Use of a Video Intervention to Increase Elders' Awareness of Low-Cost/Low Tech Vehicle Modifications

Nina M. Silverstein, PhD
Alison S. Gottlieb, PhD
Elizabeth Van Ranst, MSSS
Gerontology Institute
Univ. of Massachusetts Boston

Minnesota Gerontological Society
Brooklyn Center, Minnesota
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The Issue

- Physical changes common with aging may result in discomfort and safety challenges when driving
- Vehicle modifications exist that address several of the challenges
- While adaptive devices have been available to persons with disabilities, such “features” have not been widely known to the general aging population

Aim of Study

- Produce a video to demonstrate low-cost, low-tech vehicle features chosen by an expert advisory committee and previewed by an elder focus group

- Test whether watching the video increased elders' awareness of and willingness to try the demonstrated features

Transtheoretical Model of Behavior Change (Prochaska & DiClemente, 1983)

- TTM: 5 stage model of intentional behavior change:
  - Pre-contemplation
  - Contemplation
  - Preparation
  - Action
  - Maintenance

Hypotheses

Hyp 1: Elders would have low familiarity with features before seeing the video, but familiarity would increase after viewing it

Hyp 2: Viewing the video would result in "preparation," defined as taking steps toward obtaining the auto features

Hyp 3: Viewing the video would result in action - increased use of the features

Methodology

- Literature search of functional deficits, associated driving challenges, and features designed to meet those challenges
- Expert review and ranking of deficits, challenges, and features
- Produce 23-minute video/DVD
- Focus groups reviewed draft surveys and screened video, *Keep Moving Longer: Features for Safe Driving*
- Conduct research

Demonstrated Features

- Seat Cushion
- Pedal Extenders
- Convex Side View Mirrors
- Convex Rear View Mirror
- Visor Extender
- Safety Belt Adjuster
- Ribbon for Safety Belt
- Safety Belt Extender
- Safety Belt Pad
- Key Extender
- Ceiling Hand Grip
- Support Handle
- Trash Bag/Silk Scarf

Visor Extender

Support Handle

Safety Belt Adjuster

Data Collection

- Video presentations at 7 Councils on Aging/Senior Centers in Eastern Massachusetts (Spring 2004)
- On-site pre and post-video tests to 157 drivers age 70+ recruited by the COAs
- Telephone follow-up with 127 (81%) of the sample within 2 months post-video

Sample Description (n=157)

- 67% women
- Median age=79 years; range=70-93 years

- 92% “always” wore safety belts
- 14% traffic violation, warning; accident
- 80% drive 5+ days/week
- 63% drive 50+ miles/week
- 19% had taken driving refresher course

Expressed Driving Concerns

67% indicated one or more concerns about their own driving; Mean=2.1 concerns

- Vision (esp. night) 36%
- Reaction time 28%
- Hearing 23%
- Alertness 22%
- Physical flexibility 21%

Self-Restrictions on Driving

- 64% reported one or more self-restriction; Mean=2.4 restrictions
  - 43% do not drive in bad weather
  - 41% do not drive at night
  - 24% do not drive in the city
  - 24% do not drive in unfamiliar places

Results

- Hyp 1: Familiarity at the time of the telephone follow-up was significantly higher for 10 of the 13 features
- Hyp 2: 92% of the sample had taken at least one follow-up step (indicator of consideration) within 2 months after viewing the video
- Hyp 3: 11% had purchased one or more features since viewing the video

Correlations between independent and outcome variables

»	Post-video Knowledge	Preparation (#Steps)	Action (Purchased)
»			
• Age	-.290 **	-.188 **	
• Gender (male = 0)	-.177 *		
• # Driving restrictions	-.197 *		
• Likely to call re. features	.234		
• Likely to seek info	.265 **	.423 ***	
• Likely to try features		.286 **	.298 ***

- Significance: * <.05; ** <.01 *** <.001

Correlations among outcome variables

	Post Video Knowledge	Consideration	Use
• PV Knowledge	____		
• Consideration	.398 ***	____	
• Use (purchased)	ns	.309 ***	____

Follow-Up Steps Taken

- 85% read the handouts describing the features and where to obtain them
- 63% discussed the features with friends or family members
- 20% looked for more information in stores or through the Internet
- 11% purchased one or more of the features
- 9% tried one or more features at a dealer or in a friend’s car
- 2% contacted a professional for advice or information

Conclusions

- Both professionals and elders can benefit by increased awareness of vehicle features to enhance safety and comfort
- Watching the video stimulated group discussion about driving safety, concerns, and solutions in a non-threatening environment
- While only a modest impact on use was observed, elders may follow through later on if and when they perceive a need

Thank you!

Nina M. Silverstein
Nina.silverstein@umb.edu

Alison S. Gottlieb
Alison.gottlieb@umb.edu

Elizabeth Van Ranst
Elizabeth.vanranst@umb.edu