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**Beliefs about alcohol among UK Jews and Protestants: Do they fit the alcohol-depression hypothesis?**

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**Abstract**

*Background:* Some research has suggested that Jews drink less alcohol than other cultural groups, and may have different beliefs about its use. Differences in beliefs about alcohol, and different patterns of use, may play a role in accounting for cultural and gender variations in depression prevalence. Alcohol may act as an escape route from depression, thus deflating depression rates in certain groups of people, in particular, men from Protestant backgrounds.

*Methods:* Self-reported use and beliefs about alcohol were assessed in a sample of UK 70 Jews and 91 Protestants, including non-practising people of Jewish and Protestant background. The effects of religious group and of gender on measures of alcohol behaviour and beliefs were examined.

*Results:* Some differences were found between Jews and Protestants. Jews had less favourable beliefs about alcohol and drank less than Protestants. More importantly, and in line with our hypotheses, there were gender differences in Protestants but not Jews with respect to some beliefs about alcohol and actual use of alcohol.

*Conclusions:* The study goes some way in supporting the notion that religious-cultural and gender differences in beliefs and behaviour towards alcohol may contribute to religious-cultural and gender differences in rates of depression.

*Key words:* alcohol use, attitudes to alcohol, depression, Jewish, Protestant, gender.

## **Introduction**

*Wine gladdens the heart of man (Ps 104, v15)*  
*Wine causes four things: idolatry, immorality, murder and slander (Tanchuma Shemini)*

In this study we compared alcohol-related beliefs and behaviour in UK Jews and Protestants. We suggest that these may have a role in accounting for religious-cultural and gender differences in rates of depression. What are these culture and gender differences?

In spite of their divergent paths, Christianity and Judaism share a biblically-based ambivalence towards alcohol and its effects. Alcohol can improve mood – and perhaps this effect is gender-specific - but it can lead to shameful and even criminal behaviour. We wondered if this ambivalence to alcohol has been resolved rather differently among Christian and Jewish groups. Among the many culture-specific institutions of the two groups in the UK, we can usually see both a (Protestant) church and a public house in even the smallest UK village. “Social drinking” is widely practised in a wide range of social gatherings, and tolerated in British Christianity. However there is a staunch minority Christian view advocating abstinence. Judaic culture supports buildings for religious worship, but there are few or no buildings devoted to the consumption of alcohol. “Social drinking” is not practised among the more orthodox. However, in contrast to Christianity, there is no pro-abstinence minority, and drinking and even drunkenness are encouraged on selected religious occasions. Patterns of alcohol use, and probably their associated beliefs, look different. We will look at evidence on these differences, after looking at differences in patterns of depression.

It is normally concluded that depression is more prevalent in females than males, with a 2:1 ratio commonly found (Paykel, 1991; Cochrane, 1993). Many explanations – biological, social and cognitive - have been put forward to account for this finding (Piccinelli & Wilkinson, 2000). However the higher period and lifetime prevalence of depression in females may not be universal. Gender equality in rates and levels of depression has been found among Jews in Israel (Levav *et al*, 1993), the UK (Loewenthal *et al*, 1995) and the USA (Levav *et al*, 1997). This gender equality is the result of raised rates of depression in men. Gender equality in rates of depression has also been found within the Amish community in America (Egeland & Hostetter, 1983), and among diabetics (Bradley, 1999). What factors might cause similar levels of depression in males and females in specific cultural-religious groups?

Raised prevalence of depression amongst Jewish men may, in part, stem from cultural-religious influences on alcohol use. Alcohol may be less used to escape from low mood. There are of course other possible coping methods and escape routes, such as seeking help, suicide, or developing other psychiatric disorders, but these are outside the scope of this paper. Thus, using alcohol may artificially deflate levels of depression. Depression symptoms can be the direct physiological effect of alcohol abuse, and these are excluded from the diagnosis of major depression using DSM-IV criteria (American Psychiatric Association, 1994). Alcohol use may mask depression symptoms. Thus for these and other reasons, alcohol use might temporarily mask the prevalence of depression. We refer to this explanation as the 'alcohol- depression hypothesis'. The main features of this model are displayed in Figure 1.

## INSERT FIGURE 1 ABOUT HERE

Alcohol use is lower among Jews than among Protestants (Snyder, 1978; Glassner & Berg, 1980; Yeung & Greenwald, 1992) and it has been suggested that alcohol use covaries inversely with depression (Ball & Clare, 1990; Loewenthal *et al.*, 1995; Levav *et al.*, 1997). As mentioned, other groups with raised levels of depression in men also have demonstrably low levels of alcohol use and alcohol abuse.

The alcohol-depression hypothesis may also help to account for higher levels of depression amongst Protestant-background women as compared to men. Compared to women, men may hold more favourable beliefs about alcohol and be more likely to drink, and alcohol use and drunkenness may be more socially acceptable. In general population studies, women have shown less favourable attitudes towards alcohol than men (Weber, 1996) as well as lower levels of alcohol consumption (Wilsnack *et al.*, 2000). Gender differences in alcoholism have been related to gender differences in coping, personality and family behaviour patterns, giving rise to two broad types of alcoholism (Babor, 1996; Cloninger, Sigvardsson & Bohman, 1996). These authors have suggested gender differences in the underlying psychopathology associated with heavy alcohol use, for example anxiety in women and antisocial behaviour in men. Both typologies take into account the lower risk and severity of alcoholism of women compared to men. This study does not address these alcoholism typologies directly, but does search for beliefs that may relate to these typologies.

This hypothesis does not exclude other explanations for group and gender variations in rates of depression. We believe that it can supplement other explanations and can

help to explain some of the variations that have been observed. It does not take into account the full complexity of relations between alcohol use and depression, but simply proposes that overall, alcohol use within any social group will be associated with lower levels of depressive disorder. It is further suggested that there will be associated differences between groups in alcohol-related beliefs, as well as behaviour.

We would therefore expect Jews to differ from Protestant men in their beliefs about alcohol as well as in their drinking habits. Research examining alcohol-related beliefs and behaviour has not compared Jews and Protestants whilst examining the effects of gender, though some work suggests there might be such differences. Weiss & Moore (1992) suggested that Jews hold more pejorative beliefs about alcohol than do Protestants. Glassner & Berg (1980) found that excessive drinking was considered to be an out-group characteristic by the Jewish community, with respondents commenting that it would be difficult to find a Jewish drinking partner who would condone heavy drinking. However, no comparisons were made with Protestant groups, in these studies.

Of course there is great heterogeneity among both Jews and Protestants with respect to beliefs about and use of alcohol. Almost paradoxically, Judaism condones and encourages drunkenness, particularly among men, on specific religious occasions (e.g. the festival of *Purim*, gatherings among some groups of *hasidim*), but has no strong tradition advocating abstinence. Protestant Christianity, on the other hand, has generated vigorous advocates of temperance and abstinence (e.g. the Salvation Army), with no noteworthy religious endorsements of drunkenness. Some commentators have suggested that low Jewish alcohol use is explained by the

religious licensing of drinking and drunkenness (Glassner & Berg, 1980).

A final factor which may affect alcohol beliefs and behaviour is *religiosity*. Among Christians, those higher in religiosity display less liberal views towards alcohol use (Francis, 1992), and reduced alcohol consumption (Francis, 1997). In comparing different participants, it is therefore important to control for the potential effects of religiosity.

*The current study: Aims and overview:* The current study seeks to investigate the alcohol-depression hypothesis, by examining cultural-religious and gender differences in beliefs and behaviour relating to alcohol. Specifically, we compared Jewish women, Jewish men, Protestant women and Protestant men with respect to these beliefs and behaviour. The alcohol-depression hypothesis would predict an interaction between gender and cultural-religious group, with Jewish men and women showing comparable alcohol-related beliefs and behaviour, and Protestant men showing more favourable attitudes towards and greater use of alcohol, as compared to Protestant women, and Jewish men and women.

## **Method**

Participants: We aimed to recruit a range of denominations and levels of religious practice, among adults with Protestant and Jewish backgrounds. Sample size for the four sub-groups was based on Cohen's (1992) estimate of 35 per group as sufficient to detect a medium effect, with  $\alpha < .05$ , and a statistical power specification of 0.80, using a 2 x 2 analysis of covariance with four covariates. Affiliated participants were recruited via synagogue membership lists (United synagogue, Union of Orthodox

Hebrew Congregations, Reform synagogue) and church membership lists (Church of England, Baptist, charismatic, United Reformed). A one in five quasi-random selection from these lists was used. The non-affiliated were recruited by snowballing (as in Baler, 1993, and Loewenthal *et al*, 1995). The terms “Protestant” and “Jewish” obviously do not imply current affiliation in the case of the religiously inactive – the criterion for inclusion in such cases was that both parents should be identified by the participant as Protestant or Jewish. To ensure that religiosity did not confound the results, religious activity was partialled out in the analyses, along with other possible confounding factors: age, depression and anxiety. All participants were UK residents, living in London or the south-east of England.

271 questionnaires were distributed, of which 170 were returned: a response rate of 63%. Nine of these were excluded from analysis, because the current religious affiliation or background did not meet the criteria for inclusion. The final sample was of 161 participants: 70 Jewish (35 males and 35 females) and 91 Protestant (44 males and 47 females). The mean age of all participants was 40.78 years (S.D.=15.75 years). 64% of the sample were in steady relationships (married, engaged or cohabiting), while 36% were single, divorced, separated or widowed. 75% of the sample were graduates and/or employed on a professional basis, 25% were in other occupations including white- and blue-collar workers, homemakers and retired people. The four comparison groups, Jewish Men (JM), Jewish women (JW), Protestant Men (PM) and Protestant women (PW) were comparable in terms of age ( $F(3,155) = 1.96, p > .05$ ), marital status ( $\chi^2(3, n=161) = 5.16, p > .05$ ) profession ( $\chi^2(3, n=158) = 3.80, p > .05$ ), and depression ( $F(3,149) < 1, p > .052$ ). Levels of religiosity, and of anxiety were comparable across gender (religiosity  $F(1,157) = 2.60, p > .05$ ; anxiety  $F(1,147) < 1, p > .05$ ) and religious group (religiosity  $F(1, 157) = .659, p > .05$ ; anxiety  $F(1,147) < 1,$

$p > .05$ ).

Materials:

Dependent variables measures:

1)Perceptions of the effects of alcohol: Biphasic Alcohol Effects Scale (BAES; Martin *et al*, 1993), a 14 item self-report adjective rating scale assessing the extent to which people expect alcohol to have sedative and stimulating effects, range 0-70, with good reliability. In this study, sedative: Cronbach's alpha = 0.91; stimulating: alpha = 0.94).

2)Perceptions of alcoholics and alcoholism (Weiss & Moore, 1992). Participants indicated whether they agreed or disagreed with the items shown in table 2.

Attitudes to alcohol usage An open-ended questionnaire was developed for this study, using five key themes: drinking to cheer up when low, drinking to relax when stressed, drinking on social occasions, going to the pub, and being slightly intoxicated. For each theme, participants were asked three questions: if this could happen for other people; if this could happen for themselves; and if they would personally take a drink for this reason. For each question, participants could answer using a three-point scale, 2 ('yes'), 1 ('sometimes') or 0 ('no'). Range of scores was 0-30, with high scores indicating approval of alcohol use. Reliability was good: Cronbach's alpha = 0.84.

3)Personal use of alcohol: (Caetano, 1989). Participants were asked to indicate the frequency with which they had drunk alcohol in the previous month, from 0 ('I did not drink') to 5 ('I drank every day'), and the average amount of alcohol that had been drunk on a single occasion, from 0 ('none') to 4 ('4 or more drinks'). Scores for the two questions were summed. The scale had an acceptable level of reliability in the present study (Cronbach's alpha = 0.70).

Control variables measures: four factors were partialled out in the analysis.

1)Age: was given in response to a direct question on a cover sheet assessing relevant demographic factors.

2)Religiosity (religious activity) (Loewenthal, MacLeod & Cinnirella, 2001)

Participants were asked to indicate the frequency with which they engaged in three types of religious behaviour on a 5-point scale from 0 ('never') to 4 ('daily'). The behaviours were: attending a church or synagogue; praying; and studying religious texts. Scores were summed and could thus range from 0 to 12, with higher scores indicative of a greater degree of religiosity. In the current study, Cronbach's alpha = 0.91.

3)Hospital Anxiety & Depression Schedule: (anxiety, depression) (HADS; Zigmond & Snaith, 1983). Milne (1995) reported good reliability and validity. In this study, reliability was acceptable: alpha for the depression subscale = 0.77; alpha for the anxiety subscale = 0.82). This measure was not considered suitable for a test of culturalreligious differences in depression, since it does not give a suitable measure of clinical caseness, and moreover the sample size was very much too small to detect the effects on prevalence of depression reported elsewhere. The HADS measures of anxiety and depression symptoms were included simply so that we could control for possible effects of such symptoms on reported use and beliefs about alcohol.

### Procedure

Questionnaire booklets were distributed to potential participants, with a description of the study, and a stamped addressed envelope for return. Participants were assured of their anonymity and right to omit any questions, and contact details of the researchers were provided, in case further information was required. Questionnaires were completed in participants' own time and in a place of their own choosing.

## Results

For all the measures (except attitudes to alcohol and alcoholism), a 2 x 2 ancova was used. IVs were religious affiliation (Jewish x Protestant) and gender. Age, depression, anxiety and religiosity were entered as co-variates. Missing values were replaced with the mean value for that particular variable. The attitudes to alcoholics and alcoholism measure was analysed via a series of chi-squared tests.

1. Perception of the effects of alcohol (BAES) Table 1 shows the mean BAES scores, for stimulating and sedative effects of alcohol.

INSERT TABLE 1 ABOUT HERE

Protestants endorsed the stimulating effects of alcohol significantly more strongly than Jews. There were no effects of gender, or gender by religious group interactions. For the sedative effects of alcohol, there were no significant group or gender effects, and no interaction effect.

2. Perception of Alcoholics and Alcoholism Table 2 shows group similarities and differences.

INSERT TABLE 2 ABOUT HERE

Fewer Jews than Protestants agreed that ‘many alcoholics taper off and control their drinking again’, that ‘alcoholics drink because they want to’, and that ‘alcoholics are morally weak’. Jews and Protestants, did not, however, differ in their responses to the last two items. A comparison of responses by gender revealed that overall, men and women did not differ in their responses. On the item “alcoholics are morally weak”, gender differences were found within the Protestant sample ( $X^2(2, n=90)=7.4$ ,  $p<.05$ ) but not the Jewish sample ( $X^2(2, n=69)=0.016$ ,  $p>.05$ ). Protestant women were more likely than Protestant men to disagree that ‘alcoholics are morally weak’.

3. Attitudes to alcohol use Attitudes to alcohol scores can be seen in Table 1.

Protestants were more accepting of alcohol use than Jews, and men more than women. There was no interaction between gender and religious affiliation.

Participants had agreed whether they approved or agreed with alcohol use in different situations, both for self and others. When we analysed attitudes just for *own* alcohol use, Protestant men had significantly more favourable attitudes about their own use of alcohol than Protestant women ( $p < .05$ ). Protestant men also had more favourable attitudes than Jewish men ( $p < .005$ ) and Jewish women ( $p < .001$ ), but Jewish men and women did not differ from each other ( $p > .05$ ).

4. Alcohol Use: Scores for alcohol use can be seen in Table 1. Consumption was

heavier amongst men than women, and among Protestants than Jewish participants.

There was no interaction between religious affiliation and gender. Protestant men and women differed more from each other in their alcohol consumption than did Jewish men and women. Indeed, gender differences were significant for Protestants (planned contrasts;  $p < .001$ ) and not significant for Jews (planned contrasts;  $p > .05$ ).

## **Discussion**

The alcohol-depression hypothesis attempts to account for the observations that depression is reduced in Protestant men as compared to Jewish men, and to Protestant women, and that rates of depression are comparable for Jewish men and women.

Within the Protestant community it may be more acceptable for men to drink than women, whereas within the Jewish community this response may be less acceptable, irrespective of gender. This would account for the similar levels of depression noted in Jewish men and women.

Were alcohol-related beliefs and behaviour in our sample consistent with this?

Protestants endorsed the *stimulating effects of alcohol* more strongly than Jews, and consistent with the hypothesis, Jewish men and Jewish women did not differ from each other here. However, Protestant men did not differ from Protestant women, or from Jewish men or women in their perceptions of the *sedative effects of alcohol*. Thus differences in rates of depression between Protestant men and Protestant women, and Protestant men and Jewish men and women cannot be accounted for altogether convincingly by differences in their *perceptions of the effects* of alcohol.

However, Protestants were more likely than Jews to agree that *alcoholics can control their drinking* in line with Weiss and Moore's (1992) findings, and – perhaps a corollary – Protestant men were more likely than women, and than Jewish participants, to think that *alcoholics are morally weak*. Protestant appeared to believe more strongly than other participants that alcohol use can and should be controlled before it becomes alcohol abuse.

Protestants displayed more *accepting attitudes to alcohol use* than Jews, and men displayed more accepting attitudes than women. However an interaction between religious-cultural group and gender (i.e., gender differences in Protestants but not Jews), was not found. But attitudes towards other people's use of alcohol may not necessarily mirror attitudes towards one's own use of alcohol. This distinction may be particularly important within the context of the alcohol-depression hypothesis, where it may be more acceptable for a Protestant man to drink alcohol than a Protestant woman. Indeed, when attitudes were analysed using just self-referent items, the

pattern of findings was entirely consistent with what the alcohol-depression hypothesis would predict. Jewish men and Jewish women did not differ from each other, and Protestant men showed significantly more favourable attitudes than Protestant women. They also had more favourable attitudes than Jewish men and Jewish women. The extent to which one holds favourable attitudes to alcohol use appears to be a function of gender within Protestants but not Jews. This may mean that the typologies proposed by Babor (1996) and Cloninger *et al* (1996) may apply to Christian/Protestant culture, but perhaps are less relevant to Jewish culture.

As expected from the alcohol-depression hypothesis, actual *behaviour* (self-reported drinking) was lower amongst Jews than Protestants. This supports existing research findings (e.g., Levav *et al*, 1993). There were also gender differences, with males drinking more than females, with somewhat more marked gender differences among Protestants than Jews.

There are some limitations in the study, so that the data should be viewed with caution. First, with regard to the sample, there was an over-representation of professional and highly-educated participants, and the response rate (63%) was not sufficiently high for us to be reasonably sure there was no sample bias among those who did respond. However we were able to control (by matching or partialling out) the possible effects of social class, age, marital status and other demographic variables in making Jewish-Protestant comparisons. Secondly, if alcohol use is not condoned within a particular social group, there may be social desirability effects at work in questionnaire responding – for example Jews may have under-reported their alcohol use. A measure of social desirability was not included in the questionnaire pack, so it

may be that some or all of the effects we noted were the result of social desirability effects in responding to the questionnaires.

The current study has been instrumental in a number of important ways. The alcohol-depression hypothesis put forward here has suggested that gender differences noted in Protestant rates of depression may be the result of differences in beliefs about alcohol, and actual alcohol usage. Specifically, use of alcohol may mask depression in Protestant men who drink more than Protestant women. Similarities in rates of depression in Jewish men and women can equally be accounted for by similarities in attitudes to alcohol and levels of alcohol consumption.

The current study constitutes the first systematic attempt to account for the cultural-religious differences in rates of depression noted in Jews and Protestants, by looking to see how far these might be accountable for by beliefs about alcohol, and by its reported use. Predictions relating to the alcohol-depression hypothesis have in part been supported. However, sampling techniques and the high proportion of professionals within the sample used may serve to limit the extent to which the current findings may extend to the general population. Future work should perhaps focus on more random methods of sampling, although this would not necessarily secure the range of religiosity observed in the current sample.

This study is a step in the investigation of influences of religious-cultural group and gender on rates of depression. Further research could include an investigation of other religious-cultural groups that have reduced levels of alcohol consumption (such as the Amish community). We have not been able to explore the complex interactions

between alcohol use and depression, notably the use of alcohol to control distress, and the symptoms that result from the use of alcohol. However, the study has partly supported the view that differences in attitudes towards and use of alcohol may be a function of religious-cultural differences in conjunction with gender. These differences may go some way in accounting for religious-cultural and gender differences in rates of depression.

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Figure 1 The alcohol-depression hypothesis

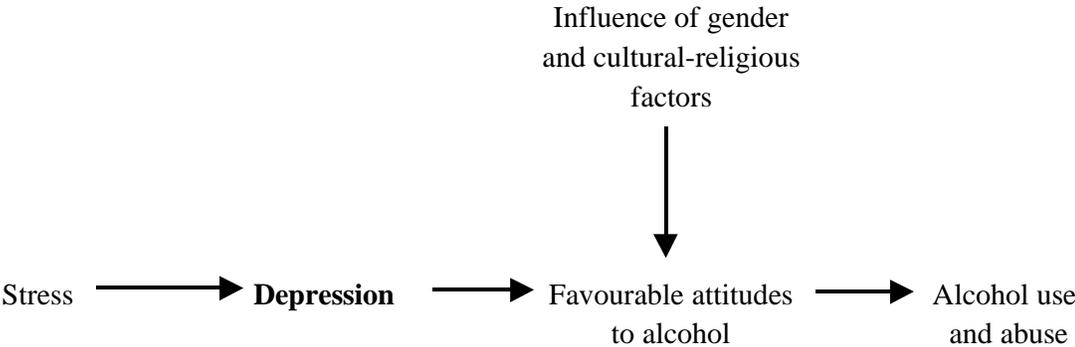


Table 1 Attitudes to alcohol and alcohol usage by gender and religious affiliation (standard deviations are in parentheses).<sup>1</sup>

	JM	JW	PM	PW	Main effects of gender and religious group, and gender x religious group interactions?
Stimulant Effects (BAES)	26.71 <sub>a</sub> (13.89)	30.30 <sub>a</sub> (15.18)	33.09 <sub>a</sub> (14.45)	33.41 <sub>a</sub> (17.11)	Religious group $F(1,135) = 5.29$ , $p < .05$
Sedative Effects (BAES)	29.72 <sub>a</sub> (13.73)	32.56 <sub>a</sub> (14.77)	28.50 <sub>a</sub> (16.12)	30.08 <sub>a</sub> (16.68)	
Attitudes to alcohol use (all items)	20.17 <sub>a</sub> (5.35)	18.66 <sub>a</sub> (5.93)	24.47 <sub>b</sub> (4.81)	22.74 <sub>b</sub> (6.12)	Religious group $F(1,153) = 29.25$ , $p < .001$ Gender $F(1,153) = 10.18$ , $p < .005$
Attitudes to alcohol use (self items)	6.04 <sub>ab</sub> (2.24)	5.25 <sub>a</sub> (2.58)	7.89 <sub>c</sub> (2.05)	6.77 <sub>b</sub> (2.79)	Religious group $F(1,153) = 20.53$ , $p < .001$ Gender $F(1,153) = 8.79$ , $p < .005$
Actual use of alcohol	3.61 <sub>ab</sub> (1.83)	2.71 <sub>a</sub> (1.65)	5.63 <sub>c</sub> (1.71)	3.98 <sub>b</sub> (2.45)	Gender $(F(1,153)=23.75, p < .001)$ Religious group $(F(1,153)=28.47, p < .001)$

<sup>1</sup> Horizontal means sharing the same subscript do not differ from each other at the  $p < .05$  level.

Table 2 Responses to perception of alcoholism and alcoholics questionnaire.  
Observed frequencies are in normal type. Percentages (by religious affiliation) are in bold.

Item		Agree	Don't know	Disagree	
Item 1 Many alcoholics taper off & control their drinking again	Jewish n=68	4 <b>5.9</b>	34 <b>50.0</b>	30 <b>44.1</b>	$X^2(2, n=158) = 6.69,$ $p < .05$
	Protestant n=90	15 <b>16.7</b>	30 <b>33.3</b>	45 <b>50.0</b>	
Item 2 Most alcoholics drink because they want to.	Jewish n=68	12 <b>17.6</b>	31 <b>45.6</b>	25 <b>36.8</b>	$X^2(2, n=156) = 16.07,$ $p < .001$
	Protestant n=88	35 <b>39.8</b>	16 <b>18.2</b>	37 <b>42.0</b>	
Item 3 Alcoholics are morally weak individuals.	Jewish n=69	10 <b>14.5</b>	26 <b>37.7</b>	33 <b>47.8</b>	$X^2(2, n=159) = 9.83,$ $p < .01$
	Protestant n=90	7 <b>7.8</b>	18 <b>20.0</b>	65 <b>72.2</b>	
Item 4 Alcoholism is an illness.	Jewish n=69	47 <b>68.1</b>	14 <b>20.3</b>	8 <b>11.6</b>	$X^2(2, n=159) = 0.7,$ $p > .05$
	Protestant n=90	63 <b>70.0</b>	17 <b>18.9</b>	10 <b>11.1</b>	
Item 5 To recover, alcoholics have to quit forever.	Jewish n=69	40 <b>58.0</b>	21 <b>30.4</b>	8 <b>11.6</b>	$X^2(2, n=158) = 0.87,$ $p > .05$
	Protestant n=89	49 <b>55.1</b>	25 <b>28.1</b>	15 <b>16.9</b>	

