Life after driving: older adults' perceptions of driving cessation

Jennifer Lee Nichols

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For many adults the ability to drive a car acts as a crucial link to the outside world. The following study was implemented to gain a more in depth and detailed understanding of community dwelling older adults’ experiences of driving cessation as related to cultural gender expectations and to explore the influence of an individual's support network on their experience of driving cessation. The study was quantitative in nature and included data collected from residents at four different retirement/assisted living communities located within the city limits of Seattle, WA. A total of 45 participants were surveyed in person: the sample consisted of 35 females and 10 male participants. The study was designed to test the following research statements: (1) Driving cessation affects males and females differently. (2) External factors influence and shape an individual’s experience of driving cessation. The results of this study did not display a significant difference based on gender differences. This may be due to the relatively small sample size surveyed. This data may also suggest that older adults actually display less of a difference in driving cessation behaviors based on their gender. More research that focuses specifically on the relation of gender to the decision to cease to drive and level of comfort on the increased dependence on friends and family is needed. Future research should also explore the significance of an older adult’s social network as related to their experience of driving cessation. A better understanding of the factors that contribute to different experiences of driving cessation for older adults may help mental health professionals tailor effective psychological interventions.
in an effort to provide support during this difficult transition period. The development of this knowledge will also contribute to the establishment of effective policy and laws in the service of geriatric drivers to increasing the safety of the entire population.
Life after Driving: Older Adults’ Perceptions of Driving Cessation

A project based upon an independent investigation, submitted in partial fulfillment of the requirements for the degree of Masters of Social Work.

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Acknowledgements

A special thanks to Lyndsey Jones, for her support, patience and words of encouragement during the research process and writing of this thesis.

I want to recognize Irene Switzer, for developing in me a passion and sense of awe for my work with the geriatric community and for her support of my educational process.

To all the individuals who took the time to be surveyed and enthusiastically shared their personal experiences of ceasing to drive with me, Thank you.

Lastly I want to acknowledge the time and energy of the professionals at the retirement/assisted living facilities in the Seattle area who were gracious enough to work with me on this project.
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Chapter I

Introduction

The ability to drive a personal automobile is often viewed by elder adults as essential to maintaining personal independence and a sense of connection with the larger community. With the aging of the baby boomer generation, this dependence on the automobile has become more visible in our society. The structure of our population is changing so that the proportion of older adults is increasing. Findings suggest that the proportion of older adults licensed to drive is rising largely due to the decision of a greater number of older women to hold driver’s licenses. In addition, nationwide trends of suburbanization have resulted in many elder adults residing in locations where they are unable to easily access public transportation or utilize walking to complete their daily tasks.

According to the Nationwide Personal Travel Survey (1995), as presented in Cobb & Coughlin (2001), the personal automobile accounts for 93.7% of older adult trips, with walking and bicycling accounting for 4.6%, and public transportation 0.9% (p.276). It seems important to consider the fact that over 60% of car trips taken by older adults are taken alone, highlighting the extent that older adults are dependent on the use of their vehicles (Eberhard, 1996, p. 29). Although older drivers are, overall, considered a safe group when statistically comparing the “number of miles traveled and the number of accidents incurred, “accident risk” does begin to increase by approximately age 70.” (Garre-Olmo, Garriga, Pousa&Vilalta-Franch, 2009, p. 355). Exploring the influences of
the desire to drive at an older age is relevant in the development of future policy to address the issue of driver license renewal and the marketing of driving alternatives for this population.

The private automobile provides transportation and is culturally significant in maintaining an individual’s sense of autonomy and self-esteem. The loss of physical mobility that older adults experience expands beyond the physical to play a major part in an individual’s psychological concept of the world and themselves. The aim of the present study is to gain a more in depth and detailed understanding of the differences and similarities of community dwelling older adult’s experiences of driving cessation across gender divisions and to explore the influence of individual's support networks on their experience of driving cessation. A better understanding of the factors that contribute to different experiences of driving cessation for older adults may help public and mental health professionals tailor effective psychological interventions in an effort to provide support during this difficult transition period.
Chapter II

Literature Review

Entering into old age marks a transition in both physical ability and social position in our society. Older adults are all affected differently by the aging process but many report changes in their personal happiness, psychological well-being and support systems. Strong social supports and high economic status can act as buffers to the negative effects associated with loss and aging. Overall the prevalence of loneliness seems to increase with age (Savikko, Routasalo, Tilvis, Strandberg, & Pitkälä, 2005, p. 223). It appears that many factors can influence the overall well-being of individuals in old age. In a study of community-dwelling older adults, Badger (2001) found that an older adult’s health perception and level of mastery appear to have a direct influence on their reports of depression, and their level of depression directly impacted the individual’s reports of well-being (p.189). In a study of 6,786 seniors conducted by Savikko et al. (2005) researchers found that 39% of respondents suffered from loneliness, 5% often or always. Researchers found that the most powerful predictors of loneliness were poor functional status, widowhood and poor income (p.223). Psychosocial resources such as social support networks and self-coping skills have been considered to be protective factors against depression (Badger, 2001; Jang et al., 2002).

Psychosocial resources are defined as the factors in a person’s environment that mediate the impact of stress on the outcome or directly deter negative outcomes. Social support networks are considered a crucial protective factor against depression. (Ensel &
Lin, 1991, p. 321). In a cross-sectional study of French elders (mean age=75) Antonucci and colleagues (1997) found that older adults that had extensive social networks and were satisfied with their quality of support reported lower levels of depressive symptoms than their counterparts (p.189). In a study by Taylor and Lynch (2004) the trajectory of perceived social support was found to be significantly related to the trajectory of reported symptoms of depression of older adults (p.S238).

In addition to the psychological stress caused by driving cessation the individual often experiences physical changes in the size of and their access to their social support networks. In a longitudinal study of 398 elders in the Baltimore area (Mezuk & Rebok, 2008) elders were interviewed and asked to address the following: social integration (the frequency of contact), perceived social support, driving status and physical health and geographic location (p. S298-S303). The interviews took place over the span of 13 years and also focused on the possible mediating factor that public transportation may play in an individual’s ability to remain independent. The data from the follow up period showed an association between driving cessation and a reduced network of friends; it also appeared that this association was not mediated by the individual’s access to public transportation (p.S302). In a study of rural elders and driving cessation Johnson (1995) focused on the association of a person’s decision to forfeit a driver’s license with multiple factors including impaired health and the influence of friends and family. By her research Johnson found that “regret and a sense of isolation were consequences of that decision” (p. 138). Johnson (1995, p. 131) suggests that the loss of independence associated with the loss of the personal automobile can lead to an individual’s feelings of loneliness.
Older adults’ social support network may play a major role in shaping the elder’s experience. In a study of 75 rural women over the age of 77, Johnson (2008) collected data that supported the claim that adequate support from family members and friends was a critical part of an individual’s ability to maintain driving cessation (p.65). Johnson (2008) found that the women with limited social supports continued driving and stated that the main reasons for continued driving to include “lack of transportation, feelings of insecurity and fear for their survival, and the desire to assist friends who were less fortunate” (p. 65). Implications of this study stress the importance of finding transportation solutions that support the individual’s need for independence.

In the context of a culture where independence is highly valued, the loss of physical independence that comes as a result of the aging process can be very difficult for an individual to manage (Garre-Olmo et al., 2009, p. 355). Losing or giving up one’s driver’s license can be a very difficult emotional issue for elder adults. According to Adler & Rottunda (2005), the most common emotion felt by older adults after ceasing to drive is a loss of independence (p. 227). Through the use of focus groups (2005) researchers found that although all the older adult participants had other means of transportation, a sense of loss of independence as related to driving cessation remained (p. 227-235). Multiple psychological research studies have been conducted to study the importance of driving in maintaining independence, feelings of self-worth and a sense of connection to life and community. Changing, reducing or ceasing to drive in old age can produce a range of negative consequences including “loneliness and depression, regret, reduced social interaction and activates, increased demands on family and friends to meet
transportation needs and strained relationships with those suggesting the driving change” (D' Ambrosio, Donorfio, Coughlin, Mohyde, & Meyer, 2008, p. 267).

The act of ceasing to drive can have negative effects on an individual's psychological well-being. For example, an association between a cessation of driving and increased depressive symptoms in elderly people has been documented (Windsor et al., 2007). In a study produced by Fonda, Herzog and Wallace (2001), researchers found that respondents who had recently experienced driving cessation and drivers who restricted driving both had a greater risk of worsening depressive symptoms than those who were able to continue driving (p. S343). This study (N=5,239) used analyzed data from the three waves of the Asset and Health Dynamics among the Oldest Old (AHEAD) study and assessed depressive symptoms using an abbreviated Center for Epidemiologic Studies-Depression scale. The project used two models to examine how driving cessation and reduction contributed to increased depressive symptoms over time and to assess whether participants who had ceased to drive, but had a spouse to drive them where at less a risk for increased depressive symptoms (p. S350). Researchers concluded that participants that stopped driving had a greater risk of increased depressive symptoms and that having an available spouse to drive did not mitigate the risk of worsening depressive factors (p. S350). A cohort study of urban adults (N=1316) by Marottoli and colleagues (1997) supports the claim that older adults who stopped driving exhibited substantial increases in depressive symptoms over a six year follow up period (p. 202). Driving cessation was among the strongest predictors of increased depressive symptoms, even when accounting for socio-demographic and health-related factors. Researchers suggest providing elder adults with access to programs to provide trainings to help them retain
their current driving skills and access to mental health services if their driving changes (p. 204).

Several intersections can influence an individual’s ability to cope with the loss of independence associated with ceasing to drive. In a study of 875 adults over the age of 74, researchers explored the how variables including sex, functional independence and positive physical self-concept, are correlated to driving ability (Garre-Olmo et al., 2009). The findings suggested that the ability to drive as related to elder adults over the age of 75 is positively correlated with the following: “age, gender, visual acuity, functional independence, preserved cognitive functioning and positive physical self-concept” (p. 288).

The relationship between physical health, mental health and socioeconomic status has also been widely studied. Researchers support the stance that an individual’s socioeconomic status is related to various health related outcomes (Menec, Shooshtari, Nowwick & Founier, 2010; Martikainen et al., 2009; Adams & Moon, 2009). In a study of older adult individuals living in a lower socioeconomic neighborhood in Winnipeg, Canada, Menec, et al. produced results which they see as indicating that relative to older adults that live in affluent areas, those in the poorer neighborhoods had significantly higher odds of having multiple illnesses including heart disease, arthritis, hypertension, and depression (p. 44). The researchers encouraged the development of community supports to meet the needs of older adults living in such areas. In a study by Adams and Moon (2009), researchers used telephone interviews of a population (N=166) of white and African-American residents in both assisted and independent living communities (p. 684). Researchers concluded from the data that social factors, including socioeconomic
status, acted as greater risk factors for sub-threshold depression than personal functioning and physical health (Adams & Moon, 2009, p. 689).

While individuals of lower socioeconomic status may be more vulnerable to illness, it appears that gender also has the ability to influence the mental and physical health outcomes of older adults. In particular, “men are more likely than women to have access to informal care from their spouses” in the home setting (Martikainen et al., 2009, p. 36). This added support allows men a buffer to the negative effects associated with old age. It appears that this access to additional support may make it more difficult for men to adjust to the loss of independence associated with losing a drivers license. In a long term study of Finns (N=35,926) focusing on “gender, age, living arrangements and social circumstances as determinants of entry and exit of long term institutional care,” researchers cite the data as supporting the claim that all three of the previously mentioned characteristics are major determinates of institutional residence (Martikainen et al., 2009, p. 34).

The shift to relying on others for transportation can be a very difficult transition for older adults. In Stutts and Wilkens (1999), as presented in Adler and Rottunda (2005), it has been suggested that male individuals may have a more difficult time asking friends and family members for transportation (p. 227). Researchers suggest that the lack of independence caused by driving cessation of older adults can have a negative impact on the mental health of the individual. Ragland, Satariano and MacLeod (2003), (N=1772) found that “drivers who stopped driving during a 3-year interval reported higher levels of depressive symptoms than did those who remained active drivers, after the authors controlled for changes in health status and cognitive function.” (p. 1). The same study
produced results that suggested that the depressive symptoms were substantially higher in men that in women.

As gender differences have been noted to play an important factor in relationship to older adults mental and physical health outcomes, it appears that gender also influences older adult’s decision to cease driving. (D'Ambrosio et al., 2008, p. 265). The findings of a study conducted by Chipman, Payne, & McDonough (1998), showed that within their sample population (N=897), older drivers were more likely to be “male, to be married and to be living with one other person” (p. 303). Researchers concluded from the data that sex and marital status acted as a strong independent factor that influenced a person’s decision to continue driving. The researchers noted that the different gender practices of men and women in relationship to driving are different for the older population then for individuals from younger cohorts. Chipman et. al. state that some of the strength of association can be attributed to the fact that many women from the older adult cohort did not ever learn to drive, yet even when this fact is statistically accounted for it “is too modest an association to account for this association” (p. 303). In a study of 81 older adults conducted by D’Ambrosio et al. (2008), the researchers published results showing “that women report lower levels of confidence in their driving skills than men,” although the reported level of confidence increases if the woman lives alone (p. 276). D’Ambrosio et al. (2008), claim that the data produced supports the evidence of gender differences, including the possibility that “woman may have been more willing to acknowledge and accept changes in their driving skills and abilities as they age” (p. 275).

In contrast to the study above, Hakamies-Blomqvist and Siren (2003) found that the decision to stop driving is related to an individual’s driving habits rather than their
gender (p. 383). In their study of Finnish older adult drivers, Hakamies-Blomqvist and Siren found that ex-drivers tended to have an inactive driving career, while drivers had a more active personal driving history. The length and level of activity of older adults’ personal driving history were strongly associated with driving cessation and continuation. Women with an active, “male-like” driving history who had decided to stop driving provided reasons for ceasing to drive that were similar to what is known about older men’s reasons to give up driving (p. 387).

In the United States we live in a society where personal independence is highly valued, as a result the loss of physical independence that comes as part of the aging process can be very difficult for a person to manage. Though many factors can influence the overall well being of individuals as they make the transition into old age, it appears that strong social supports and high economic status may act as buffers to the negative effects associated with loss and aging. These buffers also appear to extend to the experience of driving cessation in older adults. Much literature notes differences in driving cessation experiences based on gender. Finally it seems important to note that contrasting literature regarding the role of gender in older adult’s experiences driving cessation are consist with the gender norms associated with an individual’s generation.
Chapter III
Methodology

Study Aims

For many adults the ability to drive a car acts as a crucial link to the outside world. This study specifically focuses on the comparisons of elders living in a lower socioeconomic status to elders living in a higher socioeconomic status; and also explores the role gender plays in an individual’s perception of this milestone event. This quantitative, quasi-experimental study will investigate protective factors, such as support networks and perceived health status, and the influences that these factors play in shaping participants’ experiences. It will also be important to inquire as to the cause of an individual’s driving cessation to understand the participant’s experiences in context.

Hypotheses

Two research statements emerged from the review of the literature: (1) Driving cessation affects males and female differently due to generational gender norms associated with driving. (2) External factors act to influence and shape an individual’s experience of driving cessation.

Two hypotheses emerged from the research statements. Hypothesis 1(a) was: Females will be more likely than males to make to the decision to stop driving independently of their doctors and friends/family members. Hypotheses 1(b) was: Females will be more likely than males to report that their increased dependence on family or friends has been a positive experience. Hypothesis 2 was: Older adults, who
report a larger support network, also report less feeling of sadness related to their inability to drive.

**Research and design**

The type of design that best fits the research questions is a relational design. The data collected from participants will be analyzed and examined in an effort to establish a significant relationship. The participants will be asked to self-report their experiences of driving cessation by completing a survey developed for this purpose. The quantitative nature of this study will allow for the collection of data by survey, instead of the use of interviews that would have to be coded in an attempt to discover similarities in the participants’ responses. This research method and design is appropriate for the stated hypotheses because it allows for an examination of pre-existing variables in the sample population and the relationships between these variables.

The study used primary study data collected from older adults currently residing in retirement communities in the Seattle, Washington area. All participants were over the age of 65 and had ceased to drive. Participation in the survey was voluntary and reasonable confidentiality was maintained. Approval of the use of this research assistant was granted by Smith College School for Social Work Human Subject’s Review Committee (Appendix A). All data was collected by this researcher and her research assistant, Lyndsey Jones (Appendix B).

**Sample**

The target population consisted of older adults living in retirement communities/assisted living facilities in Seattle, Washington, all participants were over the age of 65 years, and had ceased to drive. The sample consisted of 45 adults. This
researcher only collected data from the target population and excluded anyone not fitting
the criteria of the target population. The inclusion criteria were: (1) Participants had to be
over the age of 65 years and (2) Participants must have ceased to drive. Recruiting of the
sample population took place at the following four retirement/assisted living communities
located within the city limits of Seattle, Washington: Park Place Retirement and Assisted
Living, Merrill Gardens at Queen Anne, The Viewpoint on Queen Anne, and The
University House of Wallingford. The communities were chosen to represent a diverse
socioeconomic and ethnic population of older adults. The general managers of both
Merrill Gardens at Queen Anne and The Viewpoint on Queen Anne disclosed that their
facility houses primarily upper and middle class individuals. Staff at Park Place
Retirement and Assisted Living reported that the majority of residents are of lower
socioeconomic status. Park Place Retirement and Assisted Living is located in the most
racially diverse zip code in the United States and this researcher was informed by staff
that the resident population reflects the racially diverse demographic area. Residents at
The University House are of an upper moderate to wealthy socioeconomic status and
educated at a much higher level than their counterparts.

I contacted the retirement facilities three months prior to the data collection phase.
All the named communities gave permission for the research to take place at the agency
and requested that the Smith College School for Social Work's Human Review
Committee (SSW HSR) conduct a review of the proposed study (Appendix C). After
receiving approval from the SSW HSR committee, I worked with the retirement
communities to set dates for the distribution of the survey and to advertise these events. I
spent one full day (5-8 hours) surveying residents at each of the mentioned facilities.
Announcements to promote participation were made to residents by staff members of the communities. Recruitment letters (Appendix D) were placed in resident’s mail boxes and announcements were made though the communities’ local television station in the weeks prior to coming to the respective communities. Recruitment posters were also posted in all of the communities. The posters briefly described the survey, clearly stated the eligibility requirements for participation in the study and providing contact information (Appendix E). All interested resident's contacted this researcher prior to the day of data collection and were screened and provided with a time and place to come complete the survey if they meet the inclusion criteria. Residents who expressed an interest in participating the day of the data collection were screened on the spot and administered the survey only if they met the criteria for inclusion in the study.

On the day of data collection, this researcher and her research assistance came to the mentioned retirement communities and interviewed residents on an individual basis. All participants were offered the option of having this researcher or the research assistant verbally administer the survey (Appendix F) and record the participant's answers accordingly. This consideration was implemented in consideration of visual impairments that are more common in the older adult population. Refreshments were provided for the residents regardless of participation. Both this researcher and her assistant were available to answer any questions asked by participants and made all attempts to avoid leading statements when providing answers. Depending on the method of administration the survey took approximately 10-30 minutes to complete.
**Ethics and safeguards**

Participation in this study was completely voluntary. Before completing the survey each participant was provided an informed consent form (Appendix G) and asked to read and sign the document. The consent form included the following information: researcher bio, the purpose of the study, the nature of participation, information on the collection and storing of the data over time and information regarding withdrawal from the study. Participants were informed that they had the right to refuse to answer any question while completing the survey. Every participant was provided their own copy of the consent form for their personal records.

Every effort was made to ensure that reasonable confidentiality of participants was maintained. Each participant was assigned a number and this was written on the paper survey, in an effort to remove participant’s names from being directly connected to the survey material. Participation in the survey was not anonymous as the recruitment for the study was done publicly and other residents residing at the communities had knowledge of resident’s participation in the study. Participants were provided the opportunity to withdraw from the survey any time before April 1, 2011. In an effort to ensure confidentiality, the survey did not include questions that inquired of the participant’s physical address, phone number, name, social security number, or fingerprints. All the documents containing collected data will be stored in a locked container for a period of three years after which the data will be destroyed if no longer needed as according to federal guidelines.

Participation in the study was also an attempt to raise awareness around the shared experiences of driving cessation and to promote a sense of normalcy around the
issue of distress caused as a result of driving cessation. While involvement in this study did not put the participant in any recognizable physical harm, the discussion of the material may cause an emotional distress for the individual. As some questions focused on the depressive symptoms that an individual might have experienced as a result of driving cessation, discussion of the material may have been difficult for some participants. Participants received a referral list of local agencies where they could receive counseling services if they desired (Appendix H).

**Data Collection Methods**

This study was quantitative in nature and used primarily study data collected by a survey administered to participants’ in person, on an individual basis. Participants were given the choice to read and complete the survey on their own or have the questions administered to them by this researchers or the research assistant. The survey included two sections: demographic data and quantitative data.

Demographic data was collected in order to make comparisons between participants based on several important variables. The following are examples of some of the questions included in the demographic section of the survey: What is your gender? What is your age? What is your race? What is your current relationship status? Do you currently qualify for low-income housing programs? Do you currently receive Medicaid? What is the highest level of education that you have completed?
Chapter IV

Findings

Females were not found to be more likely than males to make the discussion to stop driving independently of others; and females were not found to be more likely than males to report that their increase dependence on family or friends has been a positive experience. These two major findings did not support the hypotheses as conceptualized in the beginning of this study. The results of this study found no significant difference in the older adult participants’ reported feelings of sadness as related to the inability to drive and the size of their support network. Difference was observed based on socioeconomic status on many different variables as related to the experience of driving cessation, but not statistically tested.

The following chapter will outline the results of the data collected. The demographic data of the participants will be presented first, followed by the stated hypothesis. This chapter is concluded with a section of the results as related to two significant topics: gender and socioeconomic status. Statistical testing was performed on the data that directly related to the hypotheses posed in the previous methods section. The remaining results are presented as crosstabs and simple percentiles.

Demographic Data

Forty-five individuals from four different retirement communities in the city limits of Seattle, Washington participated in this survey. All participants answered all or the majority of the survey questions. These questions gathered data on: age, gender, race
and ethnicity, relationship status, education, place of residence, low-income housing, years since driving cessation and how often driving occurred before cessation.

**Age**

The majority of the participants 48.8% (N=22) ranged in age from 85 years to 96 years, while the remaining participants ranged in age from 66 years to 84 years. More precisely, 6.6% belonged to the 65-69 age category, 15.5% belonged to the 70-74 age group, 15.5% to the 75-79 age group. The remaining participants belonged to the following age groups: 13.3% to the 80-84 age group, 31.1% to the 85-89 age group and 17.7% to the 90+ age group.

**Gender**

Participants were asked in an open-ended question to identify their gender. While participants had the opportunity to answer as they saw fit, all participants chose to identify themselves as either male or female. In terms of gender, the majority of participants (77.8%) identified as female, 35 individuals. The remaining 10 participants (22.2%), identified as male. This data is presented in Table 1.

**Race and ethnicity**

Race and ethnicity were described in accordance with the major racial and ethnic populations currently residing in the United States. The majority of the participants, 91.1% (N=41), identified as being White/Caucasian. The second major grouping was the African American/Black category which represented 4.4% of this sample (N=2). One participant (2.2%) identified as an Ethnic Jew and one participant (2.2%) identified with the Asian/Pacific Islander category. Four other groups were identified on the Demographic Questionnaire; African Ethnic, Cuban Mexican/Mexican
American/Chicano, Other Spanish/Hispanic and American Indian/Alaskan Native, (0.0%, 0.0%, 0.0%, and 0.0%), none of these groups were represented in the sample.

**Relationship status**

The next characteristic asked was the participants’ relationship status. The majority of participants 64.4% (N=29), identified as widowed. Of the remaining participants 13.3% (N=6) identified as married, 8.9% (N=4) as single and 13.3% (N=6) identified as divorced. Two other categories were identified on the Demographic Questionnaire: in a monogamous relationship and living with significant other, but not married (0.0%, and 0.0%).

**Education**

Participants were asked to identify their current level of formal education. The majority of the participants had a Bachelor’s Degree 31.1% (N=14). The remaining participants belong to the following educational categories: Elementary School 0.0% (N=0), Some High School 4.4% (N=2), GED or High School Diploma 15.6% (N=7), Some College 22.2% (N=10), Associates Degree 4.4% (N=2), Master’s Degree 15.6% (N=7) and lastly, Doctorate Degree 6.7% (N=3).

**Place of residence**

All the participants in this study resided in either a retirement community or an assisted living facility as stated in the criteria for participation. The majority of participants 60.0% (N=27) were living in retirement communities and 40% (N=18) were living in assisted living facilities.
Low-income housing

The participants were asked if they currently qualify for low-income housing programs. The largest represented group included those participants who did not qualify for low-income housing 68.2%, (N=30) the second largest was comprised of those who stated that they did qualify for low-income housing 29.5% (N=13). One participant, 2.3%, (N=1) stated that he were not sure if he qualified. One participant did not answer this question.

Years since driving cessation

The survey inquired as to how many years had passed since the participant had ceased to drive. The majority of the participants 60% (N=27) had stopped driving less than 5 years ago; more specifically, 21 participants (46.67%) had ceased to drive within the past 2 years. Of the remaining participants 15.56%, (N=7) had ceased to drive 5 years to 10 years ago and 24.44% (N=11) had ceased to drive over ten years ago.

How often driving occurred before cessation

The participants were asked how often they drove on a weekly basis in the year before driving cessation. The majority of participants drove "almost every day (5-7 times a week)," 55.8% (N=24.) The next largest category represented those participants who drove "more than once a day (8+ times a week)," 23.3% (N=10.) The remaining category represented participants who rarely drove "(0-1 time a week)," 20.9%, (N=9.) Two participants chose not to answer this question.
Hypotheses

Hypothesis I: (a) Females will be more likely than males to make to the decision to stop driving independently of others.

Participants were asked if they made the decision to stop driving on their own. Of the 33 females who answered this question, 72.2% (N=24) stated that they did make the decision on their own while the remaining 27.3% (N=9) stated that they did not make the decision independently of others, two female participants chose not to answer this question. Of the ten males who answered this question 60% (N=6) stated that they did stop driving on their own while 40% (N=4) stated that they did not make the decision to stop driving on their own. In conclusion, it was found that a larger percent of females decided on their own (72.2%) than males (60%). Additionally, a larger percent of females also reported the dependence was positive (75%) than did males (50%).

A chi square analysis was conducted to determine if group differences were found between males and females in regards to the participant’s decision to stop driving independently of others. This test found no significant difference between groups.

Hypothesis I: (b) Females will be more likely than males to report that their increased dependence on family or friends has been a positive experience.

Participants were asked if the inability to drive increased their dependence on friends/family members. If the response was "yes" to this question, participants were then asked if the increase in dependence was a positive experience for them. Of the 35 female participants who were asked if the inability to drive increased their dependence on friends and family members, 75% (N=25) responded "yes" and the remaining 25% (N=10) responded "no." Of the female participants who responded "yes;" 75% (N=18) stated that
this increased dependence had been a positive experience and 25% (N=6) reported that it had not been a positive experience.

Of the 10 male participants who were asked if the inability to drive increased their dependence on friends and family members, 80% (N=8) responded "yes" and the remaining 20% (N=2) responded "no." Of the male participants who responded "yes;" 50% (N=4) stated that this increased dependence had been a positive experience for them and 25% (N=2) stated that it had not been a positive experience. The remaining 25% (N=2) wrote in the following answers when asked if the increased dependence on friends and family member had been a positive experience: both (N=1) and neural (N=1).

A chi square analysis could not be run to determine if there was a difference in older adult’s reporting of increased dependence on family or friends had been a positive experience by gender. This test could not be run since it violated an assumption of the chi square test that no more than 20% of cells can have an expected value of less than 5. In this case, 62.5% of cells have expected value less than 5. The sample population of male participants was too small to run such a test.

**Hypothesis II: Older adults, who report a larger support network, also report less feeling of sadness related to the inability to drive.**

A chi square analysis was conducted to determine if there were group differences for older adults who reported having a small, medium or large support network. The following categories were created to further examine this question: a small support network consisted of 3 or less friends/family members (N=16), a medium network consisted of 4 to 9 friends/family members (N=13) and a large network consisted of 10 or
more friends/family members (N=14.) Two participants declined to answer this question. The test resulted in no significant difference among groups.

**Comparisons based on Gender**

The following section will outline the results specifically related to participants’ stated gender and their experience of driving cessation. These include the following categories: influential others, relationship status, alternative transportation and emotional well-being.

**Influential Others**

Participants who did not make the decision to stop driving independently of others were asked what people in their lives were the major influences in their decision to stop driving. The majority of the female participants who answered this question, 63.6% (N=7), responded that their children had been the major influence in their decision to stop driving, while 18.2% (N=2) stated that their doctor had had the most influence, 9.1% (N=1) reported that they were influenced by their spouse or partner, and 27.3% (N=3) stated that they were influenced by an unlisted source. No female participants listed their grandchildren or a friend and/or other relative as major influences. Of the male participants who responded, one participant, 20%, listed his children as his major influencer, 40 % (N=2), sited their spouse/partner as the major influence, and 40 % (N=2) listed their doctor as the major influence in their decision to stop driving. No male participants listed their grandchildren, friends and/or other relatives or an unlisted source as major influences in this decision.
**Relationship Status**

A difference was noted between male and female participant's relationship status. The majority of the female participants were widowed (74.3%, N=26), while only 30% of the males stated that they were widowed. The women's responses are as follows: 8.6% (N=3) were married, 5.7% (N=2) were single, 74.3% (N=26) were widowed and 11.4% (N=4) were divorced. The following options: "In a monogamous relationship" and "Living with significant other, but not married," were not represented in this sample. The men's responses are as follows: 30% (N=3) were married, 20% (N=2) were single, 30% (N=3) were widowed and 20% (N=2) were divorced. The following options: "In a monogamous relationship" and "Living with significant other, but not married," were not represented in this sample.

**Alternative Transportation**

All participants were asked to respond to the following statement: "My spouse can drive me if needed." Of the female participants 3.3% (N=1) agreed with this statement and 96.7% (N=29) disagreed, 5 female participants chose not to answer this question. Of the male participants 20% (N=2) agreed with this statement and 80% (N=8) disagreed.

**Emotional Well-being**

All participants were asked to "rate their perceived emotional and mental well-being on a scale from 1 to 4, with 1 being 'poor' and 4 being 'excellent.'" The female participants responded as follows: poor-0.0% (N=0), fair-5.9% (N=2), good-58.8% (N=20) and excellent-35.3% (N=12). The male participants responded as follows: poor-0.0% (N=0), fair-0.0% (N=0), good-60% (N=6) and excellent-40.0% (N=4). Differences
were noted in the rate at which both males and females reported "feelings of sadness as related to the inability to drive. The majority of the male participants (70%, N=7) agreed that they did experience feelings of sadness related to the inability to drive and the remaining 30% (N=3) stated that they did not. Of the female participants who responded to this statement 41.2% (N=14) confirmed feelings of sadness related to their inability to drive and the remaining 63.6% (N=21) did not experience these feelings.

**Comparisons based on Socioeconomic Status**

The following section will outline the results specifically related to participants’ socioeconomic status and their experience of driving cessation. These include the following categories: emotional well-being and physical health.

Socioeconomic status was based on the participant's response to the question: Do you currently qualify for low-income housing programs? The majority of participants (68.2%, N=30) did not qualify for these programs, 29.5% (N=13), stated that they did qualify for low-income housing, one participant (2.3%) was unsure as to if he qualified and one participant chose to not answer this question.

**Emotional well-being**

It was noted that a difference existed between different socioeconomic groups when examining the participant's perceived mental health and feelings of sadness as related to their inability to drive. All participants were asked to "rate their perceived emotional and mental well-being on a scale from 1 to 4, with 1 being 'poor' and 4 being 'excellent.'" The participants who qualified for low-income housing programs responded as follows: poor-0.0% (N=0), fair-16.7% (N=2), good-58.3% (N=7) and excellent-25.0% (N=3). The participants who did not qualify for low-income housing programs responded
as follows: poor-0.0% (N=0), fair-0.0% (N=0), good-56.7% (N=17) and excellent-43.3% (N=13).

All participants were asked if they experienced feelings of sadness. The participants who qualified for low income housing responded as follows: 23.1% (N=3) seldom or never, 69.2% (N=9) sometimes and the remaining 7.7% (N=1) responded often or always. The participants who did not qualify for low income housing responded as follows: 50.0% (N=15) seldom or never, 46.7% (N=14) sometimes and 6.7% (N=2) often or always. When the low income group was asked if they experienced feelings of sadness as related to the inability to drive 61.5% (N=8) responded "yes," and 38.5% (N=5) responded "no." The group that did not qualify for low-income programs responded as follows when asked if they experienced feelings of sadness as related to the inability to drive: 41.4% (N=12) responded "yes," and 58.6% (N=17) responded "no."

**Physical Health**

Significant differences were noted when reviewing the issue of physical health between the two socioeconomic groups. All participants were asked to "rate their perceived physical health on a scale from 1 to 4, with 1 being 'poor' and 4 being 'excellent.'" The participants who qualified for low-income housing programs responded as follows: poor-7.7% (N=1), fair-46.2% (N=6), good-30.8% (N=4) and excellent-15.4% (N=2). The participants who did not qualify for low-income housing programs responded as follows: poor-6.7% (N=1), fair-26.7% (N=8), good-43.3% (N=13) and excellent-23.3% (N=7). Participants were also asked to agree or disagree with the following statement: Health reasons made driving difficult. Of the group that qualified for low-income housing 66.7% (N=8) agreed with this statement, 33.3% (N=4) disagreed with the
statement and one participant chose to not answer the question. The participants in the group that did not qualify for low income housing responded in the following manner: 36.7% (N=11) agreed that health reasons made driving difficult and 63.3% (N=19) disagreed with this statement.

Summary

No significant differences existed between male and female participants surveyed when chi square tests were run. Females were not found to be more likely than males to make to the discussion to stop driving independently of others and females were not found to be more likely than males to report that their increase dependence on family or friends has been a positive experience. These two major findings did not support the hypotheses as conceptualized in the beginning of this study. The results of this study found no significant difference in the older adult participants’ reported feelings of sadness as related to the inability to drive and the size of their support network.
Chapter V
Discussion

This chapter is a summary and discussion of the findings in terms of how they relate to the literature that was outlined previously in Chapter Two. While all of the three stated hypotheses were rejected, the findings were in some ways supported by the literature. The chapter also presents the implications for practice and policy, the strengths and limitations of the study and areas for possible future research on this topic.

Summary of the Findings

The analysis of the data collected from this study found no significant evidence to support the three hypotheses previously presented in this paper. Participants did not display a difference in a personal choice to cease to drive based on gender. The data could not be tested to determine if there was a difference in whether the participants reported a positive experience of dependence on others by gender, due to the relatively small sample size of male participants. Finally no significant evidence was found to support the claim that that older adults who report a larger support network, also report less feeling of sadness related to the inability to drive.

Findings Compared to the Literature

This study was predicated on the assumption that females would be more likely than males to make to the decision to stop driving independently of others. The data collected found no significant difference between male and female participants in their decision to stop driving. Surprisingly, the findings are in line with some of the previous
literature on the topic of the choice of driving cessation based on gender. Two previous studies contradict this study’s hypothesis and one study supports the hypotheses. In a study of 81 older adults conducted by D’ Ambrosio, et al. (2008), results that showed “that women report lower levels of confidence in their driving skills than men, although the reported level of confidence increases if the woman lives alone” (p. 275). D’ Ambrosio, et al. (2008), claimed that the data produced supports the evidence of gender differences, including the possibility that “woman may have been more willing to acknowledge and accept changes in their driving skills and abilities as they age” (p. 275). This claim provides some support for the original hypothesis as it assumes that the female drivers would be more willing to accept their decreased ability to drive.

Chipman et al. (1998) found that within their sample population (N=897) older drivers were more likely to be “male, to be married and to be living with one other person.” While this information led researchers to conclude that sex and marital status acted as a strong independent factor that influenced a person’s decision to continue driving other literature contradicts this conclusion. Hakamies-Blomqvist and Siren (2003) suggest that the decision to stop driving is related to an individual’s driving habits rather than their gender. Their research led them to conclude that women with an active, “male-like” driving history who had decided to stop driving provided reasons for ceasing to drive that were similar to what is known about older men’s reasons to give up driving. The findings of that study would suggest that other factors beside gender are more influential when predicting an individual’s likelihood to stop driving independently of others.
It was previously hypothesized that females would be more likely than males to report that their increased dependence on family or friends has been a positive experience. The analysis of the data collected could neither support nor refute this claim because the small sample size did not allow for the application of a chi square test to determine if there was a difference in whether the dependence on others was a positive experience based on gender. The small sample size of this study may have had a major influence on the inability to test this hypothesis. While the results of this study are inconclusive, previous studies supported the original hypothesis. Stutts and Wilkens (1999), as presented in Adler and Rottunda (2005), suggested that male individuals may have a more difficult time asking friends and family members for transportation (p.232). These researchers noted that the lack of independence caused by driving cessation of older adults can have a negative impact on the mental health of the individual. Ragland et al. (2003), (N=1772) found that “drivers who stopped driving during a 3-year interval reported higher levels of depressive symptoms than did those who remained active drivers, after the authors controlled for changes in health status and cognitive function” (p. 1). The same study produced results that suggested that the depressive symptoms were substantially higher in men than in women. The literature as presented above and in chapter two was not supported by the results of this study.

As related to this hypothesis, differences were noted in the rate at which both males and females reported "feelings of sadness as related to the inability to drive.” The majority of the male participants (70%, N=7) agreed that they did experience feelings of sadness related to the inability to drive and the remaining 30% (N=3) stated that they did not. Of the female participants who responded to this statement 41.2% (N=14) confirmed
feelings of sadness related to their inability to drive and the remaining 63.6% (N=21) did not experience these feelings. The rating of mental well-being is similar for both males and females. This would suggest that the differences between sadness as related to the inability to drive would be related to gender expectations and not emotional well-being.

No significant evidence emerged to support the claim that older adults who report a larger support network also feel less sad about their inability to drive. Findings from previous studies sheds light on the results of this study. Johnson (2008) focused on the association on a person’s decision to forfeit a driver’s license with multiple factors including impaired health and the influence of friends and family. Johnson found that “regret and a sense of isolation were consequences of that decision” (p. 138). Johnson (1995) suggests that the loss of independence associated with the loss of the personal automobile can lead to individuals’ feelings of loneliness. The findings of Johnson’s study would suggest that there may be an association between an individual’s support network and feeling of sadness related to the inability to drive.

Although the studies presented in the literature review do not support the stated hypothesis, the findings do lend credence to the claim that driving cessation may lead to a decreased social support network for older adults. In a longitudinal study of 398 elders by Mezuk, and Rebok (2008), the data showed an association between driving cessation and a reduced network of friends. A study by Johnson (2008) supported the claim that adequate support from family members and friends was a critical part of an individual’s ability to maintain driving cessation. Johnson (2008) found that the women with limited social supports continued driving and stated that the main reasons for continued driving to include “lack of transportation, feelings of insecurity and fear for their survival, and
the desire to assist friends who were less fortunate” (p. 65). This conclusion could not be further investigated by this study as it only studied the experiences of older adults who had completely ceased to drive.

**Strengths and Limitations**

The data for this study was quantitative in nature and was collected in the form of a personally administered survey. This form of data collection exhibited many advantages and disadvantages early on in the study. The use of quantitative data was selected because of its consistent and concrete nature. The survey was personally administered to participants in an effort to meet the particular needs of an elderly population. The administration of the survey must be tailored for elders who are hard of hearing, visually impaired and/or have trouble with handwriting. An online survey would not be a good fit for this population as many older adults are not computer literate. Participants were given the option to take the survey in written form or have the questions orally asked by the researcher or research assistant. The use of a research assistant was a great advantage as it provided the opportunity to collect more data in a shorter period of time; as the majority of participants asked to have the survey verbally administered.

The main disadvantage of this method of survey administration was that it was very time consuming in several ways. It required contacting multiple retirement communities, meeting with the program directors two months before the administration of the survey, receiving written permission to work within the communities and having this material reviewed and approved by the Smith College School for Social Work's Human Review Committee. The administration of the survey took, on average, seven hours at each of the four retirement communities. Individuals residing in retirement and
assisted living communities were chosen for this study because it was easy to access this population of older adults in large numbers. However, as a consequence, the results do not reflect any of the experiences of older adults living independently within the larger society. Along with the time demands of this method of administration, there also existed monetary demands. Fortunately, my research assistant was able to donate her time without payment, but there existed several other expenses. These included the following: the refreshments provided to residents, paper serving products, writing materials and the cost of printing several hundred pages. Due to the time and monetary investment needs, a large enough sample to test the stated hypotheses was not collected, as the cell sizes of the data collected precluded statistical comparison both between and within group comparisons.

A limitation of this study was the lack of individuals of color in the sample as well as the limited number of males. A second limitation was that because the survey was administered orally, the participant's answers could not be confidential. Thus, participants may have been less likely to be honest when asked uncomfortable or revealing questions about themselves. A final limitation of the survey was the inability to capture the complexity and depth of the issue of driving cessation in older adults. While taking the survey, many participants shared their stories of driving cessation. It seems that a mixed methods study may be able to more fully capture the depth of participant's experiences.
Implications for Policy and Practice

Policy

Exploring the factors that influence the desire to drive at an older age is relevant to the development of future policy surrounding driver license renewal and the marketing of driving alternatives for this population. To date, no national laws or policies that place restrictions on older adult’s ability to continue to drive, although many states have implemented their own restrictions and requirements for older drivers. A total of twenty-nine states have implemented policies to restrict unqualified older adults taking to the streets (Insurance Institute for Highway Safety, Highway Loss Data Institute, 2011). State policies include some or all of the following restrictions: the passing of vision test after reaching a set age, an inability to renew electronically after a set age and a decrease in the amount of years before renewal is required.

As the research shows, many older adults continue to drive despite health concerns because they feel they have no other options. It would seem likely that educational information provided by the department of motor vehicles could assist older adults in making the decision to cease to drive independently of others and provide alternative methods of transportation.

Practice

A better understanding of the factors that contribute to experiences of driving cessation for older adults may help mental health professionals tailor effective psychological interventions in an effort to provide support during this difficult transition period. The findings of this study suggest that the choice to cease driving may have more to do with an individual’s driving style and not gender. It seems important to keep this in
mind as the baby-boomers retire and grow older. Within this generational group many female drivers have developed driving habits very similar to their male counterparts. This seems important concept for clinician’s to incorporate into their practice with their older adult clients. By examining the role of social supports in older adult’s transition to cease driving, clinician’s may be better able to ease the transition of their geriatric clients.

Finally, it is important to note that just as the experiences of the participant’s of this study vary greatly; the stories and needs of older adults in this society differ greatly from one individual to the next and should be approached as such.

**Recommendations for Future Research**

To develop a better understanding of the experience of driving cessation in older adult future research must be implemented. As the size of the older population increases in the United States, the need for knowledge will also increase. It is important to recognize and explore the experiences of older living in various environments. While the overwhelming majority of participants in this study stated that residing in a retirement/assisted living community made the transition to not driving easier; many older adults do not have access to this kind of support. It will be important to examine and compare the differences of experiences based on geographical location. For example, individuals living in rural areas will have different needs as those living in urban communities. And, individuals who live in a retirement/assisted living community may have access to more forms of transportation.

It would be helpful for future studies to focus on collecting data from a larger sample population. The small sample size of this study (N=45) limits the ability to generalize the results to the greater population of older adults. A study with a larger
sampling of the overall population would provide greater knowledge and insight to the experiences of driving cessation in older adults across the United States.

Diversity within a study that replicates the geographical location adds to a greater ability to better represent the target population. It seems important to comment on the limited diversity within this study’s population. This study lacked sufficient representation of diversity in two fields: individuals of color and male participants. It could be interesting to study the relationship of a person’s race and their experience of driving cessation. A greater male population would increase a studies’ ability to make comparisons across gender lines to further investigation on if differences exist or not.

**Conclusion**

As the nation's population ages and the number of older adults in this country increases, it is important to dedicate energy and resources toward this topic. While the results of this study did not statistically support the stated hypotheses, it seems that the information gained can influence the way that the general public thinks about driving cessation in the context of gender and an individual’s support network. The results of this study did not display a significant difference based on gender differences. This result may be due to the relatively small sample size. Yet, this data may also suggest that older adults display less of a difference of driving cessation behaviors based on their gender. More research that focuses specially on the relation of gender to the decision to cease to drive and level of comfort on the increased dependence on friends and family is needed. Future research should also explore the significance of an older adult’s social network as related to their experience of driving cessation. Much more work needs to be done in our society to increase the understanding older adults’ experiences of driving cessation in an
effort to offer this population competent support, realistic alternatives and to enact effective policy and laws increase the safety of the entire population.
References


Stutts, J., & Wilkens, J. (1999). The decision to stop driving: Results of focus groups with seniors and family members. Paper presented at the meeting of the Transportation Research Board, Washington, D.C.


Appendix A

SCSSW Human Subjects Review Approval Letter

February 15, 2011

Jennifer Nichols

Dear Jenny,

Your revised materials have been reviewed and they are approved. The screening plan you set up is fine. But it is also fine if you just screen them on the spot when they express interest in participating by asking them the three questions. The point is that you don’t want them to get all involved in reading the Informed Consent etc., if they are not eligible. Don’t let a lack of cells discourage you. You can recruit and screen in person.

*Please note the following requirements:*

**Consent Maintaining Data:** You must retain all data and other documents for at least three (3) years past completion of the research activity.

*In addition, these requirements may also be applicable:*

**Amendments:** If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal:** You are required to apply for renewal of approval every year for as long as the study is active.

**Completion:** You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your project. It is a very interesting and important topic. The loss of driving really does make a big difference in people’s lives. Unless you live in New York City, where it doesn’t really matter and most people don’t keep cars anyway. How is Seattle for the car-less? I guess you’ll find out.

Sincerely,

[Signature]

Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee

CC: Barbara Lui, Research Advisor
Appendix B

Volunteer’s Assurance of Research Confidentiality

This thesis project is firmly committed to the principle that research confidentiality must be protected and to all of the ethics, values, and practical requirements for participant protection laid down by Federal guidelines and by the Smith College School for Social Work Human Subjects Review Committee. In the service of this commitment:

- All volunteer and professional transcribers for this project shall sign this assurance of confidentiality.

- A volunteer, or professional transcriber should be aware that the identity of participants in research studies is confidential information, as are identifying information about participants and individual responses to questions. The organization participating in the study, the geographical location of the study, the method of participant recruitment, the subject matter of the study, and the hypotheses being tested are also confidential information. Specific research findings and conclusions are also usually confidential until they have been published or presented in public.

- The researcher for this project, Jennifer Nichols, shall be responsible for ensuring all volunteer or professional transcribers handling data are instructed on procedures for keeping the data secure and maintaining all of the information in and about the study in confidence, and that they have signed this pledge. At the end of the project, all materials shall be returned to the investigator for secure storage in accordance with Federal guidelines.

PLEDGE

I hereby certify that I will maintain the confidentiality of all of the information from all studies with I have involvement. I will not discuss, disclose, disseminate or provide access to such information, except directly to the researcher, Jennifer Nichols, for this project. I understand that violation of this pledge is sufficient grounds for disciplinary action, including termination of professional or volunteer services with the project, and may make me subject to criminal or civil penalties. I give my personal pledge that I shall abide by this assurance of confidentiality.

Lyndsey Jones, January 20, 2011
Appendix C.1

Letter of permission from agency

January 14, 2010

Smith College
School for Social Work
Lilly Hall
Northampton, MA 01063

To Whom It May Concern:

Park Place Retirement and Assisted Living gives permission for Jennifer Nichols to locate her research in this agency. We do not have a Human Subjects Review Board and, therefore, request that Smith College School for Social Work’s (SSW) Human Subject Review Committee (HSR) perform a review of the research proposed by Jennifer Nichols. Park Place Retirement and Assisted Living will abide by the standards related to the protection of all participants in the research approved by SSW HSR Committee.

Sincerely,

[Signature]

Wendy Davis
Marketing Director
Park Place Retirement and Assisted Living
Appendix C.2

Letter of permission from agency

December 24, 2010

Smith College
School for Social Work
Lilly Hall
Northampton, MA 01063

To Whom It May Concern:

Merrill Gardens at Queen Anne gives permission for Jennifer Nichols to locate her research in this agency. We do not have a Human Subjects Review Board and, therefore, request that Smith College School for Social Work’s (SSW) Human Subject Review Committee (HSR) perform a review of the research proposed by Jennifer Nichols. Merrill Gardens at Queen Anne will abide by the standards related to the protection of all participants in the research approved by SSW HSR Committee.

Sincerely,

[Signature]

Evan Perrollaz
General Manager
Merrill Gardens at Queen Anne
Appendix C.3

Letter of permission from agency

December 24, 2010

Smith College
School for Social Work
Lilly Hall
Northampton, MA 01063

To Whom It May Concern:

The View Pointe on Queen Anne Retirement Living gives permission for Jennifer Nichols to locate her research in this agency. We do not have a Human Subjects Review Board and, therefore, request that Smith College School for Social Work’s (SSW) Human Subject Review Committee (HSR) perform a review of the research proposed by a Jennifer Nichols. The View Pointe on Queen Anne Retirement Living will abide by the standards related to the protection of all participants in the research approved by SSW HSR Committee.

Sincerely,

[Signature]

Lynn Dicus
General Manager
The View Pointe on Queen Anne
Appendix C.4

Letter of permission from agency

The Gardens at Town Square
933 111th Avenue NE
Bellevue, WA 98004
(425) 685-3900 tel
eraliving.com

January 16, 2011
Smith College
School for Social Work
Lilly Hall
Northampton, MA 01063

To Whom It May Concern:

University House Wallingford gives permission for Jennifer Nichols to locate her research in this agency. We do not have a Human Subjects Review Board and, therefore, request that Smith College School for Social Work’s (SSW) Human Subject Review Committee (HSR) perform a review of the research proposed by a Jennifer Nichols. University House Wallingford will abide by the standards related to the protection of all participants in the research approved by SSW HSR Committee.

Sincerely,

[Signature]

Barbara Ode
Resident Services Director
University House Wallingford
Appendix D

Recruitment letter

The following member was distributed to residents at participating retirement/assisted living communities:

**Are you over the age of 65 and no longer driving??**

If so I would like to hear more about your experience of giving up driving a personal vehicle. My name is Jenny Nichols and I am Social Work student at Smith College conducting interviews for my Master’s thesis. With the permission of University House, Wallingford, my research assistant and I will be coming to distribute surveys to volunteers on a one on one basis. Participation will take about twenty to thirty minutes and consist of answering written questions on a survey that I have designed. Food and refreshments will be provided regardless of participation. Your participation in this research will help to broaden our cultural understanding older adult’s experiences of ceasing to drive. **I will be coming to University House, Wallingford on Friday February 25th and will be available to meet with volunteers throughout the day.** If you would like to participate please call or email me to set up an appointment time. I look forward to speaking with you more in the near future!

Jenny Nichols
Appendix E

Recruitment Poster

Are you over the age of 65, and no longer driving???????

If you answered yes please come and participate in a study designed to learn more about life after driving.

I will be coming to Merrill Gardens at Queen Anne on Saturday, March 26th
Please contact me if you would like to participate.
Jenny Nichols
(Contact information)

• Come be surveyed about your experiences since you stopped driving.
• Participation should take 20-30 minutes.
• Refreshments and drinks will be provided regardless of participation.
• All data collected will be used as part of my Master’s thesis project for Smith College School of Social Work.
### Life after driving

#### 1. Have you completely stopped driving?
- [ ] Yes
- [ ] No

#### 2. Are you retired?
- [ ] Yes
- [ ] No

#### 3. What is your age?

#### 4. What is your gender?
- [ ] Male
- [ ] Female

#### 5. What is your race? (Please check as many as apply)

- [ ] African American/Black
- [ ] African Ethnic
- [ ] American Indian or Alaska Native
- [ ] Caucasian/White
- [ ] Cuban/Mexican American/Chicano
- [ ] Puerto Rican
- [ ] Asian or Pacific Islander
- [ ] Other
- [ ] Other: ______________________
### Life after driving

**6. What is your current relationship status?**
- [ ] Married
- [ ] Single
- [ ] Widowed
- [ ] In a monogamous relationship
- [ ] Living with significant other, but not married
- [ ] Divorced

**7. What is the highest level of education you have completed?**
- [ ] Elementary School
- [ ] Some High School
- [ ] GED or High School Diploma
- [ ] Some College
- [ ] Associates Degree
- [ ] Bachelors Degree
- [ ] Masters Degree
- [ ] Doctorate Degree

**8. Where do you currently reside?**
- [ ] Assisted living facility
- [ ] Nursing home center
- [ ] Private residence
- [ ] Retirement community

**9. Do you receive a Supplemental Security Income (SSI) from the federal government? (This is different from Social Security)**
- [ ] Yes
- [ ] No
- [ ] Unsure
<table>
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<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Do you currently qualify for low-income housing programs?</td>
<td>Yes, No, Unsure</td>
</tr>
<tr>
<td>11. Do you pay privately for your current housing?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>12. Do you currently receive Medicaid?</td>
<td>Yes, No, Unsure</td>
</tr>
<tr>
<td>13. How many years ago did you stop driving?</td>
<td></td>
</tr>
<tr>
<td>14. In the year before you stopped driving, how often did you usually drive each week?</td>
<td>Rarely (0-4 times), Almost everyday (5-7 times), More than once a day (8+ times)</td>
</tr>
<tr>
<td>15. In your last five years of driving how many car accidents were you involved in, in which you were the driver?</td>
<td>0, 1, 2, 3, 4, 5 or more</td>
</tr>
</tbody>
</table>
### Life after driving

16. On a scale from 1 to 4, with 1 being “not significant,” and 4 being “very significant,” rate the impact that giving up driving has had on your ability to function on a daily basis.

- □ 1 - Not significant
- □ 2 - Somewhat significant
- □ 3 - Moderately significant
- □ 4 - Very significant

17. Rate your perceived physical health on a scale from 1 to 4, with 1 being “poor” and 4 being “excellent.”

- □ 1 - Poor
- □ 2 - Fair
- □ 3 - Good
- □ 4 - Excellent

18. Rate your perceived emotional and mental well-being on a scale from 1 to 4, with 1 being “poor” and 4 being “excellent.”

- □ 1 - Poor
- □ 2 - Fair
- □ 3 - Good
- □ 4 - Excellent

19. Did illness play a major role in your decision to stop driving?

- □ Yes
- □ No

20. Did you decide to stop driving on your own?

- □ Yes. Please skip next question and move to question #22
- □ No. Please proceed to the next question.
## Life after driving

### 21. Who was the major influence in your decision to stop driving? (check all that apply)

- [ ] My child/ren
- [ ] My spouse/partner
- [ ] My doctor
- [ ] My grandchild/ren
- [ ] Friends and/or other relatives
- [ ] Other

### 22. Please agree or disagree with the following statements as they relate to your own experience of ceasing to drive.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving was too expensive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health reasons made driving difficult.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don't need a car.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse can drive me if needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone else can drive me if needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driving is unpleasant.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My doctor or someone else recommended that I stop driving.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 23. On a scale from 1 to 4, with 1 being “not important,” and 4 being “very important,” how necessary was driving to your ability to complete daily activities before you stopped driving?

- [ ] 1- Not important
- [ ] 2- Somewhat important
- [ ] 3- Moderately important
- [ ] 4- Very important

### 24. How many people do you consider to be in your primary support network? Please include all friends and family members that you feel supported by.

---
25. Do you feel that your current support network meets your social needs?
   - Yes
   - No
   - Unsure

26. Do you have any friends or close relatives who you feel comfortable asking for rides?
   - Yes
   - No

27. Has the inability to drive increased your dependence on other members of your family or close friends?
   - Yes. Please proceed to the next question.
   - No. Please skip next question and move to question #29

28. Has your increased dependence on other members of your family or close friends been a positive experience for you?
   - Yes
   - No

29. What is your primary mode of transportation?
   - Public transportation
   - Private pay transportation (out of pocket expense, this includes the use of taxi cab and transportation companies such as Access and Hopelink)
   - Medicaid funded private transportation (including use of transportation companies such as Access and Hopelink)
   - Friends and/or relatives
   - Unsure
   - Other ____________________________
## Life after driving

### 30. What do you miss the most about driving?

Choose all that apply.

- The pleasure of driving
- The feeling of freedom and independence
- Being able to take an unplanned trip to the store
- Visiting my friends and family
- The ability to go out independently of others
- Nothing

### 31. Please agree or disagree with the following statements as they related to your personal experience of ceasing to drive.
(Please skip the statement if it does not pertain to your personal experience)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I hate asking others for rides.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel comfortable using public transportation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have always enjoyed driving.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that the transportation company that I use fully meets my transportation needs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t have friends or family that can give me rides.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 32. On a scale from 1 to 4, with 1 being “not significant,” and 4 being “very significant,” and rate the impact that giving up driving has had on your ability to socialize with friends and family.

- 1: Not significant
- 2: Somewhat significant
- 3: Moderately significant
- 4: Very significant

### 33. Do you experience feelings of sadness?

- Seldom or never
- Sometimes
- Often or always
### Life after driving

34. Do you feel any of the following directly influence your feelings of sadness? Please answer yes or no.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of motivation to engage in social activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited family within close proximity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inability to drive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death of a spouse, partner or companion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living alone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death of a close friend or family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feelings of hopelessness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other causes of loneliness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

35. Do you feel that living in a retirement community has made the transition to not driving easier?

- [ ] Yes
- [ ] No
- [ ] Unsure
- [ ] Other: __________________________
Appendix G
Informed Consent From

Dear Participant:
I am a Masters Student at the Smith College School for Social Work. The focus of this research is to study the impact that not driving has on the older adult population. The data from this study will be used for my Masters of Social Work thesis and possible presentation and publication.

You are invited to participate in this research by filling out a confidential survey. Participation requires that you are over the age of 65, and ceased to drive. The survey will include two sections. The first section will contain demographic questions. The second section will include questions about your experience as related to not driving. Completing the survey should take about fifteen to twenty minutes. Your help is greatly appreciated.

The survey will contain questions related to your experience of not driving and the resulting effects that it has had on your life. Some of these questions may be difficult to answer. A referral list of local agencies where you can receive counseling services has been provided for your convenience.

The information that you provide will be kept completely confidential. Only this researcher, the research assistant and her advisor will have access to the data. All identifying information will be removed from your survey. In addition, by Federal guidelines, all data will be kept locked for a period of three years. After which time, all data will be destroyed unless otherwise needed.

Again, participation in this study is completely voluntary. As the recruitment for the study has been done publicly other individuals may know of your participation in the study. All information provided for the survey will be kept completely confidential. You may withdraw from the study at any time while you are taking the survey and may refuse to answer any question. You formally withdraw from the study until April 1, 2011. To withdrawal please write or email me at the below contacts. Please keep a copy of this consent form for your records.

Thank you again for your help. If you have further questions please contact me or the Smith College School for Social Work Human Subjects Review committee:

jnichols@smith.edu
or
Jennifer Nichols
Smith College School for Social Work
Lilly Hall,
Northampton MA, 01063

HRS Committee
Smith College School for Social Work
Lilly Hall,
Northampton Ma 01063
(413)-585-7974

Participant’s Signature _________________________________
Your signature indicates that you have read and understand the above information and that you have had the opportunity to ask questions about the study, your participation, and your rights and that you agree to participate in the study.
Appendix H

Referral List for Participants

If participants needed any additional support or someone to talk to after completing the survey they were provided this list of contacts:

**References for Mental Health Services in the Seattle Area**

**Navos Mental Health Solutions**
"Support and education is provided by a range of evidence-based programs and services, including outpatient services, residential and community housing, employment services and several new and nationally recognized programs that are challenging the way mental health treatment is delivered."

Navos Outpatient Services West Seattle Campus
2600 SW Holden Street Seattle, WA 98126
Tel. 206-933-7000

Navos Outpatient Services Burien Campus
1010 South 146th Street, Burien WA 98168
Tel. 206-241-0990

**Valley Cities Counseling and Consultation**
“Valley Cities is a community behavioral health center established by the people of South King County in 1965. Today, we operate comprehensive outpatient clinics in Auburn, Federal Way, Kent and Renton.”

If you are interested in services please call: (253) 939-4055

**Sound Mental Health**
"Our mission is to strengthen our community and improve the lives of our clients by delivering excellent health and human services tailored to meet their needs."

Offices in Seattle Metro, South, and East King County

If you are interested in services please call:
Access Line
Phone: (206) 302-2300
TTY: (206) 302-2209
Toll Free: 1 (800) 828-1449
### Table 1

**Selected Demographics of Participants**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>35</td>
<td>77.8</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>22.2</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>41</td>
<td>91.1</td>
</tr>
<tr>
<td>Other Spanish/Hispanic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>African American/Black</td>
<td>2</td>
<td>4.4</td>
</tr>
<tr>
<td>African Ethnic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>African Ethnic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cuban Mexican/Mexican</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>American/Chicano</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other (One Ethnic Jew)</td>
<td>1</td>
<td>2.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low income housing</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>13</td>
<td>29.5</td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>68.2</td>
</tr>
<tr>
<td>Unsure</td>
<td>1</td>
<td>2.3</td>
</tr>
</tbody>
</table>