

## **Bouncing back and maintaining mobility: the relationship between resilience and driving in the Ozcandrive study**

Renée M. St. Louis<sup>ab</sup>, Sjaan Koppel<sup>a</sup>, Lisa J. Molnar<sup>b</sup>, Phuong Hua<sup>a</sup>, Marilyn Di Stefano<sup>c</sup>, Peteris Darzins<sup>d</sup>, Morris Odell<sup>e</sup>, Michel Bédard<sup>f</sup>, Nadia Mullen<sup>f</sup>, Holly Tuokko<sup>g</sup>, Anita Myers<sup>h</sup>, Shawn Marshall<sup>i</sup>, & Judith L. Charlton<sup>a</sup>

<sup>a</sup>Monash University Accident Reserach Centre, <sup>b</sup>University of Michigan Transportation Reserach Institute, <sup>c</sup>La Trobe University, Australia, <sup>d</sup>Eastern Health Clinical School, Monash University, Australia, <sup>e</sup>Victorian Institute of Forensic Medicine, Australia, <sup>f</sup>Lakehead University, Canada, <sup>g</sup>University of Victoria, Canada, <sup>h</sup>University of Waterloo, Canada, <sup>i</sup>Ottawa Hospital Research Institute

### **Abstract**

This study explored the concept of resilience as it relates to driving-related abilities, perceptions and practices in drivers aged 75 years and older (Male: 69.9%; Mean age = 81.74 years, SD = 3.38, Range = 76.00-90.00) in the Ozcandrive cohort study. Participants completed a range of functional/health assessments and self-reported driving questionnaires. Data for a subset of 166 Ozcandrive participants from Melbourne, Australia were analysed. Results show that higher resilience scores were correlated with higher levels of driving comfort, positive perceptions of driving abilities and more frequent driving during challenging situations.

### **Background**

Resilience is “the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress” (American Psychological Association, 2018, para. 4). The concept of resilience has gained increasing research attention over the last two decades and is well documented in ageing literature (see MacLeod, Musich, Hawkins, Alsgaard & Wicker, 2016). However, no research has examined the concept of resilience as it relates to the driving behaviour of older adults. This exploratory study aimed to examine the relationship between resilience and driving-related abilities, perceptions and practices.

### **Methods**

The Candrive/Ozcandrive study is a multicentre, prospective cohort study which involves 1,230 older drivers from Canada, Australia and New Zealand. Participants completed yearly assessments (for up to eight years), including demographic and driving history questions, functional performance assessments, and self-reported information on driving-related abilities, perceptions and practices. Full study details can be found elsewhere (Marshall et al., 2013). Preliminary analyses are presented from a subset of Ozcandrive participants (n = 166, Australia) who completed a resilience scale in Year 3 of data collection. Participants were primarily male (69.9%) with a mean age of 81.74 years (SD = 3.38, Range = 76.00-90.00).

*Resilience* was measured using the 14-item Resilience Scale. Scores range from 14-98, with higher scores indicating higher resilience (Wagnild, 2011).

*Driving comfort* was measured using the 13-item daytime (DCS-D) and 16-item night-time (DCS-N) Driving Comfort Scales. Scores range from 0 to 100 percent, with higher scores indicating greater driving comfort (Blanchard et al., 2010; MacDonald, Myers & Blanchard, 2008; Myers, Paradis & Blanchard, 2008).

*Perceived driving abilities* were measured using the 15-item Perceived Driving Abilities (PDA) scale. Scores range from 0 to 45, with higher scores indicating more positive perceptions of driving abilities (Blanchard, Myers & Porter, 2010; MacDonald et al., 2008).

Driving practices were measured using the 14-item Situational Driving Frequency (SDF) scale. Scores range from 0 to 56, with higher scores indicating driving more often in challenging situations (MacDonald et al., 2008; Myers et al., 2008).

## Results

Participants had a mean resilience score of 78.97 (SD = 10.53, Range = 52.00-98.00), indicating a moderate level of resilience. Females had significantly higher resilience scores than males (Median: 82.50 and 79.00, respectively;  $U = 2210.50$ ,  $p = .02$ ). Table 1 shows small but statistically significant correlations between resilience scores and various driving-related scales. Participants with higher resilience scores reported: more comfort during both daytime and night-time driving; more positive perceptions of their driving abilities; and more frequent driving during challenging situations.

**Table 1. Correlations between resilience and driving-related abilities, perceptions and practices.**

Driving Scales	r	p
DCS-D	.20	.01
DCS-N	.20	.01
PDA	.30	<.001
SDF	.20	.01

## Conclusions

Preliminary analyses suggest a significant relationship between older drivers' resilience and their driving-related abilities, perceptions and practices. Results are based on a subset of older drivers who were very healthy and active. Future research will investigate whether resilience scores change over time, and if they do, whether these changes are associated with major life and health-related events.

## References

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