Published in final edited form as:

J Subst Abuse Treat. 2014 ; 47(5): 347–352. doi:10.1016/j.jsat.2014.06.011.

An Assessment of Individual-Level Factors Associated with Alcohol Treatment Utilization among Mexican Americans

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Abstract

The purpose of this study is to identify enabling factors for treatment utilization for alcohol-related problems, and to evaluate how enabling factors vary by need for treatment, among two samples of Mexican American adults. These two distinct samples included 2,595 current and former drinkers (one sample included 787 U.S./Mexico border residents; the other sample included 740 Mexican Americans living in U.S. cities not proximal to the border). Need for treatment (alcohol disorder severity) and (male) gender were the primary correlates of treatment utilization; and there was no moderation in the enabling factors by need for treatment as “enablers” of utilization. Further theoretical and empirical research is necessary to determine which mechanisms are driving disparities in treatment utilization across racial/ethnic groups generally, and Hispanic national groups specifically.

1. Introduction

Between 2006 and 2009, an estimated 7.4 million adults between the ages of 21 and 64 suffered from untreated alcohol use disorders in the United States (SAMHSA, 2011). Of those who have an alcohol use disorder (AUD), only 14.6% sought treatment at any point during their lifetime (Cohen, Feinn, Arias, & Kranzler, 2007). When AUDs are left untreated, the public health costs are broad, including child welfare, criminal justice, hospital emergency rooms, and other healthcare systems that treat co-morbidities and

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outcomes of alcohol use (Marks, 2005). The costs of untreated AUDs to society have been estimated as high as \$184.6 billion (Marks, 2005).

In light of these costs, several types of AUD treatment have been successful at reducing AUDs and associated negative health and behavioral outcomes. Pharmaceuticals (acamprosate and naltrexone), peer groups, behavioral therapies, web-based treatment, and community-based services have been demonstrated as effective in reducing the burden of AUDs (Flemming, Mundt, French et al., 2000; Kranzler & Van Kirk, 2001; McLellan et al., 1998; O'Malley et al., 2003). Alcoholics Anonymous (AA) has been effective in reducing alcohol use, particularly when combined with other types of treatment (Emrick et al., 1993; Kaskutas, Bond, & Weisner, 2003).

Several theoretical models have been proposed to explain why certain people seek out treatment for alcohol-related problems (and, conversely, why others do not). The Andersen and Newman model (1973) is commonly cited in studies evaluating treatment seeking for alcohol use. This model posits that persons with alcohol use disorders obtain treatment due to a combination of *predisposing* (greater income, access/availability of treatment, older age, higher level of education, male gender, and more knowledge about the healthcare system), *enabling* (healthcare coverage, having the ability to travel for treatment, visiting a physician regularly, and having higher quality social relationships), and *need* (more severe AUD and greater perceived need for treatment) factors. This model has been interpreted and applied in many ways across various populations for more than three decades (Arroyo, Westerberg, & Tonigan, 1998; Padgett, Struening, Andrews & Pittman, 1995; Grant, 1996; Weisner, 1993). For instance, Brennan and colleagues (1994) assessed predictors of alcohol treatment seeking among older problem drinkers. This study found that male gender, avoidance coping strategies, chronic health problems, general life stressors, and having fewer peers who approved of alcohol use were predictive of treatment seeking. Weisner (1993) used a general population sample to understand treatment utilization, and found strong gender differences in treatment seeking. Specifically, a shorter treatment history and employment status (specifically, having a job), were predictive of treatment usage for both genders; however, predisposing variables were most closely associated with treatment utilization among women, while need, enabling and predisposing variables predicted treatment for men. Overall, independent of need, it appears that various indicators of socioeconomic status and social capital have been identified as strong correlates with treatment utilization across various populations.

Socioeconomic status is rarely assessed independently of race and ethnicity, and there are clear racial and ethnic disparities in treatment utilization for AUDs. One study by Chartier and Caetano (2011) used data from the National Epidemiological Survey on Alcohol and Related Conditions and the National Longitudinal Alcohol Epidemiologic Survey to examine both racial and ethnic differences in alcohol treatment utilization. Chartier and Caetano reported that Hispanics with AUDs were less likely than Whites with AUDs to use alcohol programs, specifically defined to include alcohol “detoxification and rehabilitation clinics”, outpatient and inpatient services provided by a general hospital, community mental health center, or “outreach and day or partial day patient programs” for alcohol-related problems. Further, as the number of symptoms of alcohol dependence in one’s lifetime

increased (according to the DSM-IV), Hispanics were increasingly less likely than Whites to use alcohol treatment programs (Chartier & Caetano, 2011).

Hispanics have been identified as a group that has particularly high need for drug and alcohol treatment (Chartier & Caetano, 2001; Schmidt, Ye, Greenfield, & Bond, 2007; Schmidt, Greenfield & Mulia, 2006); however, they are less likely than any other racial or ethnic group to receive such treatment (SAMHSA, 2012). In light of these overarching ethnic disparities between Hispanics and non-Hispanics in need for and use of alcohol treatment, national differences among Hispanics demonstrate heterogeneity in the alcohol use and treatment utilization patterns. Mexican American men report more binge drinking (46.2% of men binge drank in the past year) than South/Central American men (42.9% binge drank), or Cuban men (27.3% binge drank). Mexican Americans also have a higher rate of alcohol dependence than Hispanics from South/Central American or Cuba. Mexican Americans are also the national group most likely to receive a citation for driving under the influence of alcohol (Ramisetty-Mikler, Caetano, & Rodriguez, 2010; Chartier & Caetano, 2011). In addition, according to data from the National Survey on Drug Use and Health (NSDUH), Mexican Americans have the greatest need for alcohol treatment (as operationalized by DSM-IV “abuse” or “dependence”) among any national group of Hispanics (9.2%, versus 7.7 for Puerto Ricans, 6.8% for South/Central Americans, and 5.2% for Cubans) (SAMHSA, 2008).

Among the 33.7 million Mexican Americans in the U.S., more than seven million reside along the US-Mexico border (Pew Research Center, 2013; U.S. Department of Health and Human Services, 2009). Residents of this region are at elevated risk for a broad range of negative health outcomes due to concentrated poverty, undereducation, and problematic alcohol use. For example, the border population’s relative youth (CHC Border Health Forum, 2006) and the overwhelmingly Mexican American composition of its Hispanic residents are each known risk factors for both drinking and more liberal beliefs, attitudes, and norms concerning the use of alcohol (Mills and Caetano, 2010). At a macro level, alcohol is particularly visible and available on the border. Mexico’s legal drinking age is 18, making it an easily accessible, geographically proximal location where younger U.S. residents can legally drink. In Mexico, marketing tactics of on-site alcohol outlets target younger age groups and encourage binge drinking (Lange et al., 2002). Previous epidemiological studies have generally confirmed elevated levels of drinking and associated problems on the border (e.g., Caetano, Mills, & Vaeth 2012; Harrison and Kennedy, 1996; Wallisch and Spence, 2006; Caetano et al., 2008).

In light of these potentially harmful behaviors that occur on the U.S.-Mexico border, the purpose of this paper is threefold: 1) to test for and explain differences in enabling factors for treatment utilization across two independent samples; 2) to identify factors that explain the use of treatment for alcohol-related problems among the two samples of Mexican Americans; and 3) to assess how differential enabling factors vary by need for treatment. We expect that differential enabling factors emerge as key enabling factors for treatment utilization across both populations: Mexican Americans living proximal to the U.S./Mexico border, and Mexican Americans living in large cities farther away from the border.

2. Methods

2.1. Data Collection

These datasets used for this analysis include two distinct samples of Mexican American adults. Both sampling designs and questionnaires were nearly identical, allowing us to draw comparisons between settings within one Hispanic national group. One sample includes a Health Resources and Services Administration (HRSA) “medically underserved group” (characterized by cultural or linguistic barriers to healthcare, low rates of access to physicians, high infant mortality rate, high proportion of persons living below the poverty level, and a large proportion of the population aged 65 and older; HRSA, 1995) who resides proximal to the U.S.-Mexico border, and the other is comprised of a group of Mexican Americans who reside in large U.S. cities that are not proximal to the border. Both studies sampled the adult population 18 years or older and determined Hispanic ethnicity via self-identification. The 2 studies also used an identical questionnaire, which was pre-tested in English, then translated into Spanish, then back-translated to English. Trained bilingual interviewers conducted Computer Assisted Personal Interviews at the respondents’ home that lasted about 1 hour. In both studies, respondents received a \$25 incentive for participation and provided written informed consent. The distinctions between the two studies are discussed below.

Mexican Americans in the non-border group were interviewed as part of the 2006 Hispanic Americans Baseline Alcohol Survey (HABLAS), a study of 5,224 Hispanics from randomly selected households in five metropolitan areas of the U.S. Most of the non-border respondents were interviewed in Los Angeles (n=609) and Houston (n=513); however, additional interviews were conducted in New York (n=86), Philadelphia (n=59), and Miami (n=21). The response rate in the HABLAS sample was 76%. For the purposes of the current study (and to avoid confounding by national group), only the Mexican Americans interviewed as a part of this study were included in the present analysis (N=1,288). After removing those who have never used alcohol from the sample, 787 Mexican Americans were retained for analysis.

The border study was conducted between March 2009 and July 2010. During this time frame, 1,307 Mexican Americans who were 18 or older and resided along the U.S./Mexico border in California (Imperial County, n=365), Arizona (Cochise, Santa Cruz, and Yuma Counties, n=173), New Mexico (Dona Ana County, n=65), and Texas (Cameron, El Paso, Hidalgo and Webb Counties, n=704) were interviewed. Only urban areas were included in the primary sampling frame to ensure sampling comparability with the HABLAS sampling design. Therefore, border residents who lived in the rural areas of the region were not included in this analysis. The response rate among the border sample was 67%. After excluding respondents who reported never drinking alcohol in their lifetime, our final sample included 1,527 Mexican Americans (n=787 non-border; n=740 border).

2.2. Measures

Treatment utilization for alcohol-related problems. Our dependent variable, treatment utilization, was measured using the following item, “have you ever gone to anyone—a

physician, AA (Alcoholics Anonymous), a treatment agency, anyone at all—for a problem related in any way to your drinking?”. Responses were dichotomized as “used treatment” or “have never used treatment”. Respondents who reported ever using treatment services were asked to identify which specific types of treatment that they have used in their lifetime to seek treatment for an alcohol-related problem: “Now, I am going to read you a list of community agencies and professions. For each one, please tell me if you have gone there for a drinking problem.” Options included “general hospitals”, “health or mental health programs”, “mental hospitals”, “a medical group or private physician”, “a priest, minister, pastor, or rabbi”, “a social welfare department”, “Alcoholics Anonymous”, “Vocational rehabilitation program?”, “Some other agency or professional person”, or “some other Alcoholism program”. Each item was dichotomized independently, and a count of the number of treatment options used was examined for descriptive purposes.

2.2.1. Predisposing factors—As informed by Andersen and Newman (1973) and Weisner et al., (2000), predisposing factors included: 1) self-reported educational status (grouped as “no high school diploma [reference category]”, “high school diploma”, “some college/technical/vocational school”, or “college degree or beyond”); 2) gender; 3) current calculated age; and, 4) border or non-border residence (defined as the location of residence at the time of data collection). These predisposing factors were included as covariates in the final analyses, and each factor was included independently in the preliminary models.

2.2.2. Enabling factors—Enabling factors included self-reported household income (in thousands) during the year prior to the survey, current health insurance status (covered by one or more health insurance plans, including private insurance, Medicare, Medicaid, VA or other federal healthcare plans, excluding nursing home care, dental, and vision coverage only), and having a regular doctor (e.g., respondent reported having “one particular clinic, health care center, doctor’s office, or other place that you usually go when you need a routine medical checkup?”, compared with those who did not have a “regular doctor” that they visit).

2.2.3. Need—Need for treatment was operationalized using a count of the number of DSM-V AUD criteria met in the 12 months prior to the survey. In accordance with the DSM-V guidelines, respondents who reported 2 or more of the criteria below in the past 12 months were considered to have an alcohol use disorder. Therefore, the more criteria reported by a respondent, the more “severe” the AUD is expected to be. This measure was dichotomized for descriptive analyses and retained as a count measure of “severity” for multivariate analyses.

In both samples, DSM-V AUD was measured using questions from the Composite International Diagnostic Interview – Substance Abuse Module (CIDI-SAM) (Cottler et al., 1989). Although developed for DSM-IV, the CIDI-SAM includes a measure of alcohol craving, the new indicator of alcohol use disorder in DSM-V, which differentiates the new measure from the DSM-IV. The current operationalization includes the 11 DSM-V criteria for AUD, including (1) recurrent alcohol use resulting in a failure to fulfill major role obligations; (2) recurrent alcohol use in physically hazardous situations; (3) continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or

exacerbated by alcohol; (4) tolerance; (5) withdrawal; (6) alcohol use in larger amounts or over a longer period than intended; (7) a persistent desire or unsuccessful efforts to cut down or control alcohol use; (8) a great deal of time spent obtaining, using, or recovering from the effects of alcohol; (9) giving up or reducing important social activities because of alcohol use; and (10) continued alcohol use despite knowledge of a persistent physical or psychological problem likely to have been caused or exacerbated by alcohol; and, (11) a craving or a strong desire or urge to use alcohol. The instrument in both English and Spanish (Alegria et al., 2009; Haro et al., 2006) has demonstrated concordance in clinical reappraisal studies with the Structured Clinical Interview for Axis I Disorders (SCID) ($\kappa=.51$; specificity=.82 for lifetime substance use disorders).

2.3. Analytical Plan

In order to test our hypotheses in light of the predisposing, enabling and need factors that have been theoretically associated with treatment utilization (Andersen and Newman, 1973; Arroyo, Westerberg, & Tonigan, 1998; Padgett, Struening, Andrews & Pittman, 1995; Grant, 1996; Weisner, 1993), we first tested for differences in treatment utilization for alcohol-related problems, as well as differences in predisposing, enabling and need factors, between the border and non-border sample using bivariate χ^2 tests and survey logistic regression methods. To test our hypothesis that there are differences in the enabling factors for treatment utilization for alcohol-related problems across the border and non-border populations, we included multiple interaction terms for each enabling factor (border sample x enabling factor) in the logistic regression model. These interaction terms were not significant; and therefore, they were dropped to simplify the final models.

Finally, we assessed whether differential enabling and inhibiting factors vary by need for treatment by including an interaction term (border sample x number of criteria met for AUD) in the logistic regression model. Informed by the theoretical and empirical literature above, we expected that need would positively predict treatment utilization, but this effect should be stronger in the presence of enabling factors. At low levels of need, enabling factors have no direct relevance to treatment utilization. For example, among those who meet zero criteria for AUD, there are no substantive reasons to suspect differences in treatment utilization between those with and without access to a treatment facility. In the presence of an AUD, however, not having access to treatment becomes a relevant obstacle and should manifest as a lower probability of obtaining treatment for alcohol-related problems.

In the final model, non-significant interactions were dropped predisposing variables were added as covariates in order to determine whether observed effects remain once predisposing factors were controlled. All models were weighted to represent the demographic composition of the respective neighborhoods and to correct for the unequal probability of selection (Chantala, Blanchette, & Suchindran, 2006) into the sample and were conducted using Mplus 7.1 and STATA 12 (College Station, TX).

3. Results

The purpose of this study was threefold: 1) to test for and explain differences in enabling factors for treatment utilization for alcohol-related problems across the border and non-border samples; 2) to explain the use of treatment for alcohol-related problems among both samples; and 3) to assess how differential enabling and inhibiting factors vary by need for treatment. We expected that differential enabling factors would emerge as key enabling factors for treatment utilization across both populations: Mexican Americans living proximal to the U.S./Mexico border, and Mexican Americans living in large cities farther away from the border.

3.1. Sample description: Presence of predisposing, enabling and need factors

Both samples were more than half male, most commonly had a high school diploma or less, were in their mid- to late-thirties, and made an average of \$28,700 (non-border) and \$33,800 (border) per year. Approximately half of participants reported having some form of health insurance, and one third reported having a regular physician. Approximately one-fourth of participants met the criteria for having a DSM-V AUD. There were no statistically significant differences in demographic characteristics between the border and non-border samples (Table 1).

A total of 89 Mexican American drinkers, 48 on the border and 41 off the border, reported using at least one mode of treatment for an alcohol-related problem during their lifetime. This represents 5.6% of both the border and non-border samples. There were no bivariate differences in the prevalence of treatment utilization between those who reside proximal to the US-Mexico border and the non-border sample ($\chi^2=.0014$; $p=.97$). The most widely used treatment program is Alcoholics Anonymous (used by 89% of those who used one or more treatment programs on the border and 75% of non-border treatment users), followed by general hospitals (Table 2). Those on the border were more likely to use “health or mental health programs” (34% of border treatment users) compared with those off the border (5% of non-border treatment users). There were no other significant differences across the border and non-border samples in the type of treatment used for alcohol-related problems. Therefore, we did not find evidence of differences between the border and non-border samples in predisposing, enabling, and need factors (or type of treatment reported) as correlates of treatment utilization. As a result, the two samples were pooled and “border” residence was included as a covariate in the multivariate analysis.

3.2. Direct effect of predisposing, enabling and need factors

Second, in assessing which enabling factors best explain treatment utilization, we did not find evidence that income, insurance status, or access to a regular physician was positively associated with treatment utilization for alcohol-related problems among Mexican Americans. Instead, being male and need for alcohol treatment (more severe AUD) were both strongly related to treatment utilization. Finally, in testing hypothesis 3 (that need for treatment would modify the relationship between enabling factors and need), we found that need for treatment was not modified by any enabling measures as significant predictors of

treatment utilization (Table 3). That is, enabling factors, including income, insurance status, and access to a regular physician, did not "enable" effects of need on treatment utilization.

4. Discussion

The purpose of the present study was to identify differences in enabling and inhibiting factors for treatment utilization for alcohol-related problems across two samples of Mexican Americans. We expected that different enabling factors would be associated with treatment utilization; however, we did not find evidence of differences in the level of treatment utilization, need for treatment, enabling factors, or predisposing characteristics across samples. Further, we expected enabling factors to vary by need for treatment; however, this effect was not observed.

Overall, there were no differences in treatment utilization between the two border/non-border samples. The widespread use of AA across both groups indicates that public programs are accessible and present even in the medically underserved border community. In addition, "enabling" factors did not appear to modify the effect of need on treatment utilization for alcohol-related problems in either sample. Overall, need for treatment and male gender were most strongly related to treatment utilization.

These results indicate the need for further testing of treatment utilization frameworks in diverse samples and populations, as the theoretically relevant factors (e.g., predisposing, enabling, and need factors) may differ substantially across populations. The U.S.-Mexico border population is particularly unique, characterized by poverty, ethnic homogeneity (most are Mexican Americans), and lack of health insurance despite increased prevalence of several chronic diseases (Pew Research Center, 2013; U.S. Department of Health and Human Services, 2009); however, it seems that the border population that comprised this sample was not different socioeconomically from non-border Mexican-Americans. Previous research has demonstrated that models of treatment seeking apply differently to differential subgroups of the population; for instance, Weisner (1993) found that enabling factors were associated with treatment utilization only for men in a general population sample. Therefore, continued testing and revision of this framework is necessary given that different demographic groups (in this case, Mexican Americans) may have different rationales for seeking treatment for an alcohol-related problem.

The traditional enabling factors identified by Andersen and Newman were not strongly related to treatment utilization for alcohol-related problems among these two samples of Mexican Americans. This may be due to the especially low prevalence rate of alcohol treatment utilization among participants in our sample, or cultural factors not detailed explicitly in the model. It is also possible that the Andersen model does not adequately explain treatment utilization for alcohol use during 2014, given that treatment is publically available in many states across the U.S. The case of treatment for alcohol-related problems is particularly unique compared to treatment for other health conditions, as treatment programs are publically available across both Texas and California (and most other states throughout the U.S.); therefore, fewer barriers to alcohol treatment may exist (SAMHSA, 2012). Because participants in both samples that were used in the present study were largely

residents of Texas and California (a small subset were residents of other states), we anticipated that fewer barriers to treatment (such as socioeconomic position, ability to travel to a facility, and healthcare coverage) would emerge. This may explain the lack of “enabling” factors identified as “enablers” of treatment use in the present study. For example, AA, the most frequently source of treatment for alcohol-related problems in this study, as well as nationally and in other populations (Weisner & Schmidt, 1992; Chartier and Caetano, 2011), is an anonymous self-help program. Although usually used in conjunction with other types of treatment, AA is free and is not part of any medical insurance or publically funded system of treatment, being readily available across the U.S.

Given these findings and implications, these results should be interpreted in light of several limitations. First, the sample included a small number of individuals who reported obtaining treatment for alcohol-related problems in their lifetime. Second, the current study is a secondary analysis of existing data and therefore, all predisposing and enabling constructs were not measured. Fortunately, we did include several indicators of the constructs in our questionnaire, and all of these were included in the present analysis. Further, treatment for alcohol use disorders is frequently court mandated, and we did not collect this information from participants. Finally, the samples used in this analysis included Mexican Americans only; therefore, due to the heterogeneity among Hispanic national groups, these findings may not apply to all Hispanics living in the U.S. (we view this last point as both a strength and a limitation). It is also important to note that sample drawn from the U.S./Mexico border did not include residents from rural regions of the border; therefore, we discuss the external validity of these results only in reference to border residents in urban areas. Despite these limitations, this study brings to the forefront an important area for future inquiry. Specifically, we tested for moderation of need by enabling factors to more thoroughly understand the differences in treatment utilization for alcohol-related problems in two unique, random samples of Mexican Americans. We did not find evidence for enabling factors of treatment utilization that have been identified in general population samples (e.g., access to health care, having a regular physician). Therefore, future research in this area should systematically examine the differences in the enabling factors for treatment utilization, and how these predictors may differ by demographic and ethnic subgroups.

Although not a focus of the present study, the issue of immigration status and legality is an important consideration when assessing the use of publically funded treatment programming for alcohol use among Hispanics in general, and border resident Mexican Americans specifically. First, freely available treatment programs do not request immigration documents, and anyone is able to use these programs as long as there is a need for treatment. Undocumented individuals will have less access to treatment for alcohol-related problems; not because of program-related requirements, but because undocumented immigrants fear deportation if they have contact with public services. As a result, undocumented immigrants would be more reluctant to seek help than U.S. citizens. Finally, undocumented workers may not be legally employed and thus would not have access to treatment services that require medical insurance (e.g., medical groups and/or physicians).

Overall, we did not find substantive differences between border and non-border Mexican Americans, nor did we find evidence to suggest that need is modified by enabling factors to

predict treatment utilization. Further theoretical and empirical research is necessary to determine which mechanisms are driving health disparities in treatment utilization across racial/ethnic groups in general, and Hispanic national groups specifically (Chartier & Caetano, 2011).

Acknowledgments

This research was supported by grant R01 AA016827 (Caetano, PI) from the National Institute on Alcohol Abuse and Alcoholism (NIH/NIAAA).

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Highlights

- We assess treatment use for alcohol-related problems among Mexican Americans
- We found no differences in border compared to non-border residents on treatment use
- Need for treatment was the strongest predictor of treatment utilization
- Severity of alcohol disorders did not vary between border and non-border residents
- “Enabling” factors did not vary by need for treatment in predicting utilization.

Table 1

Sample description, border vs. non-border, N=1,527.

	Border N=787		Non-Border N=740	
	N	%	N	%
Lifetime treatment utilization for alcohol-related problems	41	5.6	48	5.6
Predisposing Factors				
Gender (Male)	428	57.2	471	61.4
Education				
Less than high school	238	38.6	340	41.1
High school diploma	225	22.4	209	29.8
Some college	230	25.7	139	20.8
College degree or beyond	94	13.25	50	8.3
Age (Mean, SE)	38.2(1.0)		36.5(0.8)	
Enabling Factors				
Income (Mean, SE)	33.8(2.9)		28.7(1.7)	
Have health insurance	462	50.2	307	45.9
Have a regular physician	238	38.3	283	35.9
Need for Treatment				
DSM-V Alcohol Use Disorder	221	26.8	203	23.8

 $p < 0.001$

Table 2

Types of treatment utilized for an alcohol-related problem across samples.

	Border N=41	Non-Border N=48	χ^2
	%	%	
<i>Type of treatment</i>			
Alcoholics Anonymous (AA)	88.6	75.0	1.766
General hospitals	32.2	19.7	.712
Health or mental health programs	34.1	4.9	6.17*
Mental hospital	5.5	21.8	1.82
Medical group or private physician	19.1	17.3	.020
Priest, minister, pastor or rabbi	15.2	22.7	.284
Social welfare department	19.8	8.7	.881
Other alcoholism program	25.4	15.0	.899
Vocational rehabilitation program	17.7	11.7	.454
Other agency or professional	0.8	2.3	.552
			<i>p</i> -value
<i>Average number of treatment options sought</i> (Mean, SE; Range: 0–10)	2.84(.80)	2.02(.26)	0.310

Note: Types of treatment are not mutually exclusive, as participants were able to report using multiple types of treatment for alcohol-related problems over the course of their lifetime.

*
 $p < 0.05$

Table 3

Survey logistic regression evaluating the independent effects of predisposing, enabling, and need factors on treatment utilization for alcohol-related problems, n=1,527.

	Treatment Utilization for Alcohol-Related Problems (Lifetime)	
	OR	95% CI
Predisposing Factors		
Gender (Male)	2.95*	1.06–8.25
Education		
Less than high school	Ref	--
High school diploma	.99	.44–2.24
Some college	.48	.15–1.51
College degree or beyond	.66	.11–3.65
Age	1.01	0.99–1.04
Enabling Factors		
Income	.99	.98–1.01
Have health insurance	2.14	.88–5.25
Have a regular physician	1.41	.67–3.00
Need for Treatment		
DSM-V Alcohol Dependence Criteria	1.45***	1.31–1.60
Border		
Border residence	.99	.47–2.03
Intercept	.004***	.00–.02

*
 $p < 0.05$

**
 $p < 0.01$

 $p < 0.001$