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Objections to suicide among depressed patients with alcohol use disorders

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Abstract

Background—Understanding how alcohol misuse interacts with beliefs that protect individuals against suicide can help to enhance suicide prevention strategies. One measure of suicide non-acceptability is the Moral Objections to Suicide (MOS) subscale of the Reasons for Living Inventory (RFLI).

Method—521 mood disordered patients with and without alcohol use disorders (AUD) were administered a battery of clinical measures including the Scale for Suicidal Ideation and the Reasons for Living Inventory. A multivariate analysis of covariance (MANCOVA) was conducted, examining the effects of alcohol use history on the five RFLI subscales and suicidal ideation, while controlling for differences in age, education, marital status and sex.

Results—RFL scores were no different between groups, except in one respect: patients with AUD had fewer moral objections to suicide. Higher suicidal ideation was associated with lower MOS scores. Prior suicidal behavior was associated with lower MOS, and higher current suicidal ideation. However, AUD history was not associated with suicidal ideation.

Conclusion—Patients with AUDs had fewer objections to suicide, even though their level of current suicidal ideation was similar to those without AUD, suggesting that attitudes about the acceptability of suicide may be conceptually distinguished from suicidal ideation, and may be differentially associated with risk for suicidal behavior. These findings suggest that alcohol use and suicidal behavior predict current attitudes toward suicide, however causal mechanisms are not clearly understood.

Keywords

suicide acceptability; risk factor; protective factor; reasons for living; alcohol use disorder

1. INTRODUCTION

Mood disordered individuals with alcohol abuse or dependence (collectively termed alcohol use disorders or AUDs) are known to have a more debilitating illness compared to those without

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AUDs including earlier onset of mood symptoms, more negative life events, more severe symptoms, and a greater risk of suicide (Kessler et al., 1997; Leibenluft, Fiero, Bartko, Moul, & Rosenthal, 1993; Regier et al., 1990). By understanding how alcohol misuse interacts with beliefs related to suicide, we may be able to improve prevention systems to lower the incidence of suicidal behavior among alcohol users.

The reasons for living scale (RFL) was developed to measure life-sustaining beliefs that would prevent someone from engaging in suicidal behavior. The scale has been found to predict suicidal acts in depressed patients (2004), and correlate negatively with “clinical suicidality” which includes measures of hopelessness, suicidal ideation, and self-reported depression (Malone et al., 2000). The Moral Objections to Suicide Subscale (MOS) is of particular interest in the current study because it reflects attitudes about the acceptability of suicide. It contains 4 items, three of which are of a religious nature (*Only God has the right to end life; I am afraid of going to Hell; My religion forbids it*) and one non-religious (*I consider it morally wrong*). This subscale has been reported to differentiate individuals with suicidal ideation from those without (Connell & Meyer, 1991; Linehan, Goodstein, Nielsen, & Chiles, 1983; Lizardi et al., 2007a). It has also been shown to discriminate suicide attempters from non-attempters (Malone et al., 2000), and has been found useful in identifying “latent ideators,” or patients who are unwilling to disclose suicidal ideation during standard screening, but later report suicidal thoughts (Morrison & Downey, 2000).

Some research suggests that having a belief that suicide is unacceptable may be an important protective factor; however this approach to understanding suicidal ideation has received little empirical attention. For example, Joe et al (2007), have shown that having an accepting attitude toward suicide predicts the extent of suicide planning, which is known to increase the lethality of attempts (Baca-Garcia et al., 2001; Baca-Garcia et al., 2005; Brent, 1987; Mann & Malone, 1997). Objecting to suicide on moral grounds may also serve a protective function in some minority populations, particularly Blacks and Hispanics who generally demonstrate lower levels of suicidal behavior despite having a disproportionate burden of predisposing sociodemographic factors (Morrison et al., 2000; Oquendo et al., 2005). Attention to beliefs about the acceptability/non-acceptability of suicide is vital to the development of suicide prevention programs that target and enhance protective factors while minimizing known risk factors in order to mitigate the possibility of suicide.

This study examines the effects of alcohol use disorders on the degree to which mood-disordered patients object to suicide. Our key dependent measure is the Moral Objections to Suicide Subscale of the Reasons for Living Inventory (RFLI). It is known that a history of AUD places people with mood disorders at a higher risk for suicidal behavior. Our prediction is that presence of AUDs will be associated with fewer objections to suicide.

2. METHOD

2.1 Participants

The sample consisted of 521 participants with DSM-IV diagnoses of Major Depressive Disorder (MDD; N=360) or Bipolar Disorder current episode depressed (BD; N=161). Participants were recruited for participation in clinical research studies via internet and newspaper advertisements and by clinician referral. Written informed consent, approved by the Institutional Review Board, was obtained from each subject after a complete description of the study.

2.2 Materials

DSM-IV diagnoses of mood disorders and AUD were determined by the Structured Clinical Interview for DSM-IV, Axis I (SCID-I; First et al., 1996). The Columbia Suicide History Interview recorded lifetime history of suicide attempts. A suicide attempt was defined as a deliberate self-injurious act performed with at least some intent to die (Mocicki et al., 1988). Suicidal thoughts was measured using the Scale for Suicidal Ideation (Beck, Kovacs, & Weissman, 1975). Protective attitudes against suicide were recorded using the Reasons for Living Inventory (Linehan et al., 1983). Responses on this 48-item scale load onto six main factors that include: survival and coping beliefs (e.g., I believe I can learn to adjust or cope with my problems), responsibility to family (e.g., I have a responsibility and commitment to my family), child related concerns (I want to watch my children as they grow), fear of suicide (e.g., I am afraid of the unknown), fear of social disapproval (e.g., I am concerned about what others would think of me), and moral objections to suicide (e.g., I believe only God has the right to end a life).

2.3 Data Analysis

Relationships between RFLI subscales and suicidal ideation were assessed by Pearson correlations. Group differences on categorical demographic variables (e.g. sex, diagnosis, marital status) were analyzed using Kruskal Wallis Chi Square tests. Analyses of variance were used for all comparisons of continuous variables (e.g., age, educational level). Participants with alcohol use disorders were younger, had slightly less education, and were more likely to be unmarried and more likely to be female. As such we controlled for differences in age, education, marital status and sex in multivariate analyses of covariance (MANCOVA) examining the effects of alcohol use history on the five RFLI subscales and suicidal ideation.

3. RESULTS

3.1 Sample Characteristics

A complete description of the sample composition is presented in Table 1. Overall, participants were primarily White (74%), unmarried (72%) and female (66%). Ages ranged from 18 to 72 years, with an average of 37.2 years. The amount of formal education ranged from 3 to 24 years, with an average of 14.9 years. Seventy three percent had Major Depressive Disorder, and 27% had Bipolar Disorder. There were no differences in suicidal ideation or RFLI scores between patients with major depression and bi-polar disorder. Forty two percent of the sample had a past history of AUD. Of these, two-thirds (66%) had Major Depressive Disorder, and one-third (34%) had Bipolar Disorder. Half of the sample had made a suicide attempt in past (50%). A high percentage of prior attempters reported a history of AUD (52%). Sixty percent of the AUD sample had made a suicide attempt in the past, compared to 42% of non-AUD sample.

3.3 AUD, Reasons for Living and Suicidal Ideation

Several of the RFLI subscales correlated significantly with suicidal ideation, including survival coping beliefs ($r=-0.48$, $p<.001$), responsibility to family ($r=0.31$, $p<0.001$), child related concerns ($r=0.24$, $p<0.001$) fear of social disapproval ($r=0.16$, $p<0.001$) and moral objections to suicide ($r=0.18$, $p<0.001$). There was no relationship between fear of suicide and suicidal ideation ($r=.02$, $p>0.05$). There was no difference between groups on suicidal ideation.

Both samples were characterized by high endorsement of responsibility to family as the primary reason not to engage in suicidal behavior. There were no differences between groups on most of the RFLI subscales. However, patients with AUD histories had significantly lower MOS scores ($F(5,519)=5.6$, $p=0.02$) than those without AUD histories.

Three of the items on the MOS subscale relate explicitly to religious belief. The fourth item “I consider it morally wrong” may be thought to capture a more secular ethical concern. However, principal components analyses conducted separately for each group, and together, revealed that the MOS subscale taps a unitary factor on which all four items load highly (data not shown). The difference between the groups was driven primarily by differential endorsement of the item “My religion forbids it”. There were also differences on the items “I’m afraid of going to Hell”, and I consider it morally wrong”. The groups endorsed the item “Only God has the right to end a life” to an equal degree.

4. DISCUSSION

Our mood disordered patients with AUD reported fewer objections to suicide. This may be due to differences in religious involvement, and the subsequent effects on attitudes toward suicide. For example, some evidence suggests that religious involvement is associated with lower use of alcohol (Haber & Jacob, 2007; Johnson, Sheets, & Kristeller, 2008; Musick, Blazer, & Hays, 2000; Wechsler, Thum, Demone, & Kasey, 1970). It is also known that depressed patients with strong religious affiliations have stronger moral objections to suicide than those without religious affiliation Dervic et al (Dervic et al., 2004; Lizardi et al., 2007b). Our demographic interview did not capture extensive information on the type and degree of religious involvement; however our measures indicated that those with AUD histories were less likely to identify a religious denomination, and rated religion as less important in their lives.

Individuals with AUD histories had a higher incidence of suicide attempts in the past, and fewer objections to suicide. This finding suggests that a history of poor functioning is associated with fewer objections to suicide. Indeed co-occurring AUDs are often associated with a more debilitating course of illness, and a higher likelihood of treatment failure, particularly among patients with bi-polar disorder (Dilsaver, Chen, Swann, Shoaib, & Krajewski, 1994; Goldberg, Garino, Leon, Kocsis, & Portera, 1999; Modesto-Lowe, Brooks, & Ghani, 2006). Our understanding of the causal mechanism linking these attitudes and behaviors would be greatly aided by continued research in this area.

An alternative explanation for the relationship between past alcohol misuse and beliefs about the acceptability of suicide may be that individuals with AUD histories are constitutionally different from those without AUD histories. It is possible that the same genetic factors predispose individuals to both AUD and suicidal behavior. For example, serotonin abnormalities have been shown to be involved in the pathophysiology of both AUD and suicide (Mann, Oquendo, Underwood, & Arango, 1999; Modesto-Lowe et al., 2006; Sher, 2006). It is plausible that the causal substrates for suicidal behavior, depression, and alcoholism involve a developmental sequence, or an interplay of predisposing factors. Further research is therefore needed to clarify the relationships between alcohol use and people’s views regarding the acceptability of suicide.

4.1 Limitations

This sample was taken from urban populations in diverse northeastern cities. Generalization of these findings to specific groups of individuals in the United States or abroad should be cautiously undertaken. This was an entirely clinical sample of mood disordered patients, some of whom had made suicide attempts in the past. These findings are therefore of limited applicability to patients with primary diagnoses of AUD. Although published studies find that patients with co-occurring bipolar and alcohol use disorders are at heightened risk of suicidal behavior (Grunebaum et al., 2006a; Grunebaum et al., 2006b), we did not find a difference in suicidal ideation or reasons for living between patients with unipolar and bipolar mood disorders. This may be due to the selection criteria for our biological research studies, which

require that all participants have a Hamilton Depression Inventory score of 16 or higher, which renders our sample high on the continuum of depression. We also restricted our sample to those bi-polar subjects whose last episode was depressed. As such our findings may not be applicable to the wider universe of bi-polar patients.

This sample was comprised mainly of women (69%). Women present with AUD far less frequently than men, and with less severity (Wilsnack & Wilsnack, 2002). The suicidal behavior of women is also substantially different from men. Women make suicide attempts more frequently than men, but are less likely to complete suicide (Hawton, 2000). Some caution is therefore needed in applying these findings to populations comprised exclusively of men.

4.2 Conclusion

Although it is clear that alcohol use has an impact on suicidal behavior, it is not known whether this impact is mediated through attitudes regarding the acceptability of suicide. In clinical settings, suicidal ideation is assessed for the purpose of determining whether a patient is an imminent risk to him or herself. An in-the-moment assessment may fail to identify whether someone holds deeply engrained beliefs about the value of life, and the acceptability of suicide. An individual who believes that suicide is acceptable may not endorse current suicidal ideation, but become determinedly suicidal following a subsequent crisis. Some research shows that individuals who believe suicide is acceptable are more likely to develop a plan (Joe et al., 2007). Further research is needed to determine whether the lethality of an attempt may be more serious, and the determination to die may be greater in someone who has contemplated suicide as an acceptable option, and whether alcohol use plays a role in this process.

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Figure 1.

Estimated marginal means. Covariates appearing in the model are evaluated at the following values: Age = 37.33, Sex = .34, Married = .2698, Years of education = 14.88.

Table 1

Sample Characteristics

	Stat	AUD History			P value
		AUD	No AUD	Test	
Sex					
Male	N (%)	99 (56)	78 (44)		
Female	N (%)	127 (37)	217 (63)	KW χ^2 (df=1) =17.2	<0.001*
Age	Mean $\pm$ SD	36 $\pm$ 11	38 $\pm$ 12	F (1, 518) = 2.0	0.15
Education	Mean $\pm$ SD	15 $\pm$ 3	15 $\pm$ 3	F (1, 515) = 6.7	0.01*
Marital Status					
Single	N (%)	112 (46)	130 (54)		
Ever Married	N (%)	113 (41)	165 (59)	KW χ^2 (df=1) = 6.6	0.01*
No. of Children	Mean $\pm$ SD	1.0 $\pm$ 1.4	1.1 $\pm$ 1.5	F (1, 504) =0.52	0.47
Diagnosis					
Bipolar	N (%)	88 (55)	73 (45)		
MDD	N (%)	138 (38)	222 (62)	KW χ^2 (df=1) =12.7	<0.001*
Suicidal Ideation	Mean $\pm$ SD	5.9 $\pm$ 7.7	5.3 $\pm$ 6.8	F(1,495)=1.06	0.303
Prior attempt?	N (%)	123 (52)	115 (48)	KW χ^2 (df=1) =15.5	<0.001*
No. of attempts	Mean $\pm$ SD	2.4 $\pm$ 1.8	2.6 $\pm$ 2.2	F(1,235)=0.84	0.36
Reasons for Living Total	Mean $\pm$ SD	18.8 $\pm$ 5.6	19.4 $\pm$ 6.0	F(1,501)=1.2	0.27
Survival Coping Beliefs	Mean $\pm$ SD	3.5 $\pm$ 1.2	3.5 $\pm$ 1.3	F(1,516)=0.002	0.96
Responsibility to Family	Mean $\pm$ SD	4.0 $\pm$ 1.4	4.1 $\pm$ 1.4	F(1,522)=1.4	0.24
Child-related Concerns	Mean $\pm$ SD	3.4 $\pm$ 2.0	3.4 $\pm$ 2.0	F(1,504)=0.006	0.94
Fear of Suicide	Mean $\pm$ SD	2.7 $\pm$ 1.1	2.8 $\pm$ 1.2	F(1,518)=1.1	0.29
Fear of Social Disapproval	Mean $\pm$ SD	2.6 $\pm$ 1.5	2.6 $\pm$ 1.5	F(1,521)=0.09	0.75
Moral Objections to Suicide	Mean $\pm$ SD	2.6 $\pm$ 1.5	2.9 $\pm$ 1.7	F(1, 519)=5.6	0.02*
MOS Items					
Only God...	N (%)	83 (36.7)	109 (36.9)	KW χ^2 (df=1) =0.0	0.98
Afraid of hell	N (%)	36 (15.9)	72 (24.4)	KW χ^2 (df=1) =5.6	0.02*
Religion forbids	N (%)	40 (17.7)	80 (27.1)	KW χ^2 (df=1) =6.3	0.01*
Morally wrong	N (%)	44 (19.5)	80 (27.1)	KW χ^2 (df=1) =4.0	0.04*

* Alpha level for statistical significance p=.05