relationship is illustrated in Figure 1. A family member characteristic, such as geographic distance from the nursing home, affects his or her frequency of contact with

the nursing home. Frequency of contact, in turn, affects family member perception of the care his or her loved one receives in the nursing home. However, as the figure shows and Allport's theory suggests, the effect of contact on perception of care depends on the extent to which each of four contact conditions—institutional support, equal status, common goals, and intergroup cooperation—are perceived by the family member to be present in the nursing home.

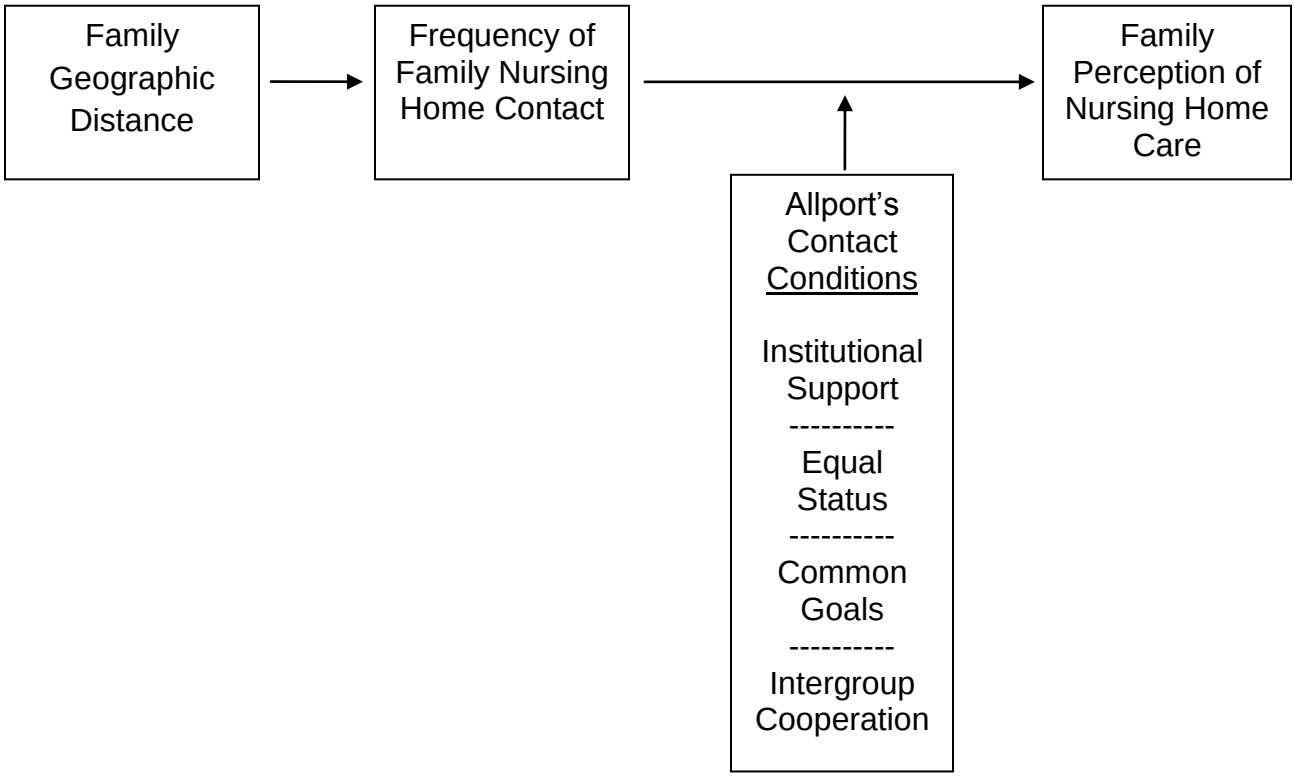

Figure 1. Theoretical model: Application of Allport's intergroup contact theory to the family member-nursing home relationship.

Research Questions

Using Allport's theory, this study asks three questions. The first question examines the effects of geographic distance on frequency of contact with the nursing home. Specifically,

1. Does family member geographic distance affect frequency of nursing home contact? If so, does frequency of contact change when controlling for type of family member relationship and gender of family member?

The last two questions examine the effects of family frequency of contact with the nursing home on family member perception of his or her loved one's care in the nursing home. Specifically,

2. Is family member perception of care affected by frequency of contact with the nursing home?
3. Does the effect of frequency of nursing home contact on family perception of care depend on family perception of the degree to which the four contact conditions--institutional support, equal status, common goals and intergroup cooperation—are present?

Hypotheses

Based on Allport's theory and the stated research questions, the relationship between geographic distance, nursing home contact, and family perception of care will be examined by testing the following three hypotheses:

H1: Family member geographic distance negatively affects frequency of nursing home contact, controlling for type of family member relationship and gender of family member.

H2: Family member perception of care is affected by frequency of contact with the nursing home.

H3: The direction and strength of the effect of frequency of nursing home contact on family member perception of care depends on the degree to which the four contact conditions—institutional support, equal status, common goals and intergroup cooperation—are perceived to be present. That is, the effects of contact on family member perception of care will be positive and strongest at higher perceived levels of each of the four contact conditions.

CHAPTER III

METHODOLOGY

Introduction

The methodology utilized in this research study includes a discussion of the following: research design, data collection overview, characteristics of the sample, measurement of variables, and data analysis.

Research Design

A secondary data analysis research design was selected in order to examine the interacting relationships between contact, Allport's intergroup contact theory and family perception of nursing home care. Items were selected from a survey instrument that corresponded conceptually and operationally with Allport's four contact conditions and the dependent variable in the study, family perception of care. Factor and reliability analysis was used to assess the ability of selected items to adequately measure the conceptual constructs of institutional support, equal status, common goals, intergroup cooperation, and family perception of care. Regression analysis was used to test the study's three proposed hypotheses. SPSS 15.0 was used for generating descriptive statistics and conducting the reliability and factor analyses. Stata 10 xtreg was used to estimate the regression models, as it simultaneously controls for the unique effects of each nursing home and adjusts the standard errors for any clustering effects of family members within nursing home.

Data Collection Overview

The data collection instrument and data for this analysis are extracted from a larger study on employee empowerment in nursing homes; results from the larger study were published by Yeatts and Cready (2007). This larger study was reviewed and approved by the University of North Texas Institutional Review Board. The family questionnaire from the study was originally designed to measure concepts of direct care to residents such as: spends time on resident needs, checks on resident comfort, responds to resident complaints, and listens, talks, or cares for the resident. Additional concepts from the family questionnaire included satisfaction with care provided, satisfaction with staff friendliness, and perception of residents choice of bed time, meal time, and shower time (Yeatts & Cready, 2007).

The Family Member Survey used a 5-point Likert-type scale ranging from 1 for *yes, always* to 5 for *no, never*. In constructing the Family Member Survey, several questions were taken from a 17-item satisfaction scale presented by Kruzich and colleagues (Kruzich, Clinton, & Kelber, 1992). Additional questions came from a nursing home satisfaction survey instrument developed jointly by the Scripps Gerontology Center and the Margaret Blenkner Research Center (Staker, 2001) and from an instrument presented by Uman (Cohen-Mansfield, Ejaz, & Werner, 2000). Other questions were drawn from research instruments designed by Davis, Sebastian and Tschetter (1997) and Kleinsorge and Koenig (1991).

To survey family members, nursing home management provided a mailing list that consisted of one family member (or significant other) for each of 995 residents in ten nursing home facilities in the Dallas-Ft. Worth area. Eighteen of the 995 residents

did not have a family member (or significant other), thereby reducing the possible number of survey responses to 977. A total of 977 individuals were mailed a questionnaire form with an addressed, stamped envelope to be mailed back to the researchers. To account for and keep track of all family members (or significant others), questionnaires were given an identification code. The identification code list was kept in a secure location at all times and was never revealed to anyone outside of the research team. All questionnaires were completed voluntarily, and family members (or significant others) were not rewarded for completing the questionnaire. Any family member (or significant other) who did not want to complete the questionnaire was free to do so without reprisal.

Characteristics of the Sample

Prior to any analysis, data were entered in a database using SPSS version 15.0 statistical software. Once all data had been entered, evaluated by a senior member on the research team, and double-checked by another member on the team, basic cleaning techniques were utilized. Variables were examined for issues of irregularity, and all missing cells received a similar code to protect against improper measurement. Any cases which had outstanding values were reexamined.

The number of family members (or significant others) who returned the survey totaled 586, resulting in an overall response rate for the Family Member Survey of 60%. However, as family members are the primary unit of analysis in this study, the 22 respondents who indicated a non-family relationship to the resident were excluded from the sample. Therefore, after excluding 7 cases that indicated a relationship of *friend*, 5 cases that indicated *power of attorney*, 7 cases that stated *other*, and 3 cases with

missing information, the restricted sample size included a total of 564 cases.

Missing Cases

After listwise deletion of missing values, the total number of cases included in the final dataset is 275. The majority of missing cases is due to the variable - How far must you travel to get to the nursing home - where it appears most respondents either provided no response, or responded using estimates of time (hours or minutes) rather than number of miles. In order to avoid potential error in converting time to miles, it was determined such cases be eliminated.

All ten participating nursing homes are represented in the sample, ranging from 12 (4.4%) family members of residents at Facility 4 to 43 (15.6%) family members of residents at Facility 7 (Table 1). The daughters of nursing home residents comprise the largest respondent category making up 44% (121) of the total number of family member respondents (Table 2).

Table 1

Nursing Home Facility of Family Member Respondents (N = 275)

Facility	Frequency (*n*)	Valid Percent (%)
Facility 1	32	11.6
Facility 2	36	13.1
Facility 3	29	10.5
Facility 4	12	4.4
Facility 5	33	12.0
Facility 6	20	7.3
Facility 7	43	15.6
Facility 8	36	13.1
Facility 9	16	5.8
Facility 10	18	6.5
Total	275	100.0

Table 2

Type of Family Member Relationship to Nursing Home Resident (N = 275)

Type	Frequency (*n*)	Valid Percent (%)
Wife	12	4.4
Husband	13	4.7
Daughter	121	44.0
Son	78	28.4
Stepdaughter	1	.4
Mother	1	.4
Aunt	1	.4
Granddaughter in law	1	.4
Sister	7	2.5
Brother	10	3.6
Niece	9	3.3
Daughter in law	8	2.9
Stepson	2	.7
Granddaughter	3	1.1
Grandson	1	.4
Nephew	5	1.8
Brother in law	2	.7
Total	275	100.0

Measurement of Variables

Items were selected from the Family Member Survey that appeared to exhibit face validity for measuring the concepts included in this study. The independent variables, geographic distance and frequency of contact, were measured by two survey items. Four indexes were constructed to represent the theoretical constructs in Allport's four conditions of contact. A fifth index was constructed to measure the dependent variable, family perception of care. Frequency of contact also serves as a dependent variable in the first regression analysis. Two dummy variables were created to control for family member gender and type of family member relationship to the resident. Descriptive statistics for all indexed items used in the study is found in Appendix A.

Independent Variables

This study adopts the definition of contact used by Pettigrew (1998) which states, "Actual face-to-face interaction between members of clearly defined groups." Specific to this study, face-to-face interaction means an intergroup contact situation between residents, family members, nursing staff, nursing home administrators, or some combination thereof.

Frequency of nursing home contact is measured by one item from the Family Member Survey - How often do you visit her/him? Based on the frequency distribution provided in Table 3, 71.6% of the family members included in this sample visit the nursing home at least once a week.

Table 3

Frequency of Family Nursing Home Contact (N = 275)

Range		Frequency (*n*)	Percent (%)	Cumulative Percent (%)
1	Almost never	4	1.5	1.5
2	Less than once a month	15	5.5	6.9
3	Once a month	15	5.5	12.4
4	A few times a month	44	16.0	28.4
5	Once a week	65	23.6	52.0
6	More than once a week	93	33.8	85.8
7	Every day	39	14.2	100.0
	Total	275	100.0	

Note. *M* = 5.13 and *SD* = 1.413

The variable geographic distance is measured by the item - How far must you travel to get to the nursing home? This study adopts the definition provided by the Bureau of Transportation which defines “long-distance trips” as, “Trips of 50 miles or more from home to the farthest destination traveled and include the return component as well as any overnight stops and stops to change transportation mode” (Research and Innovative Technology Administration, 2009; Travel Industry Association of America, 2009). Many empirical studies involving geographic distance have used this measure, as 50 miles roughly corresponds to an hour of transportation time (Silverstein, 1995). At this distance, frequent visits are possible without requiring an overnight stay; thus, 50 miles represents a threshold beyond which frequent contact is expected to become prohibitively costly (Frankel & DeWit, 1989).

A dummy variable coded 1 represents family members who live 50 or more miles away from the nursing home, and 0 for family members who live less than 50 miles away from the nursing home. According to the frequency distribution for the recoded

geographic distance dummy variable, only 39 or about 14% of family members reported living more than 50 miles away from the nursing home, indicating that 236, or almost 86% of family members included in this sample, live less than 50 miles away from the nursing home.

Dependent Variables

Frequency of contact also serves as the dependent variable in the first regression analysis and is measured by the one survey item described above. The dependent variable in the second analysis is family perception of care.

This study defines family perception of care as: Family expectation that the nursing home effectively and efficiently delivers the highest quality goods and services in the provision of resident care. Four items from the Family Member Survey were selected to measure family perception of care. The items include:

1. Overall, are you satisfied with her/his freedom to make her/his own choices?
2. Overall, are you satisfied with the care he/she receives from the employees?
3. Overall, are you satisfied with the friendliness of the employees?
4. Would you recommend this nursing home to a family member or friend?

Since the four items were originally designed to measure family satisfaction of care, they are considered a comparable measure of family perception of care. The original response categories for the four items 1 = *yes, always*; 2 = *yes, sometimes*; 3 = *unsure, cannot decide;* 4 = *no, not usually*; and, 5 = *no, never,* were reverse coded for this study, so that higher values indicated more positive perceptions of care by family members.

According to Pett, Lackey, and Sullivan (2003), Cronbach's coefficient alpha (Cronbach, 1951, 1984) is the preferred approach to the estimate of internal consistency for items that are scored on a continuum, as the Likert ordinal measurement scale used in this study. This measure of reliability represents the proportion of total variance in a given scale that can be attributed to a common source (De Vellis, 1991). Based on standardized items, the four-item family perception of care index has a strong reliability estimate of .842, indicating that 84.2% of the variance of the total scores on this subscale can be attributed to reliable, or systematic, variance. For the family perception of care index, responses to the four items were added together and the resulting sum was divided by the number of items in the index. This calculation allowed the index score to remain in the original range of the responses to the individual items.

Moderating Variable: Institutional Support

Selecting multiple items to measure institutional support posed an unexpected difficulty. Only one item was found that clearly reflected perceived institutional support - Does the facility provide a home-like environment? Though measuring a theoretical concept with a single item is generally not ideal, the item's direct reference to *facility*, coupled with the value of a *home-like environment* for nursing home residents and family members, lends theoretical support for including this item as the measure for assessing family perception of institutional support.

Moderating Variables: Equal Status, Common Goals, and Intergroup Cooperation

To create indexed measurement scales for the remaining three moderating variables, or contact conditions, a total of 15 items from the Family Member Survey were selected that appeared to represent the conceptual dimensions of equal status, common goals, and intergroup cooperation. A factor analysis was conducted to determine if the conceptual assignment of items, presented in Table 4, loaded comparably into a three-factor solution.

Table 4

Conceptual Assignment of Selected Items From Family Member Survey

Index	Survey Item
Equal Status (2 Items)	Is she/he able to have privacy whenever she/he wants?
	Do the employees knock on her/his door before entering her/his room?
Common Goals (5 Items)	Can she/he decide when to go to bed?
	Can she/he decide when to get up in the morning?
	Can she/he choose the clothes that she/he wears?
	Can she/he decide when to take a bath or shower?
	Can she/he eat a meal whenever she/her wants to?
Intergroup Cooperation (8 Items)	Do the people who work at the nursing home spend time talking with her/him?
	Do the people who work at the nursing home listen to what she/he says?
	Do the people who work at the nursing home ever do anything to show they care about her/him?
	Do the employees spend enough time helping her/him with her/him needs?
	Do the people who work at the nursing home check on her/him to see if she/he is comfortable?
	When she/he needs help, does she/he have to ask for it more than once?
	When she/he has a complaint, is something done about it?
	When you have a complaint, is something done about it?

To determine the factorability of the items, a 15-item Pearson's correlation matrix was generated. Three recognized criteria, according to Pett, Lackey, & Sullivan (2003), for assessing factorability was performed. First, an examination of the correlation matrix indicated that 12 of the 15 items correlated ≥ I.30I with at least 3 other items in the matrix. Second, all items correlated < .80 indicating no evidence of multicollinearity. The highest generated correlation was .675 for the items "Employees talk with resident" and "Employees listen to what resident says." Third, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were used to evaluate the strength of the linear association among the 15 items. Bartlett's test of sphericity was significant (x^2 = 1408.769, *df* = 105 *p* = .000) indicating the correlation matrix was not an identity matrix. The KMO statistic (.835), an index that compares the magnitude of the observed correlations with the magnitude of the partial correlation coefficients, rated "meritorious" according to Kaiser's (1974) criteria, suggesting the sample size of this study is sufficient relative to the number of items in the scales (Pett, Lackey, & Sullivan, 2003, p. 78-81). The 15-item correlation matrix can be found in Appendix B.

Principle component analysis (PCA) (Hendrickson & White, 1964) using a Promax rotation (*k* = 4) was selected as the factor extraction method because of its ability to rotate solutions while allowing for correlations among the factors (Comrey & Lee, 1992; Tabachnick & Fidell, 2001). According to Pett, Lackey, & Sullivan (2003), the goal of the Promax rotation method is "to obtain a solution that provides the best structure using the lowest possible power loadings and therefore with the lowest correlation among the factors" (p. 156).

To examine the total variance explained by the 15 items, the initial eigenvalues was set at ≥ 1.0 which generated a four-factor solution explaining 61.556% of the total variance. An examination of the structure matrix and pattern matrix indicated that the item - Eats a meal whenever wants - loaded conceptually different than expected and was the only item to load singularly on factor four. Due to the ambiguous nature of this item, it was eliminated from the group and a second PCA was generated on the remaining 14 items.

Again setting the initial eigenvalues at ≥ 1.0, a three-factor solution was generated and confirmed by the scree plot represented in Figure 2.

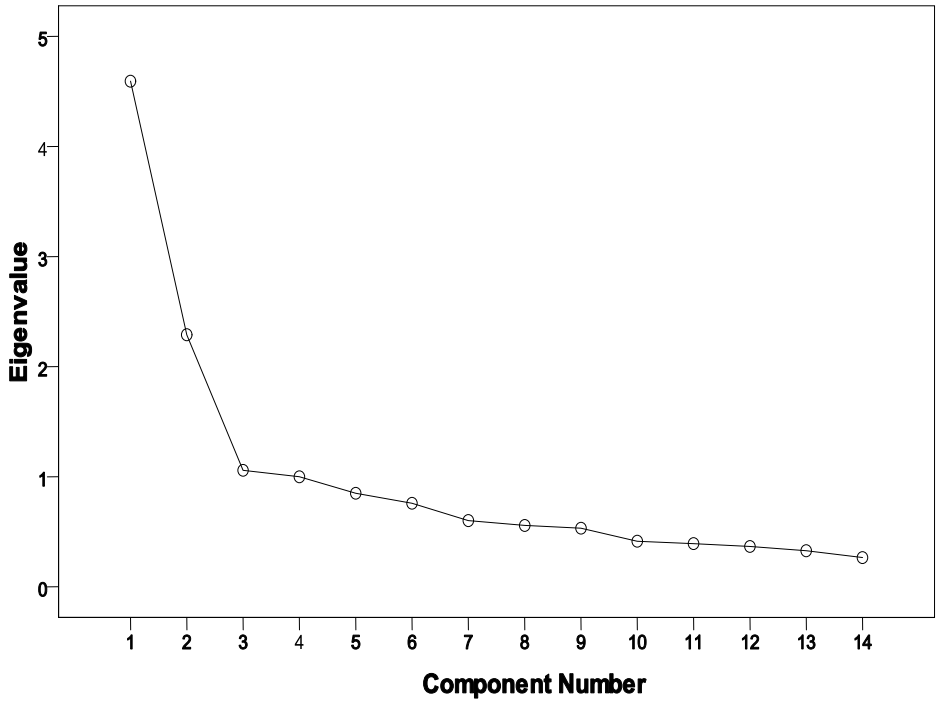

Figure 2. Scree plot: Three factor solution for Equal Status, Common Goals, and Intergroup Cooperation.

A review of the initial eigenvalues indicated that factor one explained 32.807% of the total variance, factor two explained 16.352%, and all together, the extracted 3-factor solution explained 56.715% of the total variance. Bartlett's test of sphericity was again significant (x^2 = 1350.186, *df* = 91, *p* = .000), and the KMO statistic (.841) rated a second "meritorious" according to Kaiser's (1974) criteria.

Both the structure matrix, representing the correlations between the variables and the factors, and the pattern matrix, representing the linear combination of the variables, support the conceptual placement of the 14 items, confirming the viability of each group of items to conceptually represent Allport's theoretical constructs of equal status, common goals, and intergroup cooperation. Table 5 presents the results of the rotated factor structure matrix. Table 6 presents the results of the rotated factor pattern matrix.

Table 5

Factor Loadings From the Rotated Factor Structure Matrix for Equal Status, Common Goals, and Intergroup Cooperation Indexes

	Factors		
Family Survey Items	1	2	3
Equal Status			
Has privacy whenever wants			.815
Employees knock on door before entering room			.737
Common Goals			
Decides when to go to bed		.844	
Decides when to get up		.740	
Chooses own clothes		.782	
Decides when to take bath/shower		.732	
Intergroup Cooperation			
Employees talk with resident	.725		
Employees listen to what resident says	.787		
Employees ever do anything to show they care about resident	.747		
Employees check to see if comfortable	.674		.469
RR Has to ask employees for help more than once	.481		
Employees spend enough time helping with needs	.790		
Something is done about resident's complaints	.737		
Something is done about respondent's complaints	.687		

Loadings < .40 suppressed.
Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Table 6

Factor Loadings From the Rotated Factor Pattern Matrix for Equal Status, Common Goals, and Intergroup Cooperation Indexes

	Factors		
Family Survey Items	1	2	3
Equal Status			
Has privacy whenever wants			.794
Employees knock on door before entering room			.733
Common Goals			
Decides when to go to bed		.839	
Decides when to get up		.728	
Chooses own clothes		.773	
Decides when to take bath/shower		.746	
Intergroup Cooperation			
Employees talk with resident	.702		
Employees listen to what resident says	.735		
Employees ever do anything to show they care about resident	.727		
Employees check to see if comfortable	.585		
RR Has to ask employees for help more than once	.446		
Employees spend enough time helping with needs	.774		
Something is done about resident's complaints	.770		
Something is done about respondent's complaints	.781		

Loadings < .40 suppressed.
Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

To test the internal reliability of each extracted factor, Cronbach's Alpha was again used. The results of this analysis produced internal consistency reliability coefficients (based on standardized items) of .493 for equal status; .784 for common goals; and, .851 for intergroup cooperation. While the alphas for the common goals and intergroup cooperation indexes are over the generally accepted threshold of .700, the alpha level for the two-item equal status index is recognizably lower, as the size of coefficient alpha is influenced not only by the size of the correlation among items, but also the number of items in the set (Pedhazur & Schmelkin, 1991). However, as the two-item index represents the best conceptual fit for equal status, it was determined to be an acceptable measure. The three scaled indexes for equal status, common goals, and intergroup cooperation were calculated in the same manner as the dependent variable described above.

Table 7 presents the descriptive statistics and Pearson correlations for the study's four constructed moderating variables and the dependent variable, family perception of care. The correlations between the constructed indexes range from .090 (for the two indexes common goals and institutional support) to .732 (for intergroup cooperation and family perception of care). All correlations are positive, indicating a direct relationship between the constructed indexes. All correlations in Table 7, except for common goals and institutional support, are statistically significant at the $p < .01$ level.

Table 7

Descriptive Statistics and Pearson Correlations for Constructed Moderating and Dependent Variable Indexes

Index	Number of Index Items	*M*	*SD*	Institutional Support Item	Equal Status Index	Common Goals Index	Intergroup Cooperation Index	Family Perception of Care Index
Institutional Support Item	1	3.987	1.147	1	.364**	.090	.560**	.486**
Equal Status Index	2	3.830	.987	.364**	1	.219**	.425**	.339**
Common Goals Index	4	3.520	.989	.090	.219**	1	.179**	.170**
Intergroup Cooperation Index	8	3.966	.641	.560**	.425**	.179**	1	.732**
Family Perception of Care Index	4	4.485	.615	.486**	.339**	.170**	.732**	1

Note. Range is 1 = no, never to 5 = yes, always.

**$p < 0.01$ level (one-tailed).

Control Variables

This analysis also examines whether contact responsibilities generally assumed by nuclear female family members hold constant when considering the effect of geographic distance on frequency of nursing home contact. The two control variables, type of family member relationship to the resident and family member gender, are measured by the same item - What is your relationship to her/him? To identify male and female family members, a dummy variable coded 1 was created to represent female family members and 0 for male family members.

A second dummy variable was created to distinguish between close family member relationships and family relationships typically viewed as more distant. A review of the family studies literature indicated that the term nuclear family, consisting of

a husband, wife and children, is generally considered the most intimate type of family relationship (Parkin, 1997). Thus, to differentiate the type of family member relationship, nuclear family members (wife, husband, daughter, son) is coded 1, and extended family members (stepdaughter, mother, aunt, granddaughter-in- law, sister, brother, niece, daughter-in-law, stepson, granddaughter, grandson, nephew, brother-in-law) is coded 0. The frequency distributions for the two control variables are provided in Table 8. Nuclear family members (wife, husband, daughter, son) comprise the bulk of the sample totaling 224 (81.5%). Female family members represent the majority of the sample with 164 (60%) respondents.

Table 8

Frequency Distributions for Control Variables

Control Variable		Frequency (*n*)	Percent (%)
Type of Family Member Relationship			
Extended Family Member		51	18.5
Nuclear Family Member		224	81.5
	Total	275	100.0
Family Member Gender			
Male		111	40.4
Female		164	59.6
	Total	275	100.0

Data Analysis

To test the three posited hypotheses, two sets of regression analyses were conducted. The first set examined the first hypothesis:

> H1: Family member geographic distance negatively affects frequency of nursing home contact, controlling for type of family member relationship and gender of family member.

Two regression models were estimated. The first examined the effect of geographic distance on frequency of nursing home contact. The second examined this effect, adjusting for the effects of type of family member relationship and gender of family member.

The second set of regression analyses examined the last two hypotheses:

> H2: Family member perception of care is affected by frequency of contact with the nursing home.
>
> H3: The direction and strength of the effect of frequency of nursing home contact on family member perception of care depends on the degree to which the four contact conditions—institutional support, equal status, common goals and intergroup cooperation—are perceived to be present. That is, the effects of contact on perception of care will be positive and strongest at higher perceived levels of each of the four contact conditions.

Specifically, four regression models were estimated. The first model examined the effect of contact on family perception of care. The second model examined the main effects of contact and the four moderating variables, or four contact conditions, on family perception of care. The third model added interaction terms. Interaction terms

were products of the contact variable with each of the contact condition variables. Finally, the fourth model omitted statistically insignificant interaction terms.

An *F*-test comparing the second model (the main effects model) with the third model (the full interaction effects model) was used to determine if the effects of contact on family perception of care depended on the levels of the four contact conditions, as a set. A significant *F*-test ($p < .05$) indicated that at least one of the contact conditions moderated the effect of contact on family perception of care. To further examine which of the contact conditions were acting as moderators, *t*-tests associated with each of the four contact condition interaction terms were examined. A fourth regression re-estimated the model omitting statistically insignificant interaction terms ($p > .05$, two-tailed tests). Results of the fourth model were used to interpret the statistically significant interaction effects.

All of the regression models were estimated using Stata 10 xtreg. Using the fixed effects (fe) and variance-covariance estimator (robust) options, this procedure simultaneously controls for the unique effects of each nursing home and adjusts the standard errors for any clustering effects of family members within each nursing home. There were statistically significant or nearly statistically significant nursing home effects in both the contact and family perception of care models (i.e., $F(9, 262) = 2.18$, $p < .05$ for the contact model including geographic distance and the control variables; and $F(9, 260) = 1.69$, $p < .10$ for the family perception of care model including contact and the four contact conditions). In addition, while not extremely large, the conditional intracluster correlation, or rho, was .080 for the contact model and .056 for the family perception of care model. This clustering violates the independence of observations

assumption of ordinary least squares regression (Allison, 1999). Though the regression results from Stata 10 xtreg did not differ much substantively from those generated in additional analyses using ordinary least squares regression in SPSS (not shown), as a conservative measure, the adjusted results from Stata 10 xtreg are presented in Chapter IV.

CHAPTER IV

ANALYSIS OF FINDINGS

Effects of Geographic Distance and Control Variables on Contact

Hypothesis 1 posited that family member geographic distance negatively affects frequency of nursing home contact, controlling for type of family member relationship to the resident and gender of family member. To test this hypothesis, two regression models were estimated. The first regression (Model 1) estimated the effect of geographic distance on frequency of nursing home contact (Table 9). Frequency of contact was entered as the dependent variable and geographic distance was entered as the independent variable.

The second regression (Model 2) estimated this effect, adjusting for the effects of type of family member relationship and gender of the family member. Dummy variables representing the two family member control variables, nuclear family member and female family member, were added to model.

Table 9

Effects of Geographic Distance and Control Variables on Frequency of Contact (N = 275)

	Model 1		Model 2	
Variable	*B*	Robust *SE*	*B*	Robust *SE*
Geographic distance	-2.002***	0.239	-2.000***	0.237
Nuclear family member			0.236	0.290
Female family member			-0.003	0.157
Constant	5.415	0.034	5.225	0.230
R^2	0.306		0.305	
Model *F*	70.40***		39.82***	
Model Degrees of Freedom	1, 9		3, 9	

Note. *B* = Unstandardized regression coefficient.
Note. R^2 = Adjusted R^2.
Note. Models were estimated using Stata 10 xtreg, which simultaneously controls for the unique effects of each nursing home (using the fixed effects (fe) option), and adjusts the standard error (Robust *SE*) for clustering effects of family members within each nursing home (using the variance-covariance estimator (robust) option).
*p < .05; **p < .01; ***p < .001 (two-tailed test).

The results in Table 9, Model 1 indicate that family geographic distance significantly reduced frequency of nursing home contact (p < 0.001). This inverse relationship suggests that as family geographic distance increases, frequency of nursing home contact decreases. An examination of the regression coefficient (*B* = -2.002) shows that, on average, family members who live 50 miles or more away from the nursing home scored about two levels lower on frequency of contact than family members who live less than 50 miles away from the nursing home. Levels for frequency of contact range from *almost never* to *every day*, with seven total levels. About 31% (R^2 = .306) of the variation in family member's frequency of contact is explained by their geographic distance from the nursing home facility (facility estimates not shown). In Model 2, the regression coefficient for geographic distance (*B* = -2.000) remained statistically significant (p < 0.001), even when controlling for type of family member

relationship and gender of family member.

Though neither family member control variable was statistically significant, the directions of their effects are of interest. For example, results for type of family relationship are in the expected positive direction, which is consistent with research indicating that nuclear family members (wife, husband, son, daughter) tend to have more frequent contact with the nursing home than extended family members. That is, all else being equal, nuclear family members tended to score .235 points higher on frequency of contact than extended family members.

The negative relationship, however, between frequency of contact and female family member is surprising. According to Model 2, all else being equal, female family members tended to score .003 points lower on frequency of contact than male family members. This finding suggests that male family members tend to have slightly more contact with the nursing home than female family members. Even though this result was statistically insignificant, a few explanations for this unexpected inverse gender relationship should be considered. First, it seems plausible that employed female family members may find it difficult to take time from work on a regular basis (i.e. once a week or month), especially if they must travel a significant distance to the nursing home. Additionally, arranging for childcare may also prove restrictive for engaging in more frequent nursing home contact, especially if long-distance travel is required.

Taken as a whole, the regression results presented in Table 9 indicate that family geographic distance is a strong negative predictor of frequency of nursing home contact. This would suggest that the effect of geographic distance, even at seemingly short distances of 50 miles or so, may severely limit nursing home contact for both

nuclear and extended family members, and male and female family members, many of whom find themselves caught in the middle of the sandwich generation. Therefore, Hypothesis 1 is supported.

Effects of Contact and Four Contact Conditions on Family Perception of Care

Hypothesis 2 posited that family member perception of care is affected by frequency of contact with the nursing home. Hypothesis 3 posited that the direction and strength of the effect of frequency of nursing home contact on family member perception of care depends on the degree to which the four contact conditions—institutional support, equal status, common goals and intergroup cooperation—are perceived to be present. That is, the effects of contact on family perception of care will be positive and strongest at higher perceived levels of each of the four contact conditions. To test the two hypotheses, four regression models were estimated.

The first regression (Model 1) estimated the effect of frequency of contact on family perception of care (Table 10). Family perception of care was entered as the dependent variable and frequency of contact was entered as the independent variable. The second regression (Model 2) estimated the main effects of frequency of contact and the four moderator variables, or contact conditions, on family perception of care. In order to test Allport's overall theoretical model, the four moderator variables were entered as a set, as testing the four conditions of contact separately departs from an overall test of intergroup contact theory as a complete model. To test for moderating effects, the third regression (Model 3) added interaction terms. Interaction terms were created by multiplying the value of frequency of contact by the value of each of the four contact conditions, or moderating variables. The results of the third regression indicated

that at least one of the contact conditions moderated the effect of contact on family perception of care. As such, a fourth regression (Model 4) re-estimated Model 3 omitting statistically insignificant interaction terms ($p > .05$, two-tailed tests).

In Table 10, Model 1 indicates that frequency of contact was an insignificant predictor of family perception of care ($F(1, 9) = 0.00$, $p > .05$), accounting for only about 10% of the total variance ($R^2 = .096$) in family perception of care. This finding suggests that family perception of care does not depend on the frequency of contact with the nursing home. Thus, Hypothesis 2, which posited that family member perception of care is affected by frequency of contact with the nursing home, is not supported.

As a whole, Model 2, which examined only the main effects of contact and the four contact conditions on family perception of care, was statistically significant ($F(5, 9) = 61.34$, $p < .001$). However, when controlling for the effects of the four contact conditions, frequency of contact was still an insignificant predictor of family perception of care ($p > .05$). The addition of the four moderating variables increased the total explained variance in family perception of care to 55% ($R^2 = .549$).

Two of the four contact conditions, institutional support ($p < .05$) and intergroup cooperation ($p < .001$), had statistically significant positive effects on family perception of care. That is, all else being equal, family members who tended to perceive that their loved one received a higher level of care in the nursing home, viewed the nursing home as having higher levels of institutional support and higher levels of intergroup cooperation.

Table 10

Effects of Frequency of Contact and Four Contact Conditions on Family Perception of Care (N = 275)

	Model 1		Model 2		Model 3		Model 4	
Variable	*B*	Robust *SE*	*B*	Robust *SE*	*B*	Robust *SE*	*B*	Robust *SE*
Frequency of contact (FOC)	0.000	0.029	- 0.011	0.026	0.139	0.178	- 0.134**	0.041
Institutional support			0.058*	0.023	0.162	0.117	0.055*	0.022
Equal status			- 0.006	0.033	- 0.079	0.112	- 0.009	0.033
Common goals			0.007	0.018	- 0.210**	0.051	- 0.178**	0.050
Intergroup cooperation			0.645***	0.070	0.984**	0.260	0.640***	0.069
FOC x Institutional support					- 0.021	0.022		
FOC x Equal status					0.014	0.024		
FOC x Common goals					0.045**	0.011	0.036**	0.011
FOC x Intergroup cooperation					- 0.067	0.042		
Constant	4.487	0.147	1.750	0.330	0.957	1.094	2.411	0.406
R^2	0.096		0.549		0.562		0.554	
Model *F*	0.990		61.34***		8436.55***		57.89***	
Model Degrees of Freedom	1, 9		5, 9		9, 9		6, 9	

Note. *B* = Unstandardized regression coefficient.

Note. R^2 = Adjusted R^2.

Note. Models were estimated using Stata 10 xtreg, which simultaneously controls for the unique effects of each nursing home (using the fixed effects (fe) option), and adjusts the standard error (Robust *SE*) for clustering effects of family members within each nursing home (using the variance-covariance estimator (robust) option).

*p < .05; **p < .01; ***p < .001 (two-tailed test).

A comparison of the main effects model (Model 2) just described, with the interaction effects model (Model 3) provides a test of Hypothesis 3. Some support for this hypothesis was found. The four interaction terms, entered as a set, were statistically significant ($F(4,9) = 8.91$; $p < 0.05$), indicating that the effect of contact on family perception of care depended on the level of at least one of the four contact conditions. An examination of the *p*-values associated with the *t*-tests for the individual interaction terms revealed that the effect of contact of family perception of care depended specifically on only one of the four contact conditions, the level of common goals ($p < .05$). Though the interaction set increased the total explained variance in family perception of care by only 1% ($R^2 = .562$), Wei, Ku, Russell, Liao, & Mallinckrodt (2008) recently noted that experts have stated it is difficult to detect interaction effects in general and the contribution of interaction effects over and above the main effects is typically small, accounting for approximately 1% to 3% of total variance (Champoux & Peters, 1987; Chaplin, 1991; Frazier, Tix, & Barron, 2004; McClelland & Judd, 1993; Pedhazur & Schmelkin, 1991; Wampold & Freund, 1987).

For parsimony's sake, the model was re-estimated including the statistically significant interaction term for contact and common goals, and omitting the three statistically insignificant interaction terms for contact and the three other contact conditions. These results are presented in Table 10, Model 4, and are used to interpret, more specifically, the moderating effect of the common goals variable.

As the results indicate, all else being equal, at the lowest level of common goals (1 = *no, never*), a one-level increase in contact reduces family perception of care by .098 points (-.098 = -.134 + (.036 x 1)). On the other hand, at the highest level of

common goals (5 = *yes, always*), a one-level increase in contact improves family perception of care by .046 points (.046 = -.134 + (.036 x 5)). In short, as the level of common goals increases, the effect of contact on family perception of care becomes more positive. That is, contact with family members of residents in a nursing home where staff convey, to a higher degree, support for resident goals, independence and choice, will tend to result in more positive perceptions of their loved one's care. However, contact in a nursing home where staff fail to convey support for encouraging resident independence and choice will tend to result in more negative family perceptions of their loved one's care.

Additionally, as in Model 2, Model 4 indicated that institutional support ($p < .05$) and intergroup cooperation ($p < .001$) were positively related to family perception of care. That is, holding frequency of contact constant, as levels of institutional support and intergroup cooperation increase, family perception of care improves. The final model explains approximately 55.4% of the total variance in family perception of care.

In sum, Hypothesis 3 is partially supported by a positive interaction between frequency of nursing home contact and common goals on family perception of nursing home care; as well as, significant positive main (direct) effects of institutional support and intergroup cooperation on family perception of nursing home care.

CHAPTER V

SUMMARY AND CONCLUSION

Introduction

The purpose of this research study has been to examine the relationship between a family member's geographic distance from the nursing home and the family member's perception of that nursing home's quality of care. The study proposes that (1) geographic distance affects the frequency of nursing home contact between the family member and his/her resident and that, (2) this frequency of nursing home contact interacts with four other factors to affect the family member's perception of nursing home care. Chapter V provides a review of the study, an assessment of findings in relation to the hypotheses, study limitations, theoretical contributions of findings, policy and practice implications, suggestions for future research, and concluding remarks.

Review of the Study

The study included a sample of 275 family members of nursing home residents in 10 nursing home facilities in the Dallas-Ft. Worth metropolitan area. The Family Member Survey and data for this analysis were extracted from a larger study on employee empowerment in nursing homes; results from the larger study were published by Yeatts and Cready (2007). Items were selected from the Family Member Survey that corresponded conceptually and operationally with Allport's four contact conditions and the dependent variable in the study, family perception of care. Factor and reliability analyses were used to assess the ability of selected items to adequately measure the conceptual constructs of institutional support, equal status, common goals, intergroup

cooperation, and family perception of care. Regression analysis was used to test the study's three proposed hypotheses. SPSS 15.0 was used for generating descriptive statistics and conducting the reliability and factor analyses. Stata 10 xtreg was used to estimate the regression models, as it simultaneously controls for the unique effects of each nursing home and adjusts the standard errors for any clustering effects of family members within the nursing homes.

Assessment of Findings in Relation to the Hypotheses

Effects of Geographic Distance and Control Variables on Contact

Hypothesis 1 predicted that family member geographic distance negatively affects frequency of nursing home contact. Additionally, it was predicted that the negative effect of geographic distance on frequency of nursing home contact would hold constant when controlling for type of relationship and gender of family member. To test this hypothesis, two regression models were estimated. The first examined the effect of geographic distance on frequency of nursing home contact. The second examined this effect, while controlling for the effects of type of family member relationship and gender of family member.

The results of the first regression analysis indicated that family geographic distance was a significant negative predictor of frequency of family nursing home contact. This expected finding is consistent with results by Hook, Sobal, and Oak (1982) who found that family members living geographically closer to the nursing home were more likely to visit the resident. This study, however, extends the understanding of family geographic distance on frequency of nursing home contact by measuring it according to the Bureau of Transportation's (2007) definition of a long-distance trip,

which is 50 miles. Thus, this study is among the first to quantify family geographic distance, finding that family members who lived 50 miles away or further from the nursing home had less contact than did those who lived 49 miles away or less from the nursing home.

Two control variables, type of family relationship to the resident and family member gender, were included in the study to determine if family geographic distance affected the frequency of nursing home contact for nuclear female family members, who generally assume the bulk of continuing care responsibilities for family elders. Holding geographic distance constant, regression results showed that both family member control variables were statistically insignificant predictors of nursing home contact, while geographic distance remained statistically significant. This finding suggests that family geographic distance may restrict nursing home contact for even nuclear female family members; a consequence, perhaps, of the multiple care giving roles inherently ascribed to female family members.

The significant relationship between family geographic distance and frequency of family nursing home contact is depicted in Figure 3.

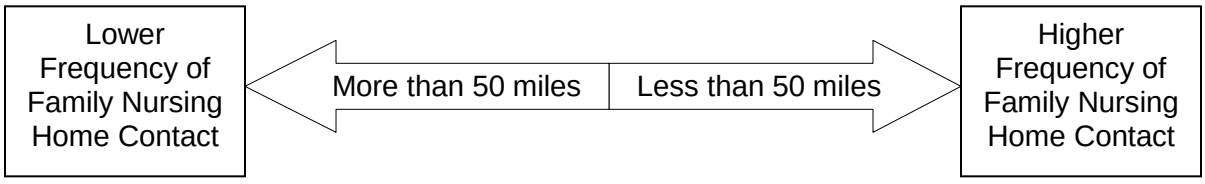

Figure 3. Significant relationship between family geographic distance and frequency of family nursing home contact.

Effects of Contact and Four Contact Conditions on Family Perception of Care

The study's second set of regression analyses tested Hypotheses 2 and Hypothesis 3. The first regression in this set examined the effect of frequency of contact on family perception of care in order to test the second hypothesis, which posited that family member perception of care is affected by frequency of contact with the nursing home. Hypothesis 2 was not supported.

Although there was insignificant statistical support for Hypothesis 2, the result, in actuality, supports Allport's (1954) basic theoretical premise - that contact alone is insufficient for developing positive perceptions between groups. This finding suggests that nursing homes should be cautious in assuming that frequent casual, even cordial, contact encounters between staff, residents, and family members is sufficient for developing positive family perceptions of the nursing home and/or the care it delivers.

The insignificant relationship between frequency of family nursing home contact and family perception of nursing home care is depicted in Figure 4.

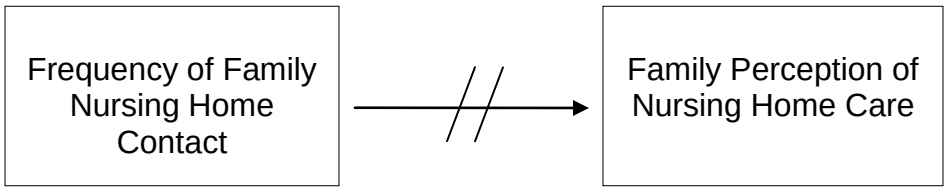

Figure 4: Insignificant relationship between frequency of family nursing home contact and family perception of nursing home care.

The second, third and fourth regression tested Hypothesis 3, which posited that the direction and strength of the effect of frequency of nursing home contact on family perception of care depends on four moderating control variables (i.e. interaction variables). These include institutional support, equal status, common goals and intergroup cooperation. The second regression examined the main effects of frequency of nursing home contact and the four moderating variables on family perception of care. The third regression added an interaction term for each moderating variable, and for parsimony sake, the fourth regression removed all insignificant terms estimated in regression three to determine the final effects of frequency of nursing home contact and the four contact conditions on family perception of care. Results of the three regression analyses partially supported Hypothesis 3. Of the four moderating variables, only (common goals) was found to interact with frequency of nursing home contact to affect the level of family perception of care. While institutional support and intergroup cooperation did not interact with frequency of contact, they were found to have direct effects on family perception of care.

The theoretical application of Allport's theory to the family member-nursing home relationship presented in Chapter II Figure 1, has been modified to reflect the final outcomes of this study. As Figure 5 shows, the effect of frequency of contact on family perception of care depends on the extent to which the condition of common goals is perceived by the family member to be present in the nursing home. In other words, family perceptions of positive resident care depends on the extent to which staff interactions with family members specifically acknowledge issues related to resident independence and choice. Institutional support and intergroup cooperation did not

interact with frequency of contact to affect family perception of care, but were both found to have direct positive effects on family perception of care.

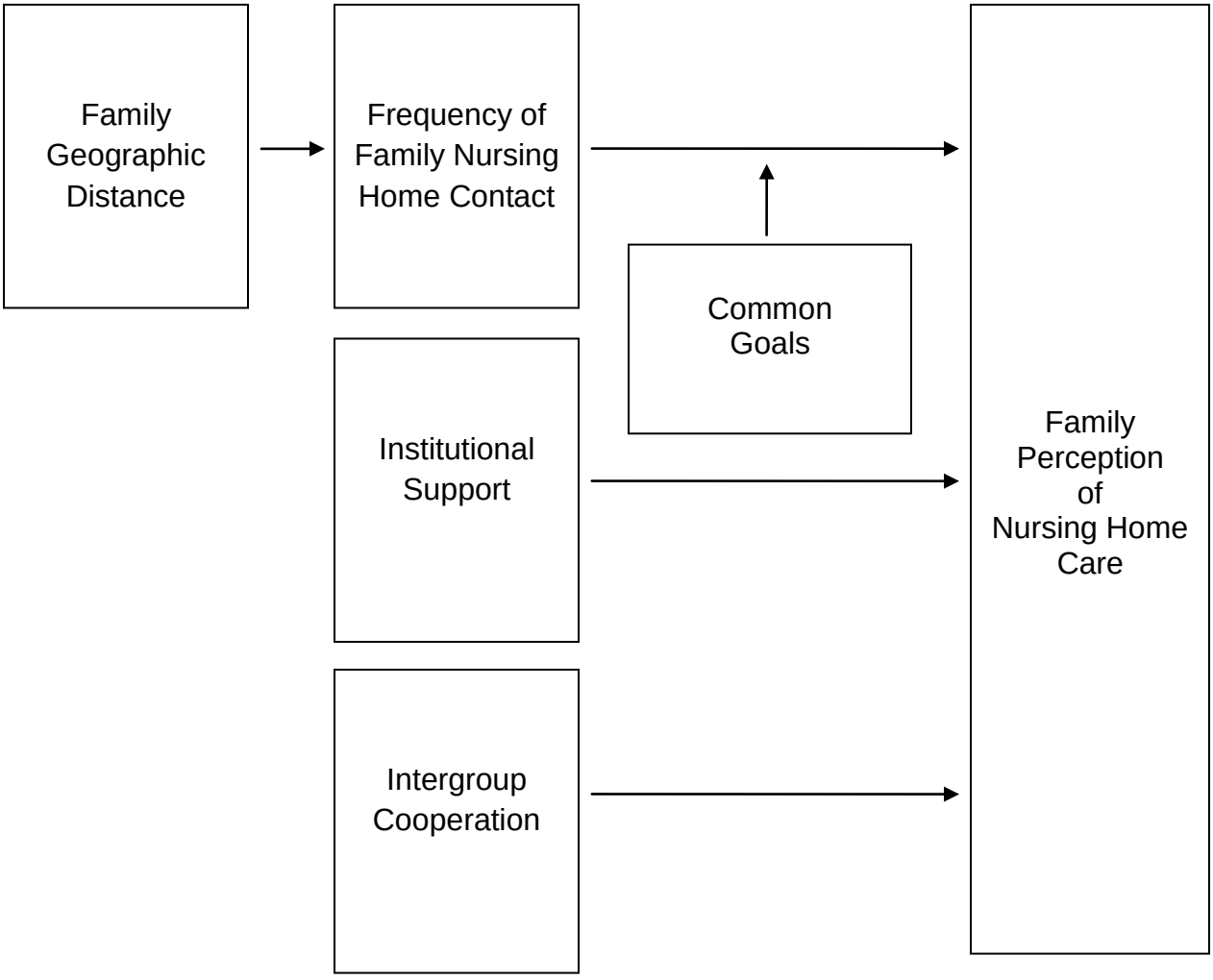

Figure 5: Revised theoretical model: Application of Allport's intergroup contact theory to the family member-nursing home relationship.

Study Limitations

Despite the unique theoretical perspective undertaken in this study, limitations are recognized. First, in terms of the statistical analysis, it is clear that the limited sample size restricted the scope of the analysis. More specifically, the lack of demographic diversity among the family members in the sample prevented an analysis of the role that race, ethnicity and socioeconomic status might play on the interaction between nursing home contact and family perception of care. As factors of race, ethnicity, and socioeconomic status are central to Allport's original theory, this study strongly encourages researchers to include these demographic factors in future analyses.

Second, as the data collection instrument used in this study was not originally designed to measure family perception of nursing home care according to Allport's four conditions of contact, the number of items conceptually able to measure each concept proved limiting. Though the single-item measurement for institutional support proved statistically significant for generating a direct effect on family perception of care, the fact that the moderating variable, equal status, only included two items may have contributed to its lack of effect. As such, a survey instrument specifically designed to measure family perception of care incorporating the conceptual elements of Allport's four conditions of contact, would be beneficial to future researchers.

Theoretical Contribution of Findings

This study makes a significant contribution to the existing empirical literature in areas of family, organizations, long-term care, and issues of inequality, by expanding Allport's (1954) theory of intergroup contact beyond the boundaries of race and to groups who engage in contact encounters within the nursing home environment; namely residents, family members, and nursing home staff.

Results of this study build on Allport's theoretical framework by extending its' usefulness to nursing home organizations in two distinct ways. First, findings support Allport's premise that contact alone between groups – i.e., family members and nursing home staff - is insufficient for increasing *or* decreasing family perceptions of nursing home care. Second, three of the four contact conditions included in Allport's original theory were statistically supported by the data. Common goals was found to interact with frequency of nursing home contact to effect family perception of care; while institutional support and intergroup cooperation were each found to have a direct effect on family perception of care. Though the condition of equal status was unsupported, perhaps due to data limitations, this study recognizes its potential for contributing to the effectiveness of the family member-nursing home relationship and predicts that future research will substantiate its' significance.

Allport's theoretical contribution to this study's expanded understanding of family geographic distance, nursing home contact, and family perception of care warrants special recognition by nursing home organizations. A discussion of the application of Allport's theory to nursing home practice follows next.

Policy and Practice Implications

As suggested by Dovidio et al. (2004), “Understanding the nature of bias is an essential first step in taking action to combat it” (p. 244). Investing the time and money to fully understand the multiple factors affecting family perception of care is certainly a challenging proposition for nursing home organizations, especially when considering the already demanding responsibilities involved in providing daily resident care. Yet, ready or not, the nursing home industry stands at the threshold of an unprecedented influx of baby boomer consumers, many of whom, along with their families, are savvy to the numerous negative issues associated with overburdened and understaffed nursing home facilities.

In Allport’s 1954 publication of *The Nature of Prejudice*, he made specific reference to the various types of contact programs charged at that time with the seemingly impossible task of reducing the ravages of unjust racial prejudice. As Allport (1954) explained, “The programs we are here discussing strive to bring people of various groups together in a way that enhances mutual respect. It is not easy to do so, for artificiality may easily mar the effort” (p. 488).

While recognizing the inherent complexities of family member-nursing home contact encounters, whether frequently at the nursing home, or seldom due to geographic distance, this study contends it is possible for nursing homes to increase family perception of care. The following discussion considers policy and practice implications for (1) engaging in nursing staff-family member contact that emphasizes common resident goals, and (2) understanding how direct positive effects of institutional support and intergroup cooperation can influence family perception of care.

Family Geographic Distance and Nursing Home Contact

This study has shown that relatively short distances of 50 or so miles may limit family member face-to-face contact with nursing home facilities. And, as discussed, limited face-to-face contact between groups can potentially lead to the formation of negative attitudes or false perceptions between groups. As such, in order for nursing home organizations to directly affect positive family perceptions of care, policy and practice protocols should be mindful of both types of family member groups - those who have frequent face-to-face contact with the nursing home, and those whose geographic distance from the nursing home restricts more frequent on-site contact.

Interaction Effect: Family Nursing Home Contact and Common Goals

The literature recognizes that promoting and enabling individual resident independence and choice is challenging for front-line staff who are responsible for the daily care of multiple residents (Cotterell, 2008). Yet, this study supports previous research demonstrating that intergroup contact can be successful in improving negative perceptions, especially when a goal, common to both groups, is present (Brewer & Miller, 1984; Hewstone & Brown, 1986; Rothbart & John, 1985; Sherif, Harvey, White, Hood, & Sherif, 1961).

Specifically, results of this study indicate that family member perception of *quality* resident care depends on the level to which contact interactions with nursing home staff are perceived to include communiqué encouraging resident independence and choice. This finding is important for nursing homes to recognize. One recent study by Boisaubin et al.(2007), for example, noted that family members are “increasingly emphasizing the

importance of personal choice and independence as being major virtues, and believe that a good nursing home facility would offer more of that" (p. 430). Thus, nursing home contact encounters with family members wherein staff formally acknowledge resident attempts for remaining independent will likely result in improved family perception of care.

Direct Effect: Institutional Support

Person-centered approaches to nursing home care have been directly shown to produce positive effects on family perceptions of care, by reducing uncertainty and anxiety among residents and family members (Wanzer, Booth-Butterfield, & Gruber, 2004). Though the literature views *person-centered* or *home-like* models of care as a more recent shift in the delivery of long-term care, Allport recognized, over a half-century ago, that one's *home* represents the *familiar*. According to Allport (1954):

> While we sometimes do become bored with our daily routine of living and with some of our customary companions, the very values that sustain our lives depend for their force upon their familiarity. What is more, what is familiar tends to become a value. We come to like the style of cooking, the customs, the people, we have grown up with. (p. 29)

If there is truth in Allport's assertion, nursing home institutions that espouse a *home-like environment*, BUT do not properly educate, train, involve and assist all levels of nursing staff and support personnel in the transition from a medical-model of care to a person-centered model, may ultimately fail to create positive family perceptions of care.

Thus, when considering that perceptions of quality - good or bad - can be directly affected through the human senses - sight, sound, smell, touch, and taste - it is

important for nursing homes to recognize that direct family contact with the nursing home facility can be powerful in forming perceptions of *quality*. Whether family members physically visit the facility, or visit the facility via on-line website, newsletters, brochures, or the like, if families perceive the nursing home as fostering a sense of home, they may be less likely to, according to Allport (1954), "feel a bit on guard" or "feel threatened by those who question their habits" (p. 46). And, fostering a sense of home, may well be what the moderating variables in this study did, through the focus on common goals, institutional support, and intergroup cooperation.

Direct Effect: Intergroup Cooperation

One possible explanation for finding that family perception of care is directly affected by intergroup cooperation might be attributed to the unique organizational purpose of the nursing home institution. As discussed, frequent nursing home contact provides family members with opportunities to observe first-hand whether or not nursing staff is cooperatively working with the resident to achieve established goals. Yet, in reality, the professional daily practice of carrying out such goals primarily involves the cooperative efforts of only two groups - residents and nursing home staff. Therefore, in order to foster positive family perceptions of care, nursing homes should be continuously cognizant of family members need to *see while visiting* or *perceive from a distance* staff cooperation with residents to achieve established goals; as well as, cooperating jointly in problem solving efforts. Family observations of positive cooperative exchanges between resident and staff will likely result in improved attitudes and reduced misperceptions between all three groups - residents, staff, and family members (Cross & Rosenthal, 1999).

Suggestions for Future Research

Research examining the effects of family geographic distance on the formation of family perception of nursing home care is noticeably absent in the long-term care literature. Future researchers are encouraged to broaden the scope of this study by examining the effects of geographic distance on family perceptions of care using additional family demographic factors such as race, ethnicity, and socioeconomic status. Race, as a factor affecting human perception, is central to Allport's (1954) intergroup contact theory.

Only recently have researchers begun to more fully explore the potential implications of racial and ethnic perceptions of bias health care practices on the delivery of long-term care. As Kwak and Haley (2005) stated, "A one-size-fits-all approach to improving end-of-life care cannot be successful with a culturally diverse older population" (p. 640). Additionally, low levels of education and limited financial means are also perceived as barriers to quality health care services (Blanchard, Nayar & Lurie, 2007).

Ostensible disparities in the delivery of nursing home care arguably affect the perceptions of care among family members of residents subjected to perceived inequities. As such, the application of Allport's contact model to research on family members of residents in nursing home institutions primarily funded by Medicaid (generally housing larger numbers of racial minorities and low socioeconomic groups) would contribute to an even broader understanding of how diverse family groups form perceptions of quality nursing home care.

Conclusion

To conclude, findings of this study present one plausible explanation to Gaugler's (2005b) earlier inquiry as to why geographically separated family members tend to form more negative perceptions of nursing home care than family members living closer.

By examining how limited face-to-face contact between groups can contribute to the formation of negative perceptions using Allport's (1954) intergroup contact theory, this study provides nursing home organizations with a new perspective from which to view contact between family members of residents and those who care for them in the nursing home.

To ignore the powerful influence of family perception of care could prove costly for nursing home organizations, especially in light of the imminent influx of baby boomer residents. As such, nursing homes would be wise to bear in mind the following words of Allport (1954):

> The way we perceive qualities in others cannot help but have an effect on what qualities others will display. It is not true, of course, that every grim image we have of [different] groups results in the development of hateful traits to confirm our worst expectations. Yet there is likely to be some kind of unpleasant reflex of our unpleasant opinions. (p. 159)

Such is the challenge of nursing home organizations to transform the some-what grim image of institutional care into an image more closely aligned with the visions, values, and expectations of all groups involved in the care of residents, both near and far, who are at present, calling for the delivery of quality nursing home care.

APPENDIX A

DESCRIPTIVE STATISTICS FOR INDEXED ITEMS

Descriptive Statistics for Indexed Items

Institutional Support Item (*n* = 1)	*n*	Range	Minimum	Maximum	Mean	*SD*
Facility provides a home-like environment	275	4.0	1.0	5.0	3.987	1.1474
Equal Status Index Items (*n* = 2)	***n***	**Range**	**Minimum**	**Maximum**	**Mean**	***SD***
Has privacy whenever wants	275	4.0	1.0	5.0	3.725	1.2498
Employees knock on door before entering room	275	4.0	1.0	5.0	3.935	1.1719
Common Goals Index Items (*n* = 4)	***n***	**Range**	**Minimum**	**Maximum**	**Mean**	***SD***
Decides when to go to bed	275	4.0	1.0	5.0	4.015	1.2149
Decides when to get up	275	4.0	1.0	5.0	3.513	1.3238
Chooses own clothes	275	4.0	1.0	5.0	3.918	1.2757
Decides when to take bath/shower	275	4.0	1.0	5.0	2.635	1.2737
Intergroup Cooperation Index Items (*n* = 8)	***n***	**Range**	**Minimum**	**Maximum**	**Mean**	***SD***
Employees talk with resident	275	4.0	1.0	5.0	4.213	.8507
Employees listen to what resident says	275	4.0	1.0	5.0	4.069	.9431
Employees ever do anything to show they care about resident	275	4.0	1.0	5.0	4.364	.7164
Employees check to see if comfortable	275	4.0	1.0	5.0	3.942	1.0254
Has to ask employees for help more than once	275	4.0	1.0	5.0	2.711	1.0433
Employees spend enough time helping with needs	275	4.0	1.0	5.0	3.965	.9861
Something is done about resident's complaints	275	4.0	1.0	5.0	4.002	.9793
Something is done about respondent's complaints	275	3.0	2.0	5.0	4.460	.7213
Family Perception of Care Index Items (*n* = 4)	***n***	**Range**	**Minimum**	**Maximum**	**Mean**	***SD***
Overall, satisfied with resident's freedom to make own choices	275	3.5	1.5	5.0	4.467	.6907
Overall, satisfied with care resident receives from employees	275	4.0	1.0	5.0	4.429	.7183
Overall, satisfied with friendliness of employees	275	4.0	1.0	5.0	4.560	.6597
Recommend nursing home to a family member or friend	275	4.0	1.0	5.0	4.485	.9071

APPENDIX B

15-ITEM CORRELATION MATRIX

15-Item Correlation Matrix

Family Member Survey Item		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Has privacy whenever wants	1	.332**	.202**	.209**	.220**	.129*	.281**	.298**	.348**	.274**	.306**	.182**	.302**	.218**	.106
			.000	.001	.001	.000	.033	.000	.000	.000	.000	.000	.003	.000	.000	.082
2	Employees knock on door before entering room	.332**	1	.133*	.072	.114	.021	.030	.178**	.277**	.185**	.274**	.187**	.219**	.293**	.240**
		.000		.029	.238	.061	.725	.626	.003	.000	.002	.000	.002	.000	.000	.000
3	Decides when to go to bed	.202**	.133*	1	.550**	.591**	.449**	.143*	.110	.210**	.067	.082	-.051	.051	.205**	.118
		.001	.029		.000	.000	.000	.019	.071	.000	.270	.178	.407	.404	.001	.053
4	Decides when to get up	.209**	.072	.550**	1	.370**	.406**	.281**	.260**	.255**	.165**	.112	.078	.120*	.196**	.122*
		.001	.238	.000		.000	.000	.000	.000	.000	.007	.066	.200	.049	.001	.045
5	Chooses own clothes	.220**	.114	.591**	.370**	1	.467**	.229**	.087	.103	.090	.058	-.061	.011	.063	-.024
		.000	.061	.000	.000		.000	.000	.152	.091	.138	.344	.316	.856	.299	.693
6	Decides when to take bath/shower	.129*	.021	.449**	.406**	.467**	1	.311**	.038	.097	.113	.099	.004	.081	.079	.048
		.033	.725	.000	.000	.000		.000	.530	.109	.062	.102	.942	.184	.198	.435
7	Eats a meal whenever wants	.281**	.030	.143*	.281**	.229**	.311**	1	.163**	.146*	.195**	.177**	.107	.102	.073	.043
		.000	.626	.019	.000	.000	.000		.007	.016	.001	.003	.078	.094	.234	.478
8	Employees talk with resident	.298**	.178**	.110	.260**	.087	.038	.163**	1	.675**	.573**	.392**	.243**	.489**	.356**	.339**
		.000	.003	.071	.000	.152	.530	.007		.000	.000	.000	.000	.000	.000	.000
9	Employees listen to what resident says	.348**	.277**	.210**	.255**	.103	.097	.146*	.675**	1	.617**	.423**	.290**	.504**	.488**	.436**
		.000	.000	.000	.000	.091	.109	.016	.000		.000	.000	.000	.000	.000	.000
10	Employees ever do anything to show they care about resident	.274**	.185**	.067	.165**	.090	.113	.195**	.573**	.617**	1	.512**	.248**	.504**	.425**	.343**
		.000	.002	.270	.007	.138	.062	.001	.000	.000		.000	.000	.000	.000	.000
11	Employees check to see if comfortable	.306**	.274**	.082	.112	.058	.099	.177**	.392**	.423**	.512**	1	.296**	.579**	.423**	.310**
		.000	.000	.178	.066	.344	.102	.003	.000	.000	.000		.000	.000	.000	.000
12	RR Has to ask employees for help more than once	.182**	.187**	-.051	.078	-.061	.004	.107	.243**	.290**	.248**	.296**	1	.409**	.303**	.269**
		.003	.002	.407	.200	.316	.942	.078	.000	.000	.000	.000		.000	.000	.000
13	Employees spend enough time helping with needs	.302**	.219**	.051	.120*	.011	.081	.102	.489**	.504**	.504**	.579**	.409**	1	.552**	.448**
		.000	.000	.404	.049	.856	.184	.094	.000	.000	.000	.000	.000		.000	.000
14	Something is done about resident's complaints	.218**	.293**	.205**	.196**	.063	.079	.073	.356**	.488**	.425**	.423**	.303**	.552**	1	.603**
		.000	.000	.001	.001	.299	.198	.234	.000	.000	.000	.000	.000	.000		.000
15	Something is done about respondent's complaints	.106	.240**	.118	.122*	-.024	.048	.043	.339**	.436**	.343**	.310**	.269**	.448**	.603**	1
		.082	.000	.053	.045	.693	.435	.478	.000	.000	.000	.000	.000	.000	.000	

**$p < 0.01$ level (one-tailed).
*$p < 0.05$ level (one-tailed).

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