

Tri-Ethnic Alcohol Use and Religion, Family, and Gender

NORMA HASTON TURNER, GINA YVONNE RAMIREZ,
JOHN C. HIGGINBOTHAM, KYRIAKOS MARKIDES,
ALICE C. WYGANT, and SANDRA BLACK

ABSTRACT: Nine different behavioral responses to alcohol by over two hundred ninth-graders in Austin, Texas, were examined in a survey designed to identify the relationship between adolescents' alcohol use, religious affiliation, religiosity, and gender. The relationship between alcohol use and family adaptability was also examined. While religious affiliation was found to be mildly predictive of use, religiosity determined only specific behavior. Gender differences in alcohol use appeared to be narrowing. Family adaptability was the most predictive variable, showing a relationship with six of the nine kinds of alcohol behavior. Future studies of family influences on adolescents' alcohol behavior and alcohol use among females are recommended.

Introduction

The 1980s were a decade of social change in the United States with some behavioral norms becoming more restrictive, while others became more liberal. Many fundamentalist Protestant churches called on the so-called Moral Majority to shape morally conservative public policies, and many conservative politicians emphasized the need for strong nuclear families. Some behavioral standards for young females relaxed, and many parents, while encouraging their children to say no to illegal drugs, sanctioned their use of alcohol.

The purpose of our study was to identify the relationship between changes in adolescents' use of alcohol, which may have occurred concurrently with the social changes, and their religious affiliation, religiosity, and gender. We also wished to examine the relationship between adolescent alcohol use and fam-

All of the authors are at the University of Texas Medical Branch in Galveston, Texas. Norma Haston Turner, Dr.P.H., and John C. Higginbotham, Ph.D., M.P.H., at the School of Allied Health Sciences; Gina Yvonne Ramirez, M.S., in the Department of Psychiatry and Behavioral Science; Kyriakos Markides, Ph.D., and Sandra Black, M.S., in the Department of Preventive Medicine and Community Health, and Alice C. Wygant, M.S., in the Alcohol and Drug Awareness Program.

ily adaptability. Although family closeness and nurturance have been studied in relation to adolescents' use of alcohol, the relationship between family adaptability and adolescent use has not been reported in the literature. Family adaptability is concerned with structure and power within families, relationships between family members, and the style of decision-making and negotiating differences between parents and children. It seems logical that these factors could influence alcohol use among adolescents. Our perusal of nine kinds of alcohol behavior in the study sample allowed us to look at a wide constellation of alcohol behavior and provided a richness of detail that is lacking in some studies. In this article, we first review theories that have been used to explain how religion and religiosity affect alcohol use, then review the findings of previous studies of adolescents' alcohol use, and finally present our findings from a 1992 survey of the alcohol behavior of 248 Black, Hispanic, and White ninth-graders in Austin, Texas.

Theories. Historically, four theories have been used to explain the relationship between religion, religiosity, and the use of alcohol. An early theory, the *social control theory*, argued that religion controlled behavior by creating cognitive dissonance. That is, members of proscriptive churches (churches that forbid the use of alcohol) abstained from alcohol in order to reduce a dissonance between their church doctrine, their church's support of the temperance movement, and their personal lifestyles.¹ The *social participation theory* attributed religion's influence to repeated interactions between persons with comparable norms and behavior.² Similarly, the *reference group theory* posited that religious groups shape an individual's norms, attitudes, and behavior through frequent group participation.³ From the *social learning theory* perspective, alcohol use is a learned behavior which is differentially enforced over the alternative behavior prescribed by religious leaders.⁴

Religious affiliation. Religious affiliation has shown varying relationships with adolescents' alcohol behavior. In general, adolescents who are members of proscriptive churches are more likely to abstain or to use alcohol less frequently than their peers who belong to non-proscriptive churches.⁵ Dudley, Mutch, and Cruise⁶ found that only 15% of the 14- to 17-year old youths who belonged to the Seventh Day Adventist Church in their sample had ever used alcohol, in contrast to the national prevalence of 80% to 93% in youth. Church affiliation was the second most important factor in the use of alcohol found in the study by Lorch and Hughes.⁷

These findings are at variance with studies by McIntosh, Fitch, Wilson, Nyberg, and Adlaf and Smart.⁸ The former found religious affiliation acted only as a modest control on adolescents' use of alcohol, while the latter found religiously-affiliated students drank more frequently than non-affiliated students.

Religiosity. Conflicting relationships between religiosity and alcohol/drug use among youth have also been reported. Religiosity is most commonly measured by church attendance, but in some studies, it has included participation in non-worship services and feelings about the importance of religion. Since many investigators have included the use of illegal drugs in their studies on alcohol use, we have included such studies in our review. In 55 of the 65 studies of youth and drugs that they reviewed, Tittle and Welch found a negative relationship between religiosity and adolescent drug use.⁹ That is, youth who attended church more often were less likely to use alcohol and drugs than those who attended infrequently. The reverse was found by Kane and Patterson.¹⁰ In their study, adolescents who attended church frequently were more likely to use alcohol than those who attended less frequently. Kandel et al., on the other hand, found no relationship between religiosity and alcohol consumption.¹¹ In some studies, only a single alcohol variable showed a relationship with religiosity. For example, in Gibbons and Wylie's study, only age of onset of drinking showed a main effect with religiosity,¹² while in the study by Donovan, Jessor, and Costa, only male drunkenness demonstrated a negative correlation.¹³

Gender. Until the 1970s, adolescent alcohol use generally varied according to gender, with females being less likely to drink than males.¹⁴ Recent studies, however, have shown adolescent females catching up with, and sometimes surpassing, males in their use of alcohol.¹⁵

Family. Much speculation and some evidence indicates that the family plays an important role in an adolescent's use of alcohol.¹⁶ Adolescents in families that are close, nurturing, and affectionate have been found to be less likely than their peers to use alcohol.¹⁷ Hadaway, Elifson, and Petersen speculated that adolescents may turn to drugs as a reaction to family conflict or as a compensation for social isolation.¹⁸ McIntosh et al. concluded that friends and parents exert more influence on adolescents' alcohol use than does either religious affiliation or religiosity.¹⁹

Methods

Sample. The sample for the survey consisted of all of the ninth graders in a high school in Austin, Texas, who attended the second-period class on Tuesday, May 12, 1992, and chose to participate and whose parents did not request in writing that their child be excused from the survey.

Instrument. The 60-item questionnaire was a composite of several instruments that had been tested for reliability and validity. It included nine alco-

hol behavior items adapted from the Torabi-Veenker Alcohol Attitude Scale for Teenagers,²⁰ 26 items from the Family Adaptability and Cohesion Evaluation Scales II,²¹ 12 items from an acculturation scale,²² and 13 standard socio-demographic items. The instrument was in English because few of the students lacked adequate English skills and those who did were equally likely to lack Spanish reading skills (E. Vela, high school principal, personal communication, May 1992).

Procedure. Students with signed parental excuses were sent to a study hall. Teachers accompanied the remaining students to the cafeteria where they were informed of the purpose of the survey, their right not to participate, and the protection of their anonymity if they participated. Teachers assisted in the distribution and collection of questionnaires but absented themselves from the survey area during the administration of the questionnaire.

Results

Sample. The Alcohol Use Questionnaire was administered to 247 (58%) of the 428 ninth-graders enrolled in a high school in Austin, Texas, in May 1992. Of the 181 students who were not surveyed, 85 were absent, 68 were truant during the period when the survey was administered, 14 were on a field trip, 10 chose not to participate, and four had parental excuses.

The majority of the 247 students were Hispanic (predominantly Mexican-Americans). Males and females were fairly evenly represented. Most were between the ages of 15 and 16. Catholicism was the dominant religion. About two-thirds of the students reported that they attended church. A majority lived in two-parent homes. About a third rated their family structure as rigid and non-adaptive. Characteristics of the sample, by ethnicity, are presented in Table 1.

Religious affiliation. Responses concerned with four of the nine kinds of alcohol behavior differed according to religious affiliation (Table 2). These were frequency of drinking, volume, type of beverage, and frequency of heavy drinking (five or more drinks on one occasion). Students affiliated with religions other than Catholicism or Protestantism (Others) and those who belonged to no religious group (Nones) were more likely to drink two or more times a week than Catholics or Protestants ($\chi^2 = 19.13$, $p = <.05$). Nones were more likely to consume three or more drinks on a single occasion than were Protestants, Catholics, or Others ($\chi^2 = 14.07$, $p = <.05$). Nones and Others were more likely to drink hard liquor than were Catholics or Protestants ($\chi^2 = 18.43$, $p = <.05$) and to have had five or more drinks on one occasion in the past month ($\chi^2 = 30.25$, $p = .001$). There was little difference between the frequency, volume, and type of beverage consumed by Catholics and Protestants. There was, however, a significant difference in binge drink-

TABLE 1

Demographics by Ethnic Origin

Demographics	Ethnicity/Race		
	Anglo-American	Mexican-American	African-American
Gender			
Male	09.80% (N = 24)	26.12% (N = 64)	08.16% (N = 20)
Gender	12.65% (N = 31)	29.39% (N = 72)	13.88% (N = 34)
Age			
13-14 Years	05.28% (N = 13)	08.94% (N = 22)	02.44% (N = 06)
15-16 Years	16.26% (N = 40)	40.65% (N = 100)	17.08% (N = 42)
17 Years	00.81% (N = 02)	06.10% (N = 15)	02.44% (N = 06)
Religion			
Catholic	04.51% (N = 11)	41.39% (N = 101)	09.84% (N = 24)
Protestant	11.07% (N = 27)	06.97% (N = 17)	06.15% (N = 15)
Other	03.69% (N = 09)	02.87% (N = 07)	02.87% (N = 07)
No Religion	03.28% (N = 08)	04.51% (N = 11)	02.87% (N = 07)
Religiosity			
Almost Never	08.61% (N = 21)	09.43% (N = 23)	04.51% (N = 11)
Infrequently	09.43% (N = 23)	17.21% (N = 42)	24.18% (N = 59)
Frequently	04.51% (N = 11)	24.18% (N = 59)	07.38% (N = 18)
Family Composition			
Single Parent	42.59% (N = 23)	24.82% (N = 34)	39.62% (N = 21)
Nuclear Family	48.15% (N = 26)	65.69% (N = 90)	45.28% (N = 24)
Other Living Arrange- ments	09.26% (N = 05)	09.49% (N = 13)	15.09% (N = 08)
Family Adaptability			
Rigid	04.87% (N = 11)	20.80% (N = 47)	10.62% (N = 24)
Structured	18.13% (N = 41)	34.96% (N = 79)	10.62% (N = 24)

ing. Catholic students were much more likely to report having consumed five or more drinks on four or more occasions during the past month than were Protestants (1.6% Protestants vs. 13.7% Catholics).

A significant difference was found between religious affiliation and ethnicity. Hispanics were more likely to be Catholic (74.3 %) than were Blacks (28 %) or Whites (20%). Whites and Blacks were more likely to report "none" or "other" for religious affiliation than were Hispanics.

TABLE 2
Level of Significance by Alcohol Behaviors and Sociodemographic Variables

Sociodemographic Variables	Alcohol Behaviors								
	Ever Drink	Drink Past 12 Months	Frequency of Consumption	Level of Consumption	Kind of Liquor	Greatest Number of Drinks	First Time to Drink Greatest Amount	First Time to Drink Alcohol	Number of Times in the Last Month 5+ Drinks were Consumed
Gender	NS	NS	***	NS	****	NS	NS	NS	NS
Religion	NS	NS	*	*	*	NS	NS	NS	****
Religiosity	NS	NS	*	NS	**	NS	NS	NS	NS
Family Adaptability	*	***	*	*	***	*	NS	NS	****

Level of significance: *p ≤ .05; **p ≤ .01; ***p ≤ .001; ****p < .0001
 NS = Not Significant

Religiosity. Religiosity, as measured by frequency of church attendance, was predictive of only two of the nine kinds of alcohol behavior. Students who almost never attended worship services were more likely to drink two or more times a week ($\chi^2 = 12.46$, $p = .05$) and to drink hard liquor ($\chi^2 = 16.90$, $p = .01$) than were those who attended more frequently.

Gender. Only two significant differences were found between the alcohol behavior of males and females. Males drank more frequently than females ($\chi^2 = 11.70$, $p = < .001$) and were more likely to drink beer; the drink of choice for females was wine or wine coolers (32% vs. 18%) ($\chi^2 = 19.44$, $p = < .001$).

Family cohesion. No significant relationships were found between family cohesion and any of the nine alcohol measures.

Family adaptability. The results of this study indicated that family adaptability was an important independent variable, showing a relationship with six of the nine kinds of alcohol behavior. Specific concepts used to measure the adaptability dimension were family power (assertiveness, control, and discipline), negotiation style, role relationships and relationship rules.²³ The scale was broken down into four categories: chaotic, rigid, structured, and flexible. Because few students rated their families as chaotic or flexible, we collapsed our sample into two groups. Chaotic families were included with rigid families, and flexible families were included with structured families. Students in rigid families were more likely to report having ever consumed alcohol ($\chi^2 = 4.450$, $p = < .05$) and having consumed it in the last 12 months ($\chi^2 = 6.993$, $p = < .01$). They were more likely to drink two or more times a week ($\chi^2 = 7.734$, $p = .05$) and to have three or more drinks each time they consumed alcohol ($\chi^2 = 6.608$, $p = < .05$) than were students in structured families. The drink of choice for students in rigid families was hard liquor ($\chi^2 = 12.416$, $p = < .01$). Students in rigid families were also more likely than those in structured families to have drunk four or more drinks on any one occasion ($\chi^2 = 7.988$, $p = .05$).

Regressions. The general linear regression model was used to determine whether five independent variables were predictive of alcohol use (Table 3). These variables were gender, age, family structure, religious affiliation, religiosity, and ethnicity. In model one, the output for the regression used frequency of alcohol consumption as the dependent variable, and the results indicated that only one variable, rigidity, was predictive of frequency of alcohol consumption. Students from rigid families drank more frequently than did students from structured families. The second model used volume or level of alcohol consumption as the dependent variable with the same five independent variables. Three variables (gender, religious affiliation, and ethnicity)

TABLE 3

**General Linear Regression Equations to Predict Alcohol Behavior
Using Gender, Family Adaptability, Religious Affiliation, and
Ethnicity as Predictors**

<i>Predictor Variables</i>	<i>Ever Drink</i>		<i>Frequency of Alcohol Consumption</i>		<i>Level of Alcohol Consumption</i>	
	<i>Estimate</i>	<i>Pr > T </i>	<i>Estimate</i>	<i>Pr > T </i>	<i>Estimate</i>	<i>Pr > T </i>
Ethnicity (Black)	—	—	—	—	8.833	.0014
Gender (Female)	—	—	—	—	-6.687	.0005
Family Adaptability	.07440	.0246	.3582	.0461	—	—
Religious Affiliation	—	—	—	—	-5.311	.0485

were predictive of level of alcohol consumption: being a female, being Protestant, and being African-American were statistically significant. Females consumed lower levels of alcohol than males. Protestants consumed less alcohol than Catholics, Others, and Nones. Blacks consumed higher volumes of alcohol than did Whites or Hispanics.

Discussion

It is difficult to obtain a truly representative sample of adolescent behavior for alcohol use, and our study is no exception. The study is limited by the high absenteeism and truancy which are typical during the closing weeks of school (E. Vela, high school principal, personal communication, May 1992). It is possible that students who are truant or absent or have dropped out use more alcohol than did those in our sample. Reliance on self-reports may further limit our study; however, several recent studies have indicated that self-report questionnaires on the use of drugs are reliable among adolescents.²⁴ It would not be prudent to generalize from the findings of this study. Despite its limitations, this study does provide a cross-cultural comparison of alcohol use among adolescents living in a stable, geographically contiguous neighborhood and provides information on the behavior of students, especially Mexican Americans, who often drop out of school after the ninth grade.

Theories. Since our study was a cross-sectional survey, we cannot determine which theory explains the relationship between religious affiliation and religiosity and adolescents' use of alcohol. Based on our findings, we conclude that a relationship exists between religious affiliation and adolescent alcohol use. We suggest that religious groups that prohibit the use of drugs, or differentially reward responsible use of alcohol among adolescents, do affect drug use among adolescent members, as posited by the social learning theory.²⁵ Lorch found that pastors in all churches believed they should be influencing the alcohol and drug behavior of their members.²⁶ Yet, moderate churches

were more likely to have ongoing youth-alcohol or drug-education programs than were conservative or liberal churches.

Religious affiliation. We found religious affiliation to be moderately predictive of alcohol use in our sample, consistent with the findings of McIntosh et al.²⁷ The major differences were not between Catholics and Protestants, however, but between Catholics and Protestants on the one hand and Nones and Others on the other. Students identifying themselves as None or Other were more likely to drink alcohol on a regular basis, drink a larger volume, consume more hard liquor, and do more binge or heavy drinking than were students who reported affiliation with a Catholic or Protestant church. The major difference between the alcohol behavior of Protestant and Catholic youth in our study was that Catholic ninth-graders were more likely to binge-drink than were Protestants. More differences in the drinking patterns of Catholics and Protestants might have been found had we broken the Protestant category into specific denominations, as suggested by Lorch and Hughes.²⁸ It is possible that conservative Protestant students may have a more difficult time procuring alcoholic beverages because of their unavailability in the home.

Religiosity. Similar to the findings in recent studies by Gibbons and Wylie²⁹ and Donovan, Jessor, and Costa,³⁰ we found religiosity was an important determinant for specific alcohol behavior, but not for alcohol use in general. In our study, only two kinds of behavior showed a negative effect: frequency of drinking and the use of hard liquor. Interestingly, those who attended church frequently and those who rarely attended showed similar patterns in the age of drinking onset, the amount they drank, and the frequency of alcohol binges. Although a few studies in the 1970s³¹ found no association or a positive one between religiosity and alcohol consumption, the bulk of earlier studies found a negative relationship.³² It is possible that, concurrent with social changes, the differences in the alcohol use of those who attend church frequently and those who attend rarely are blurring. It is also possible, however, that if we had used the importance of religion as our measure of religiosity, we might have found a stronger relationship between alcohol behavior and religiosity.

Gender. Since we can find no previous studies using multiple measures of alcohol behavior among female adolescents, there is no way to determine from our data whether the feminist movement (whatever form this may take in ninth-graders) and the lessening of behavioral restrictions have affected the use of alcohol by female adolescents. It is interesting, however, that we found only two kinds of alcohol behavior that differed by gender: the type of alcohol consumed and frequency of consumption. As expected, males were more likely to drink beer and females more likely to drink wine or wine coolers, but no difference was found between groups in the consumption of hard liquor. Although slightly more females reported drinking alcohol in the

last year, they drank significantly less frequently than did males. The results of regression analysis confirmed gender to be predictive of alcohol behavior, with females, in general, consuming lower levels of alcohol. Because of the reduction in the stigma associated with female alcohol consumption and increased alcohol advertising targeted at women, we predict that the gap between the two genders will continue to narrow.

Family adaptability and cohesion. Consistent with previous findings and speculation,³³ this study found the family a major influence on adolescents' use of alcohol. The important factor, however, was not family cohesion or affection as found by Forliti and Benson.³⁴ Family adaptability was the most predictive variable, showing a relationship with six of the nine kinds of alcohol behavior. The importance of this relationship was confirmed by regression analysis. It appears, in our study, that adolescents in rigid, authoritarian families may use alcohol as a way to rebel against strict parental rules and lack of involvement in family decision-making. It is also possible that authoritarian parents may lack the skills they need for communicating their affection and concern to their children. Because studies using the family adaptability scale have not been reported in the literature, it is not known how this sample of Austin adolescents compares with other adolescents.

Conclusions

We believe our findings about the importance of family adaptability or rigidity upon adolescents' alcohol use should be studied by other investigators using randomized study designs. If rigid or authoritarian parenting is indeed linked with irresponsible use of alcohol by adolescents, religious groups may wish to develop parenting classes concomitant with adolescent programs on the use of alcohol. We also suggest that, because of recent societal acceptability of alcohol use by adolescent females, it is important that alcohol behavior among females be carefully monitored over the next decade. The development of alcoholism is more rapid in females than in males, and suicides, accidents, and liver disease are more common among females.³⁵ Finally, we suggest that churches that do not prohibit the use of alcohol may benefit from teaching their adolescent members when and how to drink appropriately. By delaying the age at which children begin to use alcohol, churches may protect their youth from later abuse and dependency.

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