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Driver Safety Program for Older Adults

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Purpose of Research/Program

The purpose of this research was to determine whether a community-based educational intervention was an effective means for changing the awareness or perception of older adults' driving behavior.

Occupational Therapy & Driving

- Community mobility, which includes driving, is an Instrumental Activity of Daily Living that allows for the engagement of occupations away from the home.
- Occupational therapists trained in driver rehabilitation understand the critical demands of driving and how the ability to move about our community affects the quality of life. They have the skills to evaluate an individual's overall ability to operate a vehicle safely, and, where appropriate, to provide rehabilitation to strengthen skills used in driving.
- Occupational therapists have the science-based knowledge to understand progressive conditions and life changes that can affect driving.
- Occupational therapists are able to help individuals make a smoother transition from driving to using other forms of transportation. In doing so, they help people maintain their autonomy, independence, and sense of worth.

Background of Driving Programs

- Older drivers attempt to regulate their driving patterns by avoiding rush hour, bad weather, or unfamiliar areas; however, many older adults may be unaware of when it is time to self regulate and/or stop driving. They also may not be aware of the impact of unsafe driving on society.
- Programs to promote awareness of safety and driving behaviors of older adult drivers may be an effective occupational therapy intervention. This study was used to determine if a community educational intervention was effective for improving the awareness of driving behavior of older adult drivers.
- Previous program evaluations have not demonstrated any reduction in crash involvement.
- Stavley and Owsley (2003) conducted an one-on-one education program called Knowledge Enhances Your Safety (KEYS) program with high risk individuals - those with visual processing impairments.
 - It was effective in the older drivers reporting more avoidance of high risk situations and promoted changes in self regulation.
 - However is not related to crashes at this point and is not cost effective as KEYS is done on a one-to-one basis.

References

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Gallo, J., Rebok, G., & Lesikar, S. (1999). *The driving habits of adults aged 60 years and older*. *The American Geriatrics Society*, 47, 335-341.
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Procedure

- Developed 45 minute driving program.
- Developed structured pre and posttest
 - Demographic Questions
 - 11 Content Questions
 - 3 Perception Questions
- Selected participants through convenience sampling.
 - Used senior centers in Eastern North Carolina
- Conducted program -- pre-test, presentation, post-test
- Compiled and analyzed data
- Interpreted results

Age and Gender

60-69	2 (7.4%)
70-79	12 (44.4%)
80-89	10 (37%)
Not Reported	3 (11.1%)
Female	19 (70.4%)
Male	5 (18.5%)
Not Reported	3 (11.1%)

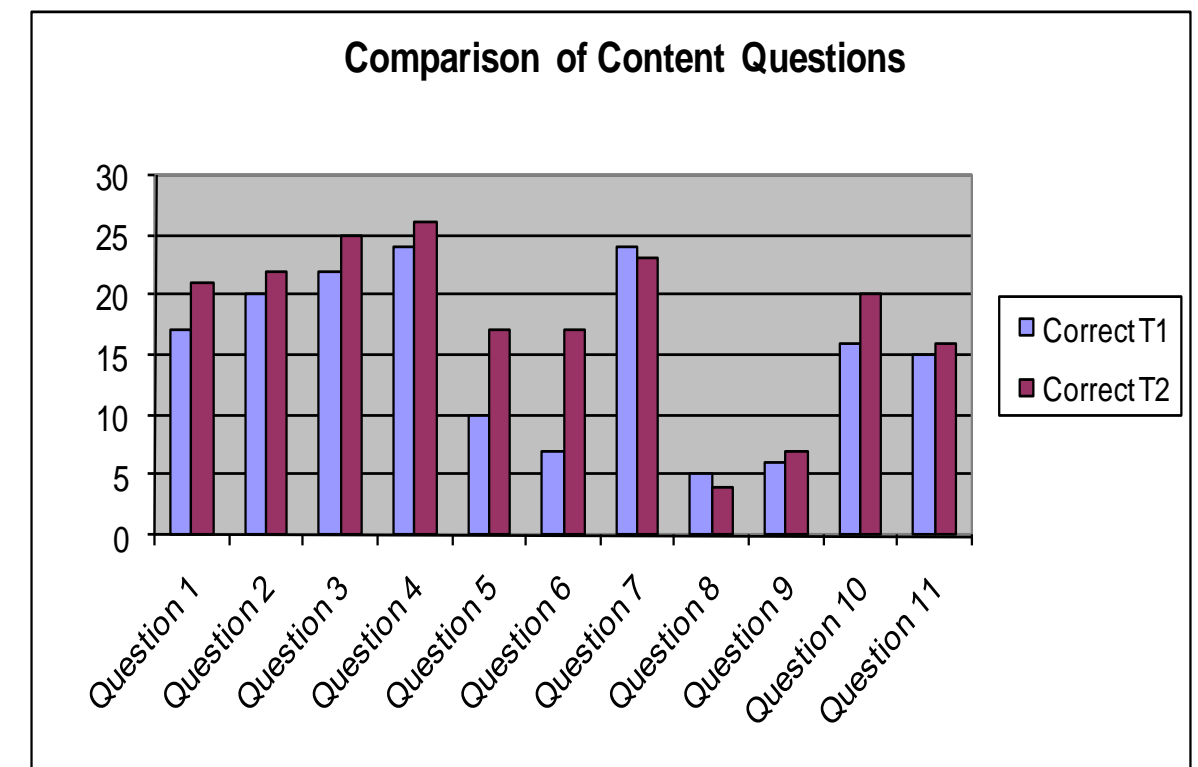


Driving Program

- Called: **60 Going on 16: Knowledge to Keep Older Drivers on the Road**
- Icebreaker with myths or facts
 - Included statistics of older drivers with graphs
 - Real life stories of older drivers
 - Reviewed motor, sensory, visual, and cognitive changes as a person's ages.
 - Slides of how cataracts affect vision
 - How aging affects driving
 - Diseases (Dementia, diabetes, etc) impact on driving
 - Medications and driving
 - How to maintain flexibility
 - Tips for safer driving, with handout
 - How to plan for driving retirement
 - Alternative modes of transportation
 - 40 slides, 45 minutes - 1 hour

Results of Two Questions

- On a scale of "**Not Important**" (1) to "**Very Important**," (5) **how important is driving to you?**
- Pretest: Mean = 4.58
- Posttest: Mean = 3.85
- Paired t-test showed significant difference
- $t(2.150) = p < .041$
- On a scale of "**Very Poor**" (1) to "**Excellent**," (5) **how would you rate your driving ability?**
- Pretest: Mean = 4.00
- Posttest: Mean = 3.23
- Paired t-test showed significant difference
- $t(2.44) = p < .022$



Discussion

- The program appeared to be effective in terms of impacting the older adult's **perception of their driving ability**. The question would be whether the change in perception is accurate. We would like to believe the program made seniors more aware of how aging impacts motor, sensory, vision, and cognitive abilities and such changes will impact their abilities to drive safely.
- The program appeared to be effective in terms of impacting the older adult's **perception of the importance of driving**. Overall, the importance of driving decreased. It is hoped that the review of changes and alternative transportation would decrease their reliance on independent driving.
- Face to face contact is very important. The follow-up phone calls were not an effective way to evaluate the program or get responses about their perceptions of driving.
- Pretest/posttests are too much for a short period of time with seniors. Evaluations need to be limited.

Limitations

- Participants were volunteers, participants at the local senior centers. The groups were smaller than expected.
- Initially there was a plan for a phone follow-up 6 weeks after the program. Participants did not remember the program or were not responsive on the phone.
- The pretest/posttest was not standardized and too long for the 45 minute sessions.