University Students’ Reasons for Not Drinking: Relationship to Alcohol Consumption Level

ELLEN K. SLICKER
Middle Tennessee State University

ABSTRACT. The present study investigated the reasons university students have for not drinking on those occasions when they choose not to drink and whether those reasons differ with students’ differing levels of alcohol consumption. Volunteer participants for the study were students (158 males, 245 females) from a mid-South state university. These students anonymously answered questions about the quantity and frequency of their alcohol consumption, and on this basis, four alcohol consumption level groups were formed (80.4% of the sample) in addition to abstainers (19.6% of the sample). Each student also responded to the question, “On those occasions when you do not drink (or drink very little), what is the main reason you make that decision?” A chi square test of independence indicated that reason for not drinking was significantly related to alcohol consumption level group, and separate chi square tests for goodness-of-fit revealed distinctly different reasons given for not drinking depending on the group’s alcohol consumption level. Light drinkers endorsed religious-moral reasons significantly more often than the other groups, while moderate drinkers chose safety reasons, while heavy drinkers indicated expense as their main reason for not drinking. The results of this unique study inform social and legislative policies for alcohol abuse prevention and intervention by indicating strategies that target the beliefs of the various alcohol consumption levels.


Introduction

While data suggest that drinking on college campuses has declined somewhat over the past 15 years, alcohol abuse and the proportion of heavy drinkers (18–20%) in this population remain unchanged (Engs & Hanson, 1988; Johnston, O’Malley, & Bachman, 1991; O’Hare, 1990). Alcohol appears to be the drug of choice on today’s college campuses, predominantly due to the growing intolerance of and unavailability of “harder” drugs (Haberman, 1994; Johnston, Amatetti, Funkhouser, & Johnson, 1988). From 80–90% of college students drink alcohol on a regular basis, many of whom meet criteria as alcohol abusers (Engs & Hanson, 1988, Haberman, 1994; Johnston et al., 1991). The number of alcohol users does not decline with age during college, as studies have found that the percentage of users tends to grow over each of the college years for traditional students (O’Hare, 1990; Werch, Gorman, & Marty, 1987; Wiggins & Wiggins, 1987) with an increase in the percentage of heavy drinkers as students progress through college (O’Hare, 1990). Of further concern is the finding that alcohol abuse in youth can be positively correlated with alcohol abuse in adulthood (Coate & Grossman, 1988). Although there may be more abstainers among the younger students, among those who do drink, there is little, if any, difference in levels of alcohol consumption and in total reported alcohol-related problems between those who are under age 21 years and those who are 21 years or older (Engs & Hanson, 1988; O’Hare, 1990).

Currently in use are several presumed deterrents to alcohol abuse. Even though quite effective in teaching pertinent alcohol-related facts to youth, traditional alcohol abuse prevention programs of a didactic nature that attempt to increase knowledge or change attitudes have not proven effective in changing drinking behavior (Moskowitz, 1989; Schall, Kemeny, & Maltz, 1992; Smith & McCauley, 1991). Informing under-age students that drinking is illegal and that they will be arrested for drinking also has little impact on alcohol practices (Engs & Hanson, 1988).

Religion is a social institution that has been found repeatedly to be a deterrent to alcohol use (Cochran, 1988; Hawks & Bahr, 1992; Schall et al., 1992), especially where secular controls are weak, such as at a state university (Tittle & Welch, 1983). Further, it appears that religiosity has a stable inhibitory influence on a wide range of deviant behaviors (Cochran, 1991), particularly with regard to certain denominations (Hawks & Bahr, 1992).

Various legislative issues that attempt to control the availability of alcohol compose other potential deterrents to alcohol abuse. The Federal Uniform Drinking Age Act of July 1984 persuaded states that had previously lowered their drinking age to raise the legal age to 21 years by October 1986 or lose thousands of dol-
lars in federal highway construction funds. However, even after this act officially took effect, no difference was found in alcohol consumption levels between those who were of legal age and those who were not (O’Hare, 1990).

A second legislative measure that can impact availability of alcohol is higher cost of alcoholic beverages. Studies have found that even small increases in state taxes on alcohol decrease statewide alcohol consumption level (Johnson et al., 1988; Lockhart, Beck, & Summers, 1993) as well as the number of alcohol-related traffic fatalities (Moskowitz, 1989; Nathan, 1988), and the number of youth who drive while intoxicated (Lockhart et al., 1993). However, many states continue to ignore this potential deterrent.

Finally, it has been reported that the national campaign against drunk driving which peaked around 1985 had a significant impact on youth problem drinking, resulting in fewer alcohol-related traffic fatalities (Coate & Grossman, 1988; Hingson, Howland, & Levenson, 1988; Tyron, 1992). While residual effects continue with those who passed through this age category in the early to mid 1980s, newer drivers have not been exposed to such strong informal social pressure to not drive drunk (Hingson et al., 1988).

Many studies have considered the reasons why college students drink. These studies have investigated such variables as students’ living situations and the contexts in which they drink (O’Hare, 1990), perceived risk of alcohol-related misfortune (Smith & McCaulay, 1991), internal attitudes that predict drinking (McCarty, Morrison, & Mills, 1983), students’ attitudes toward alcohol (Tyron, 1992), situational determinants, such as social pressure or pleasant times, as triggers for drinking (Carey, 1993), positive alcohol expectancies for drinking (Thombs, 1993), family background (Enns, 1990), family modeling (Bradley, Carman, & Petree, 1992), an avoidant, rather than problem-focused, style of coping (Fromme & Rivet, 1994), and time of day of drinking (Cutter & O’Farrell, 1984), to name a few. In spite of this plethora of research on reasons for drinking in the college population, few relevant studies have considered reasons for not drinking among college students.

In an early study, Demone (1973) found the major reasons for not drinking in his sample of adolescent high school males were health, safety, and expense. Later Barnes’ (1981) study of high school adolescents revealed other reasons for not drinking such as problems with the law, loss of self-control, and problems with employment or school. Reeves and Draper (1984), again using a high school adolescent sample, found six reasons for not drinking, or reducing consumption, endorsed by the majority of their subjects who consumed alcohol: maintain health, maintain self-respect, avoid parental disapproval, avoid disappointing family, maintain self-control, and maintain positive self-esteem. The abstainers in this study selected religion, bad taste, and dislike for the effects of drinking as their major reasons for not drinking (Reeves & Draper, 1984).

Another offering found in the literature is one that considers reasons for not drinking in adult Hawaiians of various cultural backgrounds (Johnson, Schnittker, Wilson, Nagoshi, & McClearn, 1985). In this study whites and Hawaiians living in Hawaii listed health and expense most often as reasons for not drinking, while Chinese Hawaiians and Japanese Hawaiians, for example, listed dislike of taste and lack of benefit from drinking as their major reasons for not drinking.

Finally, Greenfield, Guydish, and Temple (1989) completed a study of West Coast universities through which they explored reasons for limiting drinking. They eliminated self-reported abstainers from their analyses because those who abstain from drinking as a lifestyle tend to have markedly different reasons for doing so than do students who periodically limit their drinking. From their 17 survey questions, four factors emerged as reasons for not drinking: self-control (i.e., “I like to feel in control of myself,” “It’s bad for my health,” “I’m concerned about what people might think”), upbringing (i.e., “My religion discourages [or is against] drinking,” “I’m part of a group that doesn’t drink much,” “I’m not old enough to drink legally”), self-reform (“Someone suggested that I drink less,” “I was embarrassed by something I said or did when drinking”), and performance (“Drinking interferes with my studies,” “I wouldn’t want to disappoint my parents”). Although not included in their survey, these authors also found that intention to drive was the reason given as most important for not drinking by 77% of their sample. A second important reason, but one that they also omitted from their survey factor analysis, was taste of alcohol as a motive for not drinking.

Prevention techniques have proliferated as attempts have been made to find a means for reduction of the serious situation of problem drinking on university campuses. Given the potential usefulness, in terms of prevention, of discovering reasons for not drinking, it was decided to investigate these reasons in a university population where drinking is the norm. This type of investigation is particularly important when attempting to build a prevention model (Reeves & Draper, 1984).

The purposes of the present study were to: (a) examine current patterns of alcohol use in a mid-South university population, (b) discover which reasons university students endorse for not drinking on those occasions when they chose not to drink, (c) further discern whether students at varying levels of alcohol consumption have significantly different reasons for not drinking, and (d) synthesize this information in light of current or potential alcohol abuse prevention measures that are viable for university students.
Method

Subjects
Participants in this study were 403 volunteer students from various psychology classes at a mid-South state university with enrollment of 17,000 students. These included psychology majors and minors as well as those students who were taking psychology classes to fulfill general studies requirements of the university or of their major. The group generally represented a cross section of all students at this university as most students are required to or voluntarily take classes in psychology. Because it is a state, not private, institution, most of the students who are enrolled at this university are from the middle socioeconomic class. The sample consisted of 39.2% males (n = 158) and 60.8% females (n = 245). Ethnic makeup was 84.7% white (n = 341), 12.9% African American (n = 52), and 2.4% from other ethnic backgrounds (mostly Asian, Hispanic American, Native American, and East Indian; n = 10). Ages of participants were as follows: 17–18 years: 19.1% (n = 77), 19–20 years: 17.9% (n = 72), 21–23 years: 40.2% (n = 162), 24–30 years: 12.9% (n = 52), and over 30 years: 9.9% (n = 40). The average age of all students at this university in the years studied was 24.1. There were 28.1% freshmen (n = 112), 14.5% sophomores (n = 58), 25.3% juniors (n = 101), 28.8% seniors (n = 115), and 3.3% graduate students (n = 12). Four students did not indicate their class status at the university. These percentages correspond to the university percentages as a whole.

Measures
Each participant completed an anonymous survey which included demographic information plus a question that asked, “On those occasions when you DO NOT drink (or drink very little) what is the MAIN reason you make this decision?” (See the Appendix at the end of this article.) The choices available were those that appeared most frequently in the literature as having been selected by a wide range of alcohol consumption level groups, thereby lending validity to their inclusion (Barnes, 1981; Greenfield et al., 1989; Johnson et al., 1985; Reeves & Draper, 1984). Additional items were generated by a similar sample in a prior pilot study by this investigator. This technique has previously been used successfully as a valid method of questionnaire construction (Reeves & Draper, 1984).

The students were also asked to report on their own alcohol consumption levels. This was completed by querying their frequency of drinking and the quantity of alcohol consumed at each occasion. On the basis of their responses, students were then classified into alcohol consumption level groups. While some investigators have used other more detailed and possibly more precise methods for this type of grouping (i.e., the time-line follow-back interview procedure), the quantity-frequency method from simple questionnaire self-report appears to result in similar grouping (Carey, 1993). Rules for division into groups were taken from Barnes (1978, 1981, 1984) with the exception of combining her two lightest drinking groups (infrequent and light) into one (light). Reliability and validity of this classification system have been demonstrated repeatedly by Barnes (1978, 1981, 1984). Internal consistency reliability (coefficient alpha) for the present classification system has been found at .83–.88 for older adolescents (including university students), with test-retest reliability at .85 for a two-week intervening time interval (university students; Slicker, 1996). Four consumption level groups resulted from the classification system in addition to the abstainers who were not used in the main chi square statistical analyses.

Procedure
Data collection extended over a three-week period early in the fall semester of 1993. Participants were asked to complete the questionnaire after they were informed that their participation was voluntary, that their responses were anonymous and confidential, and that results would be reported in group format only. All signed informed consent forms were separated from their response sheets. The questionnaire took approximately 10 minutes to complete, and participation rate was nearly 95%.

Results
The four consumption level groups were: light drinkers, moderate drinkers, moderately heavy drinkers, and heavy drinkers (Barnes, 1978, 1981, 1984). The abstinent group (n = 79; 19.6% of the total sample) consisted of those individuals who indicated that they never drink alcohol, leaving 80.4% who indicated that they do drink. For this study, light drinkers (n = 159; 39.4% of total) were designated as those who drink an average of 0–4 drinks once a month or less often or 0–2 drinks more often than once a month, but less often than once a week. Moderate drinkers (n = 75; 13.2% of total) were those who drink 1–2 drinks at a frequency of once a week or more often (i.e., daily). Moderately heavy drinkers (n = 70; 17.4% of total) were those who drink 3–4 drinks once a week or more, but not daily, or those who drink 5–10 drinks more often than once a month, but less than once a week. Finally, heavy drinkers (n = 42; 10.4% of total) were those whose consumption levels exceeded the criteria already mentioned both in frequency and amount consumed. This included drinking 3–4 drinks daily, 5–10 drinks once a week or more often, or drinking more than 10 drinks more often than once a month (i.e., weekly, daily). In this study, 18.9% (n = 76) of the total sample indicated that they have consumed (at any frequency) six or more drinks in one sitting (commonly referred to in the literature as “binge drinking”).

Because of the sample size and the variety of com-
parisons made, a conservative alpha level of .005 was adopted to minimize Type I family-wise errors. Initial analyses considered correlations among variables of interest such as alcohol consumption level and its components, quantity and frequency, and the demographic variables: age, gender, and ethnicity (see Table 1). Both alcohol consumption level and quantity of drinking at each occasion were significantly related to both age and gender, but neither was related to ethnicity. While frequency of drinking was related to quantity consumed at each sitting, frequency lacked a significant relationship to any of three demographic variables of interest: age, gender, or ethnicity.

Table 1
Correlation Matrix with Alcohol Consumption Variables and Demographic Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency of drinking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Quantity at each occasion</td>
<td>.46**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Alcohol consumption level</td>
<td>.81**</td>
<td>.80**</td>
<td></td>
</tr>
<tr>
<td>4. Age</td>
<td>-.01</td>
<td>-.31**</td>
<td>-.21</td>
</tr>
<tr>
<td>5. Gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.21</td>
<td>-.28**</td>
<td>-.31**</td>
</tr>
<tr>
<td>6. Ethnicity&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.09</td>
<td>-.18</td>
<td>-.17</td>
</tr>
</tbody>
</table>

Note. N = 324; abasters excluded. *p < .001; **p < .0001
<sup>a</sup>Male = 0, female = 1; <sup>b</sup>White = 0, African American = 1, "other" ethnic groups excluded.

Of the total university sample (N = 403), 80.4% considered themselves to be drinkers (82.2% of the males and 79.2% of the females) while 19.6% considered themselves abstainers (17.8% of the males and 20.8% of the females). Although only 6.1% of all females in the study (7.7% of the drinking females) were found to be heavy drinkers, 17.1% of all the males (20.9% of the drinking males) fell in this category. The highly significant chi square for gender among the drinkers, \( \chi^2(3, N = 323) = 33.85, p < .0001 \), suggested that gender and alcohol consumption level were not independent variables, but were significantly related (see Table 2). Heavy drinking was nearly three times as prevalent in males as it was in females. In addition, there was no relationship found between abstainer versus drinker status and gender, \( \chi^2(1, N = 402) = .54, p > .10 \). This indicates that while females in this sample do not abstain in any greater proportions than do males, when they drink they do so more in moderation.

In order to consider the relationship between ethnicity and consumption level, it was necessary to exclude the “other” ethnic groups due to the small numbers in these groups. Only whites and African Americans were compared resulting in a chi square of \( \chi^2(3, N = 317) = 15.73, p < .001 \) which suggested a significant relationship between alcohol consumption level and ethnicity (see Table 2). In fact, there were 5½ times as many white heavy drinkers as there were African Americans (14.4% vs. 2.6%). Proportionately, however, there were fewer than 1½ times as many African American abstainers as white (25.0% vs. 18.1%). The relationship between abstainers vs. drinker status and ethnicity was not significant, \( \chi^2(1, N = 393) = 1.36, p > .10 \). In summary, while they do not necessarily abstain in greater proportions, African Americans in this sample drink more moderately than do whites. This difference in consumption levels appears to be related to the devout religious involvement of African Americans in the middle-South. Religion has been shown to serve as a protective factor against alcohol abuse in this population (Barnes, Farrell, & Banerjee, 1994).

In regard to age influences, there was no significant difference in consumption levels between those who were under age 21 years (the legal drinking age for this state) and those who were 21 years or older, \( \chi^2(3, N = 324) = 6.25, p > .10 \). This lack of relationship between age range and consumption level suggests that those students under age 21 years have drinking patterns that are similar to students 21 years of age and older. The relationship between abstainer vs. drinker status and age range resulted in \( \chi^2(1, N = 403) = 5.22, p > .01 \), suggesting no significant relationship between drinking status and age range. When broken down into the five smaller age groups, the chi square that emerged, \( \chi^2(12, N = 324) = 26.50, p < .01 \), suggested only a weak relationship between consumption level and age group (see Table 2), but no relationship emerged between drinking status (abstainer vs. drinker) and age group, \( \chi^2(4, N = 403) = 7.96, p > .05 \). These results show little difference overall in drinking patterns among the various age groups and no difference in proportion of abstainers among the five age groups. In viewing only those who drink, the age group with the greatest percentage of drinkers falling within the light consumption level was the over-30-years-of-age group, while the age group with the greatest percentage of heavy drinkers was the group of 19-20-year-olds. Observation suggests that as students in this sample age they are increasingly likely to be light to moderate drinkers. This result appears to be counter to the prior research indicating that young heavy drinkers often become older heavy drinkers (Coate & Grossman, 1988), but is consistent with Peele (1995) who noted that many people mature out of heavy drinking patterns.

A chi square procedure for independence was used to discover the relationship among the four consumption level groups and reasons for not drinking (see Table 3). Abstainers were excluded from these analyses due to a belief that there are theoretically divergent, more enduring, reasons for their abstention than are the more situational reasons mentioned by the drinkers. To combine the abstainers with the drinkers would unnecessarily confound the results. The overall chi square for independence, \( \chi^2(27, N = 324) = 71.64, p < .0001 \), sug-
Table 2
Sample Characteristics in Percent (and Frequency) by Consumption Level for Drinkers with Chi Square Tests for Independence on Each Characteristic

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Alcohol Consumption Level</th>
<th>Light (n = 159)</th>
<th>Moderate (n = 53)</th>
<th>Mod/Heavy (n = 70)</th>
<th>Heavy (n = 42)</th>
<th>Total (N = 324)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td>34.1 (44)</td>
<td>12.4 (16)</td>
<td>32.6 (42)</td>
<td>20.9 (27)</td>
<td>39.9 (129)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>58.8 (114)</td>
<td>19.1 (37)</td>
<td>14.4 (28)</td>
<td>7.7 (15)</td>
<td>60.1 (194)</td>
</tr>
</tbody>
</table>

\[ \chi^2(3, N = 323) = 33.85, p < .0001 \]

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Alcohol Consumption Level</th>
<th>Light (n = 317)</th>
<th>Moderate (n = 125)</th>
<th>Mod/Heavy (n = 52)</th>
<th>Heavy (n = 40)</th>
<th>Total (N = 279)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td></td>
<td>44.8 (125)</td>
<td>18.6 (52)</td>
<td>22.2 (62)</td>
<td>14.4 (40)</td>
<td>88.0 (279)</td>
</tr>
<tr>
<td>African American</td>
<td></td>
<td>76.3 (29)</td>
<td>2.6 (1)</td>
<td>18.5 (7)</td>
<td>2.6 (1)</td>
<td>12.0 (38)</td>
</tr>
</tbody>
</table>

\[ \chi^2(3, N = 317) = 15.73, p < .001 \]

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Alcohol Consumption Level</th>
<th>Light (n = 324)</th>
<th>Moderate (n = 15)</th>
<th>Mod/Heavy (n = 25)</th>
<th>Heavy (n = 30)</th>
<th>Total (N = 123)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17–18 years</td>
<td></td>
<td>38.2 (21)</td>
<td>14.5 (8)</td>
<td>29.1 (16)</td>
<td>18.2 (10)</td>
<td>17.0 (55)</td>
</tr>
<tr>
<td>19–20 years</td>
<td></td>
<td>46.4 (26)</td>
<td>17.9 (10)</td>
<td>16.1 (9)</td>
<td>19.6 (11)</td>
<td>17.3 (56)</td>
</tr>
<tr>
<td>21–23 years</td>
<td></td>
<td>47.1 (66)</td>
<td>13.6 (19)</td>
<td>27.9 (39)</td>
<td>11.4 (16)</td>
<td>43.2 (140)</td>
</tr>
<tr>
<td>24–30 years</td>
<td></td>
<td>58.2 (25)</td>
<td>18.6 (8)</td>
<td>11.6 (5)</td>
<td>11.6 (5)</td>
<td>13.3 (43)</td>
</tr>
<tr>
<td>&gt; 30 years</td>
<td></td>
<td>70.0 (21)</td>
<td>26.7 (8)</td>
<td>3.3 (1)</td>
<td>0.0 (0)</td>
<td>9.2 (30)</td>
</tr>
</tbody>
</table>

\[ \chi^2(12, N = 324) = 26.50, p < .01 \]

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Alcohol Consumption Level</th>
<th>Light (n = 324)</th>
<th>Moderate (n = 53)</th>
<th>Mod/Heavy (n = 70)</th>
<th>Heavy (n = 42)</th>
<th>Total (N = 324)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt; 21 years</td>
<td></td>
<td>42.3 (47)</td>
<td>16.2 (18)</td>
<td>22.5 (25)</td>
<td>18.9 (21)</td>
<td>34.4 (111)</td>
</tr>
<tr>
<td>Age 21 or older</td>
<td></td>
<td>52.6 (112)</td>
<td>16.4 (35)</td>
<td>21.1 (45)</td>
<td>9.9 (21)</td>
<td>65.7 (213)</td>
</tr>
</tbody>
</table>

\[ \chi^2(3, N = 324) = 6.25, p > .10 \]

*“Other” ethnic groups excluded*

375 gested that consumption level group and reason for not drinking were strongly related, and that there was a highly significant difference among consumption level groups in regard to main reason endorsed for not drinking when considering both genders together. This model further suggested that 27% of the variance (Cramer’s V) in reasons for not drinking, among the drinkers, was explained by level of alcohol consumption. Gender and reason for not drinking were themselves independent, \( \chi^2(9, N = 323) = 10.20, p > .10 \), which suggests that no one reason was more attractive to one gender than it was to the other. In addition, ethnicity, age range, and university class status were also unrelated to reason for not drinking.

Further investigation via a series of individual chi square tests for goodness-of-fit on each reason for not drinking indicated whether a particular reason was significantly more pertinent to one consumption level group than it was to the others (see Table 3). While overall, the safety reason was cited more than any other reason (chosen by 24.7% of the total sample and 29.9% of the drinkers), it was most prevalent for the moderate drinkers (chosen by 35.9% of this group). All drinking groups chose this reason more often than did the abstainers (chosen by only 2.6%). The second most popular reason given for choosing not to drink (chosen by 15.5% of the total sample and 17.9% of the drinkers) was need for control of one’s self. A relatively equal distribution of respondents from each drinking group chose this reason, again, more often than did the abstainers (chosen by 5.2% of the abstainers). The third most often chosen reason for not drinking among the drinkers (chosen by 13.9%, but by only 11.2% of the total sample) involved need for alertness. This reason was chosen significantly less by the abstainers (0.0%) than by the moderately heavy (21.7%) and heavy drinkers (21.4%), those who clearly are more likely to be affected by the potential for passing out. The fourth most popular reason for not drinking among drinkers (chosen by 11.1% of the drinkers and by 13.5% of the total sample) was health concern. Health concern was the second most popular reason chosen by the abstainers (chosen by 23.4% of them), who chose this reason more often than did any of the drinking groups.

Although all other reasons were chosen by less than 10% of the drinkers, two additional reasons for not drinking produced significant results in the goodness-of-fit tests (see Table 3). First, religious-moral taboos, chosen by 15.2% of the total sample and by only 7.4% of the drinkers, was chosen by 46.8% of the abstainers (their number one reason for not drinking). While 35.7% of abstaining men (6.4% of all males) chose religious beliefs, 53.1% of abstaining women (10.7% of all women) selected this as their main reason for not drinking. Among the drinkers, a significant chi square goodness-of-fit test, \( \chi^2(3, N = 324) = 15.36, p < .005 \), indicated that alcohol consumption level was significantly related to this particular reason for not drinking, with the light drinkers choosing religious-moral taboos (chosen by 13.7% of them) significantly more often than the other drinking level groups.

The second reason for not drinking that produced a highly significant chi square goodness-of-fit test among the drinkers (chosen by 8.3% of the drinkers)
Table 3

| Reasons              | Light (n = 159) | Moderate (n = 53) | Mod/Heavy (n = 70) | Heavy (n = 42) | Total (N = 324) | \( \chi^2 \)  \\
|----------------------|----------------|------------------|-------------------|---------------|----------------|-----------
| Religious-moral      | 13.7 (22)      | 3.8 (2)          | 1.5 (1)           | 0.0 (0)       | 7.4            | 15.36**   \\
| Taste                | 10.6 (17)      | 3.8 (2)          | 2.9 (2)           | 2.4 (1)       | 6.8            | 6.91      \\
| Health               | 13.7 (22)      | 13.2 (7)         | 5.8 (4)           | 7.1 (3)       | 11.4           | 3.58      \\
| Safety               | 31.3 (50)      | 35.9 (19)        | 29.0 (20)         | 19.1 (8)      | 29.9           | 2.44      \\
| Self-Control         | 15.0 (24)      | 20.7 (11)        | 20.3 (14)         | 21.4 (9)      | 17.9           | 1.51      \\
| Alertness            | 8.8 (14)       | 13.2 (7)         | 21.7 (15)         | 21.4 (9)      | 13.9           | 7.82      \\
| Expense              | 1.9 (3)        | 7.5 (4)          | 13.0 (9)          | 26.2 (11)     | 8.3            | 25.87**   \\
| Other*               |                |                  |                   |               |                | 1.61      \\
| Social Image         | 0.6 (1)        | 0.0 (0)          | 2.9 (2)           | 0.0 (0)       | 0.9            |           \\
| Peers, family        | 2.5 (4)        | 1.9 (1)          | 0.0 (0)           | 0.0 (0)       | 1.5            |           \\
| Availability         | 1.9 (3)        | 0.0 (0)          | 2.9 (2)           | 2.4 (1)       | 1.5            |           \\
| Column Totals        | 100.0          | 100.0            | 100.0             | 100.0         | 100.0          |           \\

Chi Square test for independence, total model: \( \chi^2(27, \; N = 324) = 71.64^{**} \)

*Chi square test for goodness-of-fit for each reason; df = 3

Due to excessively small observed counts, the last three categories were collapsed into one for the goodness-of-fit test.

\( p < .05/10 \) tests = .005

\( \chi^2(3, \; N = 324) = 25.87, \; p < .0001 \)

Discussion

Comparability of this Sample

The results of this study tend to concur with those of many prior studies, attesting to the reliability and validity of the alcohol consumption classification system used. The comparability of these results also suggests that the campus surveyed in the present study is similar to those campuses studied in the past, even though it is located in the Bible Belt South. For example, results of the present study find that 80.4% of the total sample drink alcohol as compared to 78.8% (Engs & Hanson, 1988), 90% (Haberman, 1994), 89% (Johnston et al., 1991), 81.5% (O'Hare, 1990), and 81.5% (Wерж et al., 1987) in other studies. The percentages of men (82.2%) and women (79.2%) in this sample who drink are also similar to the findings of O'Hare (1990; 81.1% men, 81.6% women) and Wерж et al. (1987; 80.3% men, 82.7% women). In addition, the absence of a significant difference in alcohol consumption levels between those age 21 years and older and those who are not yet 21 concurs with earlier results (O'Hare, 1990). The percentage of abstainers in the present study (19.6%) compares favorably to the results of Engs and Hanson (1988; 21.1%), O'Hare (1990; 18.5%), Wерж et al. (1987; 18.5%), and Wiggins and Wiggins (1987; 20%). The present study finds that 17.8% of males and 20.8% of females abstain compared to O'Hare's (1990) 18.9% of males and 18.4% of females and Wерж et al.'s (1987) 19.7% male and 17.3% female abstention. As in the Engs (1990) study, sophomores (typically 19 to 20 years of age) are the heaviest drinkers, and significant differences occur in alcohol consumption level due to gender and ethnicity. Whites are found to be heavier drinkers than African Americans both in the present study and in prior studies (O'Hare, 1990; Wexelsler & McFadden, 1979). Wерж et al. (1987) found three times as many heavy drinking males (21.3%) as females (7.1%) which compares proportionately to the present study (male heavy drinkers: 17.1%, female: 6.1%). Other studies designate binge drinking in similar terms (six or more drinks at one sitting, any frequency) which also lends itself to comparison. In the present study, 18.9% of the
total sample are binge drinkers, compared to 20% in
the Engs and Hanson (1988) study.

Implication of Reasons for Not Drinking
While numerous studies have considered university
students’ reasons for drinking, the present study sought
to ascertain these students’ reasons for not drinking on
those occasions when they choose to not to drink. By dis-
cerning their motivations for not drinking we are able
to gain insight into possible preventative measures for
reducing alcohol abuse among university students. Im-
plication of these discovered relationships follow.

First, the need for safety (i.e., not driving after
drinking) is clearly of major importance to all alcohol
consumption level groups as it is the number one rea-
son for not drinking listed overall as well as the num-
ber one reason listed by each of the drinking groups
(with the exception of the heavy drinkers). This sug-
gests a strong belief that injury of self or others is im-
minent when driving while intoxicated, in all groups
except the heavy drinkers. The finding is also consist-
ent with the Greenfield et al. (1989) study in that both
samples revealed safety as their most important reason
for not drinking. While there is not a significant dif-
ference among the various age groups nor among the con-
sumption level groups regarding this reason, the mod-
erate drinkers and those age 21–23 years tend to desig-
nate safety as most important more often than do all the
other groups. This particular age cohort appears to have
been affected most profoundly by the pronounced pub-
lic media campaign of 10 years ago against drunk
driving.

Since this safety reason for not drinking is the most
powerful one, it seems logical to capitalize on this in-
formation in our efforts against alcohol abuse. First,
some states have increased penalties for and enforce-
ment of drunk driving laws. The sentences not only
involve suspension or revocation of drivers’ licenses,
but also attendance at Victim Impact Panel meetings
where the loved ones of those killed by drunk drivers
confront the convicted offenders. Such programs,
aimed at first-time offenders and those who have re-
cently begun experiencing problems at home, at work,
or at school, show promise (Nathan, 1988). Second,
since the media campaign of 10 years ago had such
apparent impact (Hinson et al., 1988), reawakening
that channel to the intensity it once had would further
inculcate the current cohort of young drivers, as well as
future drivers, against driving drunk. Community or-
ganizations and consistent media presence with this
message would keep public attention and social pres-
sure focused on this issue in order to sustain behavioral
change in the area of drunk driving as it has in other
public areas (Hinson et al., 1988).

The second finding implicates underage drinking.
Although the present study finds that 9.9% of the sam-
ple of students over age 21 years are heavy drinkers, a
full 18.9% of the under age sample falls into this heavy
drinking category as well. Only 1.5% (6 students) of
the entire sample said that lack of availability of alco-
hol due to being underage was a problem. Clearly, the
minimum drinking age legislation is not being ade-
quately enforced. These laws are not significantly im-
pacting this younger age range as demonstrated by the
fact that almost twice as many of them are heavy
drinkers as are those students who can buy alcohol
legally. While lowering the drinking age apparently
raises highway fatalities, raising the drinking age has
had little positive impact on the university population
in regard to alcohol consumption level. More effective
enforcement of minimum drinking age laws both on
and off campus could help curb this unrestricted acces-
sibility as behavioral theories of choice suggest that
alcohol consumption level varies inversely with direct
constraints placed on access of alcohol (Vuchinich &
Tucker, 1988).

Third, this axiom proffered by Vuchinich & Tucker
(1988) can be applied not only to age eligibility for
access, but also to the affordability of alcohol. It should
not be surprising that raising the cost of alcoholic bev-
erages has shown definitive promise as an alcohol
abuse prevention measure (Coate & Grossman, 1988;
Grossman, Coate, & Arluck, 1987). Results of the pre-
sent study substantiate these findings as they indicate
that there is a significant positive relationship between
heavy drinking and endorsement of expense as a reason
not to drink. Incidence of heavy and frequent drinking
by youth is significantly and inversely related to the
price of alcohol, affecting the frequent heavy drinkers
even more than those who drink infrequently (Coate &
Grossman, 1988; Cook & Tauchen, 1982; Grossman et
al., 1987). Specifically, the heavy drinkers choose this
as their reason for not drinking significantly more often
than do any of the other groups. This means that if we
were to substantially raise state and federal excise taxes
on alcoholic beverages, the heavy drinkers (our main
target group) would be most affected. Lockhart and
colleagues (1993) have suggested that $7.50 per six-
pack of beer is the point at which purchases drop off
markedly. The raising of alcohol prices via heavier
taxation could substantially impact the consumption
level of this problem heavy drinking group, the group
for which intervention is most needed.

The final implication that can be drawn from this
study involves the impact of religiosity on alcohol con-
sumption. Since nearly half of the abstinent group and
14% of the light drinkers cited a religious-moral reason
for not drinking, it follows that self-reported religiosity
apparently provides resiliency against alcohol use and
abuse in a university population. This phenomenon is
particularly evident in the Bible Belt South (Cochran,
1988; Sneed & Slicker, 1997). Although the mecha-
nism of this connection between religion and absti-
enence is not evident from the present study, it has been
suggested that the means through which religion works
may be that of family values. For example, families
who value components of a strong parent-adolescent relationship such as effective supervision of the adolescent, clear parent-adolescent communication, parental responsiveness to the adolescents (Barnes et al., 1994; Slicker, 1996), and appropriate parental modeling of drinking/nondrinking behaviors (Barnes, 1984) are significantly more likely to be high in religiosity than are families who are deficit in one or more of these values. Repeatedly studies have demonstrated that these components work to deter problem behaviors, such as alcohol abuse, in older adolescents (Barnes et al., 1994; Reeves & Draper, 1984; Slicker, 1996; Sneed & Slicker, 1997). Indirect intervention, intervention whose results will be evident only over time, involves bolstering parents and families with the skills for developing strong parent-adolescent relationships. Further study is warranted of the specific familial and parenting behaviors involved in providing this resiliency against alcohol abuse and of the mechanism of connection between religiosity and effective parenting. Despite its demonstrated similarity to university populations from other parts of the country, caution should be exercised when generalizing the results of this study using psychology students from one mid-South university in the Bible Belt to other populations in other universities located in other regions of the country. That limitation aside, the results of this study can enlighten those who are in a position to create, to fund, and to enforce local programs.

Conclusions
The present study determined that significantly different reasons for not drinking are endorsed by various university alcohol consumption level groups. By capitalizing on these reasons, we can link students' belief systems to prevention/intervention programs. It has been found that interventions that increase perceived risk of negative effects in heavy drinkers may cause these drinkers to modify their beliefs about the consequences of their heavy drinking (McCarty et al., 1983). Currently, we are doing little to increase these perceived risks of negative effects as evidenced by a recent study indicating that although 36% of older adolescents admit to driving while intoxicated, only 3% have ever been arrested for this offense (Slicker, 1996). Rekindling persistent media presence and strengthening community action and legal action against driving drunk coupled with more effective and predicted enforcement of drunk driving laws could serve to increase heavy drinkers’ beliefs in the inadvisability of driving drunk. Legislation that increases excise taxes on alcohol, making its purchase economically prohibitive for heavy drinking university students, is another environmental technique that has been shown by economists to be effective in preventing alcohol abuse. Currently, a six-pack of beer (the favorite beverage of college students) can be purchased in grocery stores for little more than a six-pack of cola. The present study suggests that raising the price of alcohol would limit its availability to university students and would hit hardest in the heavy drinking group. Since it is clear that lack of availability of alcohol is an effective deterrent against alcohol abuse, limiting access to alcoholic beverages of underage drinkers is an option that is open for improved enforcement as well. Results of the present study suggest that few students under age 21 years currently feel the effect of restrictions on their ability to procure alcohol. Stiffer penalties for selling alcohol to, and buying alcohol for, minors is legislatively possible and could limit availability of alcohol to this underage population.

Finally, this study links periodic nondrinking in the light drinkers (and abstainers) predominantly to their religious/moral beliefs. Unlike the previously mentioned interventions, however, religion cannot be legislated. Change in the personal belief system of these students and their families will need to be made over the long term through consistent public school and community interventions with families of children and pre-adolescents, teaching parent-child relationship skills and effective parental monitoring skills. Legislative and social strategies suggested by this research provide alternate prevention and intervention techniques that are our best defense against alcohol abuse. This study demonstrates for the first time that looking at students' reasons for not drinking is a viable direction from which to approach the widespread problem of alcohol abuse on university campuses.

References
Engs, R., & Hansen, D. (1988). University students' drinking patterns and