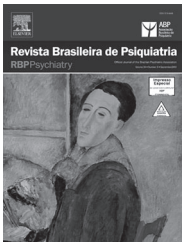
Rev Bras Psiquiatr. 2012;34:237-240

ELSEVIER

Revista Brasileira de Psiquiatria
RBPPsychiatry
Official Journal of the Brazilian Psychiatric Association
Volume 34 • Number 3 • October/2012



EDITORIAL

Driving while intoxicated in Brazil: Tougher laws are a first step, but further challenges remain

The association between the risk of a traffic crash and alcohol consumption is well documented in the literature. A recent meta-analysis[1] showed that the odds of a motor vehicle crash increase by 1.24 (95% CI: 1.18, 1.31) per 10 g of pure alcohol in the blood. Brazil has taken an aggressive legal stance to prevent driving while intoxicated (DWI); in June 2008, a new law was enacted in Brazil (entitled Dry Law), modifying the acceptable blood alcohol concentration (BAC) of drivers from 0.6 g/dL to zero. A recent study examining the effects of the law on monthly road traffic (RT) injuries/fatalities in São Paulo city suggests a positive effect of this law, with a 7.2% reduction in fatalities and 1.8% reduction in injuries ($p < 0.05$) from 2001 through 2010.[2]

However, DWI remains a significant problem in Brazil. This issue of the *Revista Brasileira de Psiquiatria* features a series of articles addressing the important issue of DWI in Brazil. Select findings are presented from a series of studies conducted by the *Centro de Pesquisa em Álcool e Drogas* (Alcohol and Drug Research Center) at the Universidade Federal do Rio Grande do Sul and the Hospital de Clínicas de Porto Alegre.

In "Regional Differences Associated to Drinking and Driving Factors in Brazil", de Boni et al.[3] explored factors associated with DWI in the different regions of Brazil. The 5 regions of Brazil (North, Northeast, Midwest, Southeast, and South) vary significantly in their level of urbanization, gross domestic product, and distribution of motor vehicle types; there are measurable differences in road traffic statistics by region.[4] It might be suggested that interventions used in one region may not be appropriate or effective in another. While these authors noted certain interesting regional differences, overall, the prevalence of and risk factors for DWI were relatively similar across the country. This finding suggests that national level legislation, general enforcement and social media campaigns would be effective in Brazil.

In "Psychiatric Disorders among Individuals who Drive with Recent use of Alcohol and Drugs", Faller et al.[5]found a markebly high correlation between symptoms suggestive of a psychiatric disorder and driving under the influence of alcohol/drugs. The association between substance abuse and psychological disturbance has been well-documented in the literature.[6-7] Adding driving to the context of these co-morbidities presents the challenge that people who are pre-disposed to use and/or abuse of alcohol/drugs may also be more likely to exhibit risk-taking behaviors while on the road; the acute influences of the substances may further disinhibit the driver.[8-9] Finding evidence of this correlation in Brazil suggests that mental health screening may be useful and important in Brazilian individuals who are detained or arrested for DWI.

In "Predictors of Positive BAC in a Sample of Brazilian Drivers", Pechansky et al.[10] examined factors that were associated with a positive breathalyzer test for drivers on highways in the 27 Brazilian capitals. They found a high prevalence (4.8%) of a positive BAC level, which rose to 7.4% when BAC and self-report were combined. Interestingly and, perhaps, surprisingly, they also noted that drivers over the age of 30 years had a 2.6-fold increase in the odds of having a positive BAC than younger drivers. This result may seem counterintuitive, given the wealth of information onthe association between younger drivers and the influence of alcohol.[11-12] Therefore, this study highlights the importance of using evidence from studies like this to target intervention programs instead of relying on what one might assume to be "common knowledge".

Andrade et al.[13] reported high levels of drug use by college students, which seemed to be more common compared with their peers not attending school. As has been reported in similar contexts,[14] an individual's level of education is often correlated with income and mode of transportation;

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doi:10.1016/j.rbp.2012.06.003

the higher the education, the more likely people are to own and use a private automobile. If the use of drugs, especially alcohol, is normalized and accepted among those who will drive more commonly in the future, it is also possible that they will be more frequent DWI offenders. This result highlights the inter-relationship between addiction and injury prevention agendas, and underscores the need for the two fields to work together. The results provided by Andrade et al. highlight the importance of using a synergistic approach by two important and traditionally independent areas of public health.

Brazil has taken an important and groundbreaking first step in creating a zero-tolerance law for DWI; however, the country still faces many challenges in quantifying DWI prevalence and enforcing its stringent laws.[15] Studies such as those presented in this series represent an important step forward in defining and understanding the problem of DWI in Brazil and suggest subpopulations in which interventions may be targeted. There is hope that such work will be used as a springboard for improved systematic national level data collection on DWI and other risky behavior and for as consistent testing and enforcement of DWI legislation.

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