Driving Transitions and Mental Health in Impaired Elders

Overview
The transition from driver to ex-driver is a challenging turning-point for older disabled adults that can influence not only mobility, but also social ties, the ability to work, one's sense of independence, and public safety. An increasing number of Americans will face this transition as the population ages. However, little is known about the psychological and social influences on driving transitions.

The purpose of this study is to better understand the ways older adults with vision problems adapt and make decisions about their driving. Specifically, we will identify the personal, social, and contextual factors that contribute to the decision to self-regulate or stop driving, as well as the reciprocal associations between well-being and changes in driving behavior. In addition, we draw on a model of health behavior change (Maes and Gebhardt, 2002) to examine how a person's goal structure can either facilitate or block a change in driving behavior and the impact of changes in driving or driving cessation on well-being.

Method
A total of 381 older adult drivers (age 55+) were recruited from a community-based vision rehabilitation agency and other community service organizations. Three in-person interviews were conducted (baseline, year 1, year 2), with two brief telephone interviews at 6 and 18 months from baseline. Three telephone interviews also were conducted with a contact (family or friend chosen by the primary participant) at baseline, year 1, and year 2. Cross-sectional and longitudinal associations were analyzed with Regression-, Individual Growth-, and Structural Equation Modeling techniques.

Status
The study has been completed, and the final report was submitted to the National Institute on Aging in 2011. Proposed analyses of the baseline and follow-up data for answering the specific aims of the study are complete. However, additional analyses are ongoing, and manuscripts are being prepared.

Major findings
The following findings are from the final report and are divided by the specific aim that is addressed:
Specific Aim #1: To identify the extent of driving self-regulation and the occurrence of driving cessation, and to examine both their short- and long-term impact on mental health outcomes (i.e., depression, vision-specific mental health, psychological well-being) among visually impaired older adults.

- At baseline, almost all participants (369, 96.6%) were engaging in one or more self-regulative driving behaviors, and the average number of self-regulative driving behaviors was approximately 6.
- Total self-regulation scores were significantly related to each of the four mental health outcome variables (depression, vision-specific mental health, life satisfaction, and mastery) at baseline and concurrently at each follow-up. Thus greater self-regulatory driving behaviors were associated with lower perceptions of mastery, higher emotional distress due to vision loss, lower life satisfaction and more depressive symptoms.
- Our data do not support the hypothesis that gradually increased levels of driving self-regulation over time leading to driving cessation will have a less negative effect on mental health than a more abrupt transition.
- Of the participants at each follow-up time point, 9.7% were ex-drivers at 6 months, 17.8% at 12 months, 18.9% at 18 months and 24.6% at 24 months.
- A general trend was found in which higher depressive symptoms at the time point at which participants reported driving cessation were followed by subsequent decreases in depressive symptoms. However, despite this general trend, there was considerable variation across ex-drivers.

Specific Aim #2: To examine the influence of personal resources (e.g., personal goal structures, self-regulatory coping tendencies), social resources (e.g., social network availability), and contextual resources (e.g., alternative transportation) on decisions regarding driving self-regulation and cessation over time.

- Approximately 17% and 25% of respondents were ex-drivers at the 12-month and 24-month follow-ups, respectively.
- Ex-drivers had significantly higher mean CES-D scores at each follow-up when compared to drivers and a larger proportion of ex-drivers at the 6-month and 24-month follow-up had a CES-D score of 16+, indicating clinically significant depressive symptomatology.
- After controlling for demographic, health and social support variables, change in depression from baseline to 24 months was predicted by more proximate cessation (at 18 months or 24 months post baseline).
- Trajectories of depression were plotted for ex-drivers for whom we had 6 months pre and post cessation data (n=36). While the majority evidenced mood stability (positive or negative) over the year, other participants
reported depression increases at cessation (20%), several of whom reported persistence over the following six months.

- Regression analyses showed that having an accident/near accident, lower perceptions of autonomy, and poorer perceived social support adequacy at baseline predicted an increase in depression at the time point of (reported) driving cessation.
- At the 12-month follow-up, cessation was predicted by worse functional vision, driving less over the previous six months, not giving rides to others, and perceiving that driving cessation would interfere with important life goals. Cessation at the 24-month follow-up was predicted by worse visual acuity, being told to stop by a family member, driving less over the previous six months, not giving rides to others, and perceiving that driving cessation would interfere with important life goals.

**Specific Aim #3: To identify the key personal, social, and contextual resources that, concurrently and over time, mediate the impact of driving self-regulation and cessation on mental health outcomes.**

- More positive perceived social support fully mediated the relationship between self-regulation and depression at Year 1 and Year 2. Social support at baseline also mediated the relationship between self-regulation and mastery at Year 1 and Year 2 (but not at baseline), as well as the relationship between self-regulation and life satisfaction at baseline and Year 1.

**Specific Aim #4: To explore the extent to which participants and informants are congruent in reports of driving behaviors and interactions regarding decision-making, and to explore the influence of congruence on driving cessation and mental health outcomes.**

- There were no significant differences in paired t-tests comparing ratings of informants and participants in current and past driving frequency, which are the more objective measures of driving behaviors.
- Participants gave significantly higher ratings than informants in terms of the quality of their driving and trends were observed in terms of participants more positively rating their degree of difficulty driving due to vision lower, reporting fewer self-regulatory behaviors, and driving to a greater number of places when compared to their family member or friend.
- Age of the participant and emotional closeness reported by family/friends were significantly related to congruence of reports of driving quality, with greater congruence associated with younger participants, and closer emotional relationships.
Findings Conclusion

In sum, decisions about driving regulation and cessation are especially salient to the growing numbers of older adults with age-related vision impairments. The findings of this research to date has contributed to the development of the knowledge base on the extent of driving self-regulation and cessation among older visually impaired drivers, the psychosocial factors that make driving self-regulation and cessation more likely, and the short and long-term consequences for different domains of mental health. These provide important insights to inform the growing number of community-based, governmental, and private programs that focus on assisting older drivers and their family members in making timely decisions that will protect both the public safety and the individual’s quality of life.

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Publications


Presentations


