

Library Watch on driving

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Hazardous use of gamma hydroxybutyrate: Driving under the influence.

Barker JC; Karsoho H. *Substance Use & Misuse* 43(11): 1495-1508, 2008. (45 refs.)

Focus group discussions elicited descriptive experiences of driving under the influence of gamma hydroxybutyrate (GHB), and uncovered motivations that led participants to decide whether to get behind the wheel after ingesting this illegal psychoactive substance. Of the 51 current and past users interviewed, average age 31.1 +/- 7.7 years, 40% were female. All were recruited from the San Francisco Bay Area, in 2004. Factors making users vulnerable to adverse complications of driving while under the influence of GHB are also examined. Study limitations were noted. Implications for various law enforcement agencies and health professionals are derived from the data. Copyright 2008, Taylor & Francis.

Problem driving behavior and psychosocial maturation in young adulthood.

Bingham CR; Shope JT; Zakrajsek J; Raghunathan TE. *Accident Analysis and Prevention* 40(5): 1758-1764, 2008. (40 refs.)

This study examined the association between psychosocial maturation and problem driving behavior in young adulthood. Psychosocial maturation is the process of adopting adult roles, attitudes and behaviors and completing developmental tasks associated with becoming an adult. Past research has demonstrated that individuals' participation in health-risk behaviors decreases as psychosocial maturity increases. Not surprisingly, decreases in driving risk that occur over the first years of driving have often been assumed to result in large degree from general maturation; however, no research has tested this assumption. This study used data from a telephone survey of young adults to begin addressing this gap in the literature by testing three hypotheses: (1) indicators of higher

psychosocial maturity are associated with lower problem driving behavior: (2) the association between the level of psychosocial maturity and problem driving behavior is cumulative: and, (3) these associations are moderated by sex. Problem driving behavior was evaluated by assessing three measures: high-risk driving, drink/driving, and drug/driving. Results: supported all three hypotheses. Participants with greater psychosocial maturity had lower levels of problem driving behavior than participants who were less psychosocially mature. Second, problem driving behavior was lower with higher psychosocial maturity. Third, these associations between psychosocial maturity and problem driving behavior were moderated by sex. The primary contributions of this study are: (I) initial evidence that psychosocial maturation may play a role in improvements in the safety of young drivers; and (2) the generation of questions and hypotheses that provide direction for future research on the role Of maturation in observed declines in risk among young drivers. Copyright 2008, Elsevier Science.

Prevalence of alcohol and drugs among Norwegian motor vehicle drivers: A roadside survey.

Gjerde H; Normann PT; Pettersen BS; Assum T; Aldrin M Johansen U et al. *Accident Analysis and Prevention* 40(5): 1765-1772, 2008. (31 refs.)

The objective of the study was to determine the prevalence of alcohol, psychoactive medicinal drugs and illegal drugs among drivers in Norwegian road traffic. Drivers of motor vehicles were selected from April 2005 to April 2006 in the south-eastern part of Norway, surrounding, but not including the capital, Oslo. A stratified two-stage cluster sampling procedure was used. In the first stage, random road sites and time intervals were selected, and in the second stage, drivers were stopped by random at those sites and

time intervals. Altogether about 12,000 drivers were asked to provide a sample of oral fluid (saliva) and answer a few questions. Samples of oral fluid were obtained from 88% of the drivers, of whom 30% were females and 70% males. The prevalence of each drug was estimated by a weighted average using weights adjusted for under- or over-sampling compared to traffic statistics. Alcohol or drugs were found in oral fluid samples of 4.5% of the drivers; alcohol in 0.4%, psychoactive medicinal drugs in 3.4%, and illegal drugs in 1.0%. Illegal drugs were found more frequently in samples from younger drivers, while psychoactive medicinal drugs were more frequently found in samples from older drivers. Psychoactive medicinal drugs were more prevalent among females than males, among drivers stopped on working days rather than weekends, and among those who reported annual driving distances less than 16,000 km. The drugs found most frequently were zopiclone (1.4%), benzodiazepines (1.4%), codeine (0.8%), tetrahydrocannabinol (0.6%) and amphetamines (0.3%). Two or more drugs were found in 0.6% of the samples, corresponding to 15% of the drug-positive drivers. Copyright 2008, Elsevier Science.

Acute disinhibiting effects of alcohol as a factor in risky driving behavior.

Fillmore MT; Blackburn JS; Harrison ELR. *Drug and Alcohol Dependence* 95(1/2): 97-106, 2008. (52 refs.)

Automobile crash reports show that up to 40% of fatal crashes in the United States involve alcohol and that younger drivers are over-represented. Alcohol use among young drivers is associated with impulsive and risky driving behaviors, such as speeding, which could contribute to their over-representation in alcohol-related crash statistics. Recent laboratory studies show that alcohol increases impulsive behaviors by impairing the drinker's ability to inhibit inappropriate actions and that this effect can be exacerbated in conflict situations where the expression and inhibition of behavior are equally motivating. The present study tested the hypothesis that this response conflict might also intensify the disruptive effects of alcohol on driving performance. Fourteen subjects performed a simulated driving and a cued

go/no-go task that measured their inhibitory control. Conflict was motivated in these tasks by providing equal monetary incentives for slow, careful behavior (e.g., slow driving, inhibiting impulses) and for quick, abrupt behavior (fast driving, disinhibition). Subjects were tested under two alcohol doses (0.65 g/kg and a placebo) that were administered twice: when conflict was present and when conflict was absent. Alcohol interacted with conflict to impair inhibitory control and to increase risky and impaired driving behavior on the drive task. Also, individuals whose inhibitory control was most impaired by alcohol displayed the poorest driving performance under the drug. The study demonstrates potentially serious disruptions to driving performance as a function of alcohol intoxication and response conflict, and points to inhibitory control as an important underlying mechanism. Copyright 2008, Elsevier Science.

Increased police patrols for preventing alcohol-impaired driving. (review).

Goss CW; Van Bramer LD; Gliner JA; Porter TR, et al. *Cochrane Database of Systematic Reviews* 4(e-article CD005242), 2008. (170 refs.)

Road traffic injuries cause 1.2 million deaths worldwide each year. Alcohol consumption increases the risk of traffic crashes, especially fatal crashes. Increased police patrols aim to increase both the perceived and actual likelihood of being caught driving while alcohol-impaired, potentially reducing alcohol-related driving, crashes and injuries. Objectives: To assess the effects on injuries and crashes of increased police patrols that target alcohol-impaired driving. Search strategy: We searched the Cochrane Injuries Group Specialised Register (5/2006), CENTRAL (The Cochrane Library 2006, Issue 2), MEDLINE (1966 to 5/2006), TRANSPORT (1968 to 5/2006), C2-SPECTR (2/2005), NCJRS (1/1951 to 5/2006), PsycINFO (1872 to 5/2006), Social Science Citation Index (1974 to 5/2006), SIGLE (1980 to 2/2006), Science Citation Index Expanded (1970 to 5/2006), Dissertation Abstracts (1870 to 5/2006), NTIS (1964 to 12/2004), conference proceedings, and reference lists. We contacted authors of eligible studies. Selection criteria: Randomized controlled trials,

controlled trials, controlled before and after studies, interrupted time series (ITS) studies, and controlled ITS studies evaluating increased police patrols, either alone or combined with other interventions, targeting alcohol-impaired motor vehicle drivers. Data collection and analysis: Two investigators independently screened citations, extracted data, and assessed quality criteria. We compared intervention and no-intervention geographical areas or time periods. We re-analyzed study data as required. Results: are presented narratively. Main results: The 32 eligible studies included one randomized controlled trial, eight controlled before-after studies, 14 controlled ITS studies, six ITS studies, and three studies with both ITS and controlled before-after analyses. Most interventions targeted only alcohol-impaired driving (69%) and included additional interventions such as media campaigns or special training for police officers (91%). Only two studies reported sufficient information to assess study quality completely. Two-thirds of studies were scored 'not adequate' on at least one feature. Five of six studies evaluating traffic fatalities reported reductions with the intervention, but differences were statistically significant in only one study. Effects of intervention on traffic injuries were inconsistent in the six studies evaluating this outcome, and no results: were statistically significant. All four controlled studies evaluating fatal crashes reported reductions with the intervention, which were statistically significant in one study. All 12 controlled studies assessing injury crashes reported greater reductions with the intervention, though effects were minimal or not significant in several studies. ITS studies showed less consistent effects on fatal crashes (three studies) and injury crashes (four studies), and effect estimates were typically imprecise. Thirteen of 20 studies showed reductions in total crashes and about two-thirds of these were statistically significant. Authors' conclusions: Studies examining increased police patrol programs were generally consistent in reporting beneficial effects on traffic crashes and fatalities, but study quality and reporting were often poor. Methodological limitations included inadequate sample size, dissimilar baseline measures, contamination, and inadequate data

analysis. Thus existing evidence, although supportive, does not firmly establish whether increased police patrols, implemented with or without other intervention elements, reduce the adverse consequences of alcohol-impaired driving. Copyright 2008, John Wiley & Sons Ltd.

Perceptions of level of intoxication and risk related to drinking and driving.

Gustin JL; Simons JS. *Addictive Behaviors* 33(4): 605-615, 2008. (17 refs.)

This study investigated variables of perceived risk associated with one's decision to drink and drive, as well as with the occurrence and successfulness of intervention efforts by others in preventing individuals from drinking and driving. Undergraduate students were presented with scenarios manipulating number of drinks, consumption time, and distance needed to drive. Participants then provided estimates of intoxication, degree of impairment, and likelihood of getting in an accident and getting arrested for drinking and driving. In addition, participants rated three criterion variables: intention to drive, likelihood someone would try to intervene, and receptiveness to someone attempting to intervene. Data was analyzed using three random effects regression models, one for each of the criterion variables. Results indicated that perceptions of risk were associated with decisions to drive after drinking and expected likelihood of, and receptiveness to, intervention efforts, over and above one's estimate of intoxication. Copyright 2008, Elsevier Science.

Go Out or Stay In? The effects of zero tolerance laws on alcohol use and drinking and driving patterns among college students.

Liang L; Huang JD. *Health Economics* 17(11): 1261-1275, 2008. (19 refs.)

Zero tolerance laws make it illegal per se for anyone under age 21 to drive with any measurable amount of blood alcohol. Although a link has been established between zero tolerance laws and lower motor vehicle fatalities, research has not produced strong evidence on how zero tolerance laws influence individual alcohol use and drinking and driving behaviors. Using a unique data set and a difference-in-difference-in-difference-type research design, we are able to analyze a number of

pathways through which zero tolerance laws can work among an important underage population, college students. We find that zero tolerance laws reduce drinking and driving among college students. Further analysis of our detailed alcohol use measures suggests that zero tolerance laws are particularly effective at reducing the probability of driving after drinking for those who reported drinking away from home. Copyright 2008, John Wiley & Sons.

Determining standards of care for substance abuse and alcohol use in long-haul truck drivers.

Anderson DG; Riley P. *Nursing Clinics of North America* 43(3): 357+, 2008. (18 refs.)

The trucking industry employs approximately 9 million workers, with approximately 3 million being long-haul truck drivers. Truck drivers are exposed to a variety of stressful situations, such as working long hours, no sleep, inadequate rest and relaxation, being away from home and support systems, and driving in hazardous conditions. These risk factors place the long-haul truck driver at an increased risk for possible use or abuse of alcohol and drugs. Identification of those at risk and those who are abusing alcohol and drugs is vitally important for the health of these truckers. Copyright 2008, WB Saunders.

Drunk in the Serbonian bog: Intoxicated drivers' deaths as insurance accidents.

Richmond DR. *Seattle University Law Review* 32(Fall): 83-122, 2008. (316 legal refs.)

Summary: ... Drunk driving is dangerous and irresponsible, and a person's decision to drive drunk is a serious misjudgment. But the fact that drunk driving is risky does not render drunk drivers' deaths non-accidental. Courts that hold otherwise based on supposed common sense, common knowledge, or the simplistic notion that the dangers of drunk driving are widely known, are wrong as a matter of fact and as a matter of law. They have, in short, wandered into a Serbonian Bog. Treating drunk drivers' deaths as accidents for insurance purposes is much firmer ground. However, the majority approach holds that drunk drivers' deaths are not accidents for purposes of conferring accidental death benefits.

... Judge Boggs faulted the district court for concluding that the cases applying a reasonable foreseeability standard on which the administrator relied in denying benefits misinterpreted Wickman and were thus wrongly decided, and opined that a court reviewing a plan administrator's decision under a deferential standard cannot substitute its judgment for the administrator's. ... As for Aetna's rationale that the serious risks associated with drunk driving are widely publicized, the court was unwilling to make the leap from "'serious risks,' i.e. , the possibility of injury or death, that are 'widely publicized' to the conclusion that a drunk driver knew or should have known that the consequences of driving while intoxicated are that he or she is 'highly likely' to suffer injury or death, i.e. , the probability of injury or death." ... For that matter, what "common sense" and "common knowledge" truly tell us is that intoxicated drivers are "far more likely to be arrested . . . than to be injured or die in an alcohol-related automobile crash, and far more likely to arrive home than to be either arrested, injured, or killed." Copyright 2008, The Seattle University Law Review.

Behavioral risks during the transition from high school to college.

Fromme K; Corbin WR; Kruse MI. *Developmental Psychology* 44(5): 1497-1504, 2008. (23 refs.)

The transition from high school to college is an important developmental milestone that holds the potential for personal growth and behavioral change. A cohort of 2,245 students was recruited during the summer before they matriculated into college and completed Internet-based surveys about their participation in a variety of behavioral risks during the last 3 months of high school and throughout the 1st year of college. Alcohol use, marijuana use, and sex with multiple partners increased during the transition from high school to college, whereas driving after drinking, aggression, and property crimes decreased. Those from rural high schools and those who elected to live in private dormitories in college were at highest risk for heavy drinking and driving after drinking. Copyright 2008, American Psychological Association.