

REASONS FOR LIVING AND ALCOHOL USE AMONG COLLEGE STUDENTS

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Heavy alcohol consumption is prevalent on many college campuses and alcohol use has been linked to suicidal behavior. The present study examined reasons for living in 287 college students with varying levels of risk for alcohol-related problems. With the exception of the moral objections subscale of the Reasons for Living Inventory, significant relationships were not detected between alcohol use risk levels and reasons for living. The field is ripe for additional studies examining alcohol use and suicide in the college population, and results will likely lead to improved interventions to decrease the occurrence of suicidal behaviors.

In the United States, approximately 30,000 individuals commit suicide each year, making it the 11th leading cause of death in the United States (Anderson & Smith, 2003). Suicide threatens both individuals and our society as a whole, and a relatively high proportion of the general population has suicidal ideas or thoughts during their life (Kessler, Borges, & Walters, 1999). Although suicide is a concern for all groups to some extent, some are at greater risk than others. College students are the focus of the present work as suicide is a leading cause of death for this group (Centers for Disease Control and Prevention [CDC], 2006).

Relatively high numbers of college students have reported having thought of suicide and a significant, though much lower, number have attempted suicide (e.g., Furr, Westefeld, McConnel,

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& Jenkins, 2001; Kisch, Leino, & Silverman, 2005). Further, suicide completion rates among college students are estimated to be 7.5 per 100,000 (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997). Francis (2003) noted that though this is lower than non-student samples, suicide was the second leading cause of death for college students. Thus, suicide is a legitimate health concern for the university student population.

Focusing entirely on suicide risk factors, however, taps into only one end of the suicidality continuum. There also exist protective factors that make suicidal behaviors less likely by mediating between thoughts and actions (Gutierrez, King, & Ghaziuddin, 1996; Linehan, Goodstein, Nielson, & Chiles, 1983). Researchers have established the existence and importance of protective factors specifically for college students (e.g., Ellis & Lamis, 2007; Hirsch & Ellis, 1996). However, studies investigating these protective factors on a collegiate level are limited.

Excessive alcohol consumption and its consequences are a continuing public health concern in the United States (Hanson & Li, 2003). Furthermore, researchers have identified college students as a specific group of people at high risk for alcohol-related problems (Hingson, Heeren, Zakocs, Winter, & Wechsler, 2003). Eighty percent of college students drink alcohol, and half of college student drinkers engage in heavy episodic drinking (Wechsler et al., 2002). Heavy drinking among college students is relatively common (e.g., Sher & Rutledge, 2007) and binge drinking patterns have been associated with suicidal behavior (Schaffer, Jeglic, & Stanley, 2008).

Several studies indicate a strong association between abuse of alcohol, suicide attempts, and rates of completed suicide (e.g., Kõlves, Värnik, Tooding, & Wasserman, 2006; Lester, 2000; Murphy, 2000). Powell et al. (2001) found that drinking frequency, drinking quantity, binge drinking, alcoholism, and drinking within three hours of suicide attempt were all associated with serious suicide attempt. Moreover, early onset of alcohol use has been found to be associated with suicide ideation and suicide attempts (Swahn & Bossarte, 2007; Swahn, Bossarte, & Sullivent, 2008). Thus, identifying individuals who are consuming large quantities of alcohol at an early age (i.e., college age) and appropriately intervening may be essential to preventing suicidal behavior.

Much of the research on suicide has focused on the maladaptive characteristics of the suicidal individual and characteristics that

may contribute to suicidal behaviors. Less attention has been paid to adaptive behaviors or positive expectancies about the future, which may keep a person from considering or attempting suicide. A comprehensive review of suicide assessment tools proposed that self-report instruments (compared with clinician interviews) may more accurately assess suicide risk and protective factors because people are less constrained by social desirability (Range, 2005). In part on the basis of the recommendation of Range (2005), we used the Reasons for Living Inventory (RFL; Linehan et al., 1983) in the present study to measure the protective factors among college students when suicide is considered.

The present study examines varying levels of risk for alcohol-related problems and their relation to reasons for living among college students. Dividing participants into low-risk, moderate-risk, and high-risk alcohol groups, it was hypothesized that significant differences in reasons for living scores would be found between the three groups, with participants at higher risk for alcohol-related problems reporting fewest reasons for living. Research examining the relationship between reasons for living and risk for alcohol-related problems may enhance intervention and prevention program effectiveness on college campuses, especially with regard to suicide risk.

Method

Participants

Participants included 287 undergraduates (214 women and 73 men) in psychology classes at a mid-sized southeastern university. The mean age of participants was 21.52 years ($SD = 4.84$), and ranged from 18 to 50 years. The ethnic composition of the sample was 87.1% Caucasian, 2.8% African American, 1.4% Hispanic, 1.4% Asian, 0.3% Native American, and 7.0% other. The religious affiliation of participants was 80.1% Christian, 5.2% Atheist, 0.7% Hindu, 0.3% Jewish, 0.3% Muslim, and 13.2% other.

Measures

RFL (Linehan et al., 1983) is a 48-item self-report measure that assesses a number of beliefs and expectancies about suicide. Respondents rate each item on a 6-point Likert scale anchored

by 1 (*not at all important*) and 6 (*extremely important*) in terms of how important a reason would be for living. The inventory is factored into six subscales: survival and coping beliefs, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objections. The first three are positive, addressing reasons to live; the latter three negative, addressing reasons not to die by suicide. Higher scores on the RFL indicate that the individual has more reasons not to die by suicide. A supplementary 24-item responsibility to friends subscale was also included. The responsibility to friends subscale was originally omitted by Linehan et al. (1983) because of weak properties in factor analyses; however, it seems to tap into a separate factor potentially relevant to college students. The RFL has been shown to have solid internal consistency among college students, with alpha coefficients for individual subscales ranging from .74 to .92 (Osman et al., 1993); alphas ranged from .82 to .95 in the current sample. In terms of validity, the RFL has differentiated between suicidal and nonsuicidal individuals, as well as suicide attempters from non-attempters, in both a shopping mall sample and a clinical population of psychiatric inpatients (Linehan et al., 1983).

The Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, De La Fuente, & Grant, 1993) is a 10-item measure designed to identify individuals whose alcohol use places them at risk for alcohol-related problems, or who are actually experiencing such problems. The time reference of the AUDIT is the past year, although a few items have no specified time period. It is comprised of two scales measuring both alcohol consumption (3 questions) and dependence (7 questions), which add together to yield a total AUDIT score measuring risk for alcohol-related problems. AUDIT total scores can range from 0 to 40 with scores between 0 and 7 indicating a low-risk for alcohol-related problems, scores between 8 and 12 indicating a moderate at-risk drinker, and scores of 13 and above indicating a high risk for alcohol dependence (Conigrave, Hall, & Saunders, 1995). The AUDIT was internally consistent among college students (Fleming, Barry, & MacDonald, 1991) and the alpha coefficient was .85 in the current sample. Supporting its validity, AUDIT scores are moderately to highly correlated ($r_s = .62-.88$) with other alcohol use screening tests (Bohn, Babor, & Kranzler, 1995; Hays, Merz, & Nicholas, 1995; Saunders et al., 1993).

Procedure

Students were told of the study in regularly scheduled classes and through posting on the online participant pool. Participants received modest extra credit for taking part in the online study outside of class time. Participants completed a demographic survey and the measures, which were presented in a randomized order.

Results

Of the 287 students, on the AUDIT, 200 were low-risk, 50 were moderate-risk, and 37 were high-risk. For present participants, the mean score on the AUDIT was 5.98 ($SD = 5.91$), falling in the low-risk range. The range of scores was 0 to 29. The mean score for all participants on the Consumption subscale was 2.69 ($SD = 3.85$), and the mean on the Dependence subscale was 3.30 ($SD = 2.73$).

Means and standard deviations for the three AUDIT groups on the RFL and its subscales are displayed in Table 1. A one-way

TABLE 1 Means and Standard Deviations for AUDIT Groups on the Reasons for Living and Its Subscales

Measure	Means		
	Low risk ($n = 200$)	Moderate risk ($n = 50$)	High risk ($n = 37$)
Reasons for Living, Overall	4.37 ($SD = 0.80$)	4.26 ($SD = 0.76$)	4.25 ($SD = 0.67$)
Survival and coping beliefs	4.83 ($SD = 0.85$)	4.74 ($SD = 0.81$)	4.65 ($SD = 0.78$)
Responsibility to family	4.94 ($SD = 1.03$)	4.79 ($SD = 1.06$)	4.76 ($SD = 1.00$)
Child-related concerns	4.61 ($SD = 1.74$)	4.80 ($SD = 1.42$)	4.77 ($SD = 1.27$)
Fear of suicide	3.32 ($SD = 1.27$)	3.05 ($SD = 1.31$)	3.35 ($SD = 1.29$)
Fear of social disapproval	3.53 ($SD = 1.43$)	3.21 ($SD = 1.53$)	3.29 ($SD = 1.20$)
Moral objections	4.44 ^a ($SD = 1.41$)	3.97 ($SD = 1.61$)	3.75 ^b ($SD = 1.58$)
Responsibility to friends	4.11 ($SD = 0.86$)	4.09 ($SD = 0.84$)	4.12 ($SD = 0.67$)

Note. Means with superscripts “a” and “b” are significantly different.

multivariate analysis of variance (MANOVA) was conducted to determine the effect of AUDIT category on the RFL subscales. Significant differences were found between these categories on the dependent measures, Wilks's $\tilde{\Lambda} = .92$, $F(14,556) = 2.61$, $p < .05$, $\zeta^2 = .04$. Follow-up analyses of variances (ANOVAs) with Bonferroni method of correcting for Type I errors yielded a significant effect only for the moral objections subscale, $F(2,284) = 4.65$, $p < .01$, $\zeta^2 = .03$, qualified by Tukey-HSD post hoc tests that revealed a significant difference ($p = .026$) between the high-risk ($M = 3.75$, $SD = 1.58$) and low-risk groups ($M = 4.44$, $SD = 1.41$). The effect size was .46, which is considered to be in the medium range according to Cohen (1988).

Discussion

Present results indicate, surprisingly, that alcohol use among college students was unrelated to their reasons for living, with one exception. The exception to this was the difference between the high-risk and the low-risk alcohol groups on the moral objections to suicide. The high alcohol risk group had fewer moral objections to dying by suicide than the low-risk group. One explanation for this finding may be that the values and morals that individuals possess may directly affect both their views about suicide and alcohol use. Thus, the higher one's moral standards and the increased levels to which values contribute to one's everyday life may cause negative attitudes toward suicide (i.e., higher level of moral objections) and alcohol consumption (i.e., lower likelihood to use/abuse alcohol). Alternately, alcohol use may lower students' moral objections to suicide, or some third factor such as biological predisposition or life experience may affect both moral objections to suicide and alcohol use.

Further, most of the present students identified themselves as religious (94.8%) and religion may have mediated the relationship between moral values and attitudes toward suicide and alcohol use. Research has demonstrated that religiously oriented college students are less likely to abuse alcohol (Galen & Rogers, 2004; Patock-Peckham, Hutchinson, Cheong, & Nagoshi, 1998) than their non-religiously oriented peers, and non-religiously affiliated students are more likely to have attempted suicide and to find suicide more acceptable in general than their religiously-affiliated peers

(King, Hampton, Bernstein, & Schichor, 1996). Future research should examine the mediating effects that religiosity may have between moral standards and attitudes of suicide and alcohol consumption.

Given that studies have shown an association between alcohol consumption and suicidal behaviors (e.g., Murphy, 2000; Powell et al., 2001), the lack of relationship between alcohol risk and overall reasons for living was unexpected. It may be that the relationship between alcohol use and reasons to live are not as strong as might be imagined, and that alcohol use may be more proximate to suicidal ideation and attempts with inebriation lowering inhibitions against such thoughts and behaviors.

However, for those whose alcohol consumption is within the normal range, experiencing adverse alcohol-related outcomes may not be associated with alcohol use (McCreary, Newcomb, & Sadava, 1999). The current study revealed a mean total score on the AUDIT that would be categorized in the low-risk range for alcohol-related problems. Thus, overall the sample reported healthy (low) alcohol use levels and may not be susceptible to alcohol-related problems.

One limitation of the study is that of social desirability bias, because students may have underreported alcohol use and/or over-reported reasons for living, thus obscuring a relationship that may exist. Including measures of social desirability bias could control for this possibility. Further research might also make use of separate instruments to measure alcohol consumption and alcohol dependence, to better determine whether levels of usage are related to reasons for living or whether symptoms of dependence are more related to problematic lives. Moreover, a more diverse sample would be ideal, including individuals from different ethnic, religious, and socioeconomic backgrounds. It is important to examine different groupings of people so as to assess whether these findings hold in other student populations. Another limitation may be that all data were collected online and although this ensured privacy and confidentiality, only students motivated enough to receive extra credit participated. Students so motivated may have had solid reasons for living (as evidenced by concern for grades), been less prone to drink to excess, and thus may have been at a relatively lower risk for suicide compared to those who did not seek out extra credit opportunities.

The current study examined several relationships between reasons for living and the risk for alcohol-related problems. Understanding these relationships is pertinent to the development of successful intervention and treatment programs. Determining how alcohol use is related to depression, suicidal ideation, and suicide attempts is critical to appropriately addressing the problem of suicide. The unexpected nature of the results suggests more work needs to be done to understand whether alcohol use is related to risk for suicide within a college population. Specifically, other measures of alcohol use and abuse might be employed, data might be taken across time to assess predictive relationships, actual college student suicide attempters might be studied to assess their use of alcohol, and other measures or methods might be used to ascertain suicidal ideation and/or history of attempts.

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