Alcohol Use Among Subjects Who Drink on Premises of Gas Stations of Porto Alegre, Brazil

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BACKGROUND: Drinking on the premises of “gas stations” with co-located convenience stores is common among youth in Brazil. Subjects purchase alcohol at the store, drink with others on the premises, and then drive away. A city law was passed in 2006 which prohibited alcohol use on such locations but did not prevent sales on stores.

OBJECTIVES: To compare risk behaviors for traffic accidents and BAC among youth who drank alcohol on the premises of “gas stations” before and after a city law was passed.

METHOD: Interviewers purposively selected gas stations before (Time I) and after (Time II) the implementation of the law. Time I (n = 62) and Time II data (n = 50) were compared. Data were collected in two weekends before the law was passed and in two weekends one month after the law was passed. Inclusion criteria were: 1) 15 years or more; 2) drinking alcohol on the spot; and 3) car driver/passenger. Substance use and traffic risk behaviors were collected using a self-administered questionnaire. BAC was estimated by breathalyzer.

RESULTS: 73 subjects were approached and eleven (13.7%) refused to participate. At Time II, 54 subjects were approached and four refused (9.3%). They were similar on demographics and risk behaviors for traffic accidents. Mean ages were 22.7 (+/- 5.0) and 22.5(+/-4.1) and mean years of education were 13.43 (+/- 3.0 years) and 13.1(+/-2.4 years). BAC over 0.06% was found in 36% of subjects at Time I and 40% of subjects at Time II (p = 0.62). 9.7% of the Time I group and 16% of the Time II group with BAC > 0.06 mg/dL reported they would drive in the next two hours (p = 0.38). Self reported current marijuana use was also high at 12.9% and 12% respectively.

CONCLUSIONS: Over one-third of subjects had BACs over the legal limit and intended to drive soon, and alcohol use level did not change after a city law passed. Such study is feasible with low refusal rates, and may help understand the enforcement of alcohol availability laws, as well as to decrease drinking and driving among youth in developing countries.

Keywords: Alcohol, Traffic, Risk-behavior