# Assessing Alcohol Problems in College Students

Stephanie C. Hurlbut, BA; and Kenneth J. Sher, PhD

**Abstract.** Alcohol abuse among college students is prevalent, yet few instruments with sound reliability and validity are available to assess these problems in this population. As part of a large, baseline assessment battery for a prospective study of offspring of alcoholics, the 27-item Young Adult Alcohol Problems Screening Test (YAAPST) was given to 490 freshmen at a large midwestern university; approximately 9 months later, 482 subjects completed the scale again. In addition to asking about such traditional problems as experiencing blackouts and driving while intoxicated, the YAAPST included specific items relating to college experiences (eg, getting into sexual situations that were later regretted, missing classes, and receiving lower grades than usual). The YAAPST was designed to assess these drinking consequences over two different time frames, lifetime and past year, and also to indicate the frequency of occurrence during the past year. Results indicated that the YAAPST is a unidimensional scale with good psychometric properties (good internal consistency and test-retest reliability). Three different approaches were used to demonstrate the validity of the YAAPST. Findings supported criterion validity (with interview-based alcohol abuse/dependence diagnoses as the criterion), concurrent validity (comparing the YAAPST with other drinking measures), and construct validity (correlating the YAAPST with etiologically relevant personality, motivational, and peer influence variables). The YAAPST is a promising screening instrument for alcohol problems in college students. It has excellent psychometric properties and the potential to provide a range of useful information to the clinician or researcher.

**Key Words.** alcoholism, alcohol problems, college students, Diagnostic Interview Schedule, screening test

Many researchers have reported high rates of alcohol abuse and problem drinking among college students.[1-3] The true extent and nature of alcohol abuse among college students is unclear, however, because of inconsistent assessment methods across studies and the use of measures with questionable reliability and validity within this population.[1,4] Assessing alcohol abuse is especially difficult in this population because most of the traditional assessment instruments were developed for use on adult male alcoholics and have never been tested on college students.[4,5] Such traditional scales may not be optimal for use with college students, who may not have been abusing alcohol long enough to have experienced physiological dependence or serious medical complications. In addition, young adults' social roles typically do not include marriage or career, areas that are emphasized in traditional assessment scales. Conversely, difficulties involving impaired school performance, missed classes, and regretted sexual experiences are age-appropriate for college students and relevant to the extent and nature of their drinking. These methodological problems are relevant not only for researchers but also for clinicians and educators. Effective prevention and intervention cannot be accomplished without a valid and accurate understanding of the nature and consequences of college students' use of alcohol.

Researchers measuring alcohol use in college students currently endorse various definitions of alcohol abuse and use instruments developed for their own research or those developed for use on other populations.[1,4,6] Many investigators use only a measure of quantity, frequency, a quantity-frequency composite, or some other estimate of the amount that a subject drinks.[7-9] Other researchers use traditional assessment scales such as the Michigan Alcoholism Screening Test (MAST).[10-13] Another approach capitalizes on instruments developed on other special populations (eg, adolescents), such as the Adolescent Alcohol Involvement Scale (AAIS)[6] and the Rutgers Alcohol Problem Index (RAPI).[14] Although these scales show promising psychometric properties,[6,15] the AAIS and RAPI were not developed using college students and have not been validated for this population.

Some studies of college students[2,16-19] have developed their own questionnaires, which are similar to those de-

*Stephanie C. Hurlbut is a graduate student in clinical psychology and research assistant in the Department of Psychology at the University of Missouri in Columbia, where Kenneth J. Sher is an associate professor.*

veloped for use with adolescents in that many of them assess negative consequences of alcohol use. These include the Student Alcohol Questionnaire (SAQ),[2] a questionnaire designed by Donovan, Jessor, and Jessor,[20] and a questionnaire developed by Davis and Reynolds.[17] The SAQ assesses quantity-frequency, negative consequences, and knowledge of alcohol's effects, and the Donovan group's questionnaire assesses frequency of intoxication and negative consequences. The Davis and Reynolds questionnaire assesses quantity-frequency, location of drinking, and negative consequences. Another questionnaire developed for use with college students and widely administered is the Core Pre/Post Evaluation Instrument (C. Presley, R. Harrold, E. Scouten, R. Lyerla. *Core Pre/Post Evaluation Instrument User's Manual*, 2nd ed. St. Paul, MN: Fund for the Improvement of Post-Secondary Education. Unpublished manuscript, 1990). The Core instrument assesses quantity and frequency of alcohol use, frequency of heavy drinking, and negative consequences of drinking; it is specifically designed as a measure of intervention efficacy (personal communication, Rob Lyerla). These measures typically do not assess many dependence symptoms, have limited details on the psychometric properties of all of these scales (eg, none has been compared with interview-based alcohol diagnoses), and their demonstrated reliability and validity are not extensive. With the exception of the SAQ, these measures either do not specify the time period covered by the questions or they specify only one time period.[2,17,20] Despite these limitations, however, the three scales just described do provide potentially valuable information regarding drinking and its consequences in college samples. Studying the alcohol-related negative consequences experienced by students can help clinicians understand the impact of drinking on students' lives and also suggest possible approaches for effective intervention (eg, discovering consequences that cause enough distress to motivate students to begin altering their drinking habits). Further investigation of the scales' psychometric properties and the specific time frames would be helpful future endeavors.

We developed the Young Adult Alcohol Problems Screening Test (YAAPST) to be used with college students and designed it to address many of the issues just noted. First, we selected age-relevant, alcohol-related negative consequences for inclusion in the YAAPST. Second, we also included traditional questions that assess the more serious consequences and hallmark dependence symptoms. Third, we designed the YAAPST to assess several time frames so that it would distinguish lifetime problems from recent ones. In addition, the YAAPST assesses the frequency of consequences during the past year to provide more detailed information about the severity of drinking problems.

After development of the YAAPST items and response formats, we addressed the methodological issues concerning reliability and validity by examining the internal consistency, dimensionality (ie, factor structure), and test-retest reliability. We investigated three different types of validity, including the relationship between the YAAPST and other measures of drinking behavior (concurrent validity), the relationship between the YAAPST and interview-based alcohol diagnoses (criterion validity), and the relationship between the YAAPST and etiologically relevant personality, expectancy, and peer measures (construct validity). We hope that, in addressing these issues, we have developed an instrument that can be used effectively for both research and clinical purposes. The YAAPST results can identify students who are experiencing multiple consequences of their drinking, can indicate the severity of each consequence for the student's life, and can specify areas to be targeted for prevention and intervention.

## METHOD

### Subjects

All first-time, incoming freshmen ($N$ = 3,944 students) at a large midwestern university were asked to participate in a preliminary screening for a research study. Eighty percent of these students ($n$ = 3,156) agreed to the screening and completed a series of questionnaires, including two versions of the Short Michigan Alcoholism Screening Test (SMAST),[21] one adapted to gather information about maternal drinking, the other to gather data about paternal drinking habits. On the basis of the SMAST data, we tentatively classified 808 subjects as either having an alcoholic parent (one parent scoring 4 or greater) or as not having an alcoholic parent (both parents scoring 0 or 1). These subjects then completed the Family History-Research Diagnostic Criteria (FH-RDC) interview,[22] and we compared this information with that given on the adapted SMASTs. A baseline sample of subjects, whose SMAST and FH-RDC data were consistent, was selected to participate in the study for all 4 years of data collection. This selection process, further described in a previous report,[23] yielded a baseline sample of 490 students (mean age of 18.2 years, $SD$ = 0.7). The number of men and women in the sample and of students with and without a family history of alcoholism was approximately equal.

### Procedure

Subjects tentatively selected for inclusion in the study were telephoned and asked to participate in a project to assess health behaviors during the college years. Those who gave their consent then scheduled an appointment for a diagnostic interview, the Diagnostic Interview Schedule Version III-A (DIS).[24] A trained, lay interviewer unaware of subjects' family history administered the DIS, and all interviews were cross-edited by another interviewer and, randomly, by the interview supervisor. Subjects also completed a neuropsychological evaluation and a questionniare battery. Approximately 1 year later, the 490 subjects in the baseline sample were called again and asked to continue to participate in the study.

Those who consented (485 of 490; 99% retention) completed the diagnostic interview as well as the questionnaire battery at this first follow-up.

### Measures

**YAAPST.** The Young Adult Alcohol Problems Screening Test (YAAPST) is a 27-item questionnaire that assesses negative consequences of alcohol use among college students. Most of these consequences are commonly used by other investigators in various combinations and with diverse rating possibilities. The YAAPST assesses both traditional consequences (hangovers, blackouts, driving while intoxicated) and additional consequences that are presumed to occur at higher rates in a college student population (eg, missing class, damaging property/setting off alarms, getting involved in regrettable sexual situations). This instrument yields information about lifetime alcohol problems (ever occurred) as well as recent problems (occurred during the past year) and the severity of these problems (weighted by the frequency of occurrence during the past year).

Thus, the YAAPST can be scored in three different ways, depending on the type of information desired by the clinician or researcher. Endorsements indicating that the item ever occurred (response of 1 or greater) were scored as a +1 and summed across all items for the lifetime YAAPST. For the past year's YAAPST, endorsements indicating occurrence during the previous year (ie, response of 2 or greater) were scored a +1 and summed across all items. For past year's severity, endorsements indicating occurrence during the past year were weighted and summed so that a response of 2 was summed as +2, a response of 3 as +3, 4 as +4, and so on. (More information regarding scoring can be obtained from the authors.) The plausible frequency of positive endorsement across consequences varies significantly, and response options were designed to accommodate these differences. Most instruments reviewed above, by contrast, employ fixed-response formats. For example, response options for such common consequences as having a hangover allow subjects to indicate up to 40 or more occurrences in the past year. On the other hand, response options for less common consequences (eg, a doctor's saying alcohol is harming the individual's health) merely require subjects to indicate whether these events have ever occurred. Data in Table 1 show the individual items in the YAAPST, their response options, and the percentage of subjects endorsing lifetime occurrence of the items. The YAAPST was administered in the questionnaire battery, along with a wide variety of other scales and measures.

**Other alcohol measures.** Additional alcohol items included in the questionnaire battery assessed consumption patterns (quantity-frequency over the past year and past month) as well as frequency of heavy drinking (heavy drinking composite) over the past month, which was calculated as the average of three items. These three items assessed the number of occasions that the subject was "drunk," the number of occasions that the subject was "a little high or light-headed," and the number of occasions that the subject consumed five or more drinks in one sitting. The DIS also provided information about alcohol use and abuse. The DIS is a structured interview conducted by trained, lay interviewers that yields diagnoses based on the DSM-III (*Diagnostic and Statistical Manual of the American Psychiatric Association*, 3rd ed).[25] The diagnoses of alcohol abuse and alcohol dependence were combined so that our DIS/DSM-III alcohol abuse/dependence composite included subjects who were diagnosed with alcohol abuse or dependence, or both.

**Additional relevant measures.** In the questionnaire battery, we included several other scales that are relevant to the results presented here. That is, the following measures should be related to drinking and drinking-associated problems and, therefore, are considered in reference to the YAAPST and several of the other alcohol variables. (For a more complete discussion of these and other measures, please refer to Sher et al.[23]) We assessed positive expectations about alcohol's effects by measuring four domains of alcohol expectancies: tension reduction (9 items, $\alpha$ = .89), social lubrication (9 items, $\alpha$ = .88), activity enhancement (9 items, $\alpha$ = .85), and performance enhancement (9 items, $\alpha$ = .81). We evaluated reasons for drinking, using a 15-item scale[26] that assessed subjects' reasons for drinking and covered two domains: affect regulation (7 items, $\alpha$ = .84) and reasons for social drinking (5 items, $\alpha$ = .77). Nine items reflecting peer influence on drinking (peer drinking habits and attitudes, peer pressure to drink, and the number of peers who drink or get drunk) were also included ($\alpha$ = .87). Personality measures included in the questionnaire battery and thought to be relevant to alcohol abuse were the Tridimensional Personality Questionnaire (TPQ) (C. R. Cloninger. *Tridimensional Personality Questionnaire.* St Louis: Washington University. Unpublished, 1987), the Eysenck Personality Questionnaire (EPQ),[27] the impulsivity scale of the Eysenck Personality Inventory (EPI),[28] and the psychopathic deviate (Pd) and hypomania (Ma) scales of the Minnesota Multiphasic Personality Inventory—168 (MMPI-168).[29]

## RESULTS

Several goals were to be accomplished with the analyses of the YAAPST. First, we wanted to examine the dimensionality, internal consistency, and test-retest reliability of the YAAPST. Second, we wanted to determine the validity of the YAAPST by examining how it was related to other measures of alcohol use or abuse, to an interview-based criterion diagnosis of abuse/dependence, and to personality, motivational, and social influence variables previously shown to be correlates of alcohol use and abuse.

**TABLE 1**
**Percentage of Sample Endorsing Individual Items on the Young Adult Alcohol Problems Screening Test (YAAPST)**

| Item | % lifetime endorsement |
|---|---|
| 1. Have you driven a car when you knew you had too much to drink to drive safely? | 54.0 |
| 2. Have you had a headache (hangover) the morning after you had been drinking? | 73.1 |
| 3. Have you felt very sick to your stomach or thrown up after drinking? | 75.6 |
| 4. Have you showed up late for work or school because of drinking, a hangover, or an illness caused by drinking? | 28.6 |
| 5. Have you not gone to work or missed classes at school because of drinking, a hangover, or an illness caused by drinking? | 37.3 |
| 6. Have you gotten into physical fights when drinking? | 18.4 |
| 7. Have you ever gotten into trouble at work or school because of drinking? | 3.7 |
| 8. Have you ever been fired from a job or suspended or expelled from school because of your drinking? | 2.2 |
| 9. Have you damaged property, set off a false alarm, or other things like that after you had been drinking? | 20.0 |
| 10. Has your boyfriend/girlfriend (or spouse), parent(s), or other near relative ever complained to you about your drinking? | 24.5 |
| 11. Has your drinking ever created problems between you and your boyfriend/girlfriend (or spouse) or another near relative? | 16.1 |
| 12. Have you ever lost friends (including boyfriends or girlfriends) because of your drinking? | 3.9 |
| 13. Have you ever neglected your obligations, your family, your work, or school work for two or more days in a row because of your drinking? | 4.7 |
| 14. Has drinking ever gotten you into sexual situations which you later regretted? | 47.0 |
| 15. Have you ever received a lower grade on an exam or paper than you should have because of your drinking? | 12.9 |
| 16. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcohol? | 1.8 |
| 17. Have you ever been arrested, even for a few hours, because of other drunken behaviors? | 4.1 |
| 18. Have you awakened the morning after a good bit of drinking and found that you could not remember a part of the evening before? | 53.1 |
| 19. Have you ever had "the shakes" after stopping or cutting down on drinking (for example, your hands shake so that your coffee cup rattles in the saucer or you have trouble lighting a cigarette)? | 5.9 |
| 20. Have you ever felt like you needed a drink just after you'd gotten up (that is, before breakfast)? | 2.9 |
| 21. Have you ever found you needed larger amounts of alcohol to feel any effect, or that you could no longer get high or drunk on the amount that used to get you high or drunk? | 39.8 |
| 22. Have you ever felt that you needed alcohol or were dependent on alcohol? | 4.9 |
| 23. Have you ever felt guilty about your drinking? | 25.5 |
| 24. Has a doctor ever told you that your drinking was harming your health? | 1.0 |
| 25. Have you ever gone to anyone for help to control your drinking? | 1.8 |
| 26. Have you ever attended a meeting of Alcoholics Anonymous because of concern about your drinking? | 1.4 |
| 27. Have you ever sought professional help for your drinking (for example, spoken to a physician, psychologist, psychiatrist, alcoholism counselor, clergyman about your drinking)? | 1.6 |

*Note:* Subjects were offered the following responses: on all questions, *No, never* = 0; *Yes, but* not *in the past year* = 1. On questions 1–8, yes responses for experiences in the past year were 1 time = 2; 2 times = 3; 3 times = 4; 4–6 times = 5; 7–11 times = 6; 12–20 times = 7; 21–39 times = 8; 40 or more times = 9. Questions 9–20 response options for the past year were 1 time = 2; 2 times = 3; 3 or more times = 4. In addition, for queries 21 through 27, the question response *Yes, in the past year* = 2.

## Dimensionality and Internal Consistency

The rates of endorsement for the various YAAPST items are shown in Table 1 and indicate that a number of the traditional and age-relevant items were widely endorsed. Examination of these endorsement rates, however, also revealed a few items with extremely skewed responses (ie, less than 5% endorsement). These skewed responses led us to compute the correlation matrix for the factor analysis of the YAAPST items after deleting those items that received 5% or less lifetime endorsement. (An initial factor analysis including infrequently endorsed items suggested two factors, one composed of less serious but more common consequences, the other composed of more serious but less common consequences. We believe that this was an artifact of the low endorsement rates on the more extreme consequences.) Three separate correlation matrices were calculated: one for lifetime scoring, one for past-year scoring, and one for the past-year severity scoring. These correlation matrices were subjected to factor analyses, using principal factoring and decision rules regarding the number of factors to retain, based on scree tests and eigenvalues that exceed 1. In each of the three factors analyses (life-

time, past year, and past-year severity) of YAAPST scores there was evidence for only one factor. The eigenvalues of the first eigenvector for each single-factor model were 4.56 for lifetime, 4.07 for past year, and 5.06 for past-year severity. The second eigenvalue was less than 1 in all three cases. These single-factor models accounted for 82.5%, 79.9%, and 82.7%, respectively, of the total variance. Internal consistency of the YAAPST, determined using coefficient alpha and analyses, yielded alphas of .87 for lifetime, .83 for past year, and .84 for past-year severity scores (all $ps < .0001$). On the basis of these analyses, we concluded that each of the three YAAPST scores is a unidimensional measure with good internal consistency.

### Test-Retest Reliability

As a measure of test-retest reliability, we calculated intraclass correlations on the 482 subjects who remained in the study through the second year *and* who also provided complete (ie, no missing) data on the YAAPST. These correlations were .85, lifetime; .73, past year; and .78, past-year severity (all $ps < .0001$), over an interval of approximately 9 months ($M = 257$ days, $SD = 47.7$). The YAAPST, therefore, is quite reliable over moderate time periods.

### Validity

We assessed validity by comparing the YAAPST with other alcohol measures (consumption indexes) and with

**TABLE 2**
**Correlations of the YAAPST and the DIS/DSM-III Alcohol Abuse/Dependence Diagnoses With Various Other Drinking Measures**

| Other drinking measures | Lifetime YAAPST | Past-year YAAPST | Past-year severity YAAPST | DIS/DSM-III alcohol diagnoses |
|---|---|---|---|---|
| SMAST | .61 | .43 | .43 | .49 |
| Quantity-frequency (past year) | .43 | .43 | .46 | .45 |
| Quantity-frequency (past month) | .47 | .52 | .57 | .42 |
| Heavy drinking composite | .57 | .60 | .65 | .48 |

*Note:* All correlations are Pearson product-moment correlations and are significant at $p < .0001$. The SMAST was correlated with lifetime DIS/DSM-III diagnoses; the other measures were correlated with DIS/DSM-III 12-month diagnoses.

**TABLE 3**
**Correlates of the YAAPST, Consumption Measures, and DIS/DSM-III Alcohol Abuse/Dependence Diagnoses**

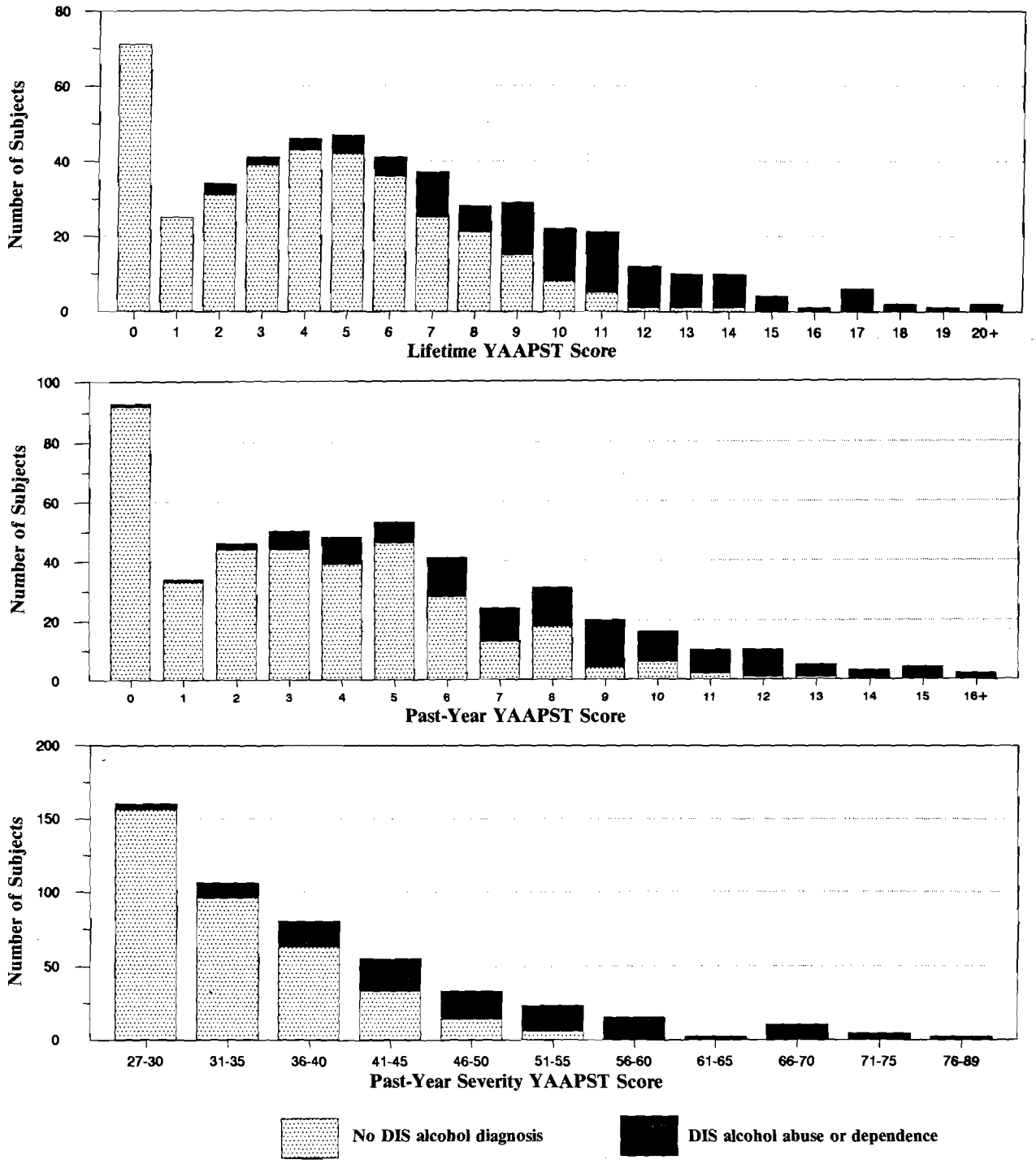
| Variable | Lifetime YAAPST | Past-year YAAPST | Past-year severity YAAPST | Quantity-frequency past year | Quantity-frequency past month | Heavy drinking composite | DIS/DSM-III alcohol diagnosis |
|---|---|---|---|---|---|---|---|
| Alcohol expectancies | | | | | | | |
| Tension reduction | .47 | .45 | .47 | .25 | .34 | .38 | .30 |
| Social lubrication | .51 | .50 | .50 | .19 | .26 | .37 | .33 |
| Enhanced activities | .55 | .54 | .54 | .35 | .36 | .47 | .38 |
| Enhanced performance | .37 | .38 | .37 | .20 | .32 | .37 | .25 |
| Reasons for drinking | | | | | | | |
| Affect regulation | .61 | .59 | .57 | .34 | .41 | .49 | .40 |
| Social drinking | .41 | .42 | .39 | .12 | .16 | .23 | .16 |
| Environmental factors | | | | | | | |
| Peer influence | .48 | .53 | .54 | .39 | .42 | .54 | .39 |
| Personality factors | | | | | | | |
| EPI impulsivity | .30 | .34 | .34 | .23 | .24 | .30 | .27 |
| TPQ novelty seeking | .33 | .35 | .36 | .24 | .25 | .30 | .29 |
| EPQ psychoticism | .32 | .31 | .35 | .22 | .26 | .32 | .35 |
| MMPI-168 psychopathic deviate | .35 | .34 | .33 | .17 | .22 | .25 | .34 |

*Note:* All of the above correlations are Pearson product-moment correlations. DIS alcohol diagnoses are lifetime diagnoses. All correlations greater than .16 are significant at $p < .0001$; correlations between .12 and .16 are significant at $p < .001$; and a correlation of .12 is significant at $p < .01$.

a criterion alcohol abuse/dependence diagnosis, and by examining the relationship between the YAAPST and presumed etiologic variables (alcohol expectancies and personality measures).

**Concurrent validity.** First, we assessed validity of the YAAPST by comparing it with other measures of drinking behavior. Data in Table 2 show Pearson product-moment correlations for the YAAPST scores and the DIS/DSM-III alcohol diagnoses with the SMAST, the quantity-frequency measures, and the heavy drinking composite. The YAAPST correlated well with all of these drinking measures (all *ps* < .0001) and, in almost

**FIGURE 1**
**Distribution of DIS/DSM-III Alcohol Abuse/Dependence Diagnoses (Based on Lifetime and Past 12 Months) as a Function of Corresponding YAAPST Score**



all cases, had higher correlations than the DIS/DSM-III alcohol diagnoses.

**Criterion validity.** Validity was further evaluated by examining the relationship between the DIS/DSM-III alcohol diagnoses and the YAAPST scores. By performing a logistic regression to compare the YAAPST with DIS/DSM-III diagnoses of alcohol abuse/dependence, we found logistic *r*s of .65 for lifetime, .58 for past year, and .59 for past-year severity. These comparisons were between corresponding time frames (lifetime YAAPST with lifetime diagnosis and past-year YAAPST with 12-month diagnosis) and were virtually identical to the product-moment correlations. After correcting for the number of parameters, we found the variance in alcohol diagnosis accounted for by each of the YAAPST scales was 42% (lifetime), 33% (past year), and 34% (past-year severity). Further comparison of the YAAPST with the DIS/DSM-III alcohol diagnoses can be found in Figures 1 and 2. Figure 1 displays the proportion of subjects at each level of YAAPST score who did and who did not receive a DIS/DSM-III alcohol abuse/dependence diagnosis. This representation of the data illustrates that, as subjects score higher on the YAAPST, they are also more likely to receive a diagnosis based on a widely accepted structured interview.

Figure 2 demonstrates the sensitivity, specificity, kappa ($\kappa$), and $Y$ for each YAAPST score when that score is used as a cutoff score. Sensitivity is a measure of the proportion of subjects having a disorder who are identified by the scale (true positives). Specificity is a measure of the proportion of subjects not having a disorder who are not diagnosed by the scale (true negatives). Both kappa and $Y$ are statistics that indicate the level of agreement between raters or instruments while chance agreement is controlled for. We included the $Y$ statistic because it has been shown to be less influenced by base rates than has the kappa statistic.[30] As used here, these statistics indicate the amount of agreement between subjects diagnosed with alcohol abuse/dependence by the DIS and subjects diagnosed with alcohol problems, using various cut scores on the YAAPST. Although we do not generally recommend using specific cut scores from the YAAPST for diagnostic purposes, different cut scores can be used, depending on the goals of the situation, and these cut scores can be evaluated using Figure 2. For example, a cut score of 4 on the past-year YAAPST (maximizing sensitivity without extensively limiting specificity) yields sensitivity of 92%, specificity of 57%, kappa of .28, and $Y$ of .59. However, if a particular situation called for higher specificity, a cut score of, say, 8 might be more appropriate, although one cost of this change in cut score involves losing some sensitivity. That is, sensitivity would be only 58%, but specificity would be 91% ($\kappa$ = .52; $Y$ = .59). In a similar vein, the psychometric characteristics of other cut scores can be determined by reference to Figure 2.

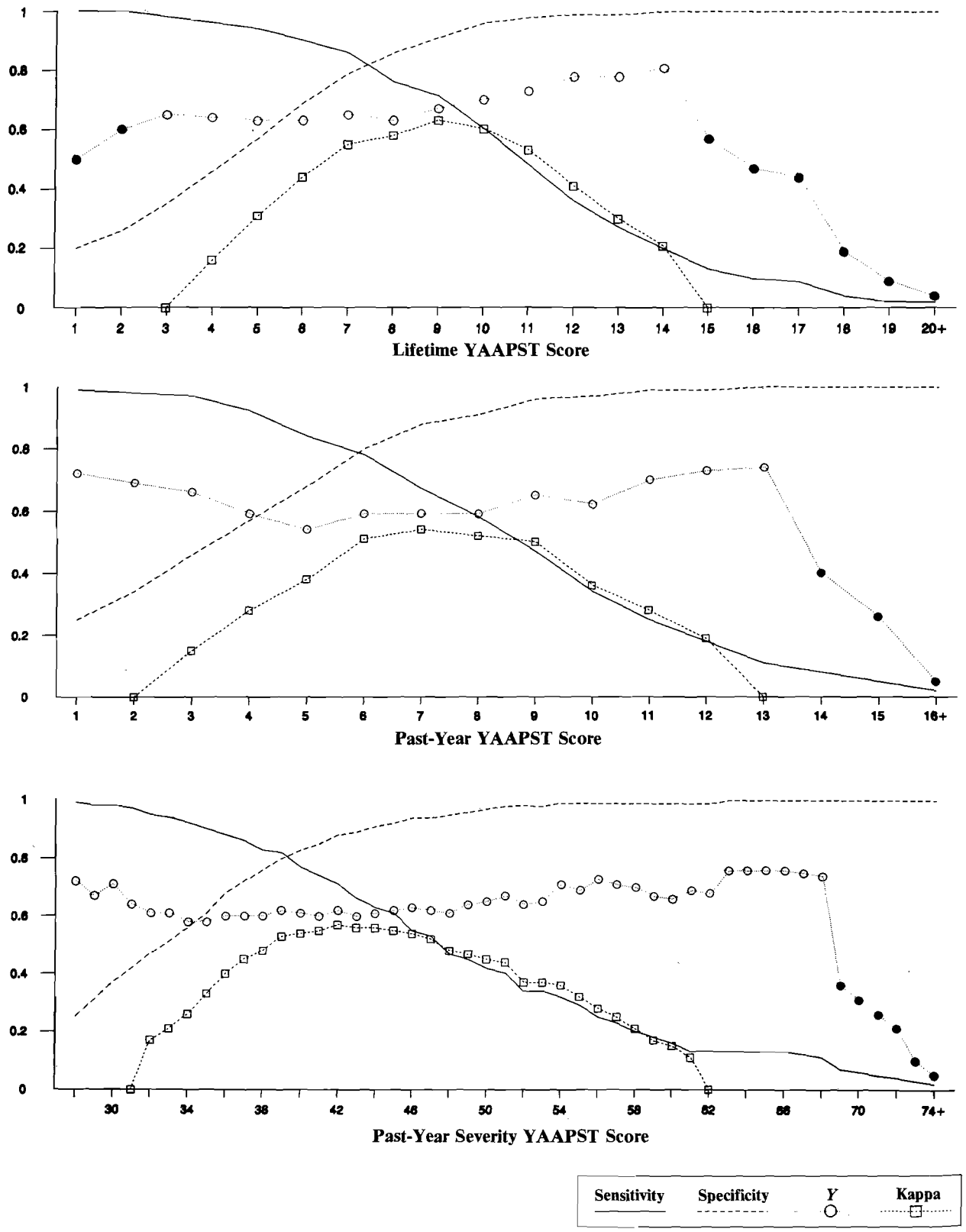
**Construct validity.** The validity of the YAAPST was explored further by evaluating its correlation with variables theorized to be related to alcohol problems. Data in Table 3 show Pearson product-moment correlations of the YAAPST, DIS/DSM-III alcohol diagnoses, quantity-frequency (past year), quantity-frequency (past month), and the heavy drinking composite with various personality, expectancy, and motivational variables. Although all correlations were significant, the highest correlations, *r*s of .47–.61, were between the YAAPST (lifetime and past-year severity) and the alcohol expectancies of tension reduction, social lubrication, activity enhancement, and affect regulation as reasons for drinking. The peer influence measure was also highly correlated with the YAAPST. As the data in Table 3 show, the YAAPST correlates with all of these variables as well as or better than does the DIS, the heavy drinking composite, or the quantity-frequency measures. The only exception is that the heavy drinking composite has the highest correlation with peer influence. (This is not surprising, given that the peer influence variable includes items referring to the frequency of heavy drinking among peers.) Taken together, the above results support the construct validity of the YAAPST by showing conceptually predictable relationships between the YAAPST and etiologically relevant measures.

## DISCUSSION

Reliable and valid alcohol assessment instruments for use with college students are urgently needed, especially since college students are at high risk for experiencing negative consequences of alcohol use. The YAAPST is easy to administer, is relatively short, and has very good reliability and validity. We do not propose that the YAAPST is somehow inherently better than the currently used instruments developed with college students. We do believe, however, that the YAAPST has demonstrated greater reliability and validity than other questionnaires and that the YAAPST may be particularly useful for both researchers and student health personnel.

In general, the YAAPST can be used in two major ways. First, it can serve as a screening measure for lifetime and recent alcohol abuse. Students currently experiencing many problems because of their drinking could be targeted for intervention, whereas those reporting lifetime (but not recent) alcohol consequences could be targeted for preventive purposes. Second, the YAAPST can be employed for the descriptive information it provides, identifying specific consequences and indicating the frequency of their occurrence. This information is valuable for developing case conceptualizations, treatment interventions, and prevention programs. For example, a student who experiences only a few consequences, but all with extremely high frequency, might require a different intervention from a student who is experiencing several consequences at very low frequencies. In addition to these two major uses of the

**FIGURE 2**
**Sensitivity, Specificity, and Diagnostic Agreement With DIS/DSM-III Alcohol Abuse/Dependence Diagnoses**




*Note:* Ys were estimated using pseudo-Bayesian estimators for cells with random zeros.

YAAPST, this scale can also be used for diagnostic purposes by choosing a cut score (based on the desired specificity and sensitivity, compared with DIS/DSM-III diagnoses), or as a useful research tool with demonstrated psychometric properties. Regardless of the purpose of using the YAAPST, it will also be helpful to employ measures of the quantity and frequency of alcohol use, as well as a measure of the frequency of heavy drinking. This consumption information is a valuable supplement to the data on negative consequences provided by the YAAPST.

From a methodological perspective, this study has several advantages over others reported earlier. Our sample size was large and included abusive and nonabusive drinkers from the same subject population. We were able to gather both questionnaire and interview data and to use a widely accepted diagnostic interview (the DIS) as a criterion validity measure. We also had a fairly long test-retest interval (about 9 months). In addition, the YAAPST was designed to provide information about traditional and population-specific negative consequences over two distinct time frames (lifetime and past year). All of these features allowed us to avoid many of the methodological and interpretational problems inherent in many previous efforts.

On the other hand, we should note some limitations. First, our sample was not a representative college student sample. We oversampled students with alcoholic fathers and we undersampled students with indeterminate and negative family histories of alcoholism. This sample bias may have inflated the endorsement rates on the individual YAAPST items, but it should not have appreciably affected the factor analyses or the correlations. Second, the high correlations between the YAAPST and the theoretically relevant variables may be slightly inflated because all data were collected in questionnaire format (and, thus, shared method variance) as opposed to the DIS/DSM-III alcohol diagnoses, which were in interview format.

## NOTES

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