

The Effectiveness of an Occupational Therapy Metacognitive-Functional Intervention for the Improvement of Human Risk Factors of Bus Drivers

Navah Z. Ratzon, Rachel Shichrur
Tel Aviv University, Tel Aviv, Israel

Introduction: Many studies have assessed and identified the risk factors of safe driving, but there is relatively little research-based evidence concerning the ability to improve the driving skills of drivers in general and in particular of bus drivers, who are defined as a population at risk.

Objective: To examine the effectiveness of a metacognitive-functional intervention program for the reduction of risk factors among professional drivers.

Methods: The study examined 77 bus drivers aged 27-69. Twenty-one drivers continued to the intervention stage and the rest were controls (n=56). The intervention program focused on raising awareness to safe driving risk factors identified at pre-screening with reference to the difficulties that the driver raises and providing coping strategies. The intervention included three sessions of two hours each. Results: Statistical analysis found a significant difference between the degree of change in the rate of In-Vehicle Data Recorders (IVDR) perilous events ($t(17)=2.14$, $p=0.046$), before and after the intervention. There was significant difference in the number of accidents per year before and after the intervention in the intervention group ($t(17)=2.11$, $p=0.05$), but no significant change in the control group.

Conclusions: The metacognitive-functional intervention significantly improved objective measures of safety of bus drivers' driving. These novel results highlight the potential contribution of occupational therapists, using meta-cognitive functional treatment, to preventing car accidents among the healthy drivers population. This study also enables familiarity with advanced technologies of IVDR systems and enriches the knowledge of occupational therapists in regards to using a wide variety of driving assessment tools.