Functioning of Alcohol Use Disorder Criteria Among Men and Women with Arrests for Driving Under the Influence of Alcohol


Background: Many states require screening of individuals arrested for driving under the influence (DUI) of alcohol to determine recidivism risk and the need for treatment based on severity of alcohol problems. Several screening instruments use DSM-IV criteria for alcohol abuse and dependence to assess alcohol problems in this population, but whether they adequately measure alcohol problems in individuals with DUls has not been examined. In addition, gender differences in DUI samples suggest that female offenders have more severe alcohol problems than male offenders. The current study examines differences in alcohol criteria functioning by DUI history and gender using an item response theory (IRT) approach.

Methods: Data from diagnostic interviews with 8,605 participants in the Collaborative Study on the Genetics of Alcoholism, including 1,655 who ever reported a DUI arrest (20% women), were used to examine differences in alcohol criteria functioning between men and women with and without DUls. The factor underlying item response was conceptualized as unidimensional, representing alcohol problem severity.

Results: Social/interpersonal problems, larger/longer, and inability/persistent desire to quit displayed greater discrimination of IRT-defined alcohol problem severity among individuals with DUls than those without. Irrespective of DUI status, women had a higher threshold than men for time spent drinking or recovering. Women without DUls had a higher threshold than similar men for social/interpersonal problems. Taken as a whole, the criteria yielded similar amounts of information in all groups.

Conclusions: DSM-IV criteria for alcohol abuse and dependence adequately detect alcohol problem severity in individuals with DUls, and some are better at detecting severity in this particularly high-risk group than in individuals without DUls. However, the criteria as a whole are equally effective in measuring alcohol problem severity among individuals with and without DUls and may be used with confidence in screening DUI offenders.

Key Words: Driving Under the Influence, Alcohol Use Disorder, Item Response Theory.
decreased 11% for men between 2000 and 2009 (Federal Bureau of Investigation, 2009). Previous work has shown that women with DUls are more likely than their male counterparts to report unsuccessful quit attempts, spending a great deal of time drinking or recovering from drinking, continued alcohol use despite family problems and psychological problems, and withdrawal symptoms (McCutcheon et al., 2009). These gender differences suggest more severe alcohol problems among women than men with DUls, consistent with studies showing higher rates of alcohol dependence among female than male recidivists (Lapham et al., 2006; Laplante et al., 2008). This evidence for gender differences in alcohol problem severity among DUI offenders, combined with scant evidence for gender differences in other high-risk samples (Bucholz et al., 1996; Kahler et al., 2003; Schuckit et al., 1998; Wu et al., 2009), suggests that women with DUls may represent a particularly severe alcohol use phenotype. There is thus a need to test whether the DSM-IV criteria for alcohol abuse and dependence measure alcohol problems adequately and to a similar degree in men and women with DUI histories. Such evaluation is important, given the increasing numbers of women arrested for DUI and the public concern with this trend, as evidenced by frequent news articles about women arrested for DUI (e.g., Flam, 2009; Lundstrom, 2009; Tellier, 2009).

The current study examines the differences in DSM-IV alcohol abuse and dependence criteria functioning by gender and by DUI history using an item response theory (IRT) approach. Previous studies using this approach have found differences in measurement characteristics of abuse and dependence criteria by gender (Harford et al., 2009; Kahler and Strong, 2006; Nichol et al., 2007; Saha et al., 2006), treatment group (Wu et al., 2009), and sample ascertainment method (i.e., clinical, adjudicated, or population-based; Gelhorn et al., 2008). Investigating the measurement characteristics of DSM-IV alcohol abuse and dependence criteria in individuals with DUls will contribute to the evaluation of screening instruments used in this population and also to understanding the functioning of these criteria in a high-risk population.

**MATERIALS AND METHODS**

**Sample**

Data were collected from 1,287 probands and 7,318 relatives of probands who participated in the Collaborative Study on the Genetics of Alcoholism (COGA), a high-risk family study of alcohol dependence (Foroud et al., 2000; Reich et al., 1998). Probands were recruited from treatment settings in 6 catchment areas (Farmington, CT; Brooklyn, NY; Indianapolis; IN; St. Louis, MO; Iowa City, IA; and San Diego, CA) and were required to meet criteria for DSM-III-R alcohol dependence (American Psychiatric Association, 1987), Feighner definite alcoholism (Feighner et al., 1972), and to have at least 2 first-degree relatives available for study. The institutional review board at each site approved the protocol, and written informed consent was obtained from all subjects. Details about ascertainment are available from previous studies (Bucholz et al., 1996; Reich et al., 1998). The sample was 51% men, 74% non-Hispanic white, 17% African American, 6% Hispanic white, and 3% other ethnicity, with a mean age of 40.2 (SD = 13.6). Forty-nine percent of participants were married at the time of interview, 28% had never been married, and 23% were widowed, separated, or divorced. Approximately half (47%) had greater than a high school education, 37% had finished high school or passed an equivalency exam, and 16% had less than a high school education. Individuals with DUls (19.2%) compared with those without DUls were slightly older [mean (SD) = 41.9 (11.3) vs. 39.7 (14.1), p < 0.001], less likely to be African American (10.8 vs. 18.4%, p < 0.001), more likely to be separated or divorced (34.0 vs. 18.2%, p < 0.001), and more likely to have a yearly household income below $20,000 (35.6 vs. 25.4%, p < 0.001). Nearly all met criteria for an alcohol use disorder (AUD = either alcohol abuse or dependence), 98.1 vs. 59.9% for individuals without DUls), and they endorsed a greater number of AUD criteria than individuals with no DUls [range 0–11, DUI, mean (SD) = 8.3 (2.7); No DUI = 3.1 (3.2), p < 0.001]. The relatively high prevalence of AUDs and high mean symptom count for the non-DUI group reflect the high density of AUDs in the COGA families.

**Measures**

The Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA; Bucholz et al., 1994, 1995) was used to assess alcohol abuse and dependence symptoms. The SSAGA has shown high reliability and validity in diagnosing alcohol dependence and has good interrater reliability for individual alcohol criteria (Bucholz et al., 1994, 1995; Hesselbrock et al., 1999). The current study uses lifetime abuse and dependence criteria based on DSM-IV definitions (American Psychiatric Association, 1994). Two criteria, legal problems and time spent, were strictly operationalized in the interview. The dependence criterion for spending “a great deal of time … in activities necessary to obtain the substance or recover from its effects” (American Psychiatric Association, 1994, p. 181) was coded positive for respondents who answered “yes” to the question “Has there ever been a period of several days or more when you spent so much time drinking or recovering from the effects of alcohol that you had little time for anything else?” and also reported 3 or more such periods or a period lasting at least 1 month. The abuse criterion for legal problems was coded positive for individuals who reported 3 or more arrests for DUI or reported 3 or more arrests in a 12-month period for other drunken behavior. History of DUI was based on self-report in answer to the question “Have you ever been arrested for drunk driving?” and number of times arrested. Of individuals with DUls, a majority reported 1 (n = 822), 368 reported 2, and 465 individuals reported 3 or more DUls.

**Statistical Analysis**

Two abuse criteria, hazardous use and legal problems, were excluded from the analysis owing to their tautology with DUI status (i.e., arrest for DUI contributes to the legal problems criterion, and accident resulting from drinking and driving contributes to the hazardous use criterion). To determine whether arrest for DUI was simply a proxy for alcohol abuse (and thus did not index a group of individuals distinct from other individuals who met abuse criteria), we examined differences in alcohol and drug use and psychiatric disorder between individuals with DUls and individuals who met abuse criteria but did not endorse arrest for DUI or accident owing to drinking and driving. Exploratory factor analysis (EFA; Fabrigar et al., 1999) was used to determine the number of factors required to explain the covariance across the 2 alcohol abuse (i.e., excluding hazardous use and legal problems) and 7 dependence criteria for all participants, and in groups defined by DUI status and gender (men and women with DUls; men and women with no DUls) before proceeding with an IRT (Muthén and Lehman, 1985) analysis. The EFA results...
supported the unidimensionality of the criteria, and a confirmatory one-factor model (using confirmatory factor analysis or CFA) was used for all subsequent models. Parameters from CFA can be converted into a 2 parameter logistic item response model (Muthén and Lehman, 1985) characterized by discrimination and difficulty. Discrimination represents the ability of a criterion to distinguish individuals at high risk of AUDs from those at relatively lower risk. Difficulty reflects the location along the liability continuum where the criterion has a 0.50 probability of endorsement. It thus represents the threshold on the alcohol severity continuum where the criterion becomes more likely to be endorsed than not.

The direct effects of gender on AUD criteria in the sample as a whole were tested within the item response model by regressing each criterion on the alcohol severity factor and gender simultaneously. A significant effect of gender on a criterion beyond that accounted for by underlying mean differences in the alcohol severity factor indicates that the criterion has different measurement characteristics in men and women, or measurement nonequivalence, and that the data should be grouped separately by gender. Similar tests were performed to evaluate direct effects of number of DUls on AUD criteria using dummy variables representing individuals with 1, 2, and 3 or more DUls. Based on the results of these tests, a 4-group model, with groups defined by DUI status (yes/no) and gender, was used to test the residual association of each of the 9 criteria with DUI status. In these models, factor means were set to zero for women without DUls and were freely estimated in the other groups. As there was evidence for unequal variances, \( \chi^2(4) = 128.54, p < 0.0001 \), variances were freely estimated across groups and the discrimination and difficulty parameters for role failure, which showed no evidence of differential criterion functioning (DCF), were constrained across groups to identify the model. The baseline model against which subsequent models were compared constrained the discrimination and difficulty parameters for all criteria across groups. For each criterion individually (except role failure), a model was fit which freed the discrimination and difficulty parameters for individuals with DUls (male and female DUl groups were equated), and a likelihood ratio test on 2 degrees of freedom was computed using the baseline model for comparison. If this test yielded a statistically significant improvement in fit (based on a \( p \)-value of \( \leq 0.01 \), and calculated using equations available at statmodel.com), 2 additional tests were conducted to assess DCF by gender for individuals with and without DUls, using the previous model for comparison. If no DCF by DUI status was found, then a single test of DCF by gender was performed, using the baseline model for comparison. The final model incorporated all significant differences between groups.

For criteria showing DCF, effect sizes for were calculated for difficulty parameters showing DCF as the absolute difference in thresholds between groups and item characteristic curves (ICCs) were computed to provide a visual representation of group differences in both discrimination and difficulty (Steinberg and Thissen, 2006). In ICCs, criteria with greater discrimination will have steeper curves (i.e., higher factor loading). Likewise, criteria with greater difficulty will have higher thresholds (i.e., will correspond to higher numbers on the \( x \)-axis, representing greater severity) and will appear farther from the \( y \)-axis. Conversely, more commonly endorsed criteria tend to have lower difficulty and will appear closer to the \( y \)-axis in ICCs. A partial item information curve was also computed from the final model parameters to illustrate the aggregate information about AUD severity gleaned from the criteria showing DCF for each of the 4 groups. In the information curves, the height of the peak corresponds to measurement precision, with higher peaks having greater precision, and the kurtosis corresponds to the range of severity over which liability is measured.

Descriptive statistics were computed using Stata statistical software (StataCorp, 2009), and factor analysis and IRT models were computed using Mplus (Muthen and Muthen, 1998–2007). All models were adjusted for the clustering of family data.

**RESULTS**

Rates of alcohol dependence for individuals with and without DUls were 81.3 and 30.8\%, respectively; nearly all of these also met criteria for abuse. Seventeen percent of individuals with DUls and 29.1\% of those without DUls met criteria for abuse only.

**DUI Versus Alcohol Abuse with no DUI**

Individuals with DUls (\( n = 1,655 \)) were compared with those who met abuse criteria (with or without dependence) but reported no DUls or accidents owing to drinking and driving (\( n = 3,852 \)). The purpose of this comparison was to establish that DUI status was not merely a proxy for alcohol abuse but distinguished a group distinct from individuals with abuse but no DUI. Individuals with DUls, compared to those without, began drinking at a younger age (mean (SD) = 16.9 (4.5) vs. 17.8 (4.7), \( p < 0.001 \)) reported a higher lifetime maximum number of drinks in 24 hours (mean (SD) = 34.2 (22.5) vs. 22.2 (21.4), \( p < 0.001 \)) and endorsed more AUD criteria [after excluding hazardous use and legal problems from the criterion set; range 0–9, mean (SD) = 6.4 (2.7) and 3.8 (2.9), \( p < 0.001 \)]. Individuals with DUls also had higher lifetime rates of illicit drug use (77.0 vs. 67.9\%, \( p < 0.001 \)), major depression (50.6 vs. 45.7\%, \( p < 0.001 \)), and antisocial personality disorder (ASPD, 29.0 vs. 15.7\%, \( p < 0.001 \)) and lower rates of conduct disorder without ASPD (3.7 vs. 5.3\%, \( p < 0.001 \)) than those who met abuse criteria but had no DUls or car accidents owing to drinking and driving. History of DUI thus indexes a greater severity of alcohol problems that is distinct from alcohol abuse without DUI, as reflected in greater alcohol use and symptoms and higher rates of co-occurring drug use and psychiatric disorder.

**Unidimensionality**

Fit statistics from EFA indicated that a one-factor model was optimal for these data, with a Comparative Fit Index (CFI) = 0.998, Tucker–Lewis Index (TLI) = 0.999, and Root Mean Square Error of Approximation (RMSEA) = 0.034. In each subgroup as well (men with and without DUls, women with and without DUls), fit statistics indicated a unidimensional structure provided the best fit to the data, with CFIs and TLIs ranging from 0.992 to 0.999 and RMSEAs ranging from 0.025 to 0.061.

**Tests of Measurement Nonequivalence by Gender and Number of DUls**

Tests of direct effects of gender on AUD criteria in the sample as a whole, adjusted for the underlying severity factor, found that women were less likely than men to report social/interpersonal problems (OR = 0.49, 95\% CI = 0.39–0.62) and were more likely to report drinking larger amounts than intended or for longer periods of time (OR = 1.32,
95% CI = 1.09–1.61), spending so much time drinking or recovering that there was little time for anything else (OR = 1.38, 95% CI = 1.08–1.76), and continued drinking despite physical or psychological problems (OR = 1.33, 95% CI = 1.05–1.69). In tests evaluating direct effects of number of DUls on AUD criteria, only the social/interpersonal problems criterion showed differential reporting by number of DUls. Individuals with 2 (OR = 1.53, 95% CI = 0.67–2.39) and 3 or more DUls (OR = 1.88, 95% CI = 0.81–2.95) did not differ in rates of endorsement, and 1 DU (OR = 0.55, 95% CI = 0.15–0.94) were less likely to endorse this criterion than those with multiple DUls. The only criterion showing differential endorsement by number of DUls and because nearly all individuals with 2 or more DUls endorsed it (95.6%), we elected to use the more parsimonious model of DUI status as binary (yes/no). A 4-group model was thus used to test whether measurement characteristics for the 9 AUD criteria differed across men with and without DUls and women with and without DUls.

Tests of DCF for Individual Criteria

All criteria were endorsed more frequently by individuals with, than by those without, DUls (Table 1). Of the criteria included in the IRT analysis, drinking larger amounts or for longer periods of time than intended (larger/longer) was the most commonly endorsed and spending so much time drinking or recovering from drinking that there was little time for anything else (time spent drinking/recoversing) was the least frequent. Results of 4-group IRT models testing DCF of individual criteria are reflected in the letter superscripts accompanying the frequencies in Table 1, with different letters across rows indicating significant differences in endorsement after accounting for the alcohol severity factor. The tests revealed DCF by DUI status and gender for social/interpersonal problems and larger/longer; gender differences were significant only among individuals without DUls. Inability/persistent desire to quit showed DCF by DUI status only while time spent drinking/recoversing and physical/psychological problems showed DCF by gender but not by DUI status. There was no evidence of DCF for tolerance, withdrawal, or activities given up, and so the IRT parameters for these criteria were constrained across groups in the final model. Results of the final model accounting for these similarities and differences and for differences in factor means are displayed in Table 2, and ICCs representing group differences for criteria with DCF are displayed in Fig. 1.

The curve representing Larger/Longer (“More” in the graph) is closest to the y-axis, corresponding to its frequent endorsement in Table 1 and its low difficulty parameters in Table 2, indicating that it is endorsed at lower levels of alcohol problem severity. The slope of the “More” curve for the DUI category is steepest, reflecting its higher discrimination parameter in Table 2. “Time Spent” is farthest from the y-axis, corresponding to its infrequent endorsement in Table 1 and its high difficulty parameters in Table 2, indicating that a high level of severity is needed before it is more likely to be endorsed. The slope of the curve is greater for women than for men, reflecting its greater discrimination among women. A similar gender pattern was observed for Physical/Psychological problems (“Phys/Emot” to the left of “Time Spent”). Sandwiched between “More” and “Phys/Emot” are Social/Interpersonal problems (“Social” in graph) and Inability/Persistent desire to quit (“Quit” in graph). Slopes for the DUI group (dotted lines) were steeper for both these criteria, showing greater discrimination among individuals with than among those without DUls. The intersection of the lines representing “More,” “Quit,” and “Social” for individuals with DUls (dotted lines) with the lines for those without DUls (solid lines) illustrates the greater discrimination of these

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<tr>
<th>Table 1. Lifetime Prevalence (%) of DSM-IV Alcohol Abuse and Dependence Criteria Endorsement, by DUI Status and Gender</th>
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<tr>
<td><strong>Abuse Criteria</strong></td>
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<tr>
<td>Male (n = 3,056)</td>
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<tr>
<td>Role failure</td>
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<td>Hazardous usea</td>
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<td>Dependence criteria</td>
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<td>Tolerance</td>
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<td>Withdrawal</td>
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<td>Inability/persistent desire to quit</td>
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<td>Time spent drinking/recoversing</td>
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<td>Activities given up</td>
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<td>Physical/Psychological problems</td>
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*Excluded from item response theory analysis because of redundancy with driving under the influence (DUI) status; A,B,C different superscripts across rows indicate differences between groups at p < 0.01 from tests of differential criterion functioning for individual criteria, adjusted for underlying alcohol severity factor; same superscript indicates no statistically significant difference.
criteria among individuals with DUls. Information curves representing the aggregate information gleaned from the 5 criteria showing DCF are displayed in Fig. 2, by DUI group and gender. Measurement precision of these criteria was greater in the DUI groups (higher peaks).

A total information curve which included all 9 criteria from the final model showed that measurement precision was very similar in all 4 groups. To determine whether the 2 abuse criteria included in the analysis contributed information beyond that from the dependence items, an item information curve which excluded role failure and social/interpersonal problems was compared with the total information curve. The peaks were uniformly lower in all 4 groups in the curves which excluded abuse items, indicating that the abuse criteria contributed to the identification of AUDs similarly in all groups. For example, the height of the peaks for women with no DUIs before and after excluding the abuse criteria were 5.8 and 4.1, respectively, and for women with DUls were 5.4 and 4.2 (data not shown, available on request). This indicates that the remaining abuse criteria contribute to identification of AUDs, over and above the 7 dependence criteria, and do so similarly across groups.
Differences in alcohol criteria functioning by DUI history and gender were examined in the current study using an item response approach. DCF related to DUI status was observed for 3 criteria, social/interpersonal problems, larger/longer, and inability/persistent desire to quit, indicating they were better at discriminating alcohol problem severity in individuals with DUls than those without. Irrespective of DUI status, women had a higher threshold than men for time spent drinking or recovering and women without DUls had a higher threshold than similar men for social/interpersonal problems. When considered as a whole, the criteria functioned equally well in all groups, supporting the use of AUD criteria in instruments used to screen individuals with DUls for alcohol problem severity in judicial settings.

Information on which the AUD criteria were based came from diagnostic interviews in the context of a high-risk family study and thus was not subject to the underreporting of alcohol use and related behaviors noted in DUI samples in court-ordered settings. A study which examined the accuracy of alcohol diagnosis in DUI offenders found a 20.1% rate of alcohol dependence during DUI-related screening; 5 years later, this rate was 60.1% based on interviews with the same offenders which queried the same time frame as the previous screening (Lapham et al., 2004). In the current study, 81.3% of DUI offenders met alcohol dependence criteria, consistent with an accurate reporting of symptoms and with high rates of AUD symptoms in other high-risk samples (Hill et al., 2010; Strong et al., 2010).

In parallel with the extant literature, we found evidence for a unidimensional structure underlying AUD criteria in the sample as a whole and in individuals with and without DUls as well. Unidimensionality in the non-DUI group, which was heterogeneous regarding AUD status in that 40% did not meet criteria for alcohol abuse or dependence, further supports the conceptualization of the criteria as representing a continuum. Not surprisingly, individuals with DUls scored significantly higher on the underlying alcohol severity factor than those without DUls, underscoring their high-risk status and consistent with their higher mean number of AUD symptoms.

Three criteria that discriminated at lower levels of alcohol severity, larger/longer, inability/persistent desire to quit, and social/interpersonal problems showed DCF by DUI status, with higher difficulty parameters in individuals with DUls than those without. This means that individuals with DUls were less likely to endorse these criteria, on average, than were individuals without DUls at the same level of alcohol problem severity. The higher discrimination parameters among individuals with than without DUls suggest that individuals with DUls were less likely to endorse these criteria at low levels of alcohol problem severity and more likely to endorse them at higher levels than were individuals with no DUls. The measurement precision of these criteria was also better in individuals with DUls, suggesting that they function well in exceptionally high-risk populations. The higher severity threshold required before endorsement by individuals with DUls may reflect differences in life circumstances, perception, or attitude between the groups. For example, the higher rates of divorce and separation among individuals with DUls may well be a consequence of excessive alcohol use; however, unless it is perceived as an alcohol-related problem, it will not be reported as such. It is possible that individuals with DUls at lower levels of severity do not recognize or acknowledge social/interpersonal problems as related to alcohol use, but that they acknowledge the association between alcohol use and relational difficulties at higher levels of severity, after an accumulation of negative consequences. Similarly, individuals with DUls may be less likely to perceive or admit to a need to quit, making them less likely to endorse wanting to quit or being unable to. In fact, a majority of individuals who meet criteria for AUDs do not perceive a need for help (Dawson et al., 2006; Mojtabai et al., 2002; Wu and Ringwalt, 2004). The gender differences observed for social/interpersonal problems and larger/longer among individuals without DUls were similar to those observed in a population-based sample (Saha et al., 2006), with social/interpersonal problems having a higher threshold and larger/longer having a lower threshold among women. The lack of gender differences in the DUI group suggests that gender differences are minimized in more severely affected samples. This is consistent with a study in a high-risk sample of women and men enrolled in a domestic violence program which found that items in the alcohol dependence scale showed no DCF by gender (Kahler et al., 2003).

Preliminary tests of DCF performed prior to the 4-group model produced evidence that, irrespective of DUI status, women were more likely than men to report drinking larger amounts or for longer periods of time than intended, spending so much time drinking or recovering that there was little time for anything else, and continued drinking despite physical or psychological problems, and less likely than men.

**DISCUSSION**

![Fig. 2. Information curves showing aggregate information from 5 alcohol use disorder criteria which displayed differential criterion functioning in item response theory analysis (larger/longer, inability/persistent desire to quit, social/interpersonal problems, physical/psychological problems, time spent), by driving under the influence and gender.](image-url)
to report social or interpersonal problems because of drinking. Similar evidence of measurement nonequivalence for drinking despite psychological and physical problems was found in a population-based sample using measures based on the previous 12 months, with women more likely than men at similar levels of alcohol problem severity to endorse it (Harford et al., 2009). This criterion also showed gender heterogeneity with regard to cannabis abuse and dependence criteria in the National Epidemiological Survey on Alcohol and Related Conditions (Agrawal and Lynskey, 2007). This consistency across samples and substances warrants examination of drinking despite physical or psychological problems to elucidate reasons for this gender difference which could potentially help improve treatment outcomes for women.

Even after removing the abuse criteria confounded with DU1 (i.e., hazardous use and legal problems), the 2 remaining abuse criteria included in the analysis (role failure and social/interpersonal problems) did contribute to the overall measurement of the criteria in all groups. It is possible that hazardous use and legal problems would show greater discrimination and higher thresholds among individuals without DU1s than those with, as they are much less frequently endorsed by individuals without DU1s. Inclusion of these criteria, however, is not warranted in the current analysis owing to their redundancy with DU1 status. Had they been included, it is unlikely they would alter the overall conclusion of the analysis.

As one would expect, the findings from this high-risk sample are more consistent with similar analyses in clinical samples than in population-based samples. Time spent drinking or recovering and giving up activities were the 2 most severe criteria in the current study and in a study using data from a multisite treatment sample (Wu et al., 2009), suggesting that these criteria map higher ranges of severity in exceptionally high-risk samples. Giving up activities was also among the more severe criteria in clinical, adjudicated, and community samples of adolescents (Gelhorn et al., 2008). In a population-based study, giving up activities was the most severe criterion, and difficulty quitting and larger/larger were least severe (Saha et al., 2006), similar to the current study, but the severity ranking of the other criteria was quite different. In another population-based study, time spent was the least severe criterion among individuals aged 18 and older (Harford et al., 2009); in the current study, it was the most severe criterion for men and second most severe for women, perhaps reflecting greater habituation to alcohol use in this high-risk sample. The strict operationalization of time spent as spending “so much time drinking or recovering from the effects of alcohol that you had little time for anything else” in the current study may also contribute to the discrepant findings. The qualifier “little time for anything else” may cause respondents to interpret the question as a more severe drinking-related behavior, resulting in lower endorsement and higher severity. For women, time spent was as severe a criterion as giving up activities to drink. In other studies, in high-risk (Gelhorn et al., 2008; Wu et al., 2009) and population-based samples (Saha et al., 2006), giving up activities is a more severe criterion than time spent.

Limitations of the study include the use of a family study with a high genetic loading for alcohol dependence, which means that these results may not generalize to other samples that are not high risk. Heightened risk for social and environmental adversity that often accompany familial risk of alcohol dependence, such as childhood trauma, may not generalize to other samples. Variation in abuse/dependence status in the non-DUI1 group may have obscured some distinctions that might have become apparent with further stratification by abuse and dependence status. However, because our aim was to examine AUD criteria functioning in individuals with versus those without DU1s, regardless of AUD status, and consistent with current findings of a continuum of alcohol problem severity, we elected not to stratify the data further.

The current study has highlighted some areas where alcohol criteria may function differently in the particularly high-risk group of individuals with DU1s, and where examination of differences could yield information useful for the study and treatment of individuals at the more severe end of the alcohol use spectrum. The adequate functioning of the criteria as a whole, however, supports the use of AUD criteria in instruments used to screen individuals with DU1s for alcohol problem severity in judicial settings.

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COGA

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REFERENCES


