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Accident Analysis and Prevention xxx (2006) xxx–xxx

**ACCIDENT
ANALYSIS
&
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Drinking and driving among high-risk young Mexican-American men

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Received 3 December 2005; received in revised form 19 May 2006; accepted 24 May 2006

Abstract

Determinants of driving under the influence of alcohol (DUI) were explored among a sample of relatively young Mexican-American males with limited income and education, high levels of alcohol consumption, and regular vehicle use. Data were collected using questionnaires ($N=104$) and focus groups ($N=27$), including a focus group with wives and girlfriends ($N=4$). Four mechanisms that may contribute to the high rate of DUI behavior in this population were identified: (1) a subculture of permissiveness toward drinking and driving for men, (2) heavy drinking, promoted by machismo and a propensity to measure masculinity with alcohol intake, (3) inadequate knowledge of DUI statutes and inadequate understanding of the relationships between BAC, impairment, and crash risk, and (4) for undocumented drivers, lack of accountability in case of an alcohol-related incident.

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Keywords: DUI; High-risk; Mexican-American; Hispanic; Alcohol consumption; Cultural differences

1. Introduction

Hispanics in the US drive under the influence of alcohol (DUI) at higher rates than European Americans and African Americans (Voas et al., 1998), have higher rates of DUI arrests (Caetano and Clark, 2000), and experience higher alcohol-involved crash fatalities (Voas et al., 2000). Because Hispanics are a rapidly growing segment of the US population the issue has received increased research interest in recent years.

Most studies to date have focused on detecting differences in drinking and drinking and driving between Hispanics and other ethnic/racial groups or within different Hispanic groups (Alaniz et al., 1999; Caetano, 1984; Caetano and Raspberry, 2000; Cahalan et al., 1969; Corbett et al., 1991; Hines and Caetano, 1998; Marin and Posner, 1995; Neff et al., 1987; Zimmerman and Sadowsky, 1993). The current study builds on that body of knowledge by identifying psychosocial mechanisms that contribute to higher rates of DUI behavior among at-risk Hispanic subgroups. There is empirical evidence that the Hispanic person most likely to drive after drinking is a young male

(Berger et al., 2000), with high alcohol consumption (Caetano and Raspberry, 2000), unemployed or underemployed, and relatively uneducated (Caetano and Clark, 2000). Because Mexican Americans have higher DUI rates than the average Hispanic population (Voas et al., 2000), we aimed to obtain a sample of Mexican American male drivers between the ages of 21 and 39 years, with high alcohol consumption, limited income, and limited education. Information was collected on attitudes and opinions concerning a variety of alcohol and DUI-related issues using questionnaires and focus groups.

2. Method

2.1. Participants

Young Hispanic men ($N=104$) were eligible to participate if they answered screening questions that they were Mexican or Mexican-American, drove a car, drank alcohol, and were between the ages of 21 and 39 years.

Participants were recruited at three sites. One site was the civic center of the city of Pomona, a city of 150,000 people with a 65% Hispanic population, located about 45 km (28 miles) east of Los Angeles. The second and third recruitment sites were centers where laborers congregate to obtain jobs in Pomona and in North Hollywood, a city located about 20 km (12 miles) northwest of Los Angeles. Candidates were selected on the basis of

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their responses to the screening questions and paid \$ 5 for participation.

2.2. Questionnaire

The questionnaire was self-administered in either English or Spanish. Surveys were conducted from April 2002 to November 2002. The questionnaire had five broad areas of inquiry: demographics, alcohol consumption, drinking and driving behaviors, attitudes toward drinking, and social control of driving under the influence of alcohol.

Demographic variables included age, marital status, years of formal schooling completed, people living in the household, employment status, income, acculturation, and daily driving time.

Participants reported the number of days they consumed one, more than one, three, six, and nine beverages in the last 28 days (cf. Gruenewald et al., 1994).

Participants were asked how many drinks made them unsafe drivers, how many times they had driven within 2 h of drinking in the last year and in the last month, the number of times they had been stopped by law enforcement for suspicion of DUI, number of DUI arrests, and the largest number of drinks they had consumed and managed to drive home safely in the past year.

Participants rated the importance of six reasons for their drinking. The six reasons were loosely based on the six subscales of the 120-item Alcohol Expectancy Questionnaire III (AEQ-III) developed by Brown et al. (1987). The participants were also asked to indicate the most likely location in which their drinking occurred before driving, and how many drinks were appropriate in a variety of circumstances, using an approach described by Tsunoda et al. (1992).

The participants' perception of social control of driving under the influence was measured using the approach outlined by Berger and Marelich (1996), which draws a distinction between deterrence and prevention. Deterrence refers to social control in response to fear of punishment, whereas prevention refers to the broader range of controls that include moral inhibitions and socialization of preventive habits. Deterrence was measured in terms of knowledge of DUI laws and credibility of sanctions. Prevention was measured in terms of personal attitudes towards driving under the influence, personal behavior, and subjective perceptions of social control.

Low and high acculturation level was defined by preferred language. Respondents who spoke "only Spanish" and "mostly Spanish, some English" were identified as low acculturation and respondents who spoke "English and Spanish equally well", "mostly English, some Spanish", and "only English" were defined as high acculturation.

2.3. Focus groups

The survey requested the respondents' and the respondents' wives' participation in focus groups, to be held at a later date. Twenty-three men and four women agreed to participate in the

focus groups, which were held from July 2002 to November 2002. A total of five focus groups were held, four for the men, two in Spanish and two in English, and one for the women, in Spanish. The separation of men and women was intended to foster candid discussions. Participants gave their informed consent prior to the start of the focus groups, and were paid \$ 40 upon completion.

Focus group discussions were recorded on audiotape and transcribed. Discussion was arranged around five themes:

- (1) The role of alcohol in their life.
- (2) Attitudes and opinions on drunk driving.
- (3) Circumstances and determinants of drunk driving.
- (4) Prevention of drunk driving.
- (5) The role of the community or state in reducing drunk driving in the Hispanic community.

3. Results

3.1. Demographics

Nearly all participants were Mexican or Mexican American men between the ages of 21 and 39 years. Ages ranged from 19 to 52 years; 52% of the participants were born in Mexico, 40% were Mexican Americans born in the United States, and 8% were born in other countries, all from Central America.

Of the 104 participants, 61 (59%) completed the questionnaire in English and 43 (41%) completed the questionnaire in Spanish. Fifty-one percent of the participants were single, 32% married, 12% living with a partner, 5% separated, and 1% divorced. As expected, given the recruiting locations, 44% of the participants were unemployed, 15% employed part-time, 34% employed full time, 1% going to school, and the remaining 6% either retired, disabled, or other. The average respondent was 31-years old with 9 years of formal education, earning about \$ 15,000 a year, living in a household of two adults and two children. On average, respondents reported driving more than 3 h per day. Table 1 reports mean and median values for these demographic variables.

3.2. Alcohol consumption

The vast majority of the participants usually drank beer (97%), with only two participants (2%) preferring spirits and one participant (1%) preferring wine. As a group, the respondents were heavy drinkers. In the last 28 days, they reported

Table 1
Participants' demographics

| Variable | Mean | S.D. | Median | N |
|-------------------------------------|------|------|--------|-----|
| Age (years) | 30.5 | 7.0 | 31.0 | 103 |
| School years completed | 8.8 | 3.9 | 9.0 | 102 |
| People \geq 18 years in household | 2.4 | 1.6 | 2.0 | 94 |
| People <18 years in household | 1.9 | 1.5 | 2.0 | 85 |
| Personal income (\$ 1000) | 14.9 | 12.0 | 12.0 | 87 |
| Daily driving time (min) | 253 | 183 | 205 | 104 |

Table 2
Importance ratings of reasons for drinking

| Reason | Mean | S.D. | N |
|---------------------------|------|------|----|
| To be more sociable | 0.91 | 0.80 | 94 |
| To relieve tension | 0.76 | 0.85 | 98 |
| To feel better physically | 0.56 | 0.77 | 94 |
| To feel more assertive | 0.51 | 0.73 | 93 |
| To feel more powerful | 0.44 | 0.71 | 94 |
| To feel more attractive | 0.36 | 0.67 | 94 |

Note: 0, not at all important; 1, somewhat important; 2, very important.

having three or more drinks on 7 days, six or more drinks on 4 days, and nine or more drinks on 3 days. These results are comparable to those reported by Ferguson et al. (2002) for Mexican American men in the city of Long Beach, California.

3.3. Drinking and driving

On average, the respondents reported that they needed seven alcoholic drinks to become unsafe drivers. Compared to a sample of Hispanic males 16 years of age and older interviewed by Royal (2000), participants in the current study were more likely to drive within 2 h of drinking in the last year, 59% versus 25%, and were more likely to be arrested for DUI in the last year, 16% versus 2%. About a fourth of the participants in the current study (23%) had been arrested for DUI in their lifetime.

3.4. Attitudes towards drinking

As seen in Table 2, the most important reasons for drinking were to be more sociable, to reduce tension, and to feel better physically. Situations with the highest appropriate number of drinks to be consumed were a party, a family celebration, and a bar (Table 3). When drinking at home, the presence of children had a moderating effect on consumption.

3.5. Social control

Deterrence measures were grouped into two dimensions: knowledge of the law and credibility of sanctions. As shown in Table 4, the participants tended to be less knowledgeable of

Table 3
Percent of drinking quantity appropriateness in a variety of situations

| Situation | 0 drinks | 1 drink | 2+ drink | Drunk |
|------------------------------|----------|---------|----------|-------|
| Party at a friend's house | 10.4 | 17.9 | 48.1 | 23.6 |
| Family celebration | 11.3 | 19.8 | 46.2 | 22.6 |
| Bar with friends | 16.0 | 23.6 | 43.4 | 17.0 |
| Home with no young children | 24.8 | 25.7 | 33.3 | 16.2 |
| Sports event | 31.4 | 17.1 | 37.1 | 14.3 |
| After work before going home | 36.9 | 17.5 | 35.9 | 9.7 |
| Home with young children | 53.8 | 21.2 | 22.1 | 2.9 |
| Before driving a car | 65.7 | 24.8 | 8.6 | 1.0 |
| At work | 78.1 | 18.1 | 2.9 | 1.0 |
| Restaurant with family | 16.0 | 47.2 | 35.8 | 1.0 |

Note: 0 drinks, no drinking at all; 1 drink, no more than one drink; 2+ drink, more than one drink but not enough to get drunk; drunk, getting drunk may be all right.

Table 4
Deterrence and prevention measures

| Variables and measures (%) | Current study | Comparison |
|--|---------------|-----------------|
| Deterrence measures | | |
| Knowledge of the law | | |
| Heard of BAC | 52 | 67 ^a |
| Know BAC limit for California | 41 | 46 ^b |
| Credibility of sanctions | | |
| Believe at least half of those arrested get proper punishment | 94 | 57 ^c |
| Believe penalties would "hurt me badly" or "ruin my life" | 76 | 51 ^c |
| Believe smart lawyer cannot avoid penalties | 56 | 43 ^c |
| Believe arrest risk is 10% or more if drunk | 48 | 59 ^c |
| Prevention measures | | |
| Personal attitudes | | |
| It is very important to reduce DUI | 86 | 94 ^a |
| DUI is a major threat to person and family | 80 | 90 ^a |
| Morally unacceptable to drive after four drinks | 67 | 93 ^c |
| Supports sobriety checkpoints | 67 | 75 ^c |
| People should not be allowed to drive after drinking any alcohol (strongly agree) | 56 | 67 ^a |
| Personal behavior | | |
| Drank less when driving | 82 | 90 ^d |
| I should prevent someone I know from DUI (strongly agree) | 73 | 93 ^a |
| I will probably DUI at least once in the next year (somewhat agree and strongly agree) | 59 | 25 ^d |
| Perceptions of social control | | |
| Close person would disapprove if they knew about my DUI | 82 | 91 ^c |
| Friends would disapprove if they knew about my DUI | 64 | 80 ^c |

^a Royal (2000). Hispanic males and females, age 16 and above.

^b Ferguson et al. (2002). Mexican American males.

^c Berger and Marelich (1996). California drivers, 1994 survey.

^d Unpublished data from 1994 survey of California drivers; Berger and Marelich (1996).

DUI laws than typically found for Mexican American males (Ferguson et al., 2002). Only 52% indicated that they had heard of blood alcohol concentration (BAC), compared to 67% with this knowledge in a national sample of Hispanic males (Royal, 2000). Similarly, only 41% knew the actual BAC limit in California, compared to 46% for all California drivers (Berger and Marelich, 1996). With the critical exception of risk of arrest, measures of credibility of sanctions for DUI arrest were rated higher by participants in the current study than among all California drivers in 1994 (Berger and Marelich, 1996). The respondents were much more likely to believe that those arrested get the proper punishment, that a smart lawyer could not help them avoid the penalties, and that the penalties would "hurt me badly". However, only 48% of the high-risk respondents felt that there was at least a 10% chance of being arrested if they drove after

Table 5
Comparisons between high and low acculturation groups on selected measures

| Measure | Mean | | S.D. | |
|---|------|------|------|------|
| | High | Low | High | Low |
| Personal income (\$ 1000) | 18.9 | 9.7 | 13.8 | 6.1 |
| Household income (\$ 1000) | 33.0 | 11.9 | 28.1 | 7.2 |
| School years completed | 9.66 | 7.83 | 3.90 | 3.52 |
| On how many days in last 28 days consumed nine or more drinks | 4.79 | 1.26 | 8.50 | 2.34 |
| Heard of BAC ^a | 0.64 | 0.40 | 0.48 | 0.49 |
| People should not be allowed to drive after drinking any alcohol ^b | 2.93 | 3.67 | 1.09 | 0.68 |
| Feeling powerful as reason to drink ^c | 0.27 | 0.62 | 0.53 | 0.83 |
| Appropriate to drink in restaurant ^d | 1.41 | 1.07 | .69 | 0.71 |
| Appropriate to drink at in-laws ^d | 0.94 | 1.48 | 0.89 | 1.02 |

Note: All groups differences are statistically significant, $p < 0.05$.

^a 0, no; 1, yes.

^b 1, strongly disagree; 2, somewhat disagree; 3, somewhat agree; 4, strongly agree.

^c 0, not at all important; 1, somewhat important; 2, very important.

^d 0, no drinking at all; 1, no more than one drink; 2, more than one drink but not enough to get drunk; 3, getting drunk may be all right.

drinking, compared to 59% in the 1994 sample of all California drivers.

Measures of prevention were divided into three broad dimensions: personal attitudes, personal behavior, and perceptions of social control. All three dimensions were relatively weak among participants in the current study. Respondents were less likely to believe that it is morally unacceptable to drive after four drinks than previously found among all California drivers by Berger and Marelich (1996), 67% versus 93%. Respondents were also less likely to believe that they should prevent someone they know from driving after drinking and that their friends would disapprove if they knew about the respondent's driving after drinking (see Table 4 for comparisons with existing literature). Consistent with the high-risk status of this group, over half (59%) of the respondents indicated that they probably would drive after drinking in the next year, compared to only 25% for all California drivers.

The most powerful reasons offered by the respondents for drinking less when driving were legal considerations such as fear of arrest (29%) and the welfare and safety of self and family (26%). The welfare and safety of others was offered as a reason much less often (8%). When asked what a friend or family member could say or do to stop the respondent from driving after drinking, the most common responses were to invoke fear of legal consequences (15%) or appeal to morality (13%). Threats of force (9%), appeals to safety (9%), and provision of an alternative form of transportation (7%) also were mentioned by multiple respondents.

3.6. Acculturation

Comparisons between the lower acculturation group (44%) and the higher acculturation group (56%) are presented in Table 5. In general, the lower acculturation group reported fewer school years completed and much lower income than the higher acculturation group.

In all alcohol consumption measures, the lower acculturation group scored lower than the higher acculturation group. Although the higher acculturation group reported drinking nine

or more drinks in the last 28 days more often than the lower acculturation group (4.8 versus 1.3), the lower acculturation group was much more likely to have been arrested for DUI in the last 12 months, 26% versus 9%, $\chi^2(1, N = 100) = 5.15$, $p < 0.05$. The lower acculturation group was more likely to think that people should not be allowed to drive after drinking any alcohol, but much less likely to have heard the term BAC than the higher acculturation group, 40% versus 64%, $\chi^2(1, N = 99) = 5.99$, $p < 0.05$.

3.7. Men's focus groups

The focus groups provided spirited discussions with contributions from all participants on each of the main themes. Statements from participants are organized into these themes and generally reflect views expressed by multiple respondents. Because of confidentiality concerns, demographic characteristics of individual respondents were not linked to their comments.

3.7.1. The role of alcohol

Drinking alcohol was seen by the participants as something they have always done, as did their fathers and grandfathers before them. In general, events unfold as follows. Young children observe male members of the family drink at family get-togethers on weekends, where women and men are in separate rooms. Young boys are typically initiated to the ritual of drinking by being asked to fetch beer for the drinking members of the family. At an early age, they are offered a drink by a family member and those who do not drink are viewed as weak. At first, some of the boys do not like drinking, but they continue doing it because everybody else does it. All social occasions revolve around beer and alcohol. Relaxing and increasing sociability were given as primary reasons for drinking, but many participants recognized that problems accompanied heavy drinking.

3.7.2. Attitudes and opinions on drunk driving

Although most participants viewed driving after drinking in a negative light, it is something they have done in the past and,

for many, expect to continue doing in the future. Driving after drinking was seen as a behavior that is much more accepted in Mexico, where respondents felt that there are no severe repercussions if caught and it is possible to avoid arrest with a bribe (*mordida*) to law enforcement officers. Upon arriving in the US, immigrants are faced with a different reality, which often comes as a major shock following a DUI arrest. In general, the severity of the sanctions (particularly fines) was seen as a deterrent to future DUI behavior, but there is confusion on how much alcohol is required to be impaired. The self-assessment of driving fitness is based on a lack of perceived intoxication rather than a lack of impairment.

3.7.3. Circumstances and determinants of drunk driving

The circumstances that made it most likely for the participants to drive after drinking were being with friends, at somebody's home, at a party, or in a bar. In some cases, driving after drinking was caused by running out of beer and dispatching someone to get more. Another likely circumstance for DUI behavior is drinking before going home after work on Fridays. A fight with a spouse or girlfriend makes driving after drinking more likely.

A frequently expressed belief was that for Mexican men every occasion is cause for drinking beer, and that masculinity is measured by how much one can drink. The participants' immediate family is likely to inhibit DUI behavior, especially the wife or girlfriend, who may refuse to ride in the car if the man is drunk, who will caution against driving after drinking, and who occasionally will either drive the car herself or hide the car keys. Children also have an inhibiting effect. According to the participants, however, the inhibitory influence of the family and the enhancing influence of the friends often clash. When that is the case, the influence of the friends tends to be the stronger one, in part because agreeing to requests of the wife is often seen as a sign of weakness.

3.7.4. Prevention of drunk driving

The participants were asked what kind of precautions one can take to prevent drunk driving. Most agreed that the simplest would be not to drink. Some other options included driving carefully, calling someone for pick up, or taking a cab, although few participants had ever taken advantage of the last option. Several noted that their friends would laugh at them if they took a cab. Some participants found it appropriate to allow a spouse or girlfriend to drive them home after they had been drinking, but other participants would not allow a woman to drive them home, primarily because they would lose face with their friends, who would call them *mandilon* (weak, pushover). One participant indicated that after three drinks he probably would let his wife drive, but that beyond three drinks he would probably ignore his wife or anybody else.

Suggestions of things that might prevent driving home after drinking included a sense of conscience, giving someone the car keys, or asking someone else to drive. Most participants, however, agreed that making the decision not to drive after drinking is very difficult, especially after they have been drinking. The best choice is to avoid finding oneself in that situation.

Participants were not knowledgeable of programs assisting people in getting home. While they were vaguely aware of the existence of such programs, they were not able to identify any program, nor how to find a program's phone number. Furthermore, strong resistance was voiced about personally using those programs, primarily for fear of ridicule. Driving-home programs, therefore, seem to be ineffective with this population.

3.7.5. The role of the community or state in reducing DUI behavior

The majority of the participants agreed that the individual must bear the responsibility for drunk driving. However, ideas for reducing drunk driving included more enforcement, more education, more counseling, involving the community, reducing the hours for serving and selling alcohol, tougher sanctions, reducing the number of ads for alcohol (e.g. as has been done for tobacco), linking education to licensure, more anti-DUI ads in Spanish TV, better role models, and more DMV involvement. One participant suggested that the focus should be on educating Hispanics on the devastating effects that drunk driving imposes on the family, particularly the children and the spouse.

3.8. Women's focus group

The discussions in the women's focus group were substantively similar with the discussions in the men's group, but the tone of those discussions was considerably angrier. The husbands' drinking and driving after drinking were seen as very serious problems for women, problems which strained relationships, at times forcing some to contemplate a breakup.

In general, women thought that the major underlying cause of excessive drinking and driving after drinking is machismo. The women felt that Mexican men are socialized to be drinkers; even women teach their young sons to be macho and to drink beer. They noted that in Mexico there are relaxed views on excessive drinking and there is limited enforcement of DUI laws, and that this results in a culture of permissiveness for men that is very hard to eradicate.

Contrary to men, some women believed that one beer is sufficient to impair driving and that there are observable effects of alcohol after one or two cans of beer, affecting the breath, voice, and color of their men's faces. Some women described precautions that they take to prevent their men from drunk driving such as driving the men home from a party or taking the keys. More than one woman indicated that men get aggressive when confronted about their drinking, sometimes resulting in physical violence against the women. In some cases, therefore, the men are told to go and drink outside of the home where, of course, they are more likely to drive after drinking.

One topic that arose in the women's focus group but not the men's is that sometimes the men drink at or immediately following work and are offered beer by their own bosses, perhaps as a form of compensation.

The women confirmed that the presence of children makes the men less likely to drive after drinking. The education the children get at school on the negative aspects of drunk driving is seen as very beneficial and influential. Husbands sometimes

listen more to their children than to their wives. The women felt that American children are better educated on the negative effects of smoking than Mexican children, resulting in less smoking among adults in the US than in Mexico, and that a similar approach should be taken with drinking. An additional factor that was noted is that prolonged residence in the US diminishes machismo.

The women strongly criticized the California law limiting the licensing of drivers only to those who have legal status. They suggested that without a driver's license there is no responsibility. Those without a driver's license buy an inexpensive car and if law enforcement impounds it following a DUI arrest or a crash, it is no big loss. The women believed that the drunk driving habits of their husbands could be reduced with education and with an official driving record for all drivers.

4. Discussion

Integrating quantitative and qualitative approaches, the present research examined determinants of drunk driving among a sample of predominantly young Mexican American males in Los Angeles County. Four mechanisms that may contribute to the high rate of DUI behavior in that group were identified. First, there is a culture of permissiveness toward drinking and driving for men that is very hard to mitigate, although wives and children often attempt to do so. Second, there is converging evidence that heavy drinking is a major problem in this population, with machismo and a propensity to measure masculinity with alcohol intake as underlying causes. Third, there is inadequate knowledge of DUI statutes and inadequate understanding of the relationships between BAC and impairment and impairment and crash risk. Fourth, for drivers who reside illegally in the US, there is lack of accountability in case of an alcohol-related incident.

A limitation of the study is that the sample was relatively small, especially for the focus groups and the data do not represent a random sample from a defined population. Fortunately, the information from the four male focus groups converged well. The female participants provided important contrasting views, but because of the very small sample generalization from this sample should be exercised with caution.

Acknowledgements

We thank The John Randolph Haynes and Dora Haynes Foundation and Claremont Graduate University for financial support of this research.

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