

Library Watch on driving

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The effectiveness of Fatal Vision Goggles:

Disentangling experiential versus onlooker effects.

Jewell J; Hupp S; Luttrell G. *Journal of Alcohol and Drug Education* 48(3): 63-84, 2004. (24 refs.)

This study provides the first empirical investigation of Fatal Vision Goggles as a prevention tool aimed at changing attitudes toward drinking and driving. College students (N=163) were randomly assigned to three groups: A. control group, a group wearing the goggles, and a group of onlookers who were observing those wearing the goggles. Attitudes toward drinking and driving were assessed immediately prior to and after the intervention. Results indicated that all groups became less accepting of attitudes toward drinking and driving, with the group wearing the goggles reporting significantly greater declines in these attitudes compared to the control group and the group of students who were onlookers. Implications of these results on the application of Fatal Vision Goggles are discussed. Copyright 2004, American Alcohol and Drug Information Foundation.

Maintenance therapy with synthetic opioids and driving aptitude.

Schindler SD; Ortner R; Peternell A; Eder H; Opgenoorth E; Fischer G. *European Addiction Research* 10(2): 80-87, 2004. (32 refs.)

Aims: To assess the influence of methadone and buprenorphine maintenance treatment on the driving aptitude of opioid-dependent patients. Design: Prospective, open label, outpatient maintenance, single-blind (investigator) study. Participants and Setting: Thirty opioid-dependent patients maintained on either methadone or buprenorphine were recruited from the drug-addiction outpatient clinic in Vienna. Measurements: The traffic-relevant performance dimensions of the participants were assessed 22 h after receiving synthetic opioid maintenance therapy, by a series of seven tests constituting the Act & React Test System (ART) 2020 Standard test battery, developed by the Austrian Road Safety Board (ARSB). To test for additional consumption of illicit substances, blood and urine samples were taken at the beginning of the tests. Findings: The patient group only differed from control subjects in two of the ART 2020 Standard tests. During a task to test the subject's attention under

monotonous circumstances (Q1 test), patients had a significantly greater number of reactions ($p = 0.027$) and a significantly higher percentage of incorrect reactions than control subjects. When driving in a dynamic environment (DR2 test) patients had a significantly longer mean decision time ($p = 0.029$) and mean reaction time ($p = 0.009$) compared with control subjects. Interestingly, when separated into treatment groups, the mean decision and reaction times of buprenorphine-maintained patients in the DR2 test did not differ from controls, whereas patients maintained on methadone showed significantly prolonged mean decision ($p = 0.009$) and reaction times ($p = 0.004$). In this same test, patients who had consumed additional illicit drugs had a longer mean reaction time compared with control subjects ($p = 0.036$). Conclusion: The synthetic opioid-maintained subjects investigated in the current study did not differ significantly in comparison to healthy controls in the majority of the tests. Copyright 2004, S. Karger AG.

Impaired driving behaviors among college students: A comparison of web-based daily assessment and retrospective timeline followback.

Usdan SL; Schumacher JE; Bernhardt JM. *Journal of Alcohol and Drug Education* 48(1): 34-50, 2004. (24 refs.)

Although impaired driving is a widespread risk behavior among college students, there are limited tools for assessing its frequency and context to inform effective interventions. This study involved the development and evaluation of two innovative approaches for assessing impaired driving. The Impaired Driving Assessment (IDA), a modified Timeline Followback assessment, was compared to the Impaired Driving Electronic Assessment (IDEA), a web-based daily diary, among a sample of 15 college students over a 5-week period. We found high correlations between the IDA and the IDEA on all impaired driving outcome variables. IDEA respondents had high survey response rates but response rates were somewhat lower on weekends. Overall, this pilot study revealed that both the traditional and the electronic assessment approaches show promise for assessing impaired driving among

college students, and additional research is needed to further explore their relative strengths and limitations. Copyright 2004, American Alcohol and Drug Information Foundation.

Fatal injuries associated with alcohol use among youth and adults: 1990-1998.

Jones-Webb R; Fabian LEA; Harwood EM; Toomey TL; Wagenaar AC. *Journal of Child & Adolescent Substance Abuse* 14(1): 41-60, 2004. (39 refs.)

The major objective of this study was to compare trends in three types of fatal injuries associated with alcohol use among youth under the legal drinking age and among adults of legal drinking age from 1990-1998. The fatal injuries investigated included homicide, suicide, and motor vehicle-traffic deaths. Results were: (1) motor vehicle-traffic deaths and homicide were higher among youth under the legal drinking age than among adults of legal drinking age; whereas, suicide was more common among adults of legal drinking age than among youth under the legal drinking age; and, (2) African American, Hispanic, and American Indian male youth under the legal drinking age were at substantial risk of being victims of homicide and motor vehicle-traffic deaths. Copyright 2004, Haworth Press.

Research note: Cannabis and driving - Research needs and issues for transportation policy.

Laberge JC; Ward NJ. *Journal of Drug Issues* 34(4): 971-989, 2004. (58 refs.)

This paper summarizes current knowledge regarding the effects of cannabis use on driving. Psychopharmacological evidence has shown that cannabis, unlike alcohol, can be detected several days after consumption. Prevalence data has revealed that cannabis use is increasing, and that as many as 90% of study participants were willing to drive after consuming a typical dose. A review of laboratory studies found that cannabis and alcohol affect different driving tasks. When cannabis and alcohol use were evaluated in simulated and on-road driving situations, drivers were more aware of being intoxicated after using cannabis and thus invoked greater compensatory effort to offset impairment in the driving task. The effect of cannabis use on crash risk has shown that recent use increases crash risk, but not as much as alcohol consumption. This paper concludes that further research is needed before specific transportation policy

can be developed for cannabis. Copyright 2004, Journal of Drug Issues, Inc.

Alcohol and illicit drugs in traumatic deaths: Prevalence and association with type and severity of injuries.

Demetriades D; Gkiokas G; Velmahos GC; Brown C; Murray J; Noguchi T. *Journal of the American College of Surgeons* 199(5): 687-692, 2004. (12 refs.)

BACKGROUND: My colleagues and I studied alcohol and illicit drug intoxication in trauma fatalities and their association with the nature and severity of injuries. STUDY DESIGN: We examined the trauma registry and autopsies of A trauma fatalities at an academic Level I trauma center. Statistical analysis was performed to evaluate the association of substance use with the Injury Severity Score, body areas with severe trauma (Abbreviated Injury Score greater than or equal to 3), and spinal injuries. RESULTS: From January 2000 to May 2003, 931 trauma deaths occurred; 600 victims were tested for alcohol and illicit drugs and 256 of these (42.7%) tested positive. Male victims were significantly more likely to have a positive screen than female patients (46.1% versus 26.7%, $p = 0.0003$). Penetrating trauma was significantly more likely to be associated with a positive screen than blunt trauma (53.0% versus 31.0%, $p < 0.001$). Hispanic and African-American victims were more likely to have a positive screen than Caucasians or Asians. Half the patients in the age group 15 to 50 years had a positive screen. Victims with penetrating trauma and positive screen were significantly more likely to be dead at hospital arrival than victims with negative toxicology (68.8% versus 48.8%, $p = 0.05$). Pedestrians killed by automobiles who had positive screens were more likely to have severe abdominal trauma (Abbreviated Injury Score 3) than victims with negative toxicology (54.2% versus 25.0%, $p = 0.02$). CONCLUSIONS: There is a high rate of alcohol and illicit drug use in patients who die from trauma, especially penetrating trauma in men aged 15 to 50 years, who are Hispanic or African American. Victims with penetrating trauma and positive toxicology are considerably more likely to have no vital signs on admission than victims with negative toxicology. Pedestrians killed by automobiles who had positive screens have a higher incidence of severe abdominal injuries than victims with negative screens. Copyright 2004, American College of Surgeons.