

“IT SEEMS LIKE IT SHOULD BE SO SIMPLE”:
THE ROLE OF THE FAMILY IN ELDER DRIVING RETIREMENT

by

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B.A., University of Minnesota, 1986
M.A., University of Minnesota, 1991

AN ABSTRACT OF A DISSERTATION

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School of Family Studies and Human Services
College of Human Ecology

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Abstract

Due to health conditions, the average 70 year old will outlive the ability to drive by 6 years for men and 10 years for women (Foley et al., 2002). Driving loss has a significantly negative impact on the quality of life of an older adult. For this reason, some continue to drive despite concerns about safety.

Midlife family members of older adults often feel social pressure to intervene in driving decision-making and social pressure to refrain from intervening. The goal of this study was to understand the experiences of midlife family members from the time that someone first noticed a concern with the older relative's driving until the time the older adult stopped driving.

A qualitative, multiple embedded case study approach was used to gather information from two midlife family members from 7 families with an older driver who had recently retired from driving. The family processes that influenced communication about driving and choice of strategies for intervening were examined.

Findings indicated that the midlife family members became aware of safety issues at different times. Awareness prompted conversations with other relatives, and the majority of family conversations about driving did not include the older adult. Many family members reported a respect for the autonomy of the older relative and a reluctance to initiate conversations without permission from the older adult to do so.

Intervention strategies reported by participants included (1) wait and worry, (2) nudging, (3) attempted conversation, (4) ending requests for driving assistance, (5) requesting assistance from physicians, (6) requesting assistance from the DMV, (7) requesting assistance from law enforcement, and (8) accepting the inability to end an older adult's driving career. Participants reported many factors that both helped and hindered efforts to encourage driving retirement.

Based on these findings, an Ecological Model of Later-Life Decision-Making was proposed. The model reflects that the participants' efforts to encourage driving retirement were not simply a matter of intra-family communication, but were influenced by processes occurring at multiple levels, both within and outside of the family. Processes occurring at multiple levels both helped and hindered family members' efforts to encourage driving retirement.

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Dedication

This dissertation is dedicated to my two greatest supporters:

David R. Steward and Alan H. Frost

Chapter 1 - Introduction

My interest in the topic of intergenerational communication about driving retirement was stimulated by two personal experiences and by delving into the literature on driving retirement. The first personal experience happened while I was visiting an older relative who was temporarily residing in a nursing home as he recovered from major heart surgery. At the end of our visit, I walked into the parking lot and noticed that my car had a large dent. Two nursing home employees, who were outside for their break, called out that they had witnessed the crash.

They explained that the older man who had backed into my vehicle parked in the nursing home parking lot each day on his way to visit his wife. The man was not able to turn his head and did not look behind him as he backed his vehicle. He had damaged several other cars on various occasions. The nursing home staff knew to park in a lot further away from the building to protect their cars.

As we waited for the police to arrive, the aides shared their frustration that the man continued to drive. Nursing home staff had, on several occasions, talked to this older driver's children and had asked them to persuade the man to retire from driving. It was the opinion of the aides that the older man's family was responsible for "taking his keys." This social expectation stimulated my curiosity about the social assignment of responsibility for removing medically impaired older drivers from the general driving population.

The aides assisted me in making a police report of the crash by providing eye witness accounts to the officer. When I asked the officer about reporting the man to the state Department of Motor Vehicles (DMV), the officer replied that his authority was limited to issuing a citation to the older driver. He stated that he did not have the authority to contact the DMV to request that the license be revoked. This statement raised an intriguing question: Is the social meaning of driving loss so powerful that it can immobilize both the legal and the family mechanisms for ensuring public safety?

The second personal experience stimulating my interest in intergenerational communication about driving retirement occurred as I was having lunch with an older relative living in an assisted living apartment complex. One of the older women at our table was relating a story about an enjoyable outing she had had with her daughter. A man at the table said, "You didn't drive, did you?" The woman replied that her children had made her stop driving. Then,

despite the fact that she used a wheelchair for mobility and used a portable oxygen tank for a serious breathing condition, the woman exclaimed that she was still perfectly capable of driving again if the need arose.

The certainty with which she claimed her ability to drive surprised me. I began to wonder about the process through which the woman's children had made driving retirement happen. What types of communication strategies had they used? How long did it take to convince this woman to stop driving?

As I delved into the literature on driving retirement, I found a study by Rudman et al. (2006) in which near-senior (ages 55-64) and senior (ages 65 and older) drivers and non-drivers were interviewed. The majority of drivers and non-drivers in both age categories expressed the opinion that driving cessation decisions were the purview of the older drivers themselves. For most, the views of adult children were not considered relevant to their decision-making.

This idea of midlife family member non-involvement is quite disconnected from the elder driving retirement stories I regularly hear from midlife peers. I therefore posit that there is a social taboo against having intergenerational conversations about driving retirement. I further posit that, in the absence of (1) minimum health (vision, physical functioning, and cognitive functioning) standards for operating a motor vehicle or (2) mandatory physician reporting of impairments which make driving unsafe, the unspoken social norm is that the family is responsible for interventions which encourage medically impaired older adults to stop driving.

The number of Americans ages 70 and older (the age categories at higher risk of experiencing vehicle crashes) is expected to increase from 9 million in 2010 to 15 million in 2050 (Vincent & Velkoff, 2010). In 2009, twenty-five percent of Medicare recipients age 65 and older reported limitations in activities of daily living (ADLs), defined as "difficulty performing (or inability to perform for a health reason) one or more of the following tasks: bathing, dressing, eating, getting in/out of chairs, walking, or using the toilet" (Federal Interagency Forum on Aging-Related Statistics, 2012, p. 32). Lin et al. (2012) found that the rates of ADL disability had steadily increased in successive cohorts of adults ages 70 and older between 1982 and 2009. If this trend in age-related ADL disability continues, it is imperative that we begin to understand how our de facto public safety mechanism (the family) manages the socially assigned responsibility to remove medically impaired older drivers from the general driving population.

Chapter 2 - Review of the Literature

To understand the role that the family plays in elder driving cessation, it is important to provide an overview of the context within which family driving conversations and actions take place. This context includes the common later-life health conditions that can affect the ability to drive safely, the meaning of driving for older adults, the common older adult perception biases which influence driving decision-making, and the decision pathways commonly taken by older adults faced with loss of driving ability.

Health Conditions and Driving

The most common types of age-related health declines affecting driving ability are declines in vision, physical functioning, and cognitive functioning. The prevalence of eye disease in the older U.S. population is concerning because vision “accounts for 90% of the information used in driving” (Persson, 1993, p.88). A longitudinal eye health study determined that U.S. citizens who reach age 65 have a 45% or higher chance of developing glaucoma, macular degeneration or diabetic retinopathy (Lee et al., 2003). These three eye conditions are among the top five leading causes of vision impairment in older adults (National Eye Institute, 2006). The National Eye Institute (2014) defines vision impairment as a best-corrected level of vision of 20/40 or worse in the best-seeing eye.

In addition, an Israeli study found that older drivers that meet legal driving standards for vision may have a narrower degree of peripheral vision. In this study, compared to drivers ages 28 to 40, experienced drivers aged 65 and older had significantly greater problems detecting pedestrians in all eight pedestrian-related events included in driving simulation tests (Bromberg et al., 2012).

Age-related changes in cognitive functioning can affect the ability to drive safely. The prevalence of dementia in the U.S. is 5% in people ages 70-79, 24% in people ages 80-89, and 37% in people ages 90 and older (Plassman et al., 2007). In the earliest stage of Alzheimer’s dementia (the very mild stage), the majority of patients can pass an on-the-road driving exam (Brown & Ott, 2004). However, as the disease progresses, Alzheimer’s patients have more difficulty staying within the lane lines, signaling correctly, turning correctly, maintaining the correct driving speed, and following a driving route (Carr & Ott, 2010). These driving mistakes

contribute to higher crash rates. Compared to older drivers with no cognitive impairment, older drivers with mild to moderate levels of dementia have a 2 to 8 times greater risk of being involved in crashes (Brown & Ott, 2004).

Age-related declines in physical functioning also can affect the ability to drive safely. According to the Federal Interagency Forum on Aging (2012), 25% of community-dwelling Medicare recipients ages 65 and over had functional limitations with one or more activities of daily living. In managing driving tasks, difficulties with physical motor control can manifest as “tendencies to wander back and forth between lanes, cut across lanes, swing too wide in curves and corners, and...in misapplication of the accelerator or the shift lever, resulting in crashes with structures or people” (McKnight, 2003, p. 27).

Because of age-related declines in vision, physical functioning and cognitive functioning, the average 70-year-old is expected to outlive the ability to drive by 6 years for men and 10 years for women (Foley et al., 2002). That represents people who never outlive the ability to drive, people who outlive the ability to drive by 20 years or more, and people who land somewhere in between these extremes.

Because declines in vision, physical functioning and cognitive functioning happen differently for each individual who experiences them, it can be difficult to predict the exact moment when driving cessation needs to occur. For this reason, there are no accurate estimates of the number of older drivers who are currently on the roads, driving unsafely due to medical impairments. One study conducted in California (a state with 13% of licensed drivers ages 65 and older) provides partial insight into this question. Researchers from the University of California San Diego invited adults ages 60 and older, who were being seen in UC San Diego inpatient and outpatient clinics, to participate in a 15-minute battery of tests screening for Age-Related Driving Disorders (ARDDs) (Hill et al., 2011). The test battery included two vision tests, three sets tests for physical functioning and two dementia tests. Five-hundred-fifty-five participants (74%) passed all 7 screening tests. Eighty-five participants (11%) failed one or more of the tests for dementia, requiring the physicians to report the patient to the DMV under California’s mandatory reporting laws. An additional 7% passed the dementia tests, but failed one or more of the vision or physical functioning tests.

The UC-San Diego study collected data from a non-random sample of volunteers and results therefore do not estimate the prevalence of impaired driving in the older driver population

of as a whole. The study does, however, highlight the existence of a sizeable minority of older adults who continue to drive beyond their ability to do so safely.

Most states do not have adequate screening procedures in place for pre-crash license removal of older adults with serious visual, physical and cognitive impairments from the general driving population. A few U.S. states have mandatory reporting of medical conditions which make driving unsafe. Illinois requires an on-the-road driving exam for drivers over age 75. Pennsylvania randomly selects a percentage of drivers ages 45 and older and requires that they take physical and visual exams prior to license renewal. However, the majority of states require only tests of visual acuity using a standard eye chart (Carr et al., 2010, Coley & Coughlin, 2002; Insurance Institute for Driving Safety, 2014). This simple eye test does not screen for the majority of vision impairments, let alone for cognitive or physical conditions that can make driving unsafe.

In the majority of U.S. states, the de facto, pre-crash responsibility for removing seriously impaired older drivers from the general driving population resides with the family members of the impaired older drivers. In this context, it is important to understand the dilemmas faced by family members who become aware of the impaired older adult's unsafe driving, and the nature of family conflicts and negotiation strategies involved in convincing an impaired older driver to retire from driving.

The purpose of this dissertation is to propose and test a Taxonomy of Family Strategies for Achieving Impaired Older Adult Driving Retirement. The goal is to develop theoretical and empirical insights into the family process involved in convincing an impaired older driver to stop driving.

Theoretical Frame: Symbolic Interactionism

Symbolic Interactionism is a theoretical framework which focuses on the social processes involved in creating meaning. Meaning arises through human social interaction (Blumer, 1969), during which a common set of symbols and understandings about the nature of reality emerges (Patton, 2002). This social organization of meaning creates a framework upon which an individual builds his or her sense of self.

Through everyday social interaction, the individual develops both an internal awareness of his or her own personal characteristics and an awareness of how these personal characteristics are viewed by others (Chibucos et al., 2005). The constant interaction between the *I* (awareness of individual characteristics, values, perceptions and goals) and the *Me* (awareness of how individual qualities, views and choices will be viewed within the context of social norms, values and expectations) influences individual motivations and behavioral choices (Blumer, 1969).

Individuals take on role assignments, including social position in the family (e.g., mother, brother, aunt, etc.), occupational position, and social position within other institutions (e.g., volunteer, club member, member of a congregation, etc.). Daily social experiences shape the content of the roles and provide opportunities for negotiation and re-negotiation of role expectations to align individual roles with the salient needs of the family and the larger community (LaRossa & Reitzes, 1993).

Symbolic Interactionism assumes that human action arises from a sequence that includes (1) awareness of a problem, (2) internal cognitive processing to define individual perception of the problem, (3) cognitive processing of alternative lines of action based on perception of the problem, and (4) implementation of a behavior (Blumer, 1969). Each step in this process is influenced by internal perceptions and expectations as well as knowledge of social norms and expectations which frame the behavioral context.

When the internal and external rules for enacting a role are in alignment, the individual feels comfortable making decisions and initiating action. However, when the individual is asked to comply with conflicting expectations for enacting two or more roles simultaneously, decision-making and initiation of action become more complicated. Contradictory or ambiguous expectations for enacting multiple roles produces role strain, the experience of emotional stress which emerges from the individual's perceived inability to comply with conflicting role expectations (Burr, et al., 1979).

Elder driving retirement is an issue with no clear rules or role expectations. Although charged with ensuring the public safety of all citizens, few U.S. states adequately screen for age-related medical conditions which can make driving unsafe (Carr et al., 2010, Coley & Coughlin, 2002; IIDS, 2014). Although the ability to drive safely is a medical issue, many doctors do not routinely discuss driving fitness with their elderly patients (Adler and Rottunda, 2011) and many physicians face legal and ethical barriers to reporting impaired drivers (Berger et al., 2000;

Bogner et al., 2004). In this societal context of inadequate screening for age-related driving disorders, family members of an impaired older driver often feel societal pressure to intervene in the driving decision-making of their medically impaired older relatives (Connell et al, 2012; Perkinson, et al, 2005). They also often face barriers to intervening in driving decision-making, including interpersonal conflict and lack of support from other family members, physicians or licensing authorities (Connell et al, 2012). These competing social pressures to intervene and to refrain from intervening have their roots in the social meaning of driving.

Symbolic Interactionism and the Meaning of Driving for Older Adults

Symbolic Interactionism assumes that meaning arises through human social interaction (Blumer, 1969). Using this frame, the meaning of driving arises through day-to-day experiences in which members of society use driving to facilitate the tasks of daily living and to facilitate interaction with one another. I have identified four distinct and interrelated meanings of driving for older adults in the literature on driving retirement: driving as independence, control over daily decision-making, competence, and connection to community.

Meaning 1: Driving Means Independence

Independence is defined as the ability to live autonomously, without having to ask others for assistance. The meaning of driving as independence has been widely documented in focus groups and interviews with older drivers, older former drivers and family members (Adler & Rottunda, 2006; Bauer et al., 2003; D’Ambrosio et al., 2007; Liddle et al., 2008; Perkinson et al., 2005; Rosenbloom, 2010; Rosenbloom, 2004; Rosenblum & Corn, 2002; Yassuda et al., 1997).

Cicirelli (2000) noted that older adults tend to minimize the extent of their health problems in an attempt to maintain independence and postpone dependence. In a comparison of responses from 53 older adults and 53 of their middle-aged adult children, it was found that the adult children perceived “more chronic conditions and symptoms, more cognitive problems and [more] depressive symptomatology than the parents” reported (p. 174). In another study, the most frequent source of conflict between older parents and their adult children involved instances where the two generations held different views about the types of assistance needed by the older adult (Cicirelli, 1981).

The desire for continued independence was found to play a major role in an older adult’s decision to continue driving despite health declines (Classen et al., 2009). “In risk assessment,

older adults were more likely to place emphasis on the threat that driving reduction or cessation posed to their identity as an independent person than the risk associated with crashing or citations” (p. 26).

The desire for continued independence is evident in older adults’ reluctance to ask others for transportation assistance (Bryanton, 2009; Kostyniuk et al, 2009) and in older adults’ aversion to becoming a burden (Adler & Rottunda, 2006; Bauer et al., 2003; Choi, 2010; King et al., 2011; Kostyniuk et al., 2009; Kostyniuk & Shope, 2003; Rudman et al., 2006). In the words of two older adults:

I am very independent. I’m depending on a daughter who would give me the moon if she could. But I don’t like that. That’s not what I want. I want to take care of myself (King et al., 2011, p. 45).

You’re not alive when you have to depend on someone else (Shope, 2003, p. 58).

Meaning 2: Driving Means Control Over Daily Decision-making.

I define control over daily decision-making as the ability to make both planned and spontaneous choices to manage everyday tasks, such as grocery shopping, banking, visiting, volunteering and keeping medical appointments. People who drive have the option of spontaneity and the choice of planning activities because they can control their means of transportation (Adler & Rottunda, 2006; King et al., 2011; Rosenblum & Corn, 2002; Rudman et al., 2006). In the words of one driving retiree:

If you spend your life being able to drive and you can just say ‘Oh, I’m going to go to the library today.’ And now suddenly, you have to make plans to go. You can’t just go (King et al., 2011, p. 45).

Meaning 3: Driving Means Competence

Competence involves having the ability to prove that one is a capable adult. Eisenhandler (1990) argued that possession of a valid driver’s license is a disidentifier of old age. The license is a symbol used to ward off the stigma associated with old age identity. In this view, relinquishing a driver’s license means giving up one’s place in the category *capable adult*

and joining the ranks of those *going downhill* (Kostyniuk et al., 2009; Rosenbloom, 2004; Rudman et al., 2006). Persson (1993) noted that 63% of older driving retirees participating in focus groups about their decision to stop driving continued to hold a valid driver's license, "indicating the importance of a license for purposes other than driving" (p. 89).

The loss of a valid driver's license may be perceived by the older adult as a severe blow to his or her self-image (Davidson, 2008; Rudman et al., 2006; Shope, 2003). Some researchers have found that equating driving with competence is more common among older male drivers than among older female drivers, making driving retirement a particularly difficult choice for men (Adler & Rottunda, 2006; Davidson, 2008).

Hakamies-Blomqvist and Siren (2003) found that older female drivers with an extensive driving history made driving retirement decisions for the same reasons as older male drivers. Because women in the Baby Boom generation have more extensive driving histories than do their mothers and grandmothers (McKnight, 2003), it is expected that Baby Boom women will experience the same types of competence and identity issues when facing driving retirement as will Baby Boom men (Davidson, 2008; Rosenbloom, 2004).

Rosenblum and Corn (2002) recorded instances in which older retired drivers felt they were looked down on because they were no longer drivers. One retired driver felt others were condescending toward nondrivers and another noted,

*As soon as they know [about my inability to drive], I am a nonperson
(Rosenblum & Corn, 2002, p. 704).*

Meaning 4: Driving Means Connection To Community

Connection to community is defined as the ability to maintain friendship networks and the ability to access organized activities that keep one engaged with one's established social network. Carr et al. (2006) studied 183 sedentary, community-dwelling adults ages 75 and older with mild to moderate levels of physical frailty. Eighty-five percent were active drivers despite ADL impairment and deficits in physical performance. The researchers noted that physical disability may be less salient for the decision to continue driving than are social issues, such as the desire to stay active or the desire to work.

Driving retirement is associated with isolation and a significant decrease in participation in community activities (Horowitz et al., 2002; Johnson, 1998; Kostyniuk et al., 2009; Mezuk &

Rebok, 2008). Some older adults report increased levels of loneliness and regret about the loss of quality of life after giving up driving (Johnson, 1999; Johnson, 1998). In the words of one of these older adults,

I didn't even guess how alone I'd be...[I] thought folks would stop by now and then, maybe even offer to take me out. But that was a dream. Well, it's me and the TV now (Johnson, 1999, p. 16).

The four meanings of driving shape older adults' perceptions of their present quality of life. Maintaining present quality of life and avoiding loss of present quality of life are powerful incentives for continuing to drive despite declining health. To understand how perception leads to specific decisions and subsequent actions, it is important to understand the major biases in perception that influence the ways in which impaired older adults make driving decisions.

Common Older Driver Perception Biases

Using a Symbolic Interactionism frame, it is assumed that awareness of a problem triggers problem definition, cognitive processing of alternative lines of action and implementation of a behavior (Blumer, 1969). An impaired older adult's awareness, perception, perception-based decisions, and subsequent driving behavior are commonly influenced by three types of perception biases: optimism biases, perception of self-rated health status, and loss avoidance (denial).

Optimism Biases

Two types of optimism bias have been found to be widespread throughout the general driving population. The downward comparison form of optimism bias involves viewing oneself as a better driver than others in one's age category. The majority of drivers in every licensed age category consider themselves to be less at risk of being in a car crash compared to others their age (Horswill et al., 2012; Gosselin et al., 2009; Price et al., 2002). Moore and Miller (2005) reported instances in which participants with severe vision impairments justified continuing to drive by expressing the belief that their driving competence was superior to non-visually impaired peers.

A second type of optimism bias involves a mismatch between one's perception of driving skills and objective tests of those skills. The majority of drivers from every licensed age

group perceive themselves to be more skilled in driving than an objective, on-the-road or simulated driving test would show them to be (Horswill et al., 2012; Svenson, 1981).

Ross et al. (2012) studied 350 drivers ages 55 and older over a five year time period to see if self-rated driving ability could predict negative driving outcomes: receiving citations for traffic violations or involvement in crashes. Drivers with high self-rating and drivers with low self-rating of driving ability did not differ systematically on either driving outcome. The researchers concluded that self-rated driving ability was not “a reliable indicator of actual driving competency” (p, 526).

Horswill et al. (2012) compared the self-rated skill level of 94 Australian drivers ages 65 and above with objective measures of hazard perception in a simulated driving environment. None of the participants was cognitively impaired. There was a close to zero correlation between older drivers’ self-ratings of driving skills and any component of the objective tests of hazard perception, indicating the drivers had “little insight into their own driving ability” (p. 6).

Self-Rated Health Status

Older adults’ perceptions of declining health status have been associated with initiation of driving behaviors which compensate for health declines (Coughlin et al., 2004; Kostyniuk et al., 2009; Moore & Miller, 2005; Rudman et al., 2006; Hakamies-Bloomqvist, 2004; Yassuda et al., 1997). In particular, older drivers compensate by avoiding distracted driving, choosing lower speeds, looking for longer gaps in traffic before making left turns, and by avoiding stress-inducing driving situations, including driving at night, during bad weather, in unfamiliar areas, and during rush hour (Haakamies-Blomqvist, 2004; Okonkwo et al., 2008).

Self-rated health status also has been found to be one of the most reliable predictors of driving cessation among older adults. Anstey et al. (2006) analyzed longitudinal data collected annually from 1,466 Australian adults ages 70 and older. Over a five-year time period, self-rated health at baseline was the strongest predictor of driving cessation in all subsequent data waves. Poor vision at wave 1 did not predict driving cessation in subsequent waves. Other baseline measures not predictive of driving cessation were neurological condition, cardiovascular disease, and hearing.

Dellinger et al. (2001) compared 141 adults over age 55 who had stopped driving with 1,686 adults over age 55 who continued to drive. Although the retired drivers had a lower self-

reported health status than the current drivers, the current drivers had a greater number of medical problems. The decision to stop driving was therefore “more likely to be based on an individual assessment of capabilities than on a medical diagnosis” (p. 433).

Individual self-assessment, however, does not always match objective reality. Stalvey and Owsley (2000) studied 402 high risk drivers between the ages of 60 and 91. These older drivers all had clinically verified visual deficits, a history of crash involvement, and a high level of driving exposure (with some driving as many as 100 miles per week). Despite objective tests indicating vision impairments, 70% of these high-risk older drivers rated their vision as good or excellent. Despite beliefs that they would know when it was time to change their driving habits, “over three-fourths of these high-risk drivers did not self-regulate by avoiding driving situations that place the greatest demand on visual processing abilities and the majority rarely performed specific alternative driving strategies” that could improve safety (p. 450).

Drivers with dementia also may lack awareness of declining health, contributing to a lack accurate insight into their own driving behavior. Carr et al. (2005) studied 201 Alzheimer’s patients who were driving at initial assessment to discover differences between drivers and nondrivers at a follow-up assessment. No differences were found between drivers and nondrivers on any of the measures of episodic memory, semantic memory, psychomotor skills, visuospatial skills or executive functioning. In a study including 112 dementia patients in the UK and Ireland who were current drivers, there were no significant differences in neuropsychological functioning found between drivers who had had a crash and those who had not. Of these 112 current drivers with diagnosed dementia, 63% were driving daily and 71% were driving unaccompanied (Talbot et al, 2005).

Loss Avoidance/Denial

Driving involves an overlearned skill set of coordinated visual, cognitive and physical operations. Through daily, repeated use of these coordinated operations, the process of driving becomes physically and mentally automatic. Over years of repeated daily use, the driving skill set comes to be seen as a normal and valued instrumental activity of daily living (Dickerson et al., 2011). The skill category *instrumental activity of daily living* includes such activities as managing money, preparing meals, doing light housework, and using the telephone (Federal Interagency Forum on Aging-Related Statistics, 2012).

Although older adults witness and acknowledge the decline in driving skills in others their age (Adler & Rottunda, 2006; Rudman et al., 2006), driving retirement is often viewed as something that will happen to *others*, but not to *me* (Adler et al., 2005; Bryanton, 2009). Despite the fact that many older drivers report that they will know the right time to stop driving (D'Ambrosio et al., 2007; Kostyniuk et al., 2009; Stalvey & Owsley, 2000), few older adults think about or plan ahead for driving retirement (Adler & Kuskowski, 2003; Bauer et al., 2003; Bryanton, 2009; D'Ambrosio et al., 2007; Hebert et al., 2002; ; Kostyniuk & Shope, 2003; Rosenbloom, 2004; Rudman et al., 2006; Shope, 2003).

King et al. (2011) noted that some of the 22 low-disability, current drivers (ages 57-92) they interviewed refused to accept the idea that they could lose the ability to drive in the future. These participants indicated that they could modify their behavior or could learn from the mistakes of others who had lost the ability to drive.

In a telephone survey including 986 current older drivers in Michigan, Kosyniuk and Shope (2003) found that almost half of their participants thought they had a real chance of having problems with driving in the next five years. Of the drivers that indicated they may have a future problem with driving, 52% expected they would continue driving more than 5 years. Shope (2003) recorded one older driver's insight into driving loss avoidance:

Thinking about not driving means having a negative outlook on life. I'll just deal with it when it happens (p. 58).

Ackerman et al. (2010) conducted 3-month follow-up interviews with 129 community-dwelling older drivers who had been given feedback on their performance on objective tests of useful field of view (how much of the environment one can see when staring at a fixed point) in a baseline assessment. There were no significant differences between positive feedback (qualification for a safe driver insurance discount) and negative feedback (not qualified for a safe driver insurance discount) groups on measures of self-rated driving ability or driving exposure (frequency and distance). The authors posited that

nonqualifying participants may have increased their self-ratings or decreased avoidance behaviors to reinforce or boost positive self-appraisals as a means of coping with feedback that may threaten the participants' independence (p. 375).

Because driving means independence, control over daily decision-making, competence and connection to community, the loss of driving can feel like a death (Rudman et al., 2006; Yassuda et al., 1997) and the longing to drive can remain for years after driving retirement (Kostyniuk et al., 2009; Persson, 1993). In the words of two driving retirees:

Just like a hundred years ago you had a horse that somebody stole, the same thing as not driving. You sure do miss it (Persson, 1993, p. 90).

Only losing my husband has been worse than losing my car (Yassuda, et al., 1997, p. 534).

The Driving Retirement Process: Perspective of the Older Driver

Adler and Rottunda (2006) identified three types of older adult responses to the imminent loss of driving: proactive, reluctant acceptance, and resistance. Each of these three paths to driving retirement has been documented by researchers. There are, however, no precise estimates of the percentage of driving retirees using each type of decision path.

The Proactive Path

The proactive path to driving retirement involves making realistic assessments of one's own ability, deciding to quit driving, and informing family and friends after the decision has been made (Adler & Rottunda, 2006). Numerous studies have indicated that, as a group, older drivers are proactive in compensating for health declines by making responsible changes in their driving behavior, such as avoiding night driving or driving in bad weather (Coughlin et al., 2004; Hakamies-Bloomqvist, 2004; Kostyniuk et al., 2009; Rudman et al., 2006).

What has not been adequately documented is the annual percentage of driving retirees who stop driving proactively. Studies asking older driving retirees about driving cessation decisions have found that between 18% and 83% of the older participants indicated that they ceased driving as a result of their own decision (Bryanton, 2009; Choi et al., 2012; D'Ambrosio et al., 2007; Johnson, 1999; Rosenblum & Corn, 2002; Trobe et al., 1996).

Choi et al. (2012) reported that although most of the 83 former drivers they interviewed indicated that the main reason for giving up driving was their own decision, responses to other questions indicated that the majority felt they had no choice in the matter due to health declines

and other external factors. Liddle et al. (2008) argued that older adults come to terms with driving cessation by owning the decision and reporting that the ultimate decision was self-motivated. The reframing of events initially outside the older adult's control may thus be seen as a coping mechanism used to adjust to a new reality.

The Reluctant Acceptance Path

The reluctant acceptance path to driving retirement involves recognizing health declines, but putting off the decision to end one's driving career. The final decision is prompted by discussions with family members or physicians, resulting in the older adult's agreement to relinquish driving (Adler & Rottunda, 2006). Studies asking older driving retirees about driving retirement found that between 13% and 83% indicated that family members, friends, or physicians influenced their decision-making (Bryanton, 2009; Choi et al., 2012; Hakamies-Blomqvist & Siren, 2003; Horowitz et al., 2002; Johnson, 1999; Persson, 1993; Rosenblum & Corn, 2002; Trobe et al., 1996). Some older driving retirees reported that they were pressured to retire from driving before they thought it was necessary (Kostyniuk et al., 2009).

The Path of Resistance

The path of resistance to driving retirement involves an impaired older driver's unrealistic assessment of driving ability and the refusal to stop driving until the decision is forced upon him or her (Adler & Rottunda, 2006). Johnson (1999) interviewed 285 urban older adults who had forfeited their licenses due to repeated crashes in which they were ruled to be at fault. Seventy-five percent indicated that the DMV had confiscated their license, 73% felt that family and friends had forced them to stop driving, and 42% said that fear of harming others influenced their decision. Despite involvement in two to four crashes in the 18 months prior to forfeiting their licenses, 78% reported that they had been "safe drivers at the time of their accidents and when they forfeited their licenses" (p. 15).

Moore and Miller (2005) identified 24 strategies used by 10 older drivers with macular degeneration to continue driving and to manage driving tasks. All participants had vision loss "severe enough to require assistance in accomplishing activities" (p. 111). Strategies used to continue driving included self-regulating (driving during daytime, driving only short distances after dark, limiting driving to the local area, and driving only on "good days"), using optimism biases as justification, and citing lack of crashes or physician advice to stop. One woman painted

a red line on her garage floor so that she could see where to park her car. Strategies used to manage driving tasks included driving near the center of the street, driving only in areas where they knew all the signs and turnoffs, guessing the color of the traffic light, using a copilot to provide verbal cues, using purposeful scanning, and using glare-reducing sunglasses or solar shields.

Tuokko et al. (2007) reported that 12% of the 86 older respondents attending a driver education session felt that no one should be denied the right to drive. Instances of resistant attitude have also been recorded in studies of other current older drivers (Rudman et al., 2006; Yassuda et al., 1997). In the words of three of these older drivers:

I will drive until the day I'm physically restrained (Rudman et al., 2006, p. 69).

I don't think I would give up driving until it was forced...Even if I had an accident and knew it was my fault, I think my attitude would be 'well, I'm going to be more careful' (Yassuda, et al., 1997, p. 534).

They will pry my cold dead hands off the wheel before I stop driving (Yassuda, et al., 1997, p. 534).

In extreme cases, resistance involved flouting legal restrictions by continuing to drive after one's license had been revoked (Liddle et al., 2008; Moore & Miller, 2005; Shope, 2003).

Reluctance/Resistance and Communication about Driving Retirement

Older adults commonly view the topic of driving retirement as a threat to the current level of independence, control over daily decision-making, sense of adult competence, and connection to the community. The older adult also may perceive him/herself to be a safe driver despite alternative input from others. This clash of perceptions, combined with the threat of loss of current quality of life, can invoke a fight-or-flight response through which the impaired older adult attempts to delay or avoid driving retirement.

Older adults commonly report negative emotional responses to family driving retirement conversations, including anger (Coughlin et al., 2004; D'Ambrosio et al., 2007; Liddle et al., 2008; Kostyniuk et al., 2009), sadness (Coughlin et al., 2004; D'Ambrosio et al., 2007) and

depression (Coughlin et al., 2004, Bryanton, 2009; D'Ambrosio et al., 2007; Johnson 1998). D'Ambrosio et al. (2007) found that drivers in poorer health reported more negative responses to driving conversations than did drivers in better health. In the words of one driving retiree asked to provide advice for family members on how to talk to an impaired older driver,

Keep your mouth shut; they shoot the messenger (Rosenblum & Corn, 2002, p. 706).

Some impaired older adults dispute others' assessments of their driving ability. The older adult may justify continued driving by arguing that he/she has not had a close call or crash (Moore & Miller, 2005), has been able to renew the driving license (Kostyniuk et al., 2009), has been able to get car insurance (Kostyniuk et al., 2009), or has not been specifically told by a medical professional to stop driving (Moore & Miller, 2005). An older driver also may dispute a doctor's recommendation to stop driving (Hebert et al., 2002).

Some impaired older drivers simply ignore a family member's advice to stop driving. Instances of ignoring the advice of family members have been reported by older drivers (Coughlin et al., 2004) and by family members (Horowitz et al., 2002; Johnson, 1998; Kostyniuk et al., 2009). Some older drivers ignore a physician's advice to stop driving (Reisman, 2011; Hebert et al., 2002).

Taxonomy of Family Strategies for Achieving Impaired Older Adult Driving Retirement

When family members become aware of an older adult's unsafe driving behavior, what do they do about it? There are many public service publications which provide advice on how family members *should* approach the topic of driving retirement (AAA Foundation for Traffic Safety, 2000; The Hartford, 2013; LePore, 2010; Pennsylvania Department of Transportation, 2011; U.S. Department of Transportation, 2003). These publications focus on who should bring up the topic and what types of arguments should be tried. However, none of these publications adequately addresses the emotionally-charged, highly personal conflict which can arise in cases where the midlife family member's views on the need to retire from driving meet the impaired older driver's self-perception of driving competence (based on optimism biases, self-perception of health status, and the avoidance of loss).

The midlife family member usually has a long history of interpersonal interaction with the older driver. Over that time span, the midlife family member has most likely developed a reasonable ability to predict how the older driver may react to the topic of driving retirement. The awareness of unsafe driving and the anticipation of a negative response to discussing the topic places the midlife family member in a stressful position. In the words of one adult child:

Worried sick is the best way to put it. Worried that dad shouldn't be driving because of his slow responses and eye trouble, worried that he would hurt someone, worried that I was the one who had to talk to him about it, and worried about the outcome of what would be a difficult decision (Johnson, 1998, p. 211-212).

To study decision-making in this specific family conflict situation, I have developed a Taxonomy of Family Strategies for Achieving Impaired Older Adult Driving Retirement, depicted in Table 2.1. The taxonomy was created and refined during a family theory course (Frost-Steward, 2012) and reflects my inductive analysis and categorization of dilemmas and conflict strategy choices described in direct quotes from family members found in the driving retirement literature (Connell et al, 2012; Johnson, 1998; Kerschner & Ainsberg, 2004; Rosenbloom, 2010; Sterns et al, 2001) and in publically-posted comments to news features about the regulation of older drivers (Frost-Steward & Myers-Bowman, forthcoming).

Horizontal Axis

The taxonomy's horizontal axis includes four dilemmas family members wrestle with as they decide which strategy to choose to convince the impaired older driver to stop driving: the individualism dilemma, legal dilemma, protection dilemma and caregiving dilemma. The opposing concerns underlying each dilemma push midlife family members toward or pull them away from initiating discussions or taking actions that lead to elder driving retirement. The concerns also serve as the basis for family members' justifications for choosing specific strategies to achieve driving retirement. The four dilemmas were placed in order of social scope, from most to fewest number of people included in the concerns.

Table 2.1 Taxonomy of Family Strategies for Achieving Impaired Older Adult Driving Retirement

	<u>Individualism Dilemma</u> Autonomy vs. Public Safety	<u>Legal Dilemma</u> Legal Rights vs. Legal Risks	<u>Protection Dilemma</u> Emotional Protection vs. Physical Protection	<u>Caregiving Dilemma</u> Caregiving Status Quo vs. Additional Caregiving
Imposed Decision Strategy	Prioritize public safety and override older adult autonomy	Prioritize legal risks over legal rights	Prioritize physical protection, deal with emotional relationship consequences later	Prioritize additional caregiving over the caregiving status quo
Joint Decision Strategy	Repeated negotiation to deal with both concerns	Equal attention given to legal rights and legal risks	Equal attention given to emotional and physical protection	Prioritize mutually acceptable additional caregiving
Partial Solution Strategy	Prioritize older adult autonomy, attempt to limit danger to public safety	Prioritize legal rights, attempt to limit legal risks	Prioritize emotional protection, attempt to limit danger to physical safety	Compromise sets caregiving level, preempts additional caregiving
Giving In Strategy	Prioritize older adult autonomy, hope for public safety	Prioritize legal rights, hope for non-involvement in crashes or lawsuits	Prioritize emotional protection, hope for physical safety	Accept caregiving status quo, give up on additional caregiving
Avoiding Strategy	Prioritize older adult autonomy, ignore risk to public safety	Prioritize legal rights, ignore legal risks	Prioritize emotional protection, ignore danger to physical safety	Prioritize caregiving status quo, avoid additional caregiving

The Individualism Dilemma

Largest in social scope is the individualism dilemma as it involves responsibility to the entire community as well as to the impaired older driver. I define the Individualism Dilemma as the family member's unpleasant choice between two competing responsibilities: (1) the responsibility to support the older adult's autonomy and right to make decisions for him/herself and (2) the responsibility to keep members of the general public safe from the impaired older adult's unsafe driving.

The Autonomy Concern

The autonomy concern is defined as a hesitancy to interfere with the older adult's right to be in charge of his or her own decisions. A strong autonomy concern is assumed to pull the family member away from initiating driving retirement discussions and actions.

The autonomy concern is rooted in the ethics of interfering with the life choices of older adults. Cicirelli (1992) defines personal autonomy as "having the capacity to make and execute deliberated decisions to satisfy needs and attain goals in a manner consistent with one's values" (p. 14). Family members can show respect for an older adult's personal autonomy "by refraining from external interference with an individual making and executing decisions" (p. 21) or by encouraging and enhancing the older adult's decision-making.

Paternalism is defined as blocking a dependent older person's decision and implementing one's own decision instead. Paternalism is an ethical position only when the person taking the position of authority over a dependent older adult

(a) is concerned with the welfare or happiness of the dependent person, (b) knows best what positions and courses of action are most beneficial and least harmful to the dependent person, and (c) has the moral right to go beyond reasoning or persuasion to force the dependent person to accept certain decisions and courses of action (Cicirelli, 1992, p. 27).

It is not uncommon for family members to feel ambivalent about making decisions for the older driver. Persson (1993) found that "the family may be concerned about safety and yet reluctant to take away the autonomy the car provides, and issues of control, boundaries and changing roles often mitigate against family involvement" (p. 91). Researchers have identified

barriers to family intervention in driving decisions as including the fear of meddling (Sterns et al., 2001) and conflicts over perceived role reversal (Connell et al., 2012; Kosuniuk et al., 2009; Sterns et al., 2001). In the words of one midlife family member:

It's a combination of someone pulling in the reins ... taking away their independence, but it's also ... that the ... children are telling the parents what to do and that is not a role they ever had or want to have (Connell et al, 2012, p. 11).

Hebert et al. (2002) found that, although all 16 caregivers in their study agreed that a fictional character with Alzheimer's depicted in a vignette should stop driving after having a crash, 3 caregivers allowed their own spouse with Alzheimer's to continue driving after experiencing a collision. Two caregivers allowed their spouses to continue driving despite near-collisions and two caregivers allowed their spouses to drive after receiving a police citation. The caregivers were "unable to overcome role conflicts, care recipient lack of insight, and their own denial in order to make and enforce the appropriate and necessary decisions" (p. 28). Supporting continued driving by acting as a copilot is a strategy sometimes used by spouses of drivers with dementia (Hebert et al., 2002; Jett et al., 2005) and with visual deficits (Moore & Miller, 2005).

The Public Safety Concern

The public safety concern is defined as a sense of responsibility for ensuring that the older adult's unsafe driving does not harm other people who are driving, biking and walking in the near vicinity of the impaired older driver's moving vehicle. A strong concern for public safety is assumed to pull the family member toward initiating driving retirement discussions and actions.

An intense sense of responsibility, as well as "a strong concern for safety" and the ability to cope with family interactions were found to be factors most likely to motivate a spouse or adult child to intervene and push for driving cessation (Sterns et al, 2001, p. 6). Concern for public safety has been identified in a number of focus groups and interviews with family members of older drivers (Connell et al, 2012; Hebert et al., 2002; Jett et al., 2005; Johnson, 1998; Kosyniuk et al, 2009; Shope, 2003).

The Legal Dilemma

The second largest in social scope is the legal dilemma as it involves concerns about involvement in a particular segment of society: the legal system. I define the Legal Dilemma as the family member's unpleasant choice between two competing responsibilities: (1) the responsibility to honor the impaired older driver's legal status and (2) the responsibility to limit the impaired older driver's legal risk.

The Legal Rights Concern

The legal rights concern is defined as a sense of responsibility for honoring the fact that the older family member holds a valid, state-issued driver's license which legally entitles him or her to drive a legally owned vehicle. A strong concern for the older adult's legal right to drive is assumed to pull the family member away from initiating driving retirement discussions and actions.

The Legal Risk Concern

The legal risk concern is defined as a sense of responsibility for preventing the impaired older driver from receiving a police citation for driving mistakes, being involved in court action regarding at fault crashes, or being sued by people injured in a crash in which the impaired older driver is found to be at fault. A strong concern for the older adult's legal risk is assumed to pull the family member toward initiating driving retirement discussions and actions.

Jett et al. (2005) identified legal arguments as a tactic used by some medical professionals and family members of dementia patients to convince the impaired older adult to stop driving. In particular, discussing the "danger of losing one's life savings" in a lawsuit was persuasive for some (p. 114).

The Protection Dilemma

Third largest in social scope is the protection dilemma as this involves concerns about the family member-older driver relationship. I define the Protection Dilemma as the family member's unpleasant choice between two competing responsibilities: (1) the responsibility to protect the older impaired driver emotionally and (2) the responsibility to protect the impaired older driver from physical harm.

The Emotional Protection Concern

The emotional protection concern is defined as the desire to support the older driver's positive sense of self and to maintain a positive dyadic relationship with the older driver. A strong emotional protection impulse is assumed to pull the family member away from initiating driving retirement discussions and actions because those discussions and actions have the potential of harming (1) the older adult's self-perception of competence and (2) the current relationship between the family member and the older driver.

Fingerman (2003) interviewed 47 older mother-midlife daughter pairs and found that the information shared by the daughters in separate interviews differed substantially from information shared by the daughter in a joint mother-daughter interview. In particular, daughters were reticent to voice dissatisfaction with the mother-daughter relationship and toned down the expression of grievances. Fingerman characterized this reticence as a means of protecting the mother emotionally from potentially upsetting information and avoiding conflict which could damage the mother-daughter relationship.

Some current older drivers indicated that their family members may delay telling them about driving concerns for fear of hurting their feelings (Rudman et al., 2006). Feelings of guilt or disrespect also were cited by family members as barriers to intervention in driving decision-making (Connell et al., 2012; Sterns et al., 2001). In the words of one midlife family member:

Mother was upset, of course, and I struggled with her anger, my discomfort, and the strain between us (Johnson, 1998, p. 213).

A similar barrier to intervening in driving decision-making is the reluctance to be labeled *the bad guy* (Kosyniuk et al., 2009). In the words of one midlife family member:

You don't want to hurt your relative's feelings ... to be the one that puts the hammer on their lifestyle (Connell et al., 2012, p. 8).

This reluctance to be *the bad guy* is sometimes exacerbated by a lack of support from other family members, licensing officials, or medical professionals (Connell et al., 2012; Kosyniuk et al., 2009; Rudman et al., 2006).

The Physical Protection Concern

The physical protection concern is defined as the desire to prevent the impaired older driver from experiencing bodily injury or death. A strong physical protection impulse is assumed to pull the family member toward initiating driving retirement discussions and actions as a means of keeping the impaired older adult physically safe from the potentially lethal consequences of his or her unsafe driving behavior. Concern or worry about the possibility of driver injury or death has been reported by family members in interviews (Jett et al., 2005; Johnson, 1998).

This concern is well-founded. More than two-thirds of crash deaths of drivers over age 70 happen in single vehicle crashes in which the older driver makes a driving error (Madsen, 2011). Tefft's (2008) analysis indicated that

if a randomly selected driver in his or her thirties and a randomly-selected driver aged 85 or older were to drive equal numbers of miles, the older driver would be over 1500% more likely than the younger driver to be responsible for and die as a result of a crash (p. 582).

Jett et al. (2005) found that danger to the self was often not persuasive in negotiations with older drivers with dementia. "Danger to others, especially a beloved grandchild, neighbor's child or even a pet, was reported to be far more persuasive" (p. 114).

The Caregiving Dilemma

Smallest in social scope is the caregiving dilemma as this involves concerns about how the family member will manage his or her individual lifestyle and daily task requirements. I define the Caregiving Dilemma as the family member's unpleasant choice between two competing responsibilities: (1) the responsibility to maintain one's current level of elder caregiving and (2) the responsibility to take on additional caregiving responsibilities if the older adult stops driving.

The Status Quo Concern

The status quo concern is defined as an inability or unwillingness to take on additional caregiving tasks if the older relative stops driving. A strong status quo concern is assumed to pull the family member away from initiating driving retirement discussions or actions.

Kostyniuk and Shope (2003) found that two-thirds of the former drivers they surveyed relied solely on rides from relatives or friends to get where they needed to go. Choi (2010) found that both current and former drivers preferred informal transportation support from family and friends over formal transportation support from organizations or agencies.

Researchers have found that a major barrier to intervening in driving decision-making was the concern that the older adult would become dependent on the family member for transportation and that the family member was too busy to provide rides (Perkinson et al., 2005; Rosenbloom, 2010; Sterns et al., 2001) or lived too far away to help with transportation (Kostyniuk et al., 2009). Studies have also identified instances where family members of older drivers were hesitant to take on a caregiver role (Connell et al., 2012; Kostyniuk et al., 2009). In the words of one family member:

My mother doesn't want my grandmother to stop driving since neither of us wants her to be dependent on us (Connell et al, 2012, p. 10).

The lack of adequate, senior-friendly alternative transportation was another deterrent to encouraging driving retirement (Classen et al, 2009; Rosenbloom, 2010; Sterns et al, 2001).

The Additional Caregiving Concern

The additional caregiving concern is defined as the ability or willingness to take on additional caregiving responsibilities if the older parent stops driving. A strong additional caregiving concern is expected to pull the family member toward initiating driving retirement discussions and actions.

Matthews (2002) found that the 149 adult sibling pairs interviewed often did not characterize caregiving activities, including providing transportation, done for older parents as burdensome. Siblings instead approached meeting the needs of older parents pragmatically and assumed additional responsibilities as an extension of normal family interaction. The older parents often mediated family caregiving relationships by assigning helping tasks in a fair manner and reducing discord among the sibling caregivers.

Connell et al. (2012) also found instances of a willingness on the part of family members to accept an obligation to assist with transportation. In the words of one family member:

I had to accept my responsibility that I was raised by this person. Now it's my turn to turn around and do something back (Connell et al., 2012, p. 10).

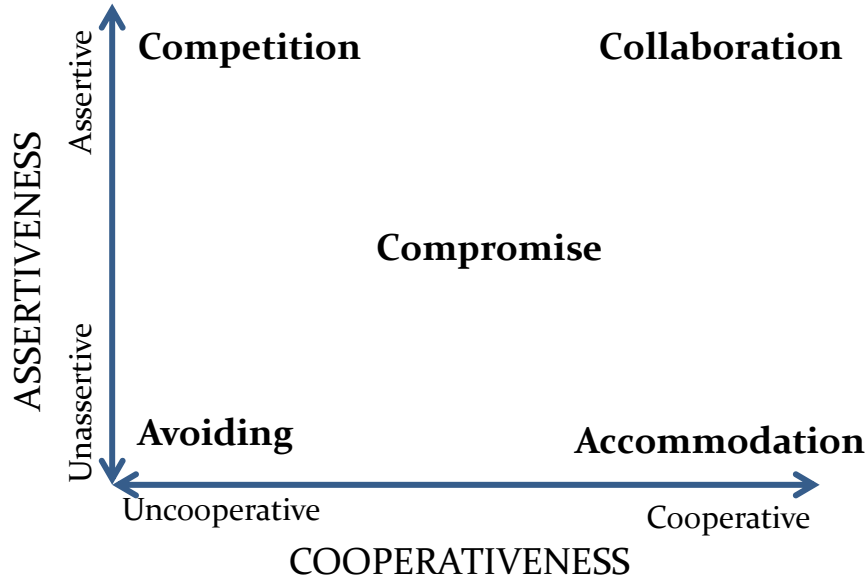
Vertical Axis

The taxonomy's vertical axis includes five conflict strategies, placed in hierarchical order from most decisive to least decisive. This order does not reflect an evaluation of the choices made by the family member. It simply identifies the level of determination the family member has in achieving the goal of driving retirement when that family member (1) becomes aware of the older adult's unsafe driving behavior and (2) anticipates the older adult's resistance to the drastic change in quality of life that accompanies driving retirement. A family member may choose different strategies in successive attempts to convince the impaired older adult to stop driving.

The driving retirement literature has not focused specifically on family conflict communication strategies involved in convincing an impaired older driver to relinquish driving. For this reason, concepts were borrowed from Thomas and Kilmann's Typology of Conflict Handling Modes (Figure 2.1) and were modified to fit family conflict arising from the family member's awareness of the older adult's unsafe driving and expectation that the older adult will resist attempts to convince him or her to stop driving.

Thomas and Kilmann's Typology of Conflict Handling Modes (Thomas, 1992) defines five types of conflict strategies which differ from one another in terms of assertiveness and cooperativeness. Assertiveness is defined as the attempt to satisfy one's own needs and objectives. Cooperativeness is defined as the attempt to satisfy the needs and objectives of others. The five conflict strategies include competition mode, collaboration mode, compromise mode, accommodating mode and avoiding mode.

Figure 2.1 Thomas & Kilmann's Typology of Conflict Handling Modes



Imposed Decision Strategy (Competition Mode)

Thomas and Kilmann's competition mode is a strategy high on assertiveness and low on cooperativeness. Competing involves choosing the *right* position and focuses on winning the conflict using methods which get the job done. This involves asserting authority or power over the other and placing a low priority on the wishes or needs of the other. The decision to take this action is seen as necessary and justified. In developing a theory of family driving decision-making strategies, this mode is called the *imposed decision strategy*.

The imposed decision strategy is highest in level of decisiveness. At this level, the family member prioritizes public safety and overrides older adult autonomy. The impaired older driver's legal risk is prioritized over the driver's legal rights. Physical protection is prioritized and emotional consequences are dealt with later. Additional caregiving is prioritized over the caregiving status quo as the family member focuses on doing what he or she perceives to be the right thing.

In focus groups and interviews, family members of impaired older drivers have reported using a number of different kinds of imposed action. These actions include disabling the car

(Jett et al., 2005; Perkinson et al., 2005; Persson, 1993), changing or altering the car keys (Perkinson et al., 2005; Persson, 1993; Sterns et al., 2001), hiding the keys (Jett et al., 2005), removing the car (Connell et al., 2012; Kostyniuk et al., 2009; Perkinson et al., 2005; Sterns et al., 2001), lending the car to someone (Connell et al., 2012; Perkinson et al., 2005; Persson, 1993), postponing the replacement of a totaled car (Perkinson et al., 2005), taking away the driver's license (Perkinson et al., 2005), and reporting the older driver to the state Department of Motor Vehicles (DMV) (Jett et al., 2005; Perkinson et al., 2005; Sterns et al., 2001). Some family members indicated that these strategies were not always successful in achieving driving cessation (Perkinson et al., 2005). Some family members noted that attempts to enlist the support of a physician or DMV official were unsuccessful (Sterns et al., 2001).

In interviews with 216 dementia patients, family members, and professionals in the field of aging, Jett et al. (2005) found that a minority of the family members imposed driving cessation. The cessation decision was imposed in cases where the impaired older adult was unwilling or unable to make the decision or when the safety of the older adult and others was in jeopardy. Although the imposed strategy was most effective in stopping driving, professionals felt an imposed decision was potentially dehumanizing and may damage family relationships and trust between the patient and others.

Liddle et al. (2008) also documented negative emotional responses to an imposed decision among cognitively intact older adults. These older adults expressed anger and feelings of lack of control over the imposed decision. Connell et al. (2012) documented instances where the older adult harbored a lingering resentment about having the car taken away from them.

Joint Decision Strategy (Collaboration Mode)

Thomas and Kilmann's collaboration mode is a strategy high on assertiveness and high on cooperativeness. Collaborating involves attempts to fully satisfy one's own needs and the needs of the other. The process includes identifying underlying issues and looking for creative ways to find a win-win solution. In developing a theory of family driving decision-making strategies, this mode is called the *joint decision strategy*.

The joint decision strategy is second highest in level of decisiveness. At this level, the family member uses repeated negotiation techniques to achieve the goal of driving retirement and, at the same time, addresses the older adult's need for autonomy. Equal attention is given to

the older driver's legal rights and to the older driver's legal risks. Equal attention is given to emotional protection and physical protection as the family member listens to, supports and works to address the older driver's concerns. Additional caregiving is prioritized over the status quo and the family member may help develop an alternative transportation plan that works for both the family member and the older relative.

The joint decision-making strategy is the standard strategy recommended in advice literature written for family members facing older driver retirement (AAA Foundation for Traffic Safety, 2000; The Hartford, 2013; LePore, 2010; Pennsylvania Department of Transportation, 2011; U.S. Department of Transportation, 2003). The research on driving retirement documents several types of negotiating tactics that fit within the joint decision-making category. These tactics include discussing concerns for public safety (Kostyniuk et al., 2009), discussing the cost of owning a vehicle (Persson, 1993) and offering to provide transportation (Johnson, 1998).

Partial Solution Strategy (Compromise Mode)

Thomas and Kilmann's compromise mode is a strategy moderate in both assertiveness and cooperativeness. "The objective is to find some expedient, mutually acceptable solution that partially satisfies both parties" (Nelson & Brown, 2012, p.302). This strategy involves exchanging concessions and splitting the difference between the two parties. In developing a theory of family driving decision-making strategies, this mode is called the *partial solution strategy*.

The partial solution strategy is third highest in level of decisiveness. The partial solution prioritizes older adult autonomy, but attempts to limit the danger to public safety through a compromise that limits the older adult's driving. Legal rights are prioritized, but an attempt is made to limit legal risk. Emotional protection is prioritized, but an attempt is made to limit the older adult's level of physical danger. The compromise agreement sets the family member's level of caregiving and preempts attempts to provide additional caregiving assistance.

Compromises identified in the driving retirement literature include creating rules about driving habits (Connell et al., 2012; Kosyniuk et al, 2009), agreements to limit driving (Coughlin et al., 2004) and agreements to avoid driving under certain conditions (Coughlin et al., 2004). In the words of one family member:

My husband sat him [his grandfather] down and gave him a list of ten rules ... one of them was that he couldn't drive outside town anymore. And the grandfather accepted that (Connell et al., 2012, p. 7).

Giving In Strategy (Accommodating Mode)

Thomas and Kilmann's accommodating mode is a strategy low on assertiveness and high on cooperativeness. Accommodating means giving up on one's own position and allowing the other to reach his or her goal. This may take the form of selfless accommodation to the other or yielding to another's preference when one would rather not. In developing a theory of family driving decision-making strategies, this mode is called the *giving in strategy*.

In my taxonomy, the giving in strategy is forth highest in level of decisiveness. Using this strategy, the family member attempts to negotiate, but acquiesces when the older driver resists. Older driver autonomy is prioritized and the family member hopes for public safety. The older driver's legal rights are prioritized and the family member hopes that citations or crashes will not occur. Emotional protection is prioritized and the family member hopes for physical safety. The status quo is prioritized and a change in caregiving level depends upon a request from the older adult.

One family member interviewed by Rosenbloom (2010) described this type of strategy:

My father-in-law, he still drives and he's a terrible driver. But you fight to say anything to him because he gets upset...cause they want their independence, they want to be in control of their lives (p. 636).

Avoiding Strategy (Avoiding Mode)

Thomas and Killman's (1992) avoiding mode is a strategy low on assertiveness and low on cooperativeness. Avoiding involves refusal to attend to either one's own or the other's needs. The conflict is simply not addressed. The issue is not brought up, is postponed, or is sidestepped by changing the subject. In developing a theory of family driving decision-making strategies, this mode is called the *avoiding strategy*.

The avoiding strategy is the lowest in level of decisiveness. Using this strategy, the family member avoids dealing with both the autonomy and the public safety concerns. The older adult's legal rights are prioritized and legal risk is not addressed. Emotional protection is

prioritized and the danger to the older driver's physical safety is not addressed. The caregiving status quo is prioritized and taking on additional caregiving is avoided.

When faced with two choices, neither of which has a positive outcome, it is common for individuals to put off or avoid making the choice (Anderson, 2003). If a person anticipates that changing the status quo will bring negative emotion or regret, he or she may be motivated to avoid the negative outcome by staying with the situation as it is (Luce, 1998). A family member's avoidance of driving discussions or actions may thus be viewed as a coping mechanism for dealing with a perceived no-win situation which is potentially fraught with interpersonal conflict.

In focus groups with 49 caregivers of older adults, Kerschner and Ainsberg (2004) found that, although many caregivers recognized age-related declines in their loved one, they held "little hope that we can get the seniors in our care – especially our parents – to stop driving" (p. 298). Hebert et al. (2002) found that, in some spouses of Alzheimer's patients, "the fear of confrontation outweighs the knowledge and observation of driving safety" (p. 27). Sterns et al. (2001) reported instances where in-laws refused to intervene because the driver was not a close enough relative. Kostyniuk et al. (2009) identified family avoidance techniques, including not discussing the topic and not riding along with the older driver without telling the older driver why.

Some driving retirees also reported that they had had no input from family members before relinquishing driving (Rudman et al, 2006; Kostyniuk et al, 2009). A few of these participants were surprised by expressions of relief from family members as they had had no indication that family members were concerned about their driving (Rudman et al, 2006).

Conclusion

The literature on elder driving retirement has mainly addressed the topic from the viewpoint of the older driver. Few researchers have focused on the process of elder driving cessation from the perspective of the midlife family members who take on intergenerational family negotiating and decision-making tasks. If the family members are our society's default mechanism for removing reluctant/resistant, unsafe older drivers from the general driving population, it is important to understand how family members choose their communication and

negotiation strategies. It also is imperative to understand how decisions to act or not act are justified.

Chapter 3 - Methods

A few studies have focused on the elder driving retirement process from the viewpoint of the midlife family member. The data for the majority of these studies were gathered through focus groups and surveys. This dissertation explores the viewpoints of multiple family members regarding the conversations and actions taken to convince an older driver to end his or her driving career.

Research Purpose

Because little is known about the full scope of the intergenerational family communication and decision-making process which often precedes elder driving cessation, I conducted an in-depth, qualitative, exploratory investigation to better define the process. The initial purpose of this dissertation was to develop, test and refine the Taxonomy of Family Strategies for Achieving Impaired Older Adult Driving Retirement. Although the taxonomy may be useful in studying a larger sample of family members, it did not adequately capture the lived experience of the participants in the present study. A different model (described in Chapter 4) emerged from the analysis of the data.

Research Questions

Overarching Research Question: How do midlife family members view and experience the intergenerational family process through which a medically impaired older adult retires from driving?

This dissertation took a novel approach to understanding the family processes involved in elder driving retirement decision-making by capturing in-depth accounts of what happened from the time a family member first noticed a concern with the older adult's driving until the time the older adult stopped driving.

Specific Research Question 1: How do precipitating events influence family members' views on intervention?

Precipitating events are incidents that can influence family members' viewpoints regarding the driving safety of the older relative. Some examples of a possible precipitating event are (1) a medical crisis that dramatically changes the older adult's level of driving ability,

(2) receiving a verbal report or discovering other evidence of unsafe driving, or (3) eye witness evidence of specific unsafe driving behaviors. Participants were asked to identify the first person who noticed a concern about the older adult's driving and describe the reasons for this person's concerns. After initial awareness, participants were asked to describe conversations and events that influenced the driving retirement process.

Specific Research Question 2: How do family members describe the communication web involved in elder driving retirement decision-making?

I define the communication web as the people involved in discussions about the older adult's driving. The size of the web is defined by the number of family members, friends/neighbors, medical personnel, and legal representatives who are involved in discussions about the older adult's driving at any point in the process. The inclusion component of the communication web involves the identification of which web members (family members, the older driver, family friends, physicians, DVM officials, insurance agents, etc.) are and are not included in specific discussion contexts. An additional feature of the communication web explored was the development of coalitions or competing factions that could influence how and whether a specific individual would initiate negotiations or actions to achieve elder driving retirement.

Specific Research Question 3: What dilemmas do midlife family members experience during the driving retirement process of a medically impaired older relative?

There are no clear social rules regarding who is responsible for encouraging the driving retirement of an impaired older adult, particularly when the older adult is reluctant or resistant to ending his or her driving career. In this context, family members face social pressure to intervene and social pressure to refrain from intervening in the driving decision-making of an impaired older relative. Play-by-play accounts of the intervention process were gathered with the goal of identifying the types of dilemmas reported by family members and how emotionally intense these experiences were for family members.

Specific Research Question 4: What strategies and justifications do midlife family members express when describing the methods they used to encourage an impaired older relative to stop driving?

Interview questions encouraged participants to describe decisions they and others made during the driving retirement process. The goal was to identify the sequence of events, the specific tactics used by family members and by the older driver, and how the participants explain the motives behind the tactics used by each actor described. The justifications that the family members provide to explain their strategic choices (and the strategic choices of others) provided insights into the range of choices the participants viewed themselves as having during the driving retirement process.

Multiple Embedded Case Study Approach

This dissertation focused on an in-depth, context-sensitive understanding of the family process involved in elder driving cessation in each of three case conditions: (1) dementia-related driving retirement; (2) physical decline-related driving retirement; and (3) vision-related driving retirement. For this reason, a multiple embedded case study approach was used to gather and analyze data detailing the family processes in these specific family contexts.

A case is a bounded, integrated system (Merriam, 2001; Smith, 1978; Stake, 1995). A case study is defined as “an in-depth description, exploration, or explanation of a particular system or phenomenon” (Lee et al., 2010, p. 682). Case study approaches allow for the collection of in-depth, context-sensitive data (Patton, 2002).

An embedded case study involves gathering and analyzing data from more than one case component, nested within the case (Yin, 1994). In this dissertation, each family case consisted of two embedded case components: midlife family members who had experienced the driving retirement process with an older adult. This case-specific approach allowed me to uncover multiple component (family members’) perspectives on the communication and decision-making processes involved in the driving retirement process they experienced with their older relative. Each individual (case component) story was nested within the family case, allowing co-analysts to compare and contrast component-level data to uncover family-level roles and communication patterns used during the specific family problem-solving process involved in elder driving retirement. Family members (case components) provided family stories, which were organized accounts of events that offered insights into “the complexity and variability of family experiences” related to this topic (Rosenblatt & Ficscher, 1993, p. 170). Table 3.1 depicts the multiple embedded case study design.

Table 3.1 Multiple Embedded Case Study Design

Case Conditions	Family Cases	Embedded Case Components
Dementia-Related Driving Retirement	Family Case A	Midlife Family Member A-1
		Midlife Family Member A-2
	Family Case B	Midlife Family Member B-1
		Midlife Family Member B-2
Physical Decline-Related Driving Retirement	Family Case C	Midlife Family Member C-1
		Midlife Family Member C-2
	Family Case D	Midlife Family Member D-1
		Midlife Family Member D-2
Vision-Related Driving Retirement	Family Case E	Midlife Family Member E-1
		Midlife Family Member E-2
	Family Case F	Midlife Family Member F-1
		Midlife Family Member F-2

Data Collection

To document the perceptions of family members who had had first-hand experience with the family driving retirement process, I conducted thirteen semi-structured interviews with individuals from seven family cases. One participant provided information about his involvement in the driving retirement process of two older drivers: one from his immediate family (his mother) and one from his wife’s family (his mother-in-law).

For the purposes of this study, midlife was defined as one generation younger than the older driver. The midlife participants ranged in age from 49 to 65. At the time of driving cessation, all three older male drivers were in their 80s. At driving cessation, two older female drivers were in their 70’s, one was in her 80’s and one was in her early 90’s. One male older driver was able to have his license reinstated and currently continues to drive.

The family members and their older relatives resided in six U.S. states: four Midwestern states and two Western states. None of the respondents lived in the same residence as the older driver. Four respondents lived in the same town or city as the older driver, three lived less than a 2-hour drive away, five had a 2-5 hour drive, and two lived more than a 1-day drive from the older relative.

Pseudonyms

Each participant was assigned a pseudonym that corresponded to the order in which they were interviewed. Participants from the first family interviewed were assigned pseudonyms starting with the letter A, participants from the second family interviewed were given names starting with B, etc. The pseudonyms for first names were selected from a U.S. Social Security Administration list of the most popular given names registered between 1914-2013 (U.S. Social Security Administration, 2014). The pseudonyms for the family surnames were selected from a list of famous children's authors.

Additional Concerns for Privacy

Several participants asked that their geographical privacy be maintained. For this reason, the names of towns, cities, counties, and states in which events took place were not identified in this document. The standard phrase *Department of Motor Vehicles* (DMV) was used throughout this dissertation to denote all state licensing agencies, including such titles as the Bureau of Motor Vehicles, Department of Licensing, Department of Public Safety, Division of Motor Vehicles, Motor Vehicle Commission, Motor Vehicle Division, Registry of Motor Vehicles, etc.

Sampling Strategy

A stratified sampling procedure was used to identify sets of two midlife family members of an older relative who had recently retired from driving. As the interviews were conducted, it became apparent that the majority of the older drivers being discussed did not fit neatly into one medical category, but instead had multiple medical conditions. I therefore focused on including enough families to provide variability across the three categories of health declines that typically cause the loss of driving ability among adults over age 70: dementia, decline in vision, and decline in physical functioning. An additional category was added for cognitive conditions that were not described as dementia. The types of medical conditions reported by participants are shown in Table 3.2.

The vision conditions reported by participants included cataracts, glaucoma, a macular hole, problems with visual attention (Beth: "the visual cue between what her eye sees and what lands in her brain aren't matching up") and a condition described by Faith as "a wrinkle in the eye." The physical functioning issues reported by participants included diagnosed conditions

(diabetes, peripheral neuropathy, hearing loss, a fused disc in the neck making it difficult to turn the head) and observed conditions (difficulty walking, problems with balance, stooped posture/difficulty seeing over the steering wheel).

Table 3.2 Older Driver Health Conditions Reported By Participants

Family	Older Driver	Vision	Physical Functioning	Cognitive Non-Dementia	Cognitive Dementia
Alcott	Mother				X
Brett	Mother/ Mother-In-Law	X	X	X	
Carle	Uncle				X
Dahl	Mother		X	X*	X*
Eliot	Father	X	X		
Fleming	Father	X	X	X	
George	Mother	X	X		

* Note: The two participants from the Dahl family disagreed about whether the cognitive impairment was dementia.

One non-dementia cognitive condition was attributed to stroke, one to problems with visual attention, and one to caregiving exhaustion combined with grief over the loss of a spouse. In the dementia category, one older driver was formally diagnosed with Alzheimer’s disease, one was taking a medication used to treat dementia and one was described by a family member as having dementia.

Recruitment of Participants

Three families were recruited through advertisements posted in a county extension newsletter and in a newsletter for university employees. Four families were recruited by discussing the topic of my research with midlife friends in several states and following up on their suggestions regarding people that fit my research criteria. In each of these 7 families, an individual expressed interest in participating and then recruited a second family member. More than two dozen additional individuals expressed an interest in being interviewed, but were unable to recruit a second family member to participate. In the majority of these cases, the unwillingness of the second family member was attributed to discomfort with discussing the topic.

Instrument for Data Collection

I conducted in-depth interviews with midlife family members to uncover patterns of communication and decision-making within the narratives. The semi-structured interview guide is included in Appendix A. A variety of question types gathered information on the knowledge, opinions, behaviors, and feelings that the family members had witnessed or experienced during the process. The variety of question types allowed me to gather data subsets (components of narratives within family cases) covering numerous intergenerational family topics that have not been documented in the driving cessation literature.

During the interviews, I completed a relational map, identifying all of the people who provided input at some point in the process. The relational map (provided in Appendix B) identified the family members, friends/neighbors, medical professionals and legal professionals who were involved in conversations about the older adult's driving at some point in the driving retirement process.

Data Analysis

Organization of the Data

Each interview was recorded and transcribed. A case-component record was written for each interview, summarizing respondents' responses regarding each of the five research questions, i.e., the (1) precipitating events, (2) communication web, (3) dilemmas, and (4) strategies and justifications respondents identified and/or discussed during the interview.

Analysis Strategies

Individual-Level and Family-Level Data

It is important, when analyzing data from two or more sources, to distinguish between individual properties and relationship properties. Individual properties include such things as demographic characteristics, values, attitudes, expectations, perceptions of the relationship, and perceptions of the characteristics, values, attitudes and expectations of others. Relational properties include such things as power, rules, roles and norms. These relational properties can be assessed by gathering separate data from each individual and identifying convergence, discrepancy in accounts, reciprocity, and interdependence (Thompson & Walker, 1982).

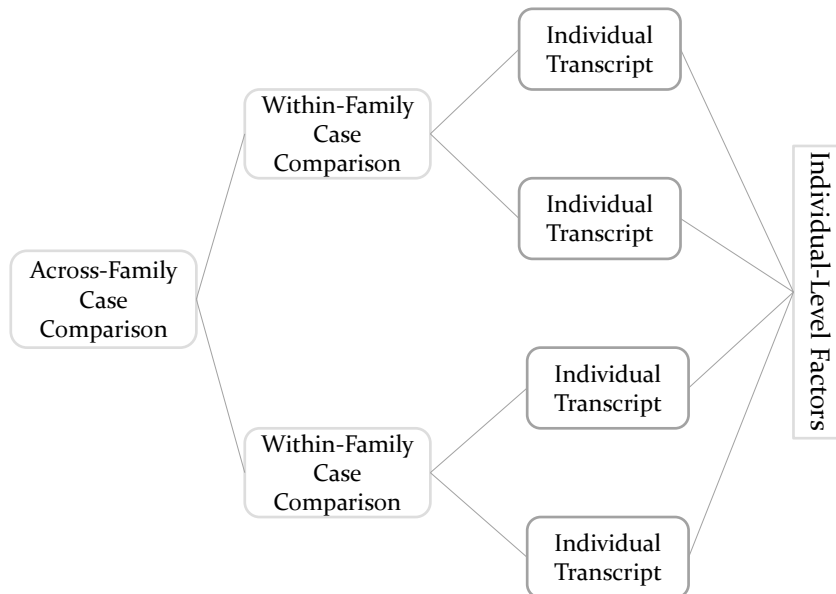
In this dissertation, individual properties included the individual perceptions about the sequencing of events, the words and behaviors of others involved in the process, and the motives and viewpoints of other family members. These individual accounts were deductively analyzed for the individual-level description of dilemmas, strategies, and justifications for strategies.

Relationship data were assessed by analyzing the convergence and divergence of accounts provided by two family members within each family case. An inductive search for relational categories may identify various patterns of assigning roles and responsibilities, patterns of direct or indirect communication about driving retirement, and patterns of information sharing amongst family members.

Levels of Comparison

Three levels of comparison were used to investigate the data: across-individual transcript comparison, within-family transcript comparison and across-family transcript comparison. These levels of comparison are depicted in Figure 3.1.

Figure 3.1 Levels of Comparison



Verification

Co-Analysts

A key aspect of the verification of qualitative analysis is reflexivity, defined as the ability to “be attentive to and conscious of the cultural, political, social, linguistic and ideological origins of one’s own perspective and voices of those one interviews” (Patton, 2002, p. 65). In terms of self-reflexivity and reflexivity about the people I am studying, it is important to state that I am a midlife adult who has participated in the driving retirement process of an older relative with a progressive physical condition. My co-analyst is a midlife adult who participated in the driving retirement process of an older relative with Alzheimer’s dementia.

Patton (2002) defines verification as “going back to the world under study and examining the extent to which the emergent analysis fits the phenomenon and works to explain what has been observed” (p, 67). My co-analysts and I worked back and forth between looking for components of deductive sensitizing concepts and discovering new patterns (inductive noticing of salient features) that emerged from the data. Sensitizing concepts were revised to fit emerging patterns in the data. A search for confirming and disconfirming evidence assessed whether the new patterns adequately fit the data provided by the participants.

Literature

Findings from interview data were compared with the literature on driving retirement to establish confirmatory and innovative significance (Patton, 2002). Confirmatory significance involves consistency in findings with the body of literature on driving retirement. Innovative significance involves discovery of new phenomena or processes that inform and enhance understanding of the role of the family in elder driving retirement.

Theory

Patton (2002) noted that theory triangulation involves understanding “how differing assumptions and premises affect findings and interpretations” (p.562). This can involve analyzing data using different theoretical lenses. In comparing the evidence provided by respondents to various theoretical interpretations, it was found that the data best fit within a modified ecological framework. My Ecological Model of Later-Life Driving Decision-Making is presented at the end of Chapter 4.

Conclusion

A multiple embedded case study approach to understanding family decision-making provided basic, foundational research on an applied topic that affects many midlife and later-life family members. My ultimate goal is to improve advice for family members about best practices for encouraging the driving retirement of medically impaired older adults by taking into account the family members' decision-making dilemmas and strategies as they occur within the context of family-level dynamics and within the larger societal context of inadequate regulatory mechanisms for ensuring public safety.

Chapter 4 - Results

Analysis of the interview transcripts revealed a number of insights into the driving retirement process experienced by participants. Patterns emerging from the data included types of driving retirees, ways that precipitating events trigger awareness of possible driving safety issues, levels of agreement on the driving retirement timeframe, size of the communication webs, roles played by various types of family members, how family members balance autonomy concerns with public safety concerns, and strategies used by family members to encourage driving retirement. These results were not consistent with the Taxonomy of Family Strategies for Achieving Older Adult Driving Retirement. An alternative model, The Ecological Model of Later-Life Driving Decision-Making was proposed.

Proactives, Reluctant Accepters and Resisters

One pattern that repeatedly emerged from the analysis of participant's transcripts was that the cessation process of drivers in this study closely corresponded to the three categories of driving retirees identified by Adler and Rottunda (2006): Proactives, Reluctant Accepters and Resisters.

Two of the older drivers described by respondents made a voluntary, proactive decision to end their driving careers.

My mother gave up voluntarily...I think that two things really weighed in to her decision...I don't think that she was really concerned about her driving skills, but she was very concerned about her memory and...she is a very thrifty person and she thought she was paying a lot of money for a car she wasn't using very much. (Donna)

[My uncle] gave up driving because...he had parked his car and he had forgotten where he had parked it... That was really upsetting for him...And he didn't like getting that level of nervousness. (Charles)

In both of these cases, the older driver was concerned about his or her memory. Both drivers also expressed anxiety about driving in bad weather, particularly in winter driving conditions.

Three older relatives reluctantly accepted the verbal advice from a physician to stop driving.

[The doctor] was just masterful. I'm sure he's dealt with this a lot. And he would say, ... "How do you feel about your ability to drive?" And my dad just would – you know, he loved his doctor and I don't think he would lie to him. And so he would say, "Well, I'm not sure – I'm not sure I'm ready." And the doctor would say, "Then I don't think you're ready, either. And we'll talk about it next time you come." (Emily)

In the 2009 [neuropsychologist's evaluation], it was like, well it's okay [to drive] if it's daytime, and short distances, and only local kind of thing, but then by 2011, he's saying...she's not supposed to be driving. (Ann)

Her goal was to go back home and then of course, living out in the country, back home by herself, she would need the car. And she – several times she'd say, "I think I'm strong enough to drive" ...Taking the chicken's way out, we called her doctor and said, "Would you please – when you see her – tell her that she shouldn't be driving?" And he said, "Yeah, I can do that." And I don't think he ever told her that in person, but he said "I'll write it on the orders." On her release orders from the nursing home. The nurse went over it all with us. And I was with her. And on there it said, "No driving." (Grace)

Two older adults resisted driving retirement by continuing to drive until they were forced to stop. One resister disputed a physician's requirement that she undergo testing by a certified driver rehabilitation specialist in order to renew her license and handicapped sticker.

She was really upset with her primary care doctor. And she talked about suing her... She kept driving all the way until she couldn't get her renewal. (Beth)

This older adult grudgingly stopped driving after failing written and on-the-road driving exams.

The paperwork test, she'd already failed...[The tester said], "When we were in the residential area, you went over to the left side lane and you drove in a residential area for one half of a mile in that before you realized and went over to the other side." And she said, "I also had to hit the brake to keep us out of accidents." ...[My mom] says to the person, "Well, can I take the test again? In like a few months? Maybe my health condition will improve?" And the gal said, "No, we won't do you again." (Beth)

The other resister continued driving despite a revoked license and continued fighting to regain his driving privileges until he succeeded.

My father was beside himself. We couldn't live with him because he was just calling and yelling and screaming at us, at the DMV... When he was trying to get his license back, the doctor here refused to give it to him...[When the DMV] gave him his license back, my sister called the [state licensing headquarters] and...both of us told her, "Just so you know, if anything happens...if he kills someone, you have given him free reign to do it." (Fran)

Research Question 1: Precipitating Events

Transcripts were analyzed for evidence of the ways that precipitating events, such as medical events, second-hand reports of unsafe driving and first-hand witnessing of unsafe driving, influenced family members' views on intervention. Precipitating events were most salient in terms of raising family members' awareness of the possibility of unsafe driving. After initial awareness, the majority of family members noticed additional warning signs of unsafe driving behavior. Noticing these warning signs did not lead to immediate action to stop the older adult's driving unless the older driver exhibited an extreme danger to him/herself or others. However, an accumulation of concerns over time did motivate family members to employ a variety of strategies to encourage driving retirement.

Initial Awareness

At the individual level, awareness that the older relative might be driving unsafely came from several sources. Six participants connected awareness to information provided by the older driver or another relative:

We have a 4-lane highway that runs through town...and she told me where she went out on the highway and somehow was going the wrong direction on the 4-lane highway. She had to hurry up and get off to the side and she told me that story multiple times because I think it really scared her. It did not stop her from driving, but it scared her. So I heard that story and I think that's the first time I thought, oh my gosh, what's going on? (Ann)

One night she left my uncle's house...and she never got home that night. She ended up taking a wrong turn onto a muddy, dirt farm road instead of her blacktop road...She tried to turn around and she went into the ditch. And she got stuck. So, she spent the night, in the rain – you know – an 85, 86 year old woman? And so – we were all concerned about that. (Gloria)

[My brother noticed] dad pulling in to oncoming traffic...[Dad] would [also] back down to the pond, but he wouldn't stop or he would get stuck down there and we were afraid he was going to go into the pond. (Fran)

Three participants became aware when the older adult was involved in an accident in which the older relative was at fault:

Dad actually had an accident...That had us all concerned about his ability to see and to react... He just basically pulled out in front of somebody, I believe. He didn't see him. (Ed)

My uncle had rear-ended a – someone leaving a restaurant/bar...He was ticketed in the incident....It was a fairly minor fender-bender kind of thing...But it was a concern to me then that he hit this person. (Charles)

Three participants linked awareness to witnessing driving behavior that had made them feel uncomfortable:

Having a conversation with someone where they're scattered and changing topics all the time is one thing – but when that same lack of focus and control is in the driver's seat? It felt kind of uncomfortable....Any of the times that I actually was with her when she was driving – I would just be quiet. Not even participate in conversations for fear of distracting her...It was like everything was just good fortune – coming to stops and getting home. (Brian)

One of the first things that I noticed...once he got over a hill, he'd throw it in neutral and coast. And then he would just throw it back in drive when it would slow down enough. I said like, "Why are you doing that? That's not safe." You know? "Oh, it's saves gas." (Faith)

One family member became aware when his mother was diagnosed with Alzheimer's disease. Another participant witnessed signs of the older relative's declining health:

She doesn't walk very well...She's very stooped and she likes to hold on to things...She'd go get groceries and you know, she'd lean on the cart. And that was fine – somebody would load the groceries in the car for her. But then, when she got home, she would back the car up to within 3 feet of the door to get in. She kind of parked over the sidewalk... I mean, she was coping. But it was like, "Oh, if you can't walk that far, really should you be driving at all?" (Grace)

It is important to note that none of the members of the same family identified a similar incident as the initial cause of awareness and concern about the older adult's driving. Instead, each individual's awareness was triggered by a precipitating event that was different from the one that triggered awareness in his/her sibling or spouse. This suggests that the midlife family members became aware of possible problems with driving at different points in the driving retirement process.

Warning Signs of Unsafe Driving

While events triggering initial awareness were not consistent within families, both members in a dyad mentioned many warning signs of unsafe driving. Interview transcripts were analyzed for indications of unsafe driving behavior using a checklist of warning signs from the *California Senior Guide for Safe Driving* (California Department of Motor Vehicles, 2013, p. 40-41). The DMV checklist did not include all of the behaviors that participants described as affecting driving safety. Table 4.1 therefore includes 13 items from the DMV checklist and 15 participant-identified warning signs. The participant-identified warning signs appear in italics.

Despite these warning signs, participants from three families indicated that their older relative had not had encounters with law enforcement or insurance agents. Respondents from three families identified minor at-fault accidents involving backing, pulling out in front of another vehicle, rear-ending another vehicle or hitting a mailbox. One respondent, whose older relative was later diagnosed with a deficit in visual attention, was unsure about who was at-fault in a minor accident.

[My mother] had an accident where the person in front of her stopped too fast and...[my mother] wasn't able to stop quick enough to prevent any kind of damage. There was still damage to both vehicles. I wasn't there, but it kind of felt like the insurance company and my mom both had concluded it was the teenage driver's lack of experience and my mom not predicting them to act in the way that they had. (Beth)

One participant specifically requested that law enforcement professionals intervene in stopping her older relative from driving on a revoked license.

Table 4.1 Warning Signs of Unsafe Driving Reported By Participants

Warning Signs of Unsafe Driving	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F1	F2	G1	G2
Feeling uncomfortable/nervous/angry/fearful while driving					X	X								
Dents and scrapes on the car, fences, garage doors, curbs, etc.											X	X		
Drifting across lane markers or into other lanes			X	X							X	X		
Getting lost in familiar places		X			X	X					X	X		
Driving too slowly or too fast					X		X	X					X	X
Close calls or collisions with other vehicles			X		X	X			X	X	X	X		
Late braking/ reaction time			X						X				X	
Difficulty judging gaps in traffic									X		X			
Friends/relatives not wanting to ride along			X	X							X	X		
Being easily distracted or having a hard time concentrating while driving			X	X				X			X	X		
Difficulty turning your head to check over your shoulder when backing or changing lanes										X				
Getting traffic tickets or warnings from police officers					X	X								
Having difficulty finding your parked vehicle					X	X								
<i>Taking a wrong turn and getting stuck in a rural area</i>													X	X
<i>Hitting a roadside mailbox</i>													X	X
<i>Leaving the turn signal on too long</i>								X						
<i>Signaling one way, then turning the other</i>												X		

Table 4.1, continued

Warning Signs of Unsafe Driving	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F1	F2	G1	G2
<i>Driving into a ditch or pond</i>											X	X		X
<i>Stopping on a 55+ mph highway</i>											X	X		
<i>Losing consciousness while driving</i>											X			
<i>Not remembering where the brakes and lock buttons are</i>							X	X						
<i>Wrong-way driving, neighborhood or small town street</i>			X	X							X	X		
<i>Wrong-way driving, divided highway</i>	X										X			
<i>Shifting into neutral on downhill slopes</i>													X	
<i>Not turning on windshield wipers in heavy rain</i>													X	
<i>Driving after a physician said no driving</i>	X									X	X			
<i>Driving after license was revoked</i>											X	X		
<i>Needing help with paperwork, bill paying, etc.</i>			X		X									
Total Number of Warning Signs	2	1	7	4	7	5	2	4	3	3	14	13	4	4

Driving Retirement Time-Frame

Participants' estimates about the amount of time that passed between the point that someone first noticed a concern with the older adult's driving and the point that the older driver actually stopped driving are described in Table 4.2. Four pairs of respondents agreed about the general timeframe of the family driving retirement process. Three pairs of respondents provided very different views about the length of time it took for driving retirement to occur.

Table 4.2 Length of Time from Awareness to Driving Cessation

Family	Participant	Less than one year	1-2 years	3-4 years	More than 5 years
Alcott	Ann			X	
	Alex*	X			
Brett	Beth				X
	Brian*				X
Carle	Carol	X			
	Charles			X	
Dahl	Dan		X		
	Donna		X		
Eliot	Ed	X			
	Emily				X
Fleming	Fran				X
	Faith				X
George	Grace			X	
	Gloria			X	

*Note: Alex and Brian are the same person, providing information about 2 different drivers

Level of Detail in Accounts

Comparison of paired sibling or husband/wife accounts revealed that, in four of seven cases, one midlife family member provided a much more detailed account of the older adult's affairs than did his/her sibling or spouse. In all four cases, the family member sharing more detailed knowledge was female and the family member providing a less-detailed account was male.

In three family cases, the midlife siblings provided a similar level of detail in their accounts. The siblings in these family cases highlighted many of the same events in the same general sequence, suggesting a high level of communication between sibling pairs. Two of these cases included a pair of sisters and one was a brother-sister sibling pair.

Research Question 2: The Communication Web

Individual and paired accounts were analyzed to determine the number of family members included in communication about the older relative's driving, the roles played by each family member, and the total size of the driving retirement communication web (including family members, friends/neighbors, medical professionals and legal professionals).

Family Members Included in the Communication Web

The older driver was not included in the majority of family conversations about driving cessation described by the participants. Siblings were the most frequently mentioned participants in communication about driving retirement. Other family members identified as participating in conversations about the older adult's driving included the older driver's spouse (3 family cases), the midlife participant's spouse (3 family cases), the older driver's grandchildren (2 family cases), the midlife participants' uncle (1 family case) and the midlife participants' cousins (2 family cases).

The Role of the Siblings

In all seven families, sets of two or more midlife siblings discussed concerns about elder driving safety via phone or e-mail.

Usually when anything comes up with my parents, I'm hot on the e-mail and letting everybody know...I write these summary e-mails so that we're all on the same page. Because it's important to me that everybody knows what's going on. (Ann)

I think we were both on the same page. We really didn't think she should be driving. But we didn't know how to – you know – we didn't want to limit her independence because she's a fiercely independent...woman... We really didn't know what to do about it. (Gloria)

I would say what helped us is that we did talk about it. We didn't ignore it. And everybody was watchful and supportive... there was no disagreement.
(Emily)

None of the participants reported that a sibling was actively against driving retirement.

In two family cases, a female participant noted that one or more of her brothers had remained neutral about the topic of driving cessation. This reluctance to become involved was viewed as hindering progress toward driving retirement.

I brought it up briefly with my brother just to kind of more get ratification and make sure there wasn't going to be any resistance or what have you. He was more neutral. And that actually wasn't helpful, because my mom took that as, "Well he doesn't think there's really that much of a problem." (Beth)

I have a couple of other brothers in town...The boys didn't feel as comfortable talking to [our uncle] about [giving up driving]... I think he might have listened a little bit more to them than the nagging nieces. You know, a lot of people will do anything to avoid confrontation or conflict...especially when it came to [our] uncle. (Carol)

Both of these respondents had one or more additional siblings who supported their position.

Driving retirement also was seen by participants as intertwined with additional caregiving. In some cases, one or two siblings were described as taking the lead in caregiving activities.

Like so many other families – because I'm the oldest daughter... I end up doing a lot of the caretaking. (Beth)

[In a family with nine midlife siblings,] the older sisters did most of the discussions. Because, in large part, they do a lot of the caretaking for my uncle. (Charles)

In other cases, siblings divided responsibilities as equally as possible.

We communicate really well...And we kind of space our visits out so she...has someone as often as she wants it. (Donna)

The Role of the Older Driver's Spouse

In three family cases, the older drivers' spouses were involved in conversations about the older adult's driving. In the remaining family cases, the older drivers were divorced (n=1), recently widowed (n=1), or had been widowed for some time (n=2).

The role played by the older drivers' spouses who were engaged in the driving retirement process varied greatly. In the Alcott family, the older driver's spouse was the primary caregiver during the older driver's journey into Alzheimer's dementia. This spouse sometimes provided his midlife children with information about his wife's condition and sometimes did not.

I got copies of [the neuropsychologist's] notes...dad e-mailed them to me...He's not one to pick up the phone and ask for help...[He's] just very independent and if you butt in too much, it's usually not a good thing. (Ann)

In the Eliot family, the older driver's spouse joined in trying to improve driving safety and also provided transportation support during the older driver's medical difficulties.

When [my dad] had those 2 accidents, they went to senior driving school together...He had had a number of health procedures and issues that he was dealing with so... my mother took over the driving. And he was grateful to her and nice about it. But he...intended to drive again. (Emily)

In the Fleming family, the older driver's spouse discussed concerns about safety with one midlife respondent and provided information about his driving.

My mom said that they were just driving down the highway and all of a sudden he just drove off the highway at 60 miles an hour – into the ditch – and she swears to God that they went for a mile... she said he never slowed down and she was screaming at him to stop...And said she just continually

started praying because she knew they were going to die...And she said, "All of a sudden, he just drove back up onto the highway." (Faith)

The Role of the Midlife Family Member's Spouse

The role played by the midlife family member's spouse also varied greatly. In the Brett family, the midlife husband and wife were both actively involved in the driving retirement process of the wife's mother. Three participants, one from each of the Dahl, Fleming and George families initially mentioned a spouse as involved in conversations, but the spouse did not appear as a main character in the detailed stories about driving retirement decisions and actions. In the Alcott, Carle, and Eliot families, neither participant mentioned that his/her spouse was involved in driving retirement conversations.

One participant identified an unspoken agreement between her husband and her.

[With] my father-in-law...I wasn't really that involved with that process too much – it was more his kids that took care of that. (Gloria)

This may suggest that, for some midlife couples, each spouse is seen as responsible for dealing with driving retirement in his or her own family of origin.

The Role of the Older Driver's Grandchildren

Two family communication webs included the older driver's grandchildren. In all reported instances, the older driver's grandchildren provided the midlife family members with information about the older relative's driving.

We must have been discussing it either directly with the kids or around the kids, because then the kids piped in...The kids had more experience one-on-one with her driving history at that got communicated back to us. (Beth)

Both granddaughters said something about it...My daughter was there visiting her and none of the rest of us were around. And she called me afterwards and said, "I just don't think Grandma should be driving. She's driving so slowly and she leaves her blinker on all the time and she's distracted." (Donna)

The Role of Other Family Members

Participants from 2 family cases indicated that an uncle or cousins were involved in driving retirement conversations. In the Fleming family, two cousins observed dangerous driving behavior and were involved in conversations with the midlife participants. In the George family, an uncle and several cousins regularly checked on the older driver and provided the participants with reassurance about the older adult's driving safety.

I remember mom saying [that my cousin's husband], "followed me home just to make sure I got home okay." In the dark or whatever – and so I asked my cousin, "Are you guys worried about her driving or was it just" – and she said, "Oh, no – no, we're not worried about her driving. And we hadn't noticed anything, it was just that [my husband] was out and he just felt better about making sure she got home and in the house and everything." (Grace)

Size of the Communication Webs

The size of the communication webs corresponded with the three types of driving retirees. Families of proactive driving retirees reported the fewest number of people involved in conversations about driving (an average of 5 people per case). Families of reluctant accepters reported an intermediate number of people involved in conversations about driving (an average of 6-8 per case). Families of resisters reported the greatest number of participants involved in conversations about driving (an average of 10 for one case and 14 for the other). This suggests two concurrent processes: (1) that a greater perceived unwillingness on the part of the older driver to consider driving retirement may prompt midlife family members into including more people in the communication web and (2) that as safety becomes a more immanent concern, more insiders (family members) and outsiders (physicians, DMV employees) may see the need to enter into driving retirement conversations.

Communication Web Size in Proactive Cases

Families with proactive driving retirees reported the fewest number of people involved in conversations about driving retirement. Both respondents from the Dahl family indicated that their communication web involved only family members: the self, two midlife siblings, plus two other family members (spouse and daughter for Dan, daughter and niece for Donna).

In the Carle family, midlife siblings were the core of the communication web, but a minor accident brought in legal representatives. One Carle sibling reported that the older uncle received a traffic citation. The other Carle sibling asked the uncle to consult a lawyer about the citation.

My uncle had rear-ended someone...It was a fairly minor fender-bender kind of thing. But it was done in broad daylight – and this is a place that, like I said, also served alcohol...and I told him I wanted him to talk to my [lawyer] friend. (Charles)

One Carle sibling also reported that a neighbor had called with concerns about the older driver.

His next door neighbor called [and] ... said, “[Your uncle] came home from [the bar] today and he was driving kind of erratically.” (Carol)

None of the respondents from families of proactive driving retirees reported that medical professionals were involved in conversations about the older adult’s driving.

Communication Web Size in Reluctant Acceptor Cases

The three families with drivers who reluctantly accepted a physician’s advice to stop driving reported 6-8 persons involved in conversations about driving retirement. The majority of the persons included in these communication webs were family members and physicians. One participant from the Eliot family accompanied the older driver to medical appointments in which driving was discussed. In the Alcott family, one participant identified a family physician as having been involved in driving decision-making and the other respondent reported the involvement of two family physicians and one neuropsychologist. In the George family, both participants had called the older driver’s physician to ask for assistance and one participant had accompanied the older driver to an appointment with the physician. In addition, Grace reported the involvement of a nurse. Gloria reported the involvement of an eye doctor and a DMV employee.

Communication Web Size in Resister Cases

Three of the four participants from families of resisters listed more than a dozen individuals who were involved in driving conversations, including multiple family members, and

three to four medical professionals. Legal representatives also were involved: an insurance agent in the Brett case and multiple legal representatives (a local DMV employee, a state-level DMV employee, a local law enforcement professional, and a law enforcement supervisor) in the Fleming case.

The communication webs in resister cases also included friends of the older driver. In both cases, the friends of the older driver supported continued driving. In the Brett case, the older driver used her friends' opinions as leverage to argue against driving retirement.

Mom thought that obviously, "Well, my friends don't have a problem with [my driving]"... [She felt] we were being unreasonable and none of her friends thought she was a terrible driver. (Beth)

In the Fleming case, both respondents reported that the older driver's friends actively aided his attempts to have a revoked license reinstated.

He told my sister...that he got [a family friend] to sign [a medical exam form] for the doctor...[A friend who] would forge it for him... [His friends] were helping him with that [written] test, we're pretty sure... [Because] he can't comprehend things. (Fran)

Research Question 3: The Family Dilemma

It was clear from the data that family members were primarily concerned with one dilemma: balancing the older relative's autonomy with safety (of both the older driver and the general public). Every other issue related to driving retirement, including legal aspects, medical aspects, and relational aspects were viewed in terms of how they enhanced or hindered autonomy and safety.

Autonomy: Valued and Defended

The majority of respondents indicated that older adult autonomy was highly valued by the older relatives and by the midlife family members. All participants identified one or more aspect of the older adult's autonomy and quality of life that would be diminished by driving retirement. These aspects included independence, ability to accomplish tasks, ability to continue

to live in his/her current home, reduced social activities, and lack of access to alternative transportation.

Many family members described ways in which the older adult defended his or her driving autonomy, including control of information, verbal defense of driving autonomy, and older driver optimism bias. One participant defended older driver autonomy by describing intergenerational reciprocity in driving decision-making.

Defending Driving Autonomy Through Control of Information

None of the participants lived with the older driver. Therefore, most of the information about the older adult's driving was gathered during visits and through conversations with the older driver or other family members. Three midlife family members described ways in which the older adult defended driving autonomy by controlling information:

Distance is such a problem. And it's a problem in 2 ways. One is that you can't always physically sit there and see what is actually happening. You have to rely on what people are telling you...They can choose to leave things out... There were things happening and I wouldn't necessarily hear about them until later...So I know that with driving, that there are things that weren't shared. (Ann)

[My mother] has had a physical. I think she had a pretty complete physical. And she has not discussed it with us. So if the doctor had concerns or noticed concerns about [her driving], we don't know. (Donna)

[My father has] wrecked his truck all to pieces. He keeps getting it fixed. He doesn't turn it in [to the insurance company]. He knows better than that. He just pays for it. (Fran)

Verbal Defense of Driving Autonomy

Four participants described ways in which the older driver fended off discussions about driving safety by using verbal conversation stoppers.

There were a couple of times where...she came back to the house and...had gone... someplace else. She actually didn't know that she went where she was

supposed to and whether she went somewhere else. And I did try to find out...If I quizzed her too much, it's like a different person sitting there. She actually started name calling and being angry. And you just back off. And you're like – there's something off here. (Alex)

In her mind, until she had an accident, she was a good driver...We didn't want to discuss it with her, because every time we did it turned into a huge, angry, hurtful thing. Where...we're terrible children for even bringing it up. That we were being disloyal to her. And thinking the worst of her. (Beth)

Downward Comparison Optimism Bias Defense

Several respondents described ways in which the older relative defended his/her driving autonomy by comparing him/herself to other drivers.

That's when [my mother] said - this person who shall remain nameless – who is nearly as old as her and has macular degeneration – [my mother] said, “She drives. I don't know why I can't.” (Grace)

[My mother] was really angry and upset: “I haven't had any accidents. I haven't hurt anything. And people do dumb stuff all the time in their car and they get to keep driving. Why are they talking about taking my license away? I can drive just fine.” (Beth)

The Issue of Intergenerational Reciprocity

One participant noted that her views about her mother's autonomy in driving decision-making were influenced by intergenerational reciprocity:

They didn't tell me that I couldn't drive when I turned 16 and I was a dangerous driver...That was just expected...I became better, I hope, and then there comes that time when you become worse again. So, I think it's just that whole – how do you - and it's not just driving, but I mean that's one of the big symbols of the aging and the independence – where do you take over and just make those decisions for them? (Grace)

Public Safety: Valued, But Often Difficult To Evaluate

One of seven older drivers was described by family members as being a clear and imminent threat to public safety. This older driver had had a set of medical events that severely affected his cognitive abilities. His insistence on driving despite multiple warning signs of unsafe driving behavior (see Table 4.1) spurred the respondents and an additional sibling into taking a variety of actions to attempt to end his driving career. In other cases, the warning signs of unsafe driving behavior were mitigated by factors including input from other relatives and older driver self-regulation.

Input from Other Relatives

Two respondents received information from other relatives that lessened the respondents' concerns about unsafe driving behavior.

[My Uncle] called me and he said "I rode with her to town. I was kind of concerned." And he was a professional bus driver. So he's got a good handle on driving skills. He said, "I was really surprised by how well she does drive." He said, "Looking at her park in town, I was very concerned that she really shouldn't be driving," he said, "But her driving skills are not too bad." And so, I felt a little more comfortable then. (Gloria)

Views Regarding Driving Self-Regulation and Risk Reduction

In six family cases, the older driver voluntarily reduced the amount of driving and/or the conditions under which s/he was willing to drive. Table 4.3 describes the types of self-regulation noted by each participant. Many family members viewed these voluntary choices on the part of the older drivers as reducing the risk of a negative driving incident.

Any time there was any threat of bad weather, she would just ask for someone to driver her or...there's a bus that would take them to the grocery store if they needed to go – or to Walmart and to doctor appointments. So she didn't have to drive and she hated to drive when the weather was bad – so pretty much from November through March she would just not drive at all. (Dan)

Table 4.3 Older Driver Self-Regulation Reported By Respondents

Types of Self-Regulation	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F1	F2	G1	G2
Infrequent/reduced amount of driving						X	X		X	X				
Short-distance driving only (10 miles or less)		X											X	X
Avoiding winter driving (snow, ice)					X	X	X	X						
Avoiding driving in bad weather					X		X	X						
Driving at low traffic times/avoiding rush hour		X												
Taking low-traffic routes				X										
Following familiar/routine driving routes		X			X									
Driving slowly					X									
Voluntarily enrolled in senior driving course										X				
Number of Types of Self-Regulation Reported	0	3	0	1	4	2	3	2	1	2	0	0	1	1

Many respondents also expressed a strong ambivalence about whether the self-regulation was enough to override concerns about unsafe driving behavior.

You'd hate to have him get in an accident - hit – you know – family of 4 or something... Luckily, he never drove over like 25 miles an hour, but still – you know – it was a concern for a while. (Carol)

His driving was reduced dramatically at that point and our comfort level with him driving was not very good at that point, you know. But he drove just a little bit. (Ed)

Research Question 4: Strategies and Justifications

The five strategies proposed in my taxonomy did not adequately describe the family narratives provided by respondents. In particular, none of the participants (1) directly imposed driving retirement by taking the keys or disabling the car, (2) verbally negotiated a joint decision, (3) negotiated a compromise limiting driving, (4) avoided the issue of public safety or (5) avoided the need for additional caregiving. The participant's accounts instead identified 8 family strategies, including wait and worry, nudging, attempted conversation, ending requests for driving assistance, requesting assistance from physicians, requesting assistance from the DMV, requesting assistance from law enforcement, and accepting the inability to end an older adult's driving career.

Strategy 1: Wait and Worry

Awareness of the possibility of unsafe driving created a strong sense of concern in the majority of respondents. For many, this concern was non-specific. There was a general fear that something negative might happen. However, a variety of other factors prompted family members to wait for the older driver to make the driving retirement decision on his/her own. These factors included permission to discuss driving, concerns about relationship consequences, and caregiving triage.

Permission to Discuss Driving

Several participants expressed discomfort with discussing driving with the older relative in terms of intergenerational permission. When the older adult brought up a topic related to

aging, the midlife relative then felt permission to bring up the topic at a later date. Without this prior permission, the midlife adult expressed great discomfort initiating a conversation that impacted the older adult's decision-making autonomy.

I think it was easier to talk to them about their end of life process than it would have been to talk to them about the car and giving up their privilege to drive...Mom and dad had been real clear to us that they never wanted any drastic measures taken...And so I had been through a series of those kind of conversations with mom and dad. But we never had a similar conversation about driving. (Dan)

Concern about Relationship Consequences

Some participants expressed concerns about how discussing driving would negatively impact their relationship with the older driver.

It's a very – you don't realize how sticky – it seems like it should be so simple. You just take the keys away. But there's so many emotions that go into it. And you don't want to mess up the rest of your relationship over something which seems so simple. I mean, I didn't want her to hate me for the next 10 years or however much of her life is left. (Gloria)

Caregiving Triage

One participant identified multiple family caregiving crises which occurred at the same time that the older driver was exhibiting signs of dementia.

There is fear that, oh my gosh, we should be doing something. But then...we had so many other things going on in our lives then. I mean with [my sister-in-law] and the cancer...up to [my son] and his surgery. All those different things sort of made that one a lesser priority. So there's concern and care, but it didn't seem as immediate as other things. And so I let it go. I mean, I just did not intentionally pursue doing anything about it. (Ann)

These concurrent crises forced the midlife family member to focus on the caregiving needs which were most immediate.

Strategy 2: Nudging

Nudging strategies involved noticing when the older adult brought up the topic of cars or driving and nudging the older driver verbally or nonverbally in the direction of driving retirement. Nudging simultaneously preserved the older adult's decision-making autonomy and advanced the midlife family member's goal of elder driving retirement.

My mom said, "Well, you know, it's just ridiculous for us to have this new car. I'm not driving that much anyway"...And we were encouraging her. We said, "that's a great idea. You don't need a car. You've got the bus that can take you places and you've got friends that can take you places." And so we were very affirming in her thought process in getting rid of the car. And so – fortunately, that took place and she stopped driving before anything – any disaster occurred. (Dan)

He didn't like getting disoriented that day. I don't think he liked the way that made everybody else feel. And it's going to come more from my sisters. He's going to care about them being nervous and upset. Even if they don't tell him to stop. He'll do that to calm them. (Charles)

Nudging strategies were effective in cases where the older driver made his or her own decision to stop driving. After driving cessation, both of the families of the proactive drivers and two of the three families of the reluctant accepters effectively used a nudging strategy to facilitate the relinquishment of the older adult's vehicle.

We had her farm sale...and the auctioneer, when we were talking, said, "Are you going to sell your car?" And mom just looked at me and she said, "Well, it's up to you." And I said (well, if it's up to me) – "It's really not up to me, it's your car." She said "Well, what do you think?" And I said, "I think if we could sell it, that would be the easiest thing to do." And she said, "Okay." (Grace)

Strategy 3: Direct Conversation with the Older Driver

Only 4 participants from 3 different families reported that they had initiated a direct conversation with the older adult about giving up driving. Three of the four were family members of a resistant older driver. These participants directly discussed the issue of safety. In each case, the conversation was unsuccessful.

He'll just tell you driving is his life and he's not going to quit driving. (Faith)

It just got to the point where we had to be more direct with her and it started getting combative... My mom would have drove until she either hurt herself or drove over somebody's grandchild. (Beth)

One midlife daughter of a driver who reluctantly accepted driving retirement initiated a conversation with her mother about the possible financial consequences of having an accident. This discussion was also unsuccessful.

And we did discuss that with her, too, I think. You know, the financial issues that may arise if she had an accident...She understood that, but she still wanted to be able to drive. And I think her thought process was, "Well, I only drive in little towns and – you know -what's going to happen?" (Gloria)

These responses suggest that some older drivers may ignore or discount the concerns directly raised by their midlife family members.

One respondent reported a direct conversation with the older driver that was not related to driving retirement. In this case, concerns about a minor crash and the possibility of drinking and driving prompted the conversation.

After he had the ticket [it] was the opportune time for us to really say, "If you got pulled over again, if they knew you were drinking, you would go to jail." We made it pretty clear that they don't just give you a ticket, or have someone pick you up. If you've been drinking and you get pulled over, you go to jail. You lose your license. You won't be able to drive. (Carol)

In all of these cases, the midlife family members expressed a high level of concern about safety.

Strategy 4: Ending Requests for Driving Assistance

One participant dealt with an older relative's refusal to consider driving cessation by ending requests for driving assistance. Although this solution was not viewed as improving public safety, it did reduce the risks for the older driver's grandchildren.

[My sister's] family stopped and about a year and a half after that my family stopped allowing the kids to ride with her. And that was very uncomfortable because it became a point of contention in that grandma was like, "Well, I want to help you." [I said], "No, that's okay – no, we've got it worked out. We don't need your help this time." You know, trying not to be direct with her about why. It was one thing if she was going to drive with herself, but another thing if we were going to let the kids be with her...To me [it] was an ethical dilemma...I felt powerless to a certain extent. (Beth)

In a situation in which the midlife family member saw no good options, she chose a solution that eliminated the safety risks that were within her immediate control.

Strategy 5: Requesting Help from Medical Professionals

Both participants from one family contacted the older relative's physician to request assistance in convincing the older relative to stop driving.

I knew other people who had talked to their physicians and they got them to tell them that they shouldn't be driving. But her physician didn't really seem to be willing to take that responsibility...[The doctor] did finally agree with us. And when she went in for one of her final visits with him – he was leaving town so I think he felt it wouldn't be too big a deal if he told her...He asked her if she thought she should be driving. And she says, "Well, I think I can drive, but I'm not sure my girls want me to drive anymore." And he told her, "I agree with your girls." And I think, at that point she didn't drive anymore. (Gloria)

Strategy 6: Requesting Help from the DMV

Due to the serious nature of the older relative's medical impairment, one pair of siblings wrote letters requesting assistance from the DMV to end the older relative's driving career. Although initially successful in having the older driver's license revoked, the family members expressed frustration and dismay that the license was reinstated.

My brother went to the driving office there in [my dad's home town] - when he went to get his license – and went up to the desk and told them, “You can't – you can't renew his license.” He said, “He's going to kill somebody, the way he drives.” And they were like, “Well, the tests will show” ... And [my dad] told me, “I had [my friend] sign that [medical form] and send it back to the state.” And I was like – “she's not a doctor.” He knew that ... Don't they call and check on who did the ... exam or do any follow-up? (Faith)

Strategy 7: Requesting Help from Law Enforcement

One participant requested assistance from a local law enforcement professional when an older relative continued driving after his license had been revoked. The local law enforcement professional did not enforce the law until the family member contacted a law enforcement supervisor.

I called over there and said, “My dad is driving [on a revoked license]. He's going to kill somebody” ... And I would tell them what road he was taking. I would tell them what time of day he was going. And they wouldn't do anything ... Finally, I called the [supervisor] ... And the next day they pulled my dad over. Amazing! Within 24 hours they saw him driving and they'd never seen him for months. (Fran)

Strategy 8: Accepting Inability to End Older Adult's Driving Career

One family tried a multitude of strategies to end an older relative's the driving career. In the end, the older driver was able to have his driving license reinstated despite the family members' verbal requests and written documentation of a serious cognitive deficiency and multiple incidents of dangerous driving behavior. The midlife family members expressed great

distress that their older relative continues to drive. They also expressed an acceptance that there was nothing more they could do to ensure public safety.

Up until probably 6 months after he got his license back, every day, all day long, and at night, I would wake up because I was so afraid he was going to kill somebody. And at some point I had to just go - you know what? I can't help it. This is out of my hands. It is not my problem. I have done everything I could. And so I had to just not think about it...Nobody would even have gone as far as we did...We literally did everything we could do. (Fran)

Overarching Research Question: The Midlife Family Members' Experience

Transcripts were analyzed for salient features of family members' overall experience of the driving retirement process of their older relatives. The most striking features included driving retirement as a significant loss for older adults, as a significant loss for midlife adults, and as a process that midlife adults experience multiple times. The participants also provided varying opinions about their own anticipated driving retirement and about ways to make the process easier for other families.

Driving Retirement is a Significant Loss for Older Adults

Participants in this study spoke about two specific aspects of driving loss: the older adults' emotional reactions and the older adults' decisions regarding the vehicle.

Emotional Reactions

Both of the driving retirement-resistant older adults were distraught when their driving privileges were revoked and both threatened to commit suicide.

She was devastated. And she went into the, "My life is over, I should just commit suicide"...And I tried to be quiet. And you know, when possible, reassure her that - none of us get out of this - this is all just pretty typical aging stuff. And I'm sure she wasn't the first and she won't be the last. This kind of thing is pretty normal. You know, all the things you try to say when something terrible happens - when someone's dying. (Beth)

When he got his license taken away, he called [a state-level DMV professional] ...over and over and over – pleading with her to give his license back...He actually told me he was going to kill himself if he didn't get his license back...If we had won and he didn't have a license he would have killed himself. There's no doubt in my mind...So, it's like a no win situation, you know?(Faith)

Both of the resisters also directed their anger at one or more family members who had actively worked with non-family members to achieve elder driving cessation.

[My sister] called me one day and said, "Dad called to ask me if I wrote a letter [to the DMV]." And she said, "I couldn't say I did, because I knew what would happen" ... She said, "So, he's going to be calling you." And I said, "Well, I won't lie to him." So I didn't. And I have never been through such hell in my life...He was extremely volatile and he just screamed and yelled and...told me to go to hell. (Fran)

The proactive and reluctant acceptor driving retirees reacted to driving cessation with a wider range of emotional expression. One proactive female and one female reluctant acceptor responded to driving retirement with resilience. Both had access to alternative transportation.

Her 80-plus year old friends and neighbors drive her to the doctor. My uncle takes her or my cousins or my aunt will take her. But both my uncle and my aunt are in their 80s as well. And her friends that she plays cards with are all in their 80s or 90s and so I'm not sure she's a whole lot better off riding with them than she was driving. But, she does have transportation to get to her doctor's appointments and things like that. And she doesn't seem to mind asking them. She did at first – I think it was very difficult for her at first to ask them if they could take her, but now they kind of consolidate their appointments. (Gloria)

One female reluctant acceptor with Alzheimer's dementia responded with anger toward her physician.

Prior to [recommending that my mother stop driving], she was extremely attached to that particular doctor. And she'd worked with him and had known him for years. And her attitude about him just turned 180 degrees. He was just – the most horrible thing that he had done this. (Alex)

One proactive male and one male reluctant acceptor experienced a deep sadness about giving up driving. One midlife family member in each of these cases described the older man's emotion as sadness and the other used the term depression. The sadness/depression was in both cases attributed the fact that these older men had experienced a series of losses, including the loss of a spouse, moving into a retirement community, and giving up driving.

Decisions Regarding the Vehicle

All of the older drivers in this study continued to hold on to their vehicles after they had voluntarily or non-voluntarily given up driving. For two older drivers, continuing to own and maintain the vehicle was linked to the hope that driving ability could be regained.

He didn't want to sell his car. So we hired a driver...to help him keep his independence and she drove his car. And that made him – that was a really good compromise for him while he was waiting to... hopefully be able to regain his mobility so that he could drive. (Emily)

As it became apparent that driving ability would not be regained, one of these older drivers found additional reasons to keep her car.

For a couple months thereafter, she would keep saying things like, "Well, I don't want to let my car go yet." And then it shifted from, "because I might take the test again" to "because my grandchildren might need to borrow the car" and then "I have it here if someone wants to drive me somewhere." (Beth)

In three cases, the availability of the vehicle provided a temptation to drive again. One older driver resisted the temptation to drive after losing her license

She talked about it a couple times, like, “Well, I just think I’m going to go down a block and get groceries, because I really need them and no one can come help me.” But she never did it...she didn’t want to mess with the police.
(Beth)

One older adult drove once after the doctor had recommended driving cessation

He needed something...I don’t know if he called somebody and nobody answered or whether he just decided, but he went down and got in his car and he drove...and picked up something he needed. And it wasn’t long before he confessed it to me. Because he told me it scared him to death and that it was the last time he was ever going to drive. (Emily)

One older adult drove once after the neuropsychologist had stated that the Alzheimer’s disease had advanced to the stage where she was unfit to drive. In this case, the older adult’s husband needed her assistance and asked her to drive.

[My dad] had to get a different vehicle after his accident. And, he had one – mom’s car, which they drove to go get this vehicle. And then he had mom follow him home. She was driving and he drove the one he just purchased. And it’s like, “Dad, she’s not supposed to be driving.” “Well it was just local,” he said. (Ann)

This instance of driving with advancing dementia was supported by the fact that the older adult possessed a legally-valid, state-issued driver’s license.

Five of seven older drivers relinquished the vehicle after a post-cessation time period ranging from four months to 3 years. Two sold the vehicle to non-family members, one sold the vehicle to an adult child, and two gave the vehicle to a relative. In some cases, releasing the vehicle eased the older adult’s transition to not driving.

He’s just given freely of the things as he didn’t need them anymore. And he looked at the brother who he thought needed the car most and offered it to him...It didn’t make up for losing the car, but he did a really nice thing and

*my brother was very appreciative and so that probably helped a little bit.
(Emily)*

In some cases, the longing to drive continued after the vehicle was gone.

My mom does kind of regret it and she talked at one point about getting another car...I said, "Well, do you think you might have the same problem with it sitting in the garage all winter?" And she said, "Oh, yeah, I don't want to deal with that." So – I think she has really, really mixed feelings about it. (Donna)

Family Members Experience Loss at Driving Cessation

For the family members in this study, driving cessation was part of an overall decline in the older driver's health status. The majority of participants expressed feelings of loss in terms of empathy for the struggles experienced by the older adult and in terms of their own personal loss.

Empathy for the Struggles of the Older Adult

The majority of respondents expressed empathy for the struggles experienced by the older relative. For several, driving loss was identified as one of a series of difficult losses faced by the older adult.

Driving is just one of the many conflicts about, "how do I give up this link to my independence? It's one more thing I'm losing. How do I give it up gracefully?" Because...giving up your car...may be the hardest thing that he did. He's given up a lot of things, but...a guy's car is his link to freedom and independence. And so, I think he was trying to put it off as long as he possibly could. (Emily)

Participants' Expression of Personal Loss

Watching the older relative struggle also induced feelings of personal loss in many of the midlife respondents.

He can't even hardly hold a conversation...because he gets lost in it...He can't focus on anything. It's really sad to watch him like this. (Faith)

It's a tough one because nobody wants to – your emotions don't want to accept that – you know - 10 years earlier this woman saved somebody's life in church – and now she's falling apart...It wasn't about the car, but the car and the driving bring it into specific relief. (Alex)

This suggests that driving loss can be viewed as a family phenomenon rather than an event affecting only the individual driving retiree. For the older relative and the midlife family members, driving cessation may be seen as an event with a clear before and after, symbolizing the loss of much more than just driving ability.

Driving Retirement is Not a One-Time Process for Midlife Adults

Twelve out of 13 participants interviewed indicated that elder driving retirement was not a one-time process for them. These participants had witnessed, taken part in, or were anticipating a near-future involvement in the driving retirement of multiple (2 to 9) older relatives. In addition, 8 participants described the experiences of friends and co-workers who had been through the driving retirement processes with their older relatives. These driving stories were used as informational experiences, comparison experiences and resource experiences.

Informational Experiences

Several respondents described elder driving stories told to them by relatives, friends or co-workers as a way of illustrating that their family process was not an anomaly.

I have another friend who's gone through this same thing. Her dad just wants to drive and has really no business driving because he's got Alzheimer's. His doctor wrote a note and sent it to DMV and when he reapplied for his license, DMV wrote back said he couldn't have a license anymore because he was medically not able to drive according to his doctor. And he got furious because he said that the doctor never told him he was going to do that. Now, because he has Alzheimer's you don't really know if that's the case or not.

But he was very upset that he could no longer drive. And he still had that same attitude, too, where, “Oh, well, I could just take my car to the gas station. It’s only around the block.” And his daughter eventually had to move the car physically off his property, because they were afraid he would take it out. (Gloria)

Some respondents indicated that they saw driving retirement processes as inevitable.

I think [driving retirement will happen to] everyone probably. Just from – even slow reactions – not dementia. But you just get to the point where it’s not safe...Like my 97-year-old – well, he wouldn’t really be my uncle – my cousin’s uncle. Who was still driving and he couldn’t see. (Ann)

Comparison Experiences

Many participants compared their own experience with driving retirement to those of others. Some expressed relief that a personal experience with elder driving retirement had been less stressful or awful than an elder driving retirement process experienced by a friend or relative.

We got off fairly lucky in the end...My husband works with a woman who...installed a LoJack tracking device in the mom’s car because she would go someplace and not remember how to get home. (Gloria)

We’ve just been real fortunate in almost every aspect in terms of our parents’ aging. And I know we have friends who have really had a hard time convincing their parents that they needed to move out of their house and find a different living arrangement. And so, we really didn’t have to deal with that. And it was pretty painless in terms of the driving aspect – for what we went through. (Dan)

Some compared experiences and wished that their own relative had been as easy to convince as other older adults.

My late husband's grandma...drove until she was 96. And at 96 she said, "You know what? I have a cute, beautiful car and I've never had an accident. I don't want to have one." And she went ahead and handed her keys over to the mechanic that she'd been working with and then let him have the car for a song. But she did it on her own. No one ever had to say anything...She was the most classy woman I've ever known...And so then – to see my mom's example – where she has been this...total nightmare. A literal nightmare. And she still brings it up and likes to jab me with it. (Beth)

With my mom it was easy because she just said, "I can't drive any more. I'm not going to." And then, with [my dad] – he's like the totally opposite. And he's going to kill somebody if he doesn't die first. (Faith)

Resource Experiences

Two participants applied knowledge learned from friends to their own family process.

[My friend] was a great resource for me. Mostly because her mom was going through dementia just like my mom...[Her mom was] diagnosed about 2 years ahead. And so I would see things that [my friend] had talked to me about come up with mom and...it was very, very helpful. (Ann)

Participant's Views on Their Own Future Driving Retirement

Participants were asked to speculate on how their experiences with the driving retirement of their older relatives would influence their own future driving retirement process. A few respondents were certain that their own cessation process would be easier than that of their older relative.

Am I going to do it the same way as my mom? No. No way. No how. Never going to happen. I'm going to have way more class than that. (Beth)

I think it's going to be a lot easier for me...Maybe it's the generational thing, but I don't feel like I'm bound by my car. I figure I can find other transportation. But I live in a city, I don't live out on the farm. So

transportation is not as big of an issue for me, as far as independence and things like that. And I'm not adverse to help if I need it. (Gloria)

Others felt that their own driving retirement process would be similar to their older relatives' experience.

I think we all have the intention of ... knowing when we're going to quit. But then I watch really, really smart, caring, sensible people get to the point that my dad was and find that, once you get there – not as easy to walk away and keep your intent. So I would say that it is my intent that I would make sure I didn't ever put myself or anybody at risk. And that I would immediately, if I had any concerns about my driving, that I would take myself out of the car... But I have seen...a lot of my relatives make accommodations and reduce their driving and self-limit their driving. So, stop driving on the interstate first. Stop driving at night. Those kinds of things. And, that's probably what I'll do too. (Emily)

I'd like to say, oh, it'll be easier, because of course everybody thinks they'll never be the same as their parents. [But] that's going to depend on the circumstances. You know – I don't really like to drive. I have some eye problems and I prefer to let other people drive. But if I'm by myself, for example, and I have to get somewhere, well, then I'll want to drive. So, it'll probably be about the same. (Grace)

Two male respondents indicated that they planned to discuss the issue with their children to give the children permission to raise the driving issue if they noticed that safety was a concern.

I will talk to my kids about, "You need to have these conversations with me and to let me know" and that, "You can even remind me that I told you to, Dad, when you're snapping at me" ...because I never want to hurt anybody. (Charles)

None of the respondents expressed the belief that their own driving retirement process would be more difficult than the one experienced by the older relative.

Views on How to Help Other Families

Participants were asked to describe ways in which the driving retirement process could be made easier for other families. Responses showed an extremely wide amount of variation in opinions about how to best address driving cessation issues. Two participants did not know how to improve the process for other families.

I really don't know how to make it easier. You know – it's such a personal thing. It depends on the parent and their attitudes. I – I don't know. (Gloria)

The rest of the participants shared between 1 and 4 ideas about how to make the process easier for other families. Recommendations fell into six broad categories: family-based solutions, medical provider-based solutions, DMV-based solutions, facilitator-based solutions, media-based solutions, and an anybody-but-the-family solution.

Family-Based Solutions

Four participants recommended family-based solutions. One emphasized the need for caring conversations and sensitivity to the needs of the older adult. Another recommended identifying a key family member that the older adult was most likely to listen to and asking that family member to lead the conversation process. Two others recommended using examples from the older drivers' friends and relatives to open a conversation about driving.

When a parent's friends or an older couple get to the point where they have to give up driving. Or if there's some kind of accident that happens....Look for those opportunities that open the door to the conversation. To then say, "Gosh mom or dad...how can we help you make that transition when it's time for you to stop driving?" (Dan)

Medical Provider-Based Solutions

Four participants recommended medical provider-based solutions. Two recommended that family members consult the older driver's physician and ask for help in intervening in driving decision-making. One recommended specific training for medical providers on

recognizing signs of driving disorders in their older patients. One wanted mandatory medical reporting of individuals with specific health conditions that affect driving safety.

DMV-Based Solutions

Five participants wanted to see more thorough DMV screening of older adults. None of the five respondents agreed on the specific test needed to screen older drivers. Screening tests recommended included an on-the-road driving test, a written exam, a reaction test, a computer-based spatial skills test, and a test of the older driver's ability to read a map or understand a driving route. Two participants noted that if older adults were able to anticipate regular DMV testing, they would view the testing as a fair process.

If people are going to anticipate that – and everybody who's 50 is getting their colon tested. And everybody who's 60 now has to take this little spatial test on a computer screen when they get their renewal. And then there's not all this surprise and, "I'm being treated unfairly." (Beth)

Facilitator-Based Solutions

Three participants recommended that an outside facilitator be brought in to lead driving retirement discussions. Two respondents felt that it would be useful for the older adult to speak with a clergyman or social worker about giving up driving. One participant wanted to see a full-family meeting facilitated by an expert in driving retirement issues.

Media-Based Solutions

Two respondents recommended media-based solutions that would raise awareness and facilitate the driving retirement process. One wanted to see public service announcements for older drivers to raise awareness of signs of unsafe driving. One recommended developing YouTube public service videos to guide family members through the process.

Anyone-But-The Family Solution

One participant felt that intervention from persons outside the family was necessary to preserve the relationship between the older driver and his or her family members and caregiver(s).

I think that if it comes from somebody other than the family – that just takes that whole emotional thing out. I mean – it might be a social worker, it might be the police. Or it might be that you can't pass the driving test anymore so there's no question – you don't get a driver's license. But, to make it easier, I would say it shouldn't be the children or the caregiver. It shouldn't be up to them to make that decision, because the bonds and the – I think it just might hurt that relationship, if it doesn't go well or if you just say, "I'm taking your keys away." (Grace)

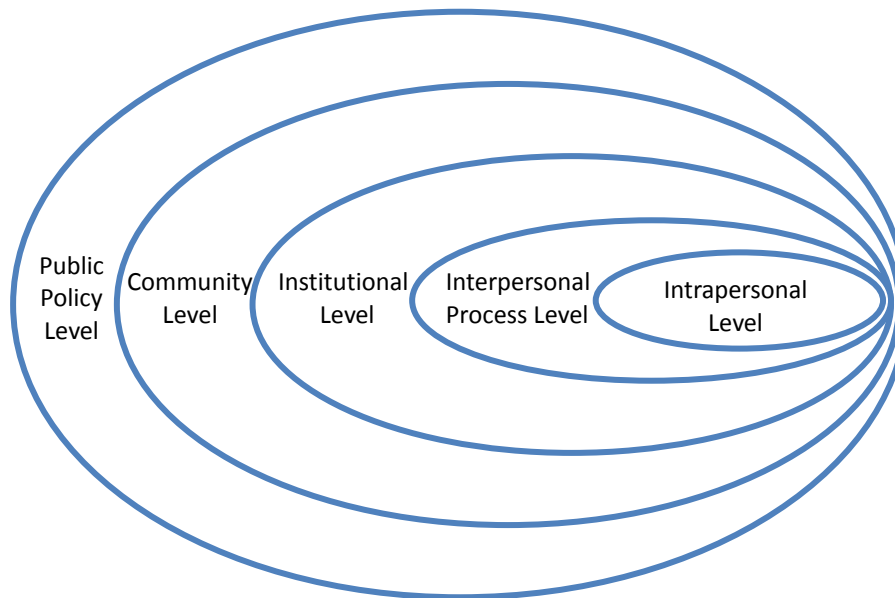
The number of different types of solutions suggested was surprising. The widespread lack of agreement on how to make the process easier for other families may suggest that the driving retirement process is too complex for a single, one-size-fits-all solution. Solutions instead need to take into account a variety of systemic aspects, including the older driver, the family, the DMV, the medical providers, non-family members, etc.

Model for Understanding the Role of the Family

The Taxonomy of Family Strategies for Achieving Impaired Older Adult Driving Retirement proposed in Chapter 3 did not adequately describe the participants' lived experience, as expressed in the interviews. I therefore propose a model borrowed from the public health literature that I have modified to fit the findings from this study. My Ecological Model of Later-Life Driving Decision-making borrowed concepts from the ecological model for public health promotion defined by McLeroy et al. (1988). The McLeroy et al. model for public health promotion is depicted in Figure 4.1.

In this model, patterned behavior is determined by processes occurring at five embedded levels. At the center of the McLeroy et al. (1988) model is the level of the individual. Individual, intrapersonal factors include such characteristics as “knowledge, attitudes, behavior, self-concept” (p. 355) and skills. The second level, the interpersonal level, includes formal and informal social support systems such as family members, friends and co-workers. The institutional level includes schools, workplaces, voluntary organizations and other social institutions which are organized through formal and informal rules and regulations. The community level is defined by relationships among institutions and organizations. The public policy level includes laws and policies enacted at the local, state and national levels.

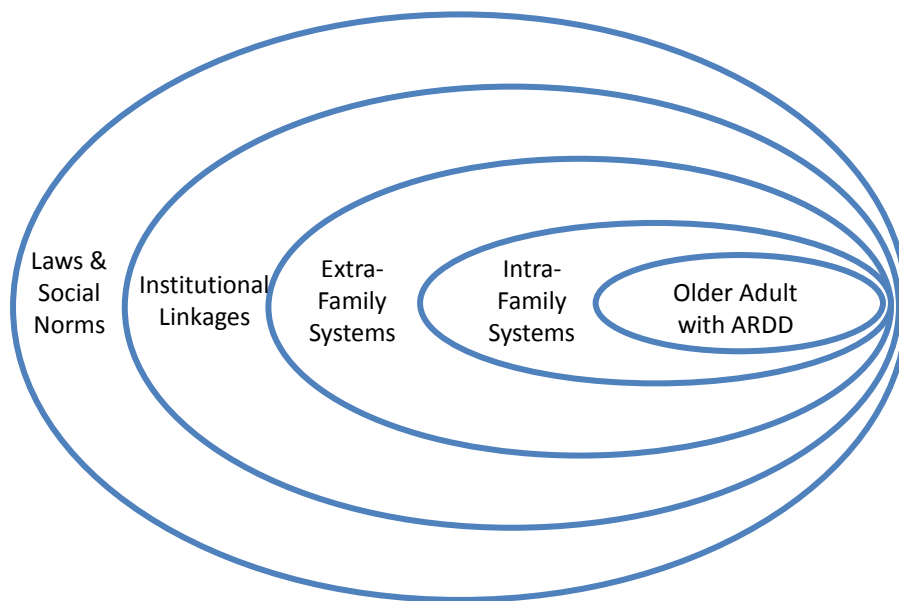
Figure 4.1 McLeroy et al. (1988) Ecological Model for Public Health Promotion



McLeroy et al. (1988) argued that in order for health promotion interventions to be successful, they have to take into account the processes operating at each level of analysis. Processes operating at any level can positively or negatively influence health-related behaviors at the individual level. Understanding how factors at each level encourage or discourage target behaviors can provide insights on how to effectively address the target behaviors.

In the current study, family members were concerned about a specific target behavior: medically- impaired driving. Participants' efforts to encourage driving retirement were not simply a matter of intra-family communication, but were influenced by processes occurring at multiple levels, within and outside of the family. I therefore propose a new model that takes into account the participants' descriptions of complex interactions occurring within and across multiple levels. My Ecological Model of Later-Life Driving Decision-Making is depicted in Figure 4.2.

Figure 4.2 Ecological Model of Later-Life Driving Decision-Making



The Level of the Older Adult with an Age-Related Driving Disorder

In my model, an older adult with an age-related driving disorder (ARDD) has a personal driving history and an attachment to driving as a means of maintaining his or her independence, control over daily decision-making, connection to social networks and feelings of adult competence. At the level of the individual, participants noted that the older adult's willingness to consider driving retirement was influenced by his or her personal characteristics, perceptions about health status, and perceptions about the impact that driving loss would have on quality of life.

In the proactive cases, both older adults were aware of and concerned about their memory problems. Both were sensitive to verbal and non-verbal nudging by family members. Both voluntarily chose to relinquish driving, despite the negative anticipated impact that driving loss would have on their quality of life.

When it's all said and done, it's better. I feel better that he's not driving. And I think he does, too. But it's just – it's still a loss that you're grieving. Grieving something that you've been doing since you were 16. (Charles)

In the reluctant acceptor cases, participants reported that the issue of driving loss was more salient to the older adult than were perceptions about health status. In the George case, driving loss meant moving away from her farm house.

I asked her if she'd ever thought about moving off the farm and she goes, "Oh, no. They're going to have to carry me out of there." And she was almost angry with my comment when I asked. And so I never asked that question directly again until she got really sick. (Gloria)

This reluctant acceptor used a number of strategies to continue driving while coping with declining health in order to maintain her ability to stay in her house. These strategies included driving only short distances, calling friends or relatives to let them know she had gotten home from a visit, carrying a cell phone, wearing a medical alert bracelet, and backing her car over a sidewalk and close to her door to make it easier to carry in groceries.

In the Eliot case, the older adult had an extensive driving history related to his profession. As he experienced a series of health problems, his view of himself as a proficient and safe driver was shaken by minor accidents.

He was always an excellent driver. He drove for his work. And drove many, many miles...without accident. It was really a prideful thing for him when he had those 2 accidents. (Emily)

This older adult and his spouse enrolled themselves in a senior driving course to improve driving safety. After his physician recommended giving up driving temporarily, the older adult brought up the topic of driving at several successive appointments.

After each health incident he had, it would further delay his ability to get back to driving. When dad started feeling a little better, he would bring it up to [the doctor]...I don't think he would have wanted the doctor to say, "Sure, you can drive." I think he had misgivings. Too many misgivings about his own ability. (Emily)

His ambivalence about driving may have contributed to his decision to undertake one driving errand after the physician recommended driving cessation.

In the Alcott case, the older driver's journey through Alzheimer's dementia influenced her perceptions about driving.

It was a small transition to the loss of driving. Initiated with the doctor. There was a lot of grumbling and stuff since then, but the disease itself overcomes any complaining... and basically it became a non-issue. (Alex)

This older adult and her spouse were also given mixed messages about driving at the extra-family systems level.

In both of the cases involving a retirement-resistant older relative, the older adults were described by respondents as self-focused and as having had difficult relationships with other family members over the course of many years. In these cases, declining health was not perceived by the older adults as a reason to stop driving. These resisters prioritized personal autonomy and dismissed concerns about driving safety raised by family members and physicians.

[My dad and his father] are very narcissistic. So, that doesn't help when you're trying to deal with them. Because they don't care what happens to anybody else. As long as they get to do what they want. (Fran)

She was just so focused on herself. Me, Me, Me. That she really - I think she was out of touch with that she was endangering people. (Brian)

Both resisters used verbal aggression when family members were viewed as impinging upon their right to continue driving.

Intra-family Systems Level

At the intra-family systems level, respondents' participation in the driving retirement process was influenced by awareness of safety issues, perceptions about how to weigh conflicting evidence for evaluating the older relative's driving safety, and availability of support for intervention provided by other family members.

In two families, the perceptions of the older drivers were in alignment with those of his/her family members, allowing the formation of a family coalition. In these cases, careful

verbal and nonverbal interactions preserved the older adult's decision-making autonomy and nudged the older driver in the direction of proactive driving cessation. When the perceptions of the older driver were not in alignment with the perceptions of the family members, driving decisions were influenced by the types of coalitions formed between parties at the individual or family levels and entities in the extra-family systems level.

Extra-Family Systems Level

Participants described four extra-family systems that influenced driving decisions: the medical system, DMV system, law enforcement system and older peer system. The focus of the participants in this study was on how they and their family members had interacted with individuals who were positioned within each extra-family system.

In particular, participants described ways in which coalitions had formed between an individual in an extra-family system and either the older driver or the family members. When a coalition was formed with the family members, the older adult's objections were overruled and driving retirement was facilitated. When a coalition was formed with the older driver, family concerns were overruled and the older adult continued to drive.

Coalitions with Individuals in the Medical System

In five family cases, the family members and the older driver's physician worked together to encourage driving cessation. Both participants from the George family specifically requested assistance from the older driver's physician. The physician was at first reluctant to intervene.

[The doctor] didn't want to tell her either, because she's a sharp lady and she's independent and they got along well. (Grace)

He avoided a direct conversation with the older adult by adding his diagnosis to nursing home release orders. This forced the discharge nurse to be the bearer of bad news. An additional request from family members prompted the physician to directly discuss driving cessation with the older adult at a follow-up appointment.

Respondents from four other families identified proactive intervention on the part of the older driver's physician. In some cases, the physician's intervention allowed family members to agree with the physician without contradicting the older relative.

I think one of the best things we did was to consult our family physician... That's somebody that dad has so much respect for that it's easier to hear it from the doctor than it is from a family member. And then we were able to be empathetic and say, "Yep, I know you're disappointed that...[the doctor] doesn't think you're ready, but it sounds to me like you agreed with him." (Emily)

In one case, the physician's questions put a family member on the spot. The family member's agreement with the physician created family conflict.

[The doctor had] a laundry list of things she goes through with older parents when their adult children are with them...She just point blank asked me, "Does anyone have issues with her driving skills?" And I said, "Yes, we do." And of course, my mom was, you know, angry – and very upset about that. And [the doctor] said, "Well, do you think she should be driving?" And I said, "Probably not"...The doctor ended up being the bad guy... Well, I got blamed and the doctor got blamed. (Beth)

Coalitions with Individuals in the DMV System

Two participants from one family wrote letters to the DMV explaining the danger to public safety posed by their older relative. These letters initially prompted the DMV to revoke the older driver's license.

Four participants from two families noted that DMV permission to continue driving delayed cessation or overrode family wishes for the older adult to stop driving. Two accounts described lenience on the part of DMV employees.

[After] they took his license completely away...he said, "I figured out, I don't have a time frame. So I can sit there as long as I need to." So he took [the written exam] all day. He told both of us that the lady in the [local] licensing department helped him [on] his second try. They helped him! (Fran)

It was after the [Alzheimer's] diagnosis that she still managed to go and renew her driver's license...I think they were being very nice to her. (Alex)

One family member noted that the older driver's spouse had facilitated a driver-DMV coalition.

I was flabbergasted that she'd passed and that the license was renewed. I was like, "But dad, she's not supposed to be driving." And yet, they renewed her license...So then I had to think, well what does she have to do? Just sign the thing and, really, pass the vision test. I guess it really isn't a whole lot. She could probably fake it and get through the license...I was just floored that dad would have bothered to do it. He wouldn't have had to tell her – or hid it. (Ann)

Coalitions with Individuals in the Law Enforcement System

Participants from one family faced a coalition between the older relative and local law enforcement.

[The DMV] completely revoked [his license]... During this timeframe, when he was driving [local law enforcement] would not arrest him. (Fran)

A family member was able to overcome this coalition by forming a new coalition with a law enforcement supervisor.

I called the [supervisor]. And that man's uncle had been in the same situation and killed someone. And he said, "I will get something done."(Fran)

Coalitions with Individuals in the Older Peer System

One pair of family members noted that their older relative and his peers worked together to ensure that his license would be reinstated.

We suspect that [Dad] had his phone and he would call one of his buddies [during the written exam] and he would read the question and have them give him an answer. (Fran)

[My dad] told me, "I had [my friend] sign that [medical form] and send it back to the state." And I was like, "She's not a doctor." He knew that. (Faith)

This peer protection was also extended by the older adult to another older driver

An 80-some year old man ran into my dad and really damaged my dad's truck. And the first thing my dad told him was, "We don't want to call the insurance company. They'll take your license." The other guy said, "Well, I'll pay for it." Dad said, "Okay." (Fran)

Institutional Linkage Level

Institutional linkages between extra-family systems influenced driving decision-making in some cases. Participants from the Brett family described linkages between the medical and DMV systems that encouraged driving retirement. A physician recognized warning signs, asked a family member for her opinion about the older adult's driving safety, and referred the older driver to driving rehabilitation specialists. The driving rehabilitation specialists conducted tests and found the older adult unfit to continue driving. The specialists notified the DMV and the DMV revoked the license.

Participants from three families described dysfunctional linkages between extra-family systems which delayed driving cessation or overruled family efforts to encourage driving cessation. In the George family, a letter from a vision care provider overrode a DMV screening test.

[My mother] went to get her driver's license renewed. I think probably at age 89 or 88...But, she couldn't pass the eye test. And her eye doctor wrote her a note saying her vision was good enough to drive. I was kind of irritated with that. I was hoping that, since she couldn't pass the eye test, they wouldn't give her her license. But that wasn't the case. (Gloria)

In the Alcott family, the DMV system and medical system operated separately, providing mixed messages about whether driving was acceptable. At about the same time that the physician recommended driving cessation due to advancing dementia, the DMV renewed the older adult's license.

It was after the diagnosis that she still managed to go and renew her driver's license. So she passed all the normal ... exam questions...But when she had

*gone back to her physician some months later...[we] talked to him and said,
“Do you even know this? That she still wants to drive?” (Alex)*

In the Fleming case, dysfunctional linkages between extra-family systems allowed a dangerous driver to continue driving. Letters from a doctor and family members initially convinced the DMV to revoke the older adult’s license. A law enforcement professional declined to intervene when family members reported continued driving despite a DMV-revoked license until a law enforcement supervisor insisted on intervention. When physicians declined to approve efforts to regain the license, friends of the older adult and one DMV professional assisted him in overcoming DMV screening requirements to get the license reinstated.

What can you do? I keep thinking what can you do about [it]? We’ve called them, we’ve written them. They listen to him, not us. (Faith)

Level of Laws and Social Norms

At the level of laws and social norms, participants acknowledged the high value placed on older adult autonomy and independence, the social taboo against talking about driving retirement without prior permission, and the lack of required screening for health-related driving difficulties.

In addition, a few participants identified a rural social norm of tolerance of elder impaired driving.

When you grow up around old farmers and farm wives, I don’t know if you grew up in a rural area, but everybody drives and you just kind of look out for those people if you’re on the road. “Oh, here they come, be careful.” And so, that’s kind of the culture. (Grace)

I think that it’s just a good little buddy system back there, you know. They’re not going to do anything. “That’s [his] car – he’s lived here for 50 years – 60 years. So, you know, we’ll just let him do what he wants. He’s an old man.” So you can’t fight against them. (Faith)

Conclusion

Findings indicated that the participants' efforts to encourage driving retirement were influenced by processes occurring at multiple levels, both within and outside of the family. Within the family, older individuals made their priorities known and made driving decisions based on these priorities. Some older drivers also defended their driving autonomy by controlling information, by stopping conversations about driving, or by using a downward comparison bias to defend continued driving.

Midlife family members became aware of safety issues at different times in the driving retirement process. Awareness prompted conversations with other relatives, and the majority of family conversations about driving did not include the older adult. Many family members reported a respect for the autonomy of the older relative and a reluctance to initiate conversations without permission from the older adult to do so.

The driving retirement processes described by participants were consistent with the three categories of driving retirees described by Adler and Rottunda (2006): Proactives, Reluctant Accepters and Resisters. Conversations webs were smaller and family-centered in proactive cases. Reluctant acceptance expanded conversation webs to include family members, medical professionals, and sometimes DMV or insurance professionals. Cases with resisters had the largest communication webs, involving many family and non-family members.

As non-family members entered the communication web, coalitions were formed. When actors from extra-family systems supported family concerns about driving safety, older adult objections were overruled and driving retirement was facilitated. When actors from extra-family systems supported the position of older adult, family concerns were overruled and the older adult continued to drive.

Based on these findings, an Ecological Model of Later-Life Decision-Making was proposed. The model reflects that the participants' efforts to encourage driving retirement were not simply a matter of intra-family communication, but were influenced by processes occurring at multiple levels, both within and outside of the family. Processes occurring at multiple levels both helped and hindered family members' efforts to encourage driving retirement.

Chapter 5 - Discussion

When viewed in an ecological context, older adults' decisions regarding continued driving and family members' efforts to encourage driving retirement were influenced by processes occurring at multiple levels, within and outside of the family. Findings from the current study provided new insights into how processes identified in the literature on elder driving cessation operate.

The Level of the Older Adult with an Age-Related Driving Disorder

According to participants in this study, the priorities of the older relatives greatly influenced the older adults' attitudes and behaviors regarding continued driving. The proactive driving retirees placed a priority on concerns about memory issues and voluntarily chose to relinquish driving, despite the negative anticipated impact that driving loss would have on their quality of life. This finding is consistent with other studies that have documented that one of the strongest predictors of driving retirement is self-perception of health status (Anstey et al., 2006; Dellinger et al., 2001). Ackerman et al. (2008) found that the relationship between self-rated health and driving cessation was mediated by cognitive processing speed. In this study, older adults without dementia who experienced subtle declines in cognitive speed of processing were more likely to stop driving than older adults who were not experiencing this type of cognitive decline.

Other studies have documented that self-perception of health status does not always align with objective measures of driving safety (Carr et al., 2005; Stalvey & Owsley, 2000). Findings from the current study suggest that, when an older adult prioritizes particular aspects of his or her current lifestyle, the older adult may continue driving despite declining health status.

In the George family, the older driver prioritized living in her farm home. This priority led to continued driving despite getting stuck overnight on a muddy rural road, a driving incident involving hitting a roadside mailbox, family members' nudging and attempted conversations about moving into town, and one family conversation about the possible legal ramifications of having an accident.

This behavior may be explained by findings from Cicirelli (2000) that some older adults minimize the extent of their health problems in an attempt to maintain independence and postpone dependence. This also may help explain the finding from Dellinger et al. (2001) that,

although retired drivers rated their health status lower than current drivers, the current drivers had a greater number of health problems. Similarly, Carr et al. (2006) found that physical disability was less salient for the decision to continue driving than were personal priorities, such as the desire to stay active or the desire to work.

In the Eliot family, holding on to driving was related to the older driver's self-concept, based on a long professional history involving extensive, accident-free driving. Strategies used by this older driver to hold on to driving despite declining health and more than one minor accident included enrolling in a driving safety course, accepting transportation support without relinquishing his car, and repeatedly discussing the possibility of a return to driving with his physician.

Several studies have recognized that loss of driving can have a severe, negative impact on an older adult's self-image (Davidson, 2008; Eisenhandler, 1990; Rudman et al., 2006; Shope, 2003). Hakamies-Blomqvist and Siren (2003) noted that older female adults with an extensive driving history gave up driving for different reasons than did less active female drivers. The less active drivers prioritized transportation support from a spouse while the active drivers prioritized health concerns that made driving difficult. More research is needed to understand how varying levels of attachment to the role of driver influences driving cessation decisions.

The retirement-resistant older adults in the current study placed a high priority on individual autonomy and did not consider their health status or the safety concerns of others to be valid reasons for giving up driving. Both reacted with verbal aggression when they viewed others as threatening their ability to continue driving. In addition, the older driver from the Fleming family continued driving despite a revoked license and continued fighting for his license until it was reinstated. Although instances of resistant behavior, such as verbal refusal to ever stop driving unless physically restrained (Rudman et al., 2006; Yassuda et al., 1997) and driving despite a revoked license (Liddle et al., 2008; Moore & Miller, 2005; Shope, 2003) have been identified in the literature, more research is needed to identify the prevalence of these extreme behaviors.

Intra-family Systems Level

Many studies have documented that older adults reported negative emotional responses to driving retirement conversations initiated by family members. These negative responses

included anger (Coughlin et al., 2004; D'Ambrosio et al., 2007; Liddle et al., 2008; Kostyniuk et al., 2009), sadness (Coughlin et al., 2004; D'Ambrosio et al., 2007) and depression (Coughlin et al., 2004, Bryanton, 2009; D'Ambrosio et al., 2007; Johnson 1998). D'Ambrosio et al. (2007) found that drivers in poorer health reported more negative responses to driving conversations than did drivers in better health. In the current study, family members of retirement-resistant older adults reported the most direct conversations about driving. Poor health was not viewed by the older adult as affecting driving and attempts at direct family conversations were dismissed or answered with verbal aggression.

Cicirelli (2000) compared responses from 53 older adults and 53 of their middle-aged adult children and found that the adult children perceived “more chronic conditions and symptoms, more cognitive problems and [more] depressive symptomatology than the parents” reported (p. 174). Similarly, most of the midlife participants in the current study witnessed or received family reports about incidents that triggered concerns about the driving safety of an older relative before the older adult perceived driving safety to be an issue.

Cicirelli (1981) found that the most frequent source of conflict between older parents and their adult children involved instances where the two generations held different views about the types of assistance needed by the older adult. In the current study, concerns about driving arose in the context of a life-long relationship with the older relative. During the course of that relationship, the midlife family member had developed an understanding of the older adult's priorities and an ability to predict the older adult's likely reaction to discussions about driving retirement.

The majority of participants anticipated negative responses to driving discussions because they recognized driving as a central feature of their older relative's decision-making autonomy. Without specific permission to raise the issue, most participants consulted other family members to learn whether their concerns were shared and to garner support for encouraging driving retirement. Support for the presence of a social taboo against intergenerational conversations about driving was provided by Knowledge Networks (2008). In this national survey, 36% of the 1,011 adult respondents (ages 44-62) indicated that driving conversations would be more difficult than discussing the older parent's funeral wishes or suggesting that the older parent sell his or her house. In addition,

more than one-third of those who felt their parent should not drive without some restrictions (or should not drive at all) said that no one has, as of yet, discussed the issue with the elderly parent, while another quarter weren't sure (p. 7).

When describing strategies used by family members to encourage driving retirement, Kostyniuk et al. (2009) grouped family strategies into three categories: avoidance, discussion, and action. Avoidance strategies included family awareness and discussion of the problem with no action and no discussion with the older driver and refusal to ride along or allow children to ride along without discussing why. Discussion strategies identified in the driving retirement literature included creating rules about driving habits (Connell et al., 2012; Kosyniuk et al., 2009), agreements to limit driving (Coughlin et al., 2004) negotiating with the older driver (Kosyniuk et al., 2009), expressing concern about driving ability (Kosyniuk et al., 2009), discussing the danger to others posed by continued driving (Kosyniuk et al., 2009), and agreements to avoid driving under certain conditions (Coughlin et al., 2004). Action strategies identified in driving retirement literature included disabling the car (Jett et al., 2005; Perkinson et al., 2005; Persson, 1993), changing or altering the car keys (Perkinson et al., 2005; Persson, 1993; Sterns et al., 2001), hiding the keys (Jett et al., 2005), removing the car (Connell et al., 2012; Kostyniuk et al., 2009; Perkinson et al., 2005; Sterns et al., 2001), lending the car to someone (Connell et al., 2012; Perkinson et al., 2005; Persson, 1993), postponing the replacement of a totaled car (Perkinson et al., 2005), taking away the driver's license (Perkinson et al., 2005), asking a physician to recommend driving cessation (Kosyniuk et al., 2009), and reporting the older driver to the state DMV (Jett et al., 2005; Perkinson et al., 2005; Sterns et al., 2001).

In the current study, family strategies were progressive and based on the real and anticipated reactions of the older driver. In the absence of an imminent threat to public safety, most participants worried and waited for the older adult to make his or her own decision to stop driving. Waiting in these cases did not involve avoidance. Waiting was instead motivated by respect for older adult autonomy and was accompanied by worry about safety. Waiting was sometimes reinforced when an older adult declined to share information affecting driving safety, when the older adult practiced driving self-regulation, when a midlife family member became

concerned about relationship consequences involved in raising the driving issue, or when multiple caregiving crises forced a family member to triage.

Older adults were not included in most family conversations because many of the family members felt they did not have the older adult's permission to initiate these conversations. Some participants looked for opportunities to nudge the older adult in the direction of driving retirement. Nudging was successful when the older adult shared the family members' concerns about health and safety. As safety became a more pressing issue, family members looked to physicians for advice about driving safety.

Attempts at direct conversation occurred only when safety concerns outweighed concerns about older adult autonomy. One family member's refusal to allow children to ride along happened after attempts at conversation were unsuccessful and this strategy was initiated to limit the safety concerns that were within that family member's direct control. One family involved the DMV and law enforcement professionals in driving decisions when the older driver was an imminent threat to the safety of others.

In the driving retirement literature, caregiving concerns, including concerns that the family member was too busy to provide rides (Perkinson et al., 2005; Rosenbloom, 2010; Sterns et al., 2001), lived too far away to help with transportation (Kostyniuk et al., 2009), or was hesitant to take on a caregiver role (Connell et al., 2012; Kosyniuk et al., 2009) created barriers to intervening in driving decision-making. In the current study, none of the participants were hesitant to take on caregiving roles, even when geographic distance was an issue. Some families assigned one or two lead caregivers and others formed full-family teams to provide caregiving support to the older relative. This is consistent with findings from Matthews (2002) that midlife sibling pairs approached meeting the needs of their older parents pragmatically and assumed additional caregiving responsibilities as an extension of normal family interaction.

A few studies have addressed the roles played by specific types of family members. Hebert et al. (2002) found that some spouses of Alzheimer's patients passively supported continued driving by letting fear of confrontation outweigh observed behavior indicating unsafe driving. Other studies have found instances in which the older driver's spouse actively supported continued driving by acting as a copilot (Hebert et al., 2002; Jett et al., 2005; Moore & Miller, 2005).

In the current study, one spouse provided transportation support and accompanied her husband to a driving safety course for older adults. One spouse provided passive support for continued driving by discussing safety concerns only with the midlife children. One spouse followed a physician's advice to keep his wife from driving, but made one exception when he needed her assistance in accomplishing a specific task involving driving. More research is needed to understand the full range of active and passive influences that spouses have on the driving decisions of older adults.

Sterns et al. (2001) reported instances where in-laws refused to intervene because the driver was not a close enough relative. Many participants in the current study indicated that their spouse was not directly involved in the process. One participant explained that she and her husband were each responsible for dealing with driving retirement in his or her own family of origin.

The current study also highlighted two types of family members not mentioned in the driving retirement literature: the older drivers' grandchildren and the midlife family members' cousins and uncle. In the current study, all reported instances of participation by the older drivers' grandchildren involved reporting safety concerns to the midlife family members. Other family members (uncle and cousins) had more varied roles. In the Fleming family, the cousins observed unsafe driving behavior and participated in conversations with the midlife family members. In the George case, an uncle and several cousins looked out for the older driver and reassured midlife participants on matters of driving safety. More research is needed to understand the full range of participation of grandchildren and relatives in the extended family circle.

Extra-Family Systems Level

In the current study, the formation of coalitions with individuals in various extra-family systems either helped or hindered family efforts to encourage impaired elder driving retirement. In addition, two-thirds of participants recommended extra-family solutions for making the driving retirement process easier for other families.

The Medical System

Sterns et al. (2001) identified instances where family attempts to enlist the support of a physician were unsuccessful. The driving retirement literature provides insights into the issues

faced by medical providers dealing with older drivers. Physicians who initiate driving conversations often report negative reactions, including anxiety, defensiveness and anger (Betz et al., 2013; Bogner et al., 2004; Reisman, 2011). Other barriers to physician-initiated driving discussions include concerns that the doctor-patient relationship may be harmed (Adler & Rottunda, 2011; Janz et al, 2011; Perkinson et al, 2005; Redelmeier et al., 2012), that the older adult may avoid necessary care if he or she anticipated scrutiny of driving ability (Berger et al., 2000), and that the insurance billing structures made it difficult for physicians to receive reimbursement for driving discussions (Adler & Rottunda, 2011) .

A survey of 239 physicians who worked with older patients with dementia in the States of North and South Carolina indicated that 59% addressed driving issues and 41% did not. Physicians were more likely to address driving issues if they were older, were aware of American Medical Association guidelines for older driver assessment, strongly perceived their role as including driving discussions, and “believed it was important to address driving as the disease progressed” (p.61). Physicians were less likely to address driving if they were younger or if they were aware that their state did not mandate physician reporting.

Betz et al. (2013) conducted individual interviews and focus group interviews with 8 physicians and 33 older drivers. This study found that physicians often did not plan ahead for driving discussions with older patients.

Typically, they did not initiate these conversations until there was already a concern, either from a family member, change in the patient’s health, or other “red flag” event like a crash (p. 1575).

Many of the older drivers indicated that their physician was not aware of current driving ability or driving status. The older drivers identified two barriers to doctor-patient discussions about driving: appointment time constraints and competing priorities.

Some studies have reported that older patients sometimes dismiss or ignore the physician’s advice to stop driving (Reisman, 2011; Hebert et al., 2002). Some physicians who work with dementia patients report that family members encourage continued driving by denying evidence of unsafe driving, prioritizing preserving the older adult’s dignity over safety, and attempting to avoid additional caregiving burdens associated with driving retirement (Perkinson et al., 2005).

None of the family members in the current study avoided additional caregiving or denied evidence of unsafe driving. The family members instead weighed competing evidence of risk avoidance (driving self-regulation) on the part of the older driver with evidence of declining functional status. As safety risks became more evident, physicians entered the communication webs surrounding the older drivers.

In the Alcott, Brett and Fleming cases, the older drivers presented red flag symptoms (Alzheimer's dementia, a deficit in visual attention, and stroke-related cognitive impairment), prompting one or more physician(s) to enter into conversations about driving. In the Eliot case, the physician responded to repeated requests for advice about driving initiated by the older adult. In the George case, family members made repeated requests for a physician's intervention, followed by the physician's reluctant agreement to take part in driving retirement decisions.

The DMV System

Participants from the Alcott and Fleming families indicated that DMV leniency in licensing decisions contradicted family efforts to encourage driving retirement. DMV leniency was viewed by Alex and Fran as related to an individual DMV employees' sympathy for the older driver.

Goodwin et al. (2013) noted that "many state guidelines are outdated, incomplete, or not based on actual functional impairment" (p. 7.13). Model screening guidelines were developed for state DMV personnel in 2003 (Staplin & Lococo, 2003). Ball et al. (2006) field tested an 11-minute battery of cognitive and physical tests, given by DMV employees to older adults on a voluntary basis. Scores on three tests, the Motor-Free Visual Perception Test, Trail-making Test, part B, and Useful Field of View Test were significantly associated with subsequent at fault crashes. Despite these advances in screening, no state DMV had implemented model screening guidelines as of April 2013 (Goodwin et al., 2013; IIHS, 2014). A major barrier to state DMV adoption of the model screening guidelines was the need for legislative action to define high risk groups and approve adoption of the screening techniques (Staplin & Lococo, 2003).

The lack of accurate DMV screening for functional impairment placed the Fleming family in a difficult position. Fran and Faith both wrote letters to the DMV describing their father's medical condition, the physician's recommendation to stop driving, and specific instances of unsafe driving behavior. A state-level DMV employee revoked the license, yet that decision was overturned when the older adult was assisted in passing screening tests at the local-

level DMV and when a friend of the older driver forged a physician's signature on a medical form.

This type of scenario may be rare. More research is needed to understand the full range of interactions between family members and DMV employees at the state and local levels. In particular, how often are family requests for reexamination or license revocation acted upon? How often are family requests rejected because of reporting technicalities (not using the specific form required, lack of a signature on the request form, etc.)? How frequently do older adults attempt to reverse family-prompted license revocation decisions and how often are these efforts successful?

The Law Enforcement System

In the current study, a member of the Fleming family requested, but did not receive, assistance from local law enforcement professionals until a law enforcement supervisor intervened. This type of scenario may be rare. Little research has been conducted on the viewpoints of law enforcement officers regarding impaired older drivers.

One focus group study about driving with Alzheimer's dementia included a small number of law enforcement officers (Perkinson, et al, 2005). The majority of these officers expressed the belief that, while driving retirement decisions should be based on driving behaviors rather on stage of dementia, even the earliest stage of Alzheimer's could present a problem. Several participants indicated that "public safety should take precedence over the rights of individuals" (p. 680). More research is needed to understand officer-older driver interactions and interactions between law enforcement officers and family members of older drivers.

The Older Peer System

Respondents from both families of cessation-resistant older adults reported that older peers had supported the older relative's continued driving. Some support for the idea of peer protection of continued unsafe driving was documented by Tuokko et al. (2007). In focus groups, including 86 older adults who had attended a driver education program, 12% of the participants felt that no one should be denied the right to drive.

In a study by Adler and Rotunda (2006), 12 participants ranging in age from 70-85 years described passive peer acceptance of continued unsafe driving.

All reported having friends who are still driving but should not be because they are “dangerous to themselves and others.” Interestingly, none of the participants were willing to discuss this issue with their resistor friends – they simply will not ride with them. When asked if they had any advice for this group, one rural participant stated, “ [I] can’t tell them to stop. Never been in a position to say anything” (p. 230).

Persson (1993) identified a similar attitude among driving retirees ranging in age from 66 to 96.

Forty percent of the 56 focus group participants indicated that they

knew someone over 65 who had problems with his or her driving but was still behind the wheel. All indicated that they would not say something to such a person, although one man added, “As long as I don’t have to ride with them I wouldn’t say anything” (p.90).

Johnson (1998) conducted separate interviews with members of 60 rural triads, including an older driving retiree, the retiree’s best friend, and a close family member of the retiree.

Thirty-one of the driving retirees reported that they had discussed driving cessation with a best friend. Twenty of the best friends indicated that they had played a significant role in driving cessation decisions.

The study does not indicate the number of older driver-peer conversations that were initiated by the older driver or the number of conversations that were initiated by the best friend. However, a few comments from best friends indicated that peer-initiated conversations were extremely uncomfortable.

The comments from other friends included statements such as, “I was awful uncomfortable about that talk – couldn’t sleep for a few nights before – so strung up, but he knew I was there for him once we got started”; and, “An awful, tearful, angry time for both of us – before, during, and awhile after” (p. 212).

This suggests that older peers may prefer to have the older driver’s permission to discuss driving rather than to initiate uninvited conversations. More research is needed to understand the prevalence of peer protection and the types of strategies (active and passive) used by older adults to protect the driving privileges of peers.

Institutional Linkage Level

The literature on driving retirement has identified several barriers to cooperation between the DMV system and two other extra-family systems: the medical system and the law enforcement system. In terms of linkages between the DMV and medical systems, none of the older drivers described in this study resided in states with mandatory medical reporting of conditions that can make driving unsafe.

Several studies have identified reluctance on the part of medical professionals to report older patients to the DMV. One major concern is the absence of specific legal protection for reporters. Without legal protection, a patient who was reported to the DMV might sue the physician for breaching patient confidentiality (Adler & Rottunda, 2011, Berger et al., 2000; Janz et al, 2011; Reisman, 2011) or for misdiagnosing the patient's ability to drive (Bogner et al, 2004). Without legal protection, physicians might also be held liable for accidents caused by an older patient who was not reported to the DMV (Adler & Rottunda, 2011, Berger et al., 2000, Bogner et al., 2004, Janz et al, 2011, Reisman, 2011).

In terms of linkages between the DMV and law enforcement professionals, one study from California attributed low levels of police reporting of older drivers to a lack of screening tools and knowledge about identifying cognitive impairment. Results from pre- and post-training surveys of police officers attending a two-hour in-service training found that

in the pre-training questionnaire, 573 officers reported low levels of driver referral to the DMV, with only 3 percent (19/573) reporting at least once a month, 45 percent (257/573) once every three-six months, and 43 percent (244/573) once a year or every few years; 9 percent (53/573) responded they had never reported (Hill et al., 2013, p. 69).

In the post-training survey, 90% indicated that they intended to use a screen tool provided during the training to identify impaired older drivers and 93% felt that the screening procedure would help document suspected impairment in referrals to the DMV.

A survey of state licensing agencies found that all 50 states accepted referrals for driver reevaluation. The top three sources of referrals for driver reevaluation were law enforcement personnel (37%), medical professionals (35%) and family members or friends (13%) (Stutts, 2005). Overall, less than 0.4% of the nation's licensed drivers ages 65 and older had been referred from all sources (Goodwin et al., 2013; Stutts, 2005).

For participants in the Brett family, well-coordinated linkages between the medical and DMV systems facilitated driving retirement. A physician with specialized training in gerontology identified red flags, took family concerns seriously, and ensured that further testing was conducted before the older driver could renew her license and handicapped tag. Driver rehabilitation specialists tested the older driver and followed through by notifying the DMV that the older driver was unsafe on the road. The DMV then revoked her license.

Participants from other families were not so fortunate. For the Alcott family, a neuropsychologist recommended driving cessation at about the same time the DMV renewed the older relative's license, providing a legal opportunity for continued driving at a time the physician regarded driving as hazardous. For the George family, a letter from an eye doctor overrode a DVM screening test, encouraging continued driving at a time the family members viewed continued driving as inadvisable. For the Fleming family, multiple instances of inter-system failure left family members with no hope for removing a clearly unsafe driver from the road.

More research is needed to understand the full impact that institutional linkages have on family members attempting to encourage driving retirement. For example, how frequently do functional and dysfunctional linkages between institutions help or hinder family efforts to encourage driving retirement? When multiple requests for intervention assistance are refused, how do family members manage the anxiety associated with knowing that their older relative continues to pose a risk to others on the road? In which circumstances will family members take direct action to take the keys or disable the car?

Level of Laws and Social Norms

Many studies have documented aspects of social norms related to elder driving retirement that are similar to those identified by participants in this study. In particular, the research provides supporting documentation of the high value placed on older adult autonomy and independence (Adler & Rottunda, 2006; Bauer et al., 2003; D'Ambrosio et al., 2007; Liddle et al., 2008; Perkinson et al., 2005; Rosenbloom, 2010; Rosenbloom, 2004; Rosenblum & Corn, 2002; Yassuda et al., 1997) and an understanding of the negative impact that driving retirement has on the older adult's quality of life (Adler & Rottunda, 2006; Horowitz et al., 2002; Johnson,

1999; Johnson, 1998; King et al., 2011; Kostyniuk et al., 2009; Mezuk & Rebok, 2008 Rosenblum & Corn, 2002; Rudman et al., 2006).

In the current study, participants' understanding of the impact that health declines had on the older adult contributed to empathy and a choice of strategies that did not involve direct family imposition of driving retirement. It is possible that empathy for older adults with declining health also influences broader social norms and legislation.

A few participants in the current study identified a greater tolerance for impaired elder driving in rural areas. More research is needed comparing urban and rural attitudes on this issue. In terms of legislation, there are different sets of regulations placed upon high-risk driving sub-populations based on age and type of driving impairment.

In terms of age, the two highest-risk sub-populations of drivers are people under the age of 25 and people over the age of 70. All 50 states recognize the risks posed by young drivers and all 50 states have instituted graduated driver's licensing laws to reduce injuries and fatalities associated with teenage drivers (Tigen & Shrinkel, 2014).

Regulating the high-risk driving sub-population over the age of 70 is more complicated. Although model screening guidelines for older drivers were developed for state DMV personnel in 2003 (Staplin & Lococo, 2003), no state had implemented the guidelines as of April 2013, despite the fact that the recommended screening tests could be implemented for less than \$5.00 per driver (Goodwin et al., 2013).

According to the Insurance Institute for Driving Safety (2014), 22 states have no special DMV regulations for screening older drivers, beyond a simple eye test. Three states specifically prohibit licensing administrators from treating people of advanced age differently from other drivers. One state requires an on-the-road driving test for license renewal after age 75. Eight states require in-person renewal of the license for older adults and four states require a vision or medical form when renewing the license by mail or electronically. Twenty-one states have accelerated license renewal periods for older drivers: eight states requiring renewal every 2-3 years and 13 states requiring renewal every 5-6 years. The age at which accelerated renewals begin in these states ranges from 60-85.

In terms of driving while impaired, the legislatures in U.S. states have placed much more emphasis on regulating impairments of choice than on regulating impairments the driver did not choose. According to the National Conference of State Legislatures (Tiegen & Shinkel, 2014),

all 50 states prohibit alcohol-impaired driving, all 50 states prohibit driving under the influence of drugs which impair driving ability, 41 states ban texting while driving, and 37 states prohibit teenage drivers from using cell phones while driving.

Medical impairments are not impairments involving choice. Health conditions happen to people through no fault of their own. This may explain the fact that, although screening guidelines for medical impairments that affect driving safety have been available since 2003 (Wang et al., 2003; Carr et al., 2010), only 9 states have passed mandatory medical reporting laws (Carr et al., 2010). In 2013, 17 states “debated legislation about insuring and licensing senior drivers” (Tiegen & Shinkel, 2014, p. 15), but no state tightened medical screening requirements.

This uncertain regulatory environment has real consequences for families of medically impaired older drivers. Family members often feel societal pressure to intervene in the driving decision-making of their medically impaired older relatives (Connell, et al, 2012; Perkinson, et al, 2005). Yet, depending on where the older driver resides, family members may or may not receive the support they need to encourage driving retirement. Family members in several studies reported a lack of support from medical providers or DMV professionals (Connell et al., 2012; Kosyniuk et al., 2009; Rudman et al., 2006; Sterns et al., 2001). For the Fleming family, an uncertain regulatory environment caused great distress to the family members and allowed a clearly unsafe driver to continue driving.

Conclusion

It is clear that elder driving retirement is a complex process that is influenced by multiple processes occurring within and outside of the family. These processes include medically impaired older adults’ prioritizing and decision-making regarding continued driving, family members’ perceptions regarding self-regulation vs. warning signs of unsafe driving, coalitions between extra-family actors and either the older driver or family members, inconsistencies in the way that extra-family systems communicate safety issues to one another, and the lack of laws supporting fair and accurate screening for medical impairments in either a DMV or medical setting. Processes occurring at each ecological level help and hinder family efforts to encourage driving retirement.

Implications for Practice

Advice written for family members concerned about the driving safety of an older relative often recommends that the family process begin with observation, such as riding along with the older driver and looking for signs of unsafe driving (California Department of Motor Vehicles, 2013; LePore, 2010; NHTSA, 2013). The current study indicated that family members observed or learned about warning signs before becoming concerned about driving safety and continued to gather information about driving safety by observing and comparing information with other family members. Family members also weighed warning signs against evidence of driving self-regulation to try to understand whether further intervention was necessary.

Advice written for family members routinely encourages initiation of conversations about driving safety (AAA, 2014; California Department of Motor Vehicles, 2013; The Hartford, 2013; Iowa Department of Transportation, 2007; NHTSA, 2013). The current study indicated that there was a social taboo against initiating intergenerational driving conversations. This social taboo was rooted in a respect for the decision-making autonomy of the older adult. Without specific permission to bring up a topic affecting elder autonomy, many family members expressed discomfort with initiating conversations about driving.

Results from the current study indicate that different families deal with driving retirement issues in different ways, depending on the priorities expressed by the older adult, the family members' perceptions about driver self-regulation and warning signs of possible safety issues, interpersonal family dynamics, access to support from medical professionals, law enforcement officers and DMV professionals, willingness of extra-family actors to report unsafe driving to the DMV, and availability of broader legal and social support for removing unsafe older drivers from the road. Family members therefore need a resource kit with a wide variety of different options for intervening in driving decision-making. This resource kit should include:

- Information on preventing conflict by planning ahead for life without driving just as one would plan ahead for financing retirement, establishing health care directives, etc.
- A ranking system for deciding which types of warning signs require immediate intervention and which require additional observation to establish a pattern of unsafe driving
- Information on conversation starters that take into account the issue of intergenerational permission

- Community-specific information on transportation support available to the older adult
- Information about specific, research-based self-assessment tools, such as the SAFER Driving (University of Michigan Transportation Research Institute, 2014) and the Fitness-to-Drive (Institute for Mobility, Activity and Participation, 2013) screening tools. Family members can then ask the older adult to do a self-assessment in the privacy of his or her home to raise awareness of safety issues.
- Information on driving rehabilitation services available in the older adult's state (AOTA, 2014)
- Information about specific, research-based screening tests designed for use in medical settings, such as the Road Safe Seniors exam (Hill, 2012; Hill et al., 2011). Family members can then request that the older adult's physician perform these screening tests to help determine driving safety.
- State-specific information about how to successfully report a clearly unsafe driver to the DMV

In addition to providing these resources, it is important to be honest with family members about inconsistencies at the extra-family and interagency linkage levels. Depending on where the older adult lives, DMV professionals at the local or state level may be willing to assist family members or may place greater priority on input received from the older driver. Physicians may have varying opinions about their role in driving decisions and varying opinions about the advisedness of reporting an older driver to the DMV. Family members may therefore need to try many different strategies to convince the medically impaired older relative to stop driving.

Chapter 6 - Conclusion

This dissertation used a novel approach to understanding the role of the family in elder driving retirement. Two midlife family members from each of 7 families of older drivers who had recently retired from driving were interviewed. The experiences they shared provided new insights into the family process which often precedes elder driving cessation.

Gloria best expressed an assumption that is held by many in the general public: “It seems like it should be so simple. You just take the keys away.” Her observation pointed out a cultural myth that is prevalent in the U.S.: that taking the keys is courageous and right and that not taking the keys means that you are derelict in your duty to society. The results of this study can shift that discussion to understanding aspects of the driving retirement process that family members can and cannot control. Processes occurring at multiple levels helped or hindered the family members’ ability to influence the driving decisions of their older relatives.

For participants in this study, decisions about intervening in the driving decisions of their older relatives were neither ethically nor legally simple. Although health declines may have taken away the older adult’s ability to drive safely, those health declines did not make the older adult incapable of making autonomous decisions.

In this study, the proactive driving retirees prioritized concerns about memory. This priority allowed them to be open to verbal or non-verbal nudging by family members. The coalition that formed between proactive older adults and their midlife family members was based on the older adult’s consent to stop driving.

When the older adult did not consent to give up driving, family members faced difficult choices. Awareness of possible unsafe driving prompted conversations with other relatives, and the majority of family conversations about driving did not include the older adult. This reluctance to initiate direct conversations has sometimes been labeled as *avoiding* the issue (Kostyniuk et al., 2009). The majority of family members in this study did not avoid the issue. Instead, most participants carefully weighed evidence of risk avoidance (driving self-regulation) against warning signs of unsafe driving. As safety concerns increased, coalitions were formed with actors in extra-family systems, including the medical, law enforcement, and DMV systems.

When the extra-family actors agreed with the family, the older adult’s objections were overruled and driving retirement was facilitated. When extra-family actors agreed with the older

adult, family concerns were overruled and the older adult continued to drive. The presence or absence of coordinated actions at the interagency level and the lack of legal requirements for screening older adults in a medical or DMV setting further complicated family efforts to encourage elder driving retirement.

America's Baby Boom generation begins turning 70 in January, 2016. Between 2012 and 2025, the percentage of licensed drivers ages 65 and older is expected to increase from 14% to 20% (NHTSA, 2014; TRIP, 2012). The percentage of fatal crashes involving at least one older driver is expected to increase from 17% in 2012 to 25% in 2030 (NHTSA, 2014; Lyman et al., 2002). If the ecology of later-life driving decision-making remains the same, millions of midlife family members will struggle with social pressure to intervene in later-life driving decisions and with uncertain access to support from extra-family, interagency, and state-level legal systems.

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Appendix A - Semi-Structured Interview Guide

Introduction

I would like to learn your perspective on the process through which your _____ stopped driving. Some people say that the process involves lots of people (relatives, neighbors, medical professionals, police, all giving their input at different points in the process). Some people report that their older relative just decided on his/her own that it was time to stop driving and there was no input from other people. I'd like to learn about your experience from the time someone first noticed a concern with your _____'s driving until the time he/she stopped driving.

Drawing the Relational Map

- In your experience, which, if any, of your other relatives were involved in conversations about your _____'s driving?
- In your experience, which, if any, friends or neighbors were involved in conversations about your _____'s driving?
- In your experience, which, if any, medical professional were involved in conversations about your _____'s driving? (Prompt if requested: doctors, eye doctors, physical therapists, home health care aides, etc).
- In your experience, which, if any, legal representatives (police, insurance agents, DMV personnel, etc.) were involved in conversations about your _____'s driving?

Process Questions

- Who was the first person that noticed a concern about your _____'s driving?
- What kinds of things did _____ notice that concerned him/her?
- Who did _____ share these concerns with?
- If I had been a "fly on the wall" during this conversation, what kinds of things would I have heard?
- What was your reaction to this information?
- At this point in the process, was there any discussion about how and when to approach your _____ with these concerns?

- What were the opinions of each person?
- [If respondent forgets to talk about a person on the relational map] You mentioned that _____ was involved in the conversations at some point in the process. What information did he/she add?

Decision-making questions

- What was your/ _____'s reaction?
- How did _____ feel about the conversation afterward?
- What happened next?
- [Regarding decisions made] Some people like making these kinds of decisions, some people don't care, some people dislike making these kinds of decisions. How did you feel about the decisions you were making?
- What kinds of things were going through your mind when you realized this/learned this?
- How much time do you estimate passed between the time someone first noticed a concern with _____'s driving and the time that he/she stopped driving?

Additional Questions

- Is this the only driving retirement process you've been involved in or have you had other relatives that have been through the process? [Discuss list].
- Given your experience(s) with [names of relatives], do you think it will be easier, the same, or more difficult for you when it's your time to give up driving?
- In your opinion, are there ways that this driving retirement process can be made easier for other families?
- Are there any questions would you have liked me to ask that I didn't think to ask?
- Do you know any other people who have been through a similar process and might be interested in talking with me?

Appendix B - Relational Map

