

Classen, S., Shechtman, O., Awadzi, K.D., Joo, Y, & Lanford, D.N. (in press).

Traffic violation vs. driving errors: Informing clinical practice. *American Journal of Occupational Therapy*.

### **Abstract**

Certain driving errors are predictive of crashes but it is unknown if the type of errors evaluated during on-road assessment is similar to traffic violations that are associated with crashes. Using the crash data of 5,345 older drivers and expert reviewers, we constructed a violation-to-error classification based on rater agreement. We examined the effects of predictor variables on crash related injuries by risk probability using logistic regression. The mean age of the drivers was 76.08 years ( $SD = 7.10$ ) with 45.7% females; 44.6% drivers sustained crash-related injuries with female drivers having a higher injury probability (44%) than male drivers (29%). Lane maintenance, yielding, and gap acceptance errors mostly predicted crash-related injuries with almost 50% probability; speed regulation (34%), vehicle positioning (25%) and adjustment to stimuli (21%) errors predicted crash related injuries to a lesser degree. We suggested injury prevention strategies for clinicians and researchers to consider for older drivers, especially older women.