

Psychosocial and Cognitive Correlates of Alcohol Use in Younger Adult Immigrant and U.S.-Born Hispanics

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**Psychosocial and Cognitive
Correlates of Alcohol Use in Younger
Adult Immigrant and U.S.-Born
Hispanics**

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Abstract

Hispanic groups, taken together, constitute nearly 9% of the U.S. population. Research undertaken in the last decade has demonstrated that segments of the Hispanic male population are particularly heavy drinkers and are at high risk for alcohol-related problems. This article reviews several of the most important studies of alcohol use and its consequences among

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Hispanics, and reports new data from a study of alcohol use and its correlates among 452 young adult men and women in Los Angeles. The findings show important differences between immigrants and U.S.-born Hispanics as well as clear gender differences in terms of alcohol use patterns, expectations about the benefits of alcohol consumption, and depressive symptomatology associated with the use of alcohol. These differences have implications for the design of prevention and treatment services for Hispanics and these are discussed. [Translations are provided. See the International Abstracts at the end of the issue.]

Key Words. Alcohol use, Coping, Depression, Gender, Hispanic.

BACKGROUND

Recent theory which addresses the relationship between stress, distress, and alcohol use has underscored the role played by cognitive processes (Abrams, 1983; Hull, 1981; Lang, 1983; Marlatt, 1984, 1987). Specifically, it has been argued that alcohol has the effect of blunting an individual's perception of negative feedback on, for example, social performance, thus reducing performance stress and anxiety, and fostering a sense of competency (Hull, 1981; Lang, 1983). Very recently, in a controlled experiment focused on college men, Yankofsky, Wilson, Adler, Jay, and Virana (1986) found support for the hypothesis that alcohol influences the perception of negative social feedback and can reduce an individual's adverse self-evaluation. Lang (1983), in his review of the field, reported that studies of alcohol use and personal efficacy, competency, and social performance generally indicate that psychosocial stress within each of these domains can lead to increased drinking, probably intended to reduce evaluation apprehension.

Along a similar line of research, it has further been argued that the more a drinker holds socially learned, reinforcing cognitive expectations that benefits will accrue from alcohol use—in terms of either specific positive effects on social functioning (Lang, 1983), performance evaluation (Yankofsky et al., 1986), unpleasant emotion/mood states (Marlatt, 1984, 1987; Cosper, Russell, & George, 1988), or more generalized positive changes (Brown, Goldman, & Christiansen, 1985)—the greater the consumption of alcoholic beverages. Lending support to this view, several studies conducted with a variety of populations, for example, high school and college students, alcohol treatment clients, and nonalcoholic medical patients, have consistently found a positive association between reinforcing alcohol expectancies and level of alcohol consumption (Brown et al., 1985; Christiansen, Goldman, & Brown, 1985; Zarantonello, 1986). Further, at least one study (Christiansen, Goldman, & Inn, 1982) has demonstrated that alcohol expectancies develop in childhood prior to substantive experience with alcohol, lending credibility

to the notion that these cognitions are the product of social learning. The relationships between psychological distress, expectations of alcohol's efficacy in elevating mood or relieving tension/anxiety, and the use of alcohol appear to be complicated by a variety of person/situation factors (Abrams, 1983; Lang, 1983). Research suggests, for example, that the alcohol expectancy structure of drinkers—that is, the *specific* benefits drinkers expect from the consumption of alcohol—may vary as a function of age (Zarentonello, 1986), situation (Christiansen et al., 1985), or cultural background (MacAndrew and Edgerton, 1969). To date, the relationships among distress symptomatology, alcohol expectations, and drinking behavior have been examined in samples drawn from mainstream populations. Little is known about whether or not specific ethnic groups hold alcohol expectations similar to those prevalent in the mainstream or whether alcohol use is at all related to psychological distress in groups of varying ethnicity or cultural background. The present study expands the exploration of relationships between psychological distress, alcohol expectancies, and alcohol consumption by focusing on a sample of Hispanic young adults. For the purposes of this article we are defining Hispanics as persons of Mexican, Central American, or South American heritage.

HISPANICS AND ALCOHOL USE

In a recent analysis of data obtained in the Health and Nutrition Survey, Neff (1985) found that Hispanic abstainers had significantly higher scores on the Center for Epidemiologic Studies Depression Scale (CES-D) than did Hispanic drinkers, a pattern that was just the reverse of that found among both Whites and Blacks. In this same study, the less acculturated Hispanics, defined by the authors as those who spoke primarily Spanish in the home, consumed strikingly higher quantities of alcohol in comparison with the more acculturated Hispanics, Whites, and Blacks. Further, among the less acculturated Hispanics, a higher quantity of alcohol consumption was associated with a *decreased* likelihood of "nervous breakdown" and psychiatric/psychological help seeking. Neff interpreted the findings as suggesting that low-acculturated Hispanics reduce their experience of distress by self-medicating with alcohol. Neff found support for this interpretation in the findings of Caetano (1984), which showed that Hispanic men were more likely to ascribe tension-reduction properties to alcohol when compared with non-Hispanic men.

Alcohol misuse has clearly been identified as a major social and health problem among males in various segments of the Hispanic population (Gilbert & Cervantes, 1986; Caetano, 1987a, 1988). As with other population groups, excessive use of alcohol has been defined in numerous ways (e.g., alcoholism; problem drinkers) and has been implicated in increased rates of family violence (Costello, 1977; Panitz, McConchie, Sauber, & Fonseca, 1983), high arrest rates (Engmann, 1976), and elevated homicide rates (Goodman, Mercy, & Rosenberg, 1985). Furthermore, Hispanic men die prematurely of alcohol-related causes more often than

men in the general population (Gilbert & Cervantes, 1986). Problems associated with alcohol use are thus very visible in this population, and, because most large-scale epidemiological studies do not differentiate among Hispanic subgroups by origin, age, locale, and other important defining factors, it is frequently assumed that all Hispanic males drink excessively, giving rise to a stereotype. Further, the development of national and local policy related to the diagnosis and treatment of Hispanics with alcohol-related problems becomes extremely difficult without epidemiological data that identify specific high-risk groups within the Hispanic population.

A first major effort to understand the drinking patterns and practices of all U.S. Hispanics was conducted by the National Institute on Drug Abuse (NIDA) in a National Household Survey of Drug Abuse (NIDA, 1987). This was the eighth study in a series of national surveys designed to measure the prevalence of drug use among individuals in American households aged 12 and over. The survey estimated drug use prevalence, including alcohol use, for a representative sample of the U.S. civilian, noninstitutionalized population.

In this survey, 1,996 Hispanic adults were interviewed along with samples of Blacks ($n = 1,945$) and Anglo-Americans ($n = 3,949$). Black and Hispanic respondents were oversampled in order to obtain more stable estimates of drug and alcohol use. Few differences were found in overall use rates (lifetime and past month) when comparing Hispanic, Black, and Anglo men. Similarities in alcohol use rates are stable across lifetime use, use within the past year, or use within the past month.

Conversely, female alcohol use rates showed a marked ethnic difference between Hispanic and Anglo-American women. Anglo American females were found to have lifetime use rates (85.6%) which were considerably higher than use rates for Hispanic females (62.9%). This pattern was again obvious in terms of last month prevalence of alcohol use where a smaller percentage of Hispanic females (35.2%) reported drinking in the prior month when compared to Anglo-American (54.7%) or Black females (39.2%). Hispanics in this national sample were not broken down by subgroup or generational status; that is to say, Puerto Ricans, Cubans, Mexican Americans, and others of Hispanic background were not distinguished, nor were immigrants distinguished from persons born in the United States. The term "Hispanic" does not designate a specific ethnic, racial, or cultural group but usually aggregates many culturally different groups.

In a more recent national survey, Caetano (1985, 1988) examined alcohol use patterns in a representative national sample of U.S.-born and immigrant Hispanics. Fortunately, this sample was large enough so that Hispanic subgroups could be assessed separately. Among the foreign born, Latin American (from South and Central America) females were found to have the highest rates of abstention (75%), followed by Mexican females (71%), Cuban females (48%), and Puerto Rican females (45%). These high rates of abstention among immigrant females have been noted by other researchers (Gilbert, 1987; Holck, Warren, Smith, & Rochat, 1984).

Moreover, among the U.S.-born Hispanic females there were generally fewer who reported abstinence, particularly in the second-generation sample (one or more parents foreign born) females. Very infrequent drinking, that is, drinking less than once a month but at least once a year, was found to be quite common among the second-generation females born in the U.S. (48%) as well as among Cuban males (32%) and females (35%), and among Latin American males (31%). A pattern of less frequent (drinks less than once a month) but heavier drinking (has five or more drinks occasionally), interestingly, was found most prevalent among Puerto Rican females (29%).

Further results from this same study revealed drinking at moderate frequency and low quantity (drinks one to three times a month, never has more than five drinks at one sitting) to be most prevalent among Puerto Rican (41%) and Cuban males (41%). Among those that reported more frequent but still low-quantity drinking patterns (drinks once a week but never drinks five or more per sitting), rates were slightly higher for males than for females, with Mexican men (12%) and "other" (third generation or later) U.S.-born men (14%) having the highest prevalence rates.

Patterns of heavier drinking were found among certain gender/cultural segments of the Hispanics studied. Frequent high-maximum drinking patterns (respondent drinks once a week or more often and has five or more drinks per sitting at least once per year) was more prevalent among the U.S.-born Latin American females (26%), followed by their male counterparts (26%). Mexican-born males were also found to have relatively high rates of this heavier type of drinking pattern (23%), followed by the U.S.-born second-generation males.

The final drinking category assessed in the Caetano survey was the frequent-heavy category (respondent drinks once a week or more often and has five or more drinks at a sitting at least once a week). This pattern was found to be most prevalent in the U.S.-born second-generation samples of males (35%), followed by Mexican-born males (19%).

The research has thus made it clear that there is some variation in drinking patterns across Hispanic cultural groups in the United States, and that immigrant and U.S.-born groups differ in important ways in their alcohol practices. Moreover, the particularly high rate of frequent high-maximum drinking among some groups of Hispanic females refutes many of the previously held stereotypes of Hispanic women as being primarily abstainers. Gilbert (1987), for example, in a synthesis of studies related to Hispanic females found second- and later-generation Mexican American women to have slightly higher rates of frequent high-maximum drinking when compared with non-Hispanic White females and that studies consistently find U.S.-born Latinas drink more and more often than immigrant women.

The Hispanic group that has received the most research attention is its largest segment, the Mexican American population, a group that is regionally concentrated in the southwestern part of the U.S. with isolated heavy concentrations in the

urban Midwest. Research has shown that Mexican American males have the heaviest drinking patterns of all U.S. Hispanics, and Mexican American women the lightest; thus gender differentiation is especially marked in this group. In a recent study utilizing only the Southwest portion of the Hispanic Health and Nutrition and Survey data (H-HANES), Markides, Ray, and Trevino (1988) found frequent and heavy drinking among high proportions of young adult (31.4%) and middle-aged (24.6%) Mexican American men. While drinking categories derived from the H-HANES are not precisely comparable with the seven categories enumerated by Caetano (1985), again Mexican American males (the large majority of Hispanic males surveyed in the Southwest H-HANES data collection effort) are shown to have a disproportionate number of heavy and frequent drinkers.

In another study of Mexican Americans in San Antonio, Texas, Markides, Ray, and Trevino (1988) constructed a "high-drinking" category comprised of respondents who reported an average of six or more drinks per occasion, for males; or four or more drinks per occasion, females. The results are rather striking, with at least one quarter of both males and females in the young (20-39) and middle-aged (40-64) cohort found to be heavy drinkers.

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III—American Psychiatric Association, 1980) reserves two specific diagnostic categories for those with patterns of excessive alcohol use, alcohol abuse disorder and alcohol dependence disorder. These disorders were assessed in an extensive community sample as part of the five-site National Institute of Mental Health Epidemiological Catchment Area Study (ECA—Karno, Hough, Burnan, Escobar, Timbers, Santana, & Boyd, 1987). Extensive oversampling in Los Angeles was conducted with Mexican American adults ($N = 1,243$) in order to obtain a stable estimate of lifetime prevalence of major DSM-III disorders. More recently similar data were obtained for Puerto Ricans (Canino, Bird, Shrout, Rubio, Geil, & Bravo, 1986). Overall, results of these two studies found females in both groups to have much lower prevalence rates of alcohol abuse/dependence disorders than males. Puerto Rican females were found to have the lowest rates (2.0%), followed by Mexican American females (4.5%). Among the male respondents, Mexican American males were found to have the highest lifetime rates of DSM-III alcohol abuse/dependence disorders (31.0%). Nearly one-quarter of the Puerto Rican males sampled (24.6%) also met the DSM-III criteria for alcohol abuse/dependence disorder, a lifetime prevalence rate very similar to that found among non-Hispanic White males in the U.S. sites. These data are quite consistent with non-psychiatric epidemiologic studies where Mexican American males have been shown to have high representation in the heavier drinking categories.

The major thrust of alcohol-related research conducted among U.S. Hispanics has thus far been devoted to constructing an epidemiologic portrait of alcohol use practices and associated social and health consequences. Less attention has been given to psychological or cognitive factors that may be associated with differences

in Hispanic drinking patterns. In the current study we examined drinking patterns in a sample of recent immigrants and U.S.-born Hispanics representing a young adult group. Based upon the survey research cited above, this younger cohort might be considered at risk for the development of maladaptive drinking practices. Consistent with earlier research, we expected heavy drinkers to hold more positive expectations toward the benefits of alcohol use as compared with moderate drinkers. A final aim of this research was to examine selected psychological distress and cognitive variables for their utility in predicting levels of alcohol use in this young adult sample. Throughout the analysis we were particularly interested in examining gender differences since there are indications that alcohol use is accelerating among young Latinas (Gilbert, 1988).

METHOD

Subjects

Participants in this study were 452 adults attending two large community adult schools in the Los Angeles area. A total of 230 male and 222 female students participated in the study undertaken in 1985. Participants were recent migrants from Mexico ($n = 138$) or from Central America ($n = 126$), including El Salvador, Nicaragua, and Honduras; and U.S.-born Mexican Americans ($n = 188$) who volunteered to complete a series of structured questionnaires. Immigrant participants were all enrolled in English as a second language courses (ESL) and reported having lived in the U.S. an average of 2 years and 8 months. U.S.-born Mexican American students were attending a 2-year community college. The mean age of the male sample was 22.9; female participants averaged 23.1 in age. Slightly over 11% of the sample was married. In terms of English-Language proficiency, the majority of the immigrant sample reported having "difficulty" speaking English, with only a small percentage reporting that they could speak "good" English. Catholicism was the predominate religious orientation of all subjects. The immigrant sample had an average of 12.8 years of education as compared with an average of 13 years of education for the U.S.-born sample. Monthly household income was calculated at \$2331 per month for the immigrant sample as compared with \$5840 for the U.S.-born group. Forty percent of the sample reported being employed at the time of the study. An initial series of *t* tests revealed no significant differences between the Mexican and Central American immigrant respondents on key demographic characteristics including age, years in the U.S., education, or household income. Given this demographic homogeneity, the immigrant subsamples were aggregated for purposes of analysis. The authors acknowledge that differences in other nondemographic variables not assessed in this study may be present.

Procedure

Participants were recruited through flyers and publicity which informed them that they could earn \$5 for filling out a series of attitudinal questionnaires. Participants volunteered for the study by attending one of a number of group testing sessions. Testing sessions were conducted in groups of 20-30 in a predesignated classroom at each school. Following informed consent procedures, each participant was asked to complete a questionnaire packet consisting of a demographic checklist and a series of self-report instruments. The present analysis focuses on a subset of those instruments, including the Rosenberg Self-Esteem Inventory (RSI) (Rosenberg, 1965) and the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). The RSI is a ten-item scale which assesses global self-esteem. Items are responded to on a 5-point Likert-type scale (1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree). Total RSI scores range from 10 to 50. The CES-D is a nondiagnostic checklist frequently used in community survey research to assess and compare relative levels of "generalized psychological distress." Items assess negative symptoms and affective symptoms of depression, as well as symptoms related to anxiety. The CES-D has been assessed for its reliability in use with Latino populations (Roberts, 1980) and has been shown to have good psychometric properties when so used. For the current project, the RSI and CES-D were found to have adequate levels of reliability as assessed by Cronbach's alpha coefficient: $\alpha = .73$ and $\alpha = .86$, respectively.

Two additional instruments developed specifically for this study covered: (1) frequency and quantity of alcohol use, and (2) cognitions about the expected benefits of alcohol consumption. Using questions on the frequency at which the respondent consumes any alcoholic beverage and the usual number of drinks consumed per occasion, a quantity/frequency measure was constructed. This quantity/frequency index (Quan/Freq) is similar to that successfully used by Caetano (1985) and Caetano and Medina-Mora (1988) in their studies of Mexican American and Mexican samples. In this measure, both frequency of consumption and modal quantity dimensions are considered, resulting in an index that allows individuals to be categorized in terms of their alcohol use *pattern* rather than simply the frequency of use or the absolute amount of alcohol consumed. This alcohol use index is comprised of the following categories:

- 5 = *High Frequency/High Maximum*—Drinks at least once a week, drinking six or more drinks per usual occasion.
- 4 = *Lower Frequency/High Maximum*—Drinks less than once a week, but at least monthly having one to five drinks per usual occasion.
- 3 = *High Frequency/Low Maximum*—Drinks at least once a week, having one to five drinks per usual occasion.

- 2 = *Lower Frequency/Low Maximum*—Drinks less than once a week, but at least once a month, having one to five drinks per usual occasion.
- 1 = *Infrequent*—Drinks less than once a month, but at least once a year, may or may not have six or more drinks per occasion.
- 0 = *Abstainer*—Drinks less than once a year or has never consumed alcohol.

Given the unavailability of a Spanish-language alcohol expectancies instrument at the time the present study was conducted, an eight-item cognitive expectancy questionnaire was developed, the Expected Benefits Index (EBI). This brief expectancy questionnaire tapped positive alcohol expectancies similar to those factors identified by Brown and her colleagues (Brown, Christiansen, & Goldman, 1987; Brown, 1985). Like the Brown et al. Alcohol Expectancy Questionnaire, the items covered only the *benefits* expected from using a moderate amount of alcohol ("one or two drinks"; "a couple of drinks") with the assumption that these positive cognitions would be potential reinforcers of alcohol use. Brown has called such cognitions "reinforcement expectations." This assumption is consistent with that of Maisto, Conners, and Sachs (1981), who assert that drinking is a goal-centered activity and is more likely to take place when the drinker believes that it will produce a desired end.

Specifically, the alcohol expectancy items used in the present study covered expectations of (1) enhanced social acceptance (Alc. I), (2) physical relaxation (Alc. II), (3) freedom from inhibition (Alc. III), (4) global mood elevation (Alc. IV), (5) sexual pleasure (Alc. V), (6) tension reduction (Alc. VI), (7) social pleasure (Alc. VII), and (8) social assertiveness (Alc. VIII). For each statement concerning a positive expectation about alcohol, drinkers could choose from five responses denoting the frequency at which they believed they experienced that expected benefit from drinking, ranging from never to always. This eight-item expectancy scale demonstrated an estimate of internal consistency (alpha coefficient) of $\alpha = .83$. Scores on the EBI range from 0 to 40.

In a procedure suggested by Brislin (1986), all instruments used in the study were translated, back-translated, and back-back-translated by a group of bilingual research team members.

RESULTS

It should first be noted that 46 subjects out of the total sample pool chose not to complete the alcohol-related items in the questionnaire battery. These subjects have been treated as missing cases and have been dropped from any of the data analyses. It is difficult to ascertain reasons for nonresponse (24 immigrants; 22 Mexican Americans), but this may be the result of some degree of defensiveness on the part of those respondents who "deny" their involvement in alcohol use/abuse.

Table 1 presents an overview of respondent's drinking patterns in terms of the six drinking categories. These frequencies are presented separately for males and females in the immigrant and U.S.-born subsamples. Females in each of the two subsamples have notably higher rates of abstention when compared with males, with the gender difference in abstention especially striking among immigrants, a finding consistent with the studies reviewed above. Immigrant females have the highest abstention rates (59.4%), nearly double that of the Mexican American women. A substantial number of U.S.-born women (42%) fall into the middle categories, Low Frequency/Low Maximum and High Frequency/Low Maximum, while under 20% of the immigrant women can be so categorized. Fewer U.S.-born men than immigrant men are abstainers, but the contrast between the two male subsamples is relatively small in comparison to that found among women. U.S.-born men and women are clearly heavier drinkers than immigrants, with 8% of the women and 18% of the men appearing in the two heaviest drinking categories, Low Frequency/High Maximum and High Frequency/High Maximum.

For the purpose of exploring psychosocial and cognitive factors related to *drinking behavior*, respondents in the abstainer category were excluded from further data analysis. Therefore, the following results are focused on *drinkers only*, including 156 males and 106 females.

t-Test comparisons of mean values for each of the variables of interest and each of the cognitive expectations items were undertaken next. Comparisons by gender across immigrant and U.S.-born groups were made first, followed by com-

Table 1
Drinking Patterns Among Immigrant and U.S.-Born Men and Women^a

| | Immigrant | | U.S. Born | |
|------------------|--------------------|----------------------|-------------------|---------------------|
| | % men (n = 139) | % women (n = 101) | % men (n = 71) | % women (n = 95) |
| Hi freq., Hi max | 9.4 | 1.0 | 18.3 | 4.2 |
| Lo freq., Hi max | 6.4 | — | — | 4.2 |
| Hi freq., Lo max | 16.5 | 2.0 | 25.4 | 20.2 |
| Lo freq., Lo max | 23.0 | 17.8 | 23.9 | 22.1 |
| Infreq. | 16.5 | 19.8 | 11.3 | 17.9 |
| Abstainer | 28.1 | 59.4 | 21.1 | 31.6 |

^aThese participants reside in the Central Los Angeles area.

Table 2
 Mean Values for Psychosocial and Alcohol-Related Variables Among Immigrant and U.S.-Born Men and Women

| | Immigrant | | U.S. Born | |
|-------------|-----------------------|----------------------|---------------------|-------|
| | Men | Women | Men | Women |
| Quan./freq. | 2.57 ^{b***} | 1.63 ^{a***} | 2.87 ^{b*} | 2.34 |
| CES-D | 16.60 ^{a*} | 20.13 | 13.66 ^{b*} | 18.09 |
| Self-esteem | 31.5 | 30.74 | 31.34 | 31.28 |
| EBI | 10.63 ^{b***} | 6.16 ^{a***} | 11.15 | 9.30 |
| ALC I | 2.23 ^{b*} | 1.70 | 2.23 ^{b*} | 1.68 |
| ALC II | 0.78 ^{b***} | 0.34 | 0.80 | 0.59 |
| ALC III | 0.94 ^{b***} | 0.37 ^{a***} | 1.29 | 1.31 |
| ALC IV | 0.95 ^{b***} | 0.43 ^{a***} | 1.02 | 0.98 |
| ALC V | 1.19 ^{b*} | 0.65 | 1.21 ^{b*} | 0.71 |
| ALC VI | 0.89 ^{b*} | 0.47 ^{a*} | 0.91 | 0.86 |
| ALC VII | 2.04 ^{b***} | 1.27 ^{a***} | 2.27 | 2.08 |
| ALC VIII | 1.48 ^{b***} | 0.72 ^{a*} | 1.62 ^{b*} | 1.19 |

^aOrigin differences within gender groups.

^bGender differences within origin groups.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

parisons by gender within origin groups. These comparisons are summarized in Table 2. Here it can be seen that immigrant men differed significantly from U.S.-born men only on the depression measure, showing a mean score of 16.60 as compared to 13.66 on this symptom scale ($p < .001$). The two groups of men did not differ on any of the alcohol-related measures. On the other hand, immigrant and U.S.-born women did not differ from each other on measures of self-esteem and depression but *did* show significant differences on most of the alcohol-related measures. U.S.-born women had higher scores than their immigrant counterparts on the Quantity/Frequency measure ($p < .001$) and on the Expected Benefits Index ($p < .01$). U.S.-born women's higher scores on the EBI reflect their significantly greater endorsement of the social disinhibiting effects of alcohol (Alc. III), its use as a mood elevator and tension reducer (Alc. IV & VI), and sociability enhancer (Alc. VII).

The gender differences within and across immigrant and Mexican American subsamples were of considerable interest (see again Table 2). Inspection of this table reveals that more gender differences on the alcohol-related variables were found within the immigrant sample than in the native born U.S. group. For the immigrant sample, significant differences between men and women on the Quantity/Frequency measure and the Expected Benefits Index, as well as on each of the constituent expectations items were found. However, no differences between immigrant men and women were discerned in terms of scores on the CES-D and the self-esteem measure. Conversely, among Mexican Americans, gender differences were found on the CES-D ($p < .05$), with women scoring significantly higher on this scale than men. There were few gender differences on the alcohol-related measures among the Mexican American sample. Men had higher scores on the quantity/Frequency measure ($p < .05$) but there was no significant gender variation on the Expected Benefits Index.

As can be seen in Table 2, however, there were some consistent gender differences across immigrant and U.S.-born groups. Both immigrant ($p < .001$) and Mexican American women ($p < .05$) were significantly less likely to be heavy drinkers than men and were less likely than their male counterparts to expect that alcohol consumption would enhance social acceptance (Alc. I), enhance after work relaxation (Alc. II), make sex more enjoyable (Alc. V), or make it easier to talk with others (Alc. VIII).

Analysis continued with an examination of relationships among measures. A series of Pearson correlations were conducted separately for gender groups within immigrant and U.S.-born subsamples (Table 3). In all the gender/origin groups, level of self-esteem was inversely related to level of depression; that is, those persons with lower self-esteem evinced higher scores on the depression scale. This relationship was weakest among immigrant men ($p < .05$) and strongest among U.S.-born women ($p < .01$). An inverse relationship between self-esteem and the EBI; that is, those with lower self-esteem tended to have higher expectations about consequences of alcohol use, was observable only among immigrant men and not at all among women. Level of self-esteem was not associated with pattern of alcohol use in any of the gender/origin groups.

Among immigrant and U.S.-born men, depression scores were positively associated with both expected benefits of alcohol use (EBI) and the actual level of alcohol use. This relationship was particularly strong among U.S.-born men. Among women a significant link between depression scores and expected benefits was found only among immigrant women, but in neither group of women was there a relationship between depression scores and drinking levels.

Finally, it was found, as anticipated, that quantity/frequency pattern of alcohol use was positively correlated with the Expected Benefits Index. Clearly, those persons who anticipated benefits from drinking were consuming at higher levels. This

Table 3
Pearson Correlations on Psychosocial and Alcohol-Related Variables Among Immigrant
and U.S.-Born Men and Women

| | Quan./Freq. | CES-D | Self-esteem | EBI |
|-----------------|-------------|-------|-------------|--------|
| Immigrant men | | | | |
| Quan./Freq. | — | .24* | -.028 | .57** |
| CES-D | | | -.25* | .32** |
| Self-esteem | | | | -.32* |
| Immigrant women | | | | |
| Quan./Freq. | — | .05 | .14 | .47** |
| CES-D | | | -.54*** | .35* |
| Self-esteem | | | | -.07 |
| U.S.-born men | | | | |
| Quan./Freq. | — | .42** | -.25 | .42** |
| CES-D | | | -.60*** | .31* |
| Self-esteem | | | | -.18 |
| U.S.-born women | | | | |
| Quan./Freq. | — | .19 | -.11 | .57*** |
| CES-D | | | -.51*** | .27 |
| Self-esteem | | | | .25 |

* $p < .05$.

** $p < .01$.

*** $p < .001$.

finding is consistent with previously cited studies which have examined similar relationships.

A final step in the analysis consisted of a multiple regression procedure used to predict levels of drinking among men and women. Background variables (age, employment status, years of education, marital status, birth origin) were entered into the prediction equation first, followed by the self-esteem, depression, and expected benefits indices. The results are presented in Table 4. Here important gender differences can be observed. None of the background variables were predictive of drinking levels for men, while for women being born in the U.S. predicted higher consumption levels. Among men, depression was predictive of drinking level, while among women it was not. Finally, it can be seen that among both men and women, the EBI was the strongest predictor of drinking level. The regression equations accounted for 30% of the variance among men ($R^2(8, 102) = .30, p \leq .0001$) and 33% of the variance among women ($R^2(8, 69) = .33, p \leq .0001$).

Table 4
Multiple Regression Analysis Predicting Quary/Freq

| Independent variable | SS | ΔR^2 | Beta | Sig. F |
|----------------------|-------|--------------|------|------------|
| Males | | | | |
| Age | 0.75 | .00 | -.03 | — |
| Work | 0.01 | .00 | -.02 | — |
| Education | 5.05 | .03 | -.11 | — |
| Marital status | 0.87 | .00 | -.09 | — |
| Country of origin | 1.88 | .01 | -.13 | — |
| EBI | 32.95 | .18 | .46 | $p < .001$ |
| CES-D | 8.68 | .05 | .25 | $p < .01$ |
| Self-esteem | 2.06 | .01 | .16 | — |
| Females | | | | |
| Age | 0.35 | .00 | -.03 | — |
| Work | 0.06 | .00 | .08 | — |
| Education | 0.24 | .00 | .09 | — |
| Marital status | 0.20 | .00 | .09 | — |
| Country of origin | 10.97 | .13 | -.22 | $p < .01$ |
| EBI | 17.30 | .20 | .50 | $p < .001$ |
| CES-DCES-D | 0.91 | .01 | .13 | — |
| Self-esteem | 1.16 | .01 | .14 | — |

DISCUSSION

The drinking patterns found in this study were consistent with prior studies of Hispanics. As in other studies (Alcocer & Gilbert, 1976; Caetano, 1988) there was an extreme gender difference in drinking patterns, with men drinking more and more frequently than women. In this respect, there was a much greater gender difference among immigrants than U.S.-born men and women, resulting in a circumstance where immigrant women differed from their U.S.-born counterparts much more than immigrant men differed from U.S.-born males. This much greater discrepancy between women of foreign and U.S. origin also replicated findings in prior studies (Holck, Warren, Smith, & Rochat, 1984; Gilbert, 1987; Caetano, 1988).

As in other studies, in the generations following immigration, women were seen to move from abstention and very infrequent drinking to moderate drinking levels. On the other hand, the cross-generation patterns for men observable in the present study, also consistent with earlier research (Gilbert, 1989; Caetano, 1988; Neff, Hoppe, & Perea, 1987), show a movement of men from less frequent, high-

quantity drinking to more frequent, high-quantity drinking. These changes are compatible with the notion that, in the generations following immigration, women are adjusting to a culture that is more permissive in its norms for female drinking than those present in the countries of origin. For men, on the other hand, who come from countries where drinking by males is widely sanctioned, the change is in pattern of drinking rather than adoption of drinking per se.

The expected relationship between cognitive expectations and levels of drinking was found, underscoring again the potency of the role of reinforcing cognitions as potential determinants of drinking behavior and verifying the existence of these cognitions in a specific ethnic group apart from the mainstream society. Further, the alcohol-related cognitions of Hispanic immigrants and Mexican Americans appear to closely parallel in content those of the majority society studied by other investigators. Further, these cognitive expectancies in Hispanics have the same predictive power with respect to drinking levels so robustly demonstrated across adolescent, college-age, and adult drinkers in the majority society.

However, it is clear that men hold more positive expectations about the outcomes of alcohol use than women, and it is notable that this gender difference is more extreme among immigrants than men and women born in the U.S., despite the fact that, as a group, Mexican Americans hold more positive expectations than immigrants.

Caetano, analyzing data from the 1984 National Survey (NIDA, 1987) found that more acculturated Hispanics held liberal drinking norms surrounding the use of alcohol than less acculturated Hispanics. These norms related to the appropriate amounts and contexts of alcohol use for men and women of varying ages. Liberalized views regarding *women's* drinking were especially pronounced among the more acculturated, many of whom were born in the United States. Along a similar vein, Gilbert (1987) investigated "reasons for drinking" in a sample of Hispanic women in California and learned that U.S.-born women endorsed the importance of a greater number of reasons for drinking than immigrants. They showed significantly stronger support for "drinking to be sociable," "drinking to relax after work," and "drinking to forget troubles." Such reasons appear to be similar to the stronger expectations held by U.S.-born Mexican American women in this present study for outcomes related to enhanced sociability, tension reduction, and mood elevation. In all these studies, cognitions—whether they were liberalized norms, reasons, or expectations—were positively related to alcohol use. Although much more about these relationships needs to be known, these studies taken together suggest that profound changes in a wide range of cognitions surrounding the use of alcohol are taking place as a result of *women's* socialization in the United States. Whether these cognitive changes are linked to a fundamental change in the definition of *women's* roles awaits further research.

The rather high mean scores on the depression measure (CES-D) found among men and women in this study and the clear positive relationship between scores on

the (CES-D) and drinking levels among men deserves attention. With the exception of U.S.-born men, mean scores on this measure were higher than the cutpoint for caseness which has been established for this index at a score of 16 (Frerichs, Aneshensel, & Clark, 1981). These high (CES-D) scores for Hispanics are not unusual, however. In several recent studies, significantly more Hispanics than Whites have scored above the "caseness" level (Kamo et al., 1987; Frerichs et al., 1981; Vega, Kolody, Hough, & Figuereroa, N.D.) And, it is also consistent with other studies using this measure that find much higher mean scores for females than males. Further, in this present study, immigrant men were found to have significantly higher scores on this scale than U.S.-born women, though the differences among women did not reach significance. The data presented in two recent studies are pertinent to this latter finding. Vega, Warheit, Buhl-Auth, and Meinhardt (1984) found that predominantly Spanish-speaking Mexican Americans in Santa Clara County had high scores on the CES-D than English-speaking Mexican Americans or Anglos. Vega et al. (N.D.) compared Mexicans in Tijuana, Mexico, and Mexican Americans in Los Angeles on this same measure and found Mexicans significantly more likely to be depressed than Mexican Americans. Frerichs and his colleagues (1981) and Vega and his (1984, N.D.) found that economic factors were more closely linked than other variables to depression scores. Although not all the immigrants tested in this current study were Mexican, they were all Spanish dominant linguistically and were less economically well off than persons in the U.S.-born group. It is likely that this immigrant group is experiencing problems of adjustment to a new culture and relative economic instability, circumstances which could easily lead to depression.

The findings in this present study with respect to the relationship between depression and alcohol use patterns bear both similarities to and differences from those of other studies in which this association was examined among Hispanics. In this study, scores on the CES-D were positively correlated with and predictive of drinking levels among men in both origin groups but not among women. Neff (1985), in analyzing data from the Health and Nutrition Survey, found that only among less acculturated, predominantly Spanish speaking Hispanics, higher consumption of alcohol was associated with lower incidence of nervous breakdown and use of mental health services. In Neff's study, Hispanic drinkers had lower scores on the CES-D than nondrinkers, a pattern that was reversed among Anglos and Blacks. It should be noted, however, that the sample examined by Neff was not broken down by gender so potentially important sex differences did not emerge.

Caetano (1987b), examining data from a national probability sample of Hispanics, found that depression and problems related to alcohol use were linked for both men and women. Depressed men in his study reported drinking to forget worries, relieve tension, and have more confidence; depressed women cited tension reduction as a reason for drinking. Both Neff and Caetano propose that alcohol may be being used by some Hispanics to relieve or cope with depression and nervous

tension, though the evidence on which they base this supposition is only correlational.

The results of our study of young adults, also correlational in nature, in part reinforce the linkage between depression and alcohol use among Hispanics. However, it is interesting to note that while immigrant and U.S.-born women's scores on the CES-D were higher than their male counterparts', there was no correlation between depression and drinking level in the female samples and depression was *not* predictive of drinking level among women as it was among men. It may be, therefore, that only men are availing themselves of the perceived coping benefits of alcohol. Their stronger endorsement of the expected benefits of alcohol use by men would lend support to this assumption. However, it is worth noting in this connection that among all subsamples in this study with the exception of U.S.-born women, depression was significantly and positively associated with the Expected Benefits Index. It may be that while most Hispanics expect alcohol to have mood-elevating and tension-reducing properties, normative sanctions have permitted only males to use alcohol to cope.

In this study depression appears to be much more strongly linked to positive cognitions about alcohol and the actual use of alcohol than self-esteem. While the expected inverse relationship between self-esteem and depression was significant in all groups, scores on the self-esteem measure were unrelated to scores on the Expected Benefits Index in all but the immigrant male group and were unrelated to drinking behavior in all groups. Self-esteem, which is a sense of the worthiness and value of the self (oftentimes carrying with it an implicit comparison with others) and depression, which is a negative mood state, are epistemologically quite different constructs. Whereas alcohol may not be expected to transform the self, it appears that there are some expectations in this group that it will allow the self to function better and an even clearer expectation that it will alter negative mood states. Goldman, Brown, and Christiansen comment (1987, p. 200) that "If any characteristic has been seen as a central, defining aspect of alcohol use, it is the presumed capacity of alcohol to alter anxiety, depression and other moods." This presumption appears to be alive and well in this group of young Hispanics and appears to be acted on by young men.

The results from this study have important implications for prevention and treatment of alcohol misuse among Hispanics. Because of the consistent positive relationship between expectations about alcohol and actual alcohol use seen in this and many other studies, the assessment of expectancies offers an indirect and unthreatening means of identifying high risk groups. The results of the current study show that Hispanics are similar to other groups in their perceptions about the benefits of alcohol use but that there are important gender and origin differences that need to be addressed in alcohol-related services. The results from this study identify young males as an especially high risk group and indicate that U.S.-born females are at higher risk than immigrant women.

Assessment of expectancies allows isolation of specific cognitions or sets of cognitions that may vary in importance across groups. Research to date (Christiansen et al., 1982; Goldman, Brown, & Christiansen, 1987) suggests that expectations about alcohol outcomes can predate actual experience with alcohol and that attitudes about alcohol are socially learned. The distinct differences in expectations held by immigrant and U.S.-born Hispanic women tend to support this view and illustrate that expectations are malleable. The identification of specific cognitions held by distinct groups should make possible the development of prevention and treatment messages and modalities targeted for these specific Hispanic audiences. As an example, the associations between depression and alcohol expectancies and use strongly suggests that Hispanic men are using alcohol as a coping mechanism; and this argues for treatment and prevention strategies that encourage and teach alternative coping techniques.

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