

Title of Intervention: Improved Driving Performance following Perceptual Training

Intervention Strategies: Individual Education

Purpose of the Intervention: To improve driving performance

Population: Individuals with acquired brain damage, substantial perceptual deficits, pre-injury driving experience and difficulty in re-learning to drive

Setting: Office and in-traffic driving course in Ann Arbor, Michigan; community-based

Partners: None mentioned

Intervention Description:

- Individual Education: Participants received a total of 8-10 hours of individualized training during 5-9 sessions. The training required use of a wide range of perceptual skills and abilities. Driving performance was evaluated on a specially designed and validated in-traffic driving course. All driving was done in the daytime. Participants drove a car equipped with dual-brake system, hand controls for accelerator and brakes, and (if desired) a steering knob. Each subject was accompanied by a driver educator and a performance evaluator. The route contained 166 predetermined test actions.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Driver educator, performance evaluator
- Training: Not mentioned
- Technology: Not mentioned
- Space: Office space, driving course
- Budget: Not mentioned
- Intervention: Performance evaluator, validated driving course, driver educator, training materials
- Evaluation: Car Psychological tests for perceptual evaluation, Composite Driving Index

Evaluation:

- Design: Pilot study
- Methods and Measures:
 - A driving evaluation was conducted to determine driving performance.
 - A Composite Driving Index (CDI) measured merging, observations in the mirror, yielding, changing lanes or turns, whether the driver stayed on path and whether the driver stayed within the speed limit.

Outcomes:

- Short Term Impact: Evaluation results showed positive changes and reflected improved performance. There was a significant increase in post-training scores compared to baseline scores.
- Long Term Impact: Not measured

Maintenance: Not mentioned

Lessons Learned: Not mentioned

Citation(s):

Sivak, M., C. S. Hill, et al. (1984). "Improved driving performance following perceptual training in persons with brain damage." Arch Phys Med Rehabil 65(4): 163-7.