Towards the Assessment of Adolescent Problem Drinking*

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ABSTRACT. Longitudinal data were obtained from a nonclinical sample of 1,308 male and female adolescents covering the age range from 12 to 21. Factor analyses of 52 symptoms and/or consequences of alcohol use yielded three problem dimensions. In addition, a unidimensional, 23-item scale (the Rutgers Alcohol Problem Index, RAPI) was constructed with an internal consistency of .92. Correlations between RAPI and alcohol-use intensity were moderately strong for all age groups at each test occasion (ranging from .20 to .57), yet low enough to suggest that identification of problem drinkers requires both types of measures. The results suggest that the RAPI may be a useful tool for the standardized and efficient assessment of problem drinking during adolescence. (*J. Stud. Alcohol* **50:** 30–37, 1989)

RECENT ESTIMATES suggest that there are over 300,000 teenage alcoholics (ages 13 to 17) in the United States (Kinney and Leaton, 1987). At the same time, however, many clinicians seem to think that clinical alcoholism among teens in the form of physical dependence and withdrawal phenomena is quite rare. Similarly, alcohol dependence syndrome (Edwards and Gross, 1976; Skinner, 1981), which has been offered as an alternative to the traditional concept of alcoholism, has also been identified primarily in adult clinical samples and may not have relevance for adolescents.

The fact that a young person is referred to or treated at an alcohol treatment facility does not necessarily indicate that he/she is an alcoholic. It must be kept in mind that adolescents often encounter problems with alcohol because of a single acute episode rather than as the result of a chronic condition. That is, problems that occur because of drunkenness, such as drunk driving or having a fight with a friend, even though not indicative of a repetitive pattern of problems, are often precursors to referral. Many of these problems simply result from inexperience and carelessness. Young people drink less often than adults, but when they drink, they tend to drink in larger amounts (Harford and Mills, 1978). Thus, they are at risk for suffering from acute effects (e.g., blackouts and hangovers) as well as for displaying behavioral concomitants of intoxication (e.g., belligerence). Also, it should be kept in mind that the likelihood of some social and interpersonal consequences is increased because adolescents are legally under age and their drinking often violates parental norms as well as official laws.

Obviously, it would seem more fruitful to talk about teenage problem drinking than teenage alcoholism. Traditional measures, however, have not been adequate (see Harrell et al., 1986; Mayer and Filstead, 1980; O'Gorman et al., 1977; White, 1989). Identifying problem drinking in adolescents requires certain departures from the widely used model of adult alcoholism. The progressive nature of the disease, medical complications, physical dependence and other chronic symptoms are less clearly associated with adolescent alcohol problems. However, although physiological addiction may be rare during adolescence (Filstead, 1982) and many adult signs and symptoms absent, it should not be concluded that there is an absence of drinking problems in need of treatment.

The usual measures of frequency, quantity and variability of alcohol use are not sufficient to accurately diagnose the problem status of adolescent drinking. The effects of alcohol can vary widely from one youth to another. Therefore, information about negative consequences attributable to drinking, in addition to information on drinking patterns, would seem most appropriate for diagnosing problem drinking (see also Sadava, 1985; White, 1987).

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Screening tools for assessing negative consequences and for diagnosing problem drinking among adolescents are virtually absent. Except for the Adolescent Alcohol Involvement Scale (AAIS) (Mayer and Filstead, 1980), no other instrument has been developed specifically for adolescents (Jacobson, 1983). Yet, the AAIS is not without criticism (see, for example, Moberg, 1983). Due to the lack of an appropriate tool for assessment, health professionals generally rely on unstandardized interviewing techniques, tests designed for adults or poorly constructed adolescent scales (Harrell et al., 1986). For example, the DSM-III (American Psychiatric Association, 1980) criteria for alcohol dependence among adults are typically used by clinicians without any distinction regarding the special problems of adolescents (MacFarland, 1983).

Given the dearth of empirical information on symptoms and negative consequences of adolescent problem drinking as well as the absence of adequate assessment tools, the purpose of this study is twofold. First, an attempt is made to identify patterns or dimensions of problem drinking and to describe age- and sex-related trends in means and stabilities of individual differences on those dimensions. Second, a relatively short measure for the assessment of adolescent problem drinking is presented together with relevant information as to its psychometric properties.

Method

Subjects

Eligible subjects for the Rutgers Health and Human Development Project were initially located through random telephone calls during three phases of sampling in 1979-81. Covering all but five counties of New Jersey, telephone numbers were generated randomly, taking into account variations in population density and the possibility of unlisted numbers. Overall, this procedure is estimated to reach about 95% of all households within the specified geographic area.

An initial anonymous telephone interview served to identify households with one or more eligible adolescents and to elicit sociodemographic information. Eligibility was defined in terms of birth year, the absence of a language barrier, the absence of serious mental and physical handicaps (e.g., being mentally retarded or being wheelchair bound) and the absence of scheduled psychotherapy or similar treatment at the time. (Less than 0.5% of eligibles were excluded due to language problems; about 1% were excluded due to handicaps; and less than 0.5% were excluded because they were institutionalized or in treatment.) About 46% of the eligible adolescents recontacted after the initial telephone call participated in the study. Comparisons of participants and eligible nonparticipants on various demographic variables revealed an overrepresentation of higher parental educational levels and higher family incomes among the participants, but no serious restriction of range on those measures.

The total sample of 1,380 adolescents was predominantly white (90%), a somewhat higher proportion than the 83% of whites in New Jersey (Bureau of Census, 1981). Half of the subjects were Catholic, 30% Protestant, 9% Jewish and the remaining 11% had another or no religion, analogous to the religious breakdown in New Jersey. The median income of the sample at Time 1 (T1) was between $20,000 and $29,000 and was comparable to that of the entire state at that time (Bureau of Census, 1981). With regard to family composition at T1, 79.9% lived with both natural parents, 10.1% with a single parent and the rest in other arrangements.

Procedure

After the initial recruitment via telephone, field interviewers went to participants' homes to provide detailed information about the study, to schedule an appointment at the project site and to obtain information separately from the adolescent and one or both parents. At the project site, information was obtained via questionnaires, behavioral tasks and physiological measures. To maximize reliability and validity of the self-report data, questionnaires were administered individually by a trained interviewer assigned to a participant for the length of the testing day. Participants were instructed not to put their names on any questionnaire and were repeatedly assured of the complete confidentiality of all data especially with regard to parents, teachers and public authorities. Testing sessions were self-paced and lasted 5 to 6 hours. Questionnaires and tasks were presented in several orders all arranged so as to mitigate boredom and fatigue effects. Details of the testing regimen may be found in Pandina et al. (1984).

Initially tested at the ages of 12, 15 and 18, a total of 1,308 participants were retested 3 years later in 1982-84 (T2) at the ages of 15, 18 and 21, respectively, yielding a 95% retest rate. At the retest, essentially the same battery of measures was administered.

Measures

Adolescents were presented a list of 53 problems associated with alcohol use (see the Appendix) and asked to indicate how often or how many times each event had happened ("ever" at T1 versus "within the last three years" at T2) while they were drinking

alcohol or because of their drinking. (In the case of Items A51 and A53, adolescents were asked how many times they had done each to get alcohol or to get money to buy alcohol.) Five-point response scales ranged either from 1 (*never*) to 5 (*always or almost always*) (21 items), or from 1 (*never*) to 5 (*more than 10 times*) (32 items). The full list of items was initially obtained by surveying the content of questionnaires used in a variety of studies of adolescent and adult alcohol use (e.g., Cahalan, 1970; Donovan and Jessor, 1978; Fillmore, 1974; Mayer and Filstead, 1980). Item A53, which asked about the use of false identification, was excluded from further analyses because of its age-related limit in applicability.

Adolescents were also asked, separately for beer, wine and hard liquor, to rate (*1*) frequency of use in the last year (9-point scale ranging from *never* to *every day*); (*2*) typical quantity (10-point scale ranging from *none* to *more than 2 six packs, more than 1 gallon of wine or more than one-fifth of distilled spirits*); and (*3*) frequency of getting drunk when drinking (5-point scale ranging from *never* to *always*). These measures were combined into a single composite score of alcohol-use intensity yielding internal consistency estimates of .91 at T1 and .87 at T2.

Results

Dimensions of adolescent problem drinking

Principal component analyses with subsequent PROMAX rotations were carried out separately for the subsamples of users at T1 (n = 906) and of users at T2 (n = 1,116). Scree tests suggested extraction of three or four factors at each point in time. The three-factor solution was chosen because it yielded factor loading patterns with a higher degree of replicability across both occasions (and associated time frames). Marker items (approaching patterns with loadings > .50 on one dimension and < .35 on the other two) are listed in Table 1. Scales constructed with these marker items were found to yield internal consistency estimates ranging from .77 to .82. Excluding only those subjects (n = 154) who did not use alcohol at both points in time, correlation coefficients among the three problem scales (FI, FII and FIII) ranged between .43 and .59 at T1 and between .45 and .55 at T2.

TABLE 1. Marker items for three problem dimensions

Loadings T1	Loadings T2	Item
		FI
.50	.67	Drove a car or a motorcycle
.69	.73	Spent a whole weekend drinking
.54	.55	Had a drink before or instead of breakfast
.52	.53	Missed a day (or part of a day) of school or work
.53	.61	People told you about things you said or did that you cannot remember
.51	.48	Suddenly found yourself in a place that you could not remember getting to
.75	.63	Left a party because there was no alcohol
		FII
.49	.62	Not able to do your homework or study for a test
.51	.49	Got into fights, acted bad or did mean things
.60	.55	Worried or felt guilty about your drinking
.53	.50	Caused shame or embarrassment to someone
.75	.62	Friends or neighbors avoided you
.66	.66	Felt paranoid or "up tight"
.56	.48	Felt that you needed *less* alcohol than you used to use in order to get the same effect
.53	.53	Tried to control your drinking by trying to drink only at certain times of the day or certain places
		FIII
.83	.73	Lost a job
.73	.82	Been in an alcohol treatment program
.63	.65	Charged with driving under the influence
.56	.63	Sought advice about your drinking
.51	.51	Felt you were going crazy
.75	.65	Was told by a physician to stop or cut down drinking
.44	.51	Was told by a friend or neighbor to stop or cut down drinking

The Rutgers Alcohol Problem Index (RAPI)

The principal component patterns of the three-factor solution were also used to select a subset of items with loadings > .50 on the first component and < .35 on the second and third components at both points in time in order to obtain a unidimensional scale with maximum internal consistency. The resulting set of 23 items is listed in Table 2. Internal consistency estimates were .92 at T1 and .93 at T2. As can be seen, only eight of the 23 items of the RAPI are also found among the marker items for the three problem scales. Partly because of this overlap in items, correlations between RAPI and each of the three problem dimensions were fairly strong ranging from .62 to .87 at T1 and from .73 to .84 at T2.

Finally, total problem scores for each subject were also obtained at each occasion by adding the frequencies of all 52 items. Excluding again only those subjects who had not used alcohol at both times, correlations between total scores and each of the other problem scores were as follows: (*1*) .98 at T1 and .97 at T2 for the RAPI, (*2*) .85 at T1 and .83

TABLE 2. Items of the Rutgers Alcohol Problem Index (RAPI)

Loadings T1	Loadings T2	Item
.52	.60	1. Not able to do your homework or study for a test (FII)
.67	.61	2. Got into fights, acted bad or did mean things (FII)
.69	.67	3. Missed out on other things because you spent too much money on alcohol
.66	.65	4. Went to work or school high or drunk
.64	.64	5. Caused shame or embarrassment to someone (FII)
.66	.64	6. Neglected your responsibilities
.58	.65	7. Relatives avoided you
.66	.60	8. Felt that you needed *more* alcohol than you used to use in order to get the same effect
.57	.51	9. Tried to control your drinking by trying to drink only at certain times of the day or certain places (FII)
.57	.56	10. Had withdrawal symptoms, that is, felt sick because you stopped or cut down on drinking
.51	.57	11. Noticed a change in your personality
.63	.71	12. Felt that you had a problem with alcohol
.58	.56	13. Missed a day (or part of a day) of school or work (FI)
.55	.63	14. Tried to cut down or quit drinking
.64	.61	15. Suddenly found yourself in a place that you could not remember getting to (FI)
.51	.56	16. Passed out or fainted suddenly
.61	.64	17. Had a fight, argument or bad feelings with a friend
.62	.71	18. Had a fight, argument or bad feelings with a family member
.59	.58	19. Kept drinking when you promised yourself not to
.54	.58	20. Felt you were going crazy (FIII)
.55	.52	21. Had a bad time
.58	.69	22. Felt physically or psychologically dependent on alcohol
.51	.63	23. Was told by a friend or neighbor to stop or cut down drinking (FII)

at T2 for FI; (*3*) .87 at T1 and .84 at T2 for FII; and (*4*) .62 at T1 and .72 at T2 for FIII. As far as the assessment of differences in adolescent problem drinking is concerned, these results, when taken together, suggest that scores derived from the 23-item RAPI are not only as informative as scores based on the full set of 52 items but are also adequate to summarize differences on the three problem dimensions.

For each of the 23 problems listed in the RAPI, Table 3 presents the percentages of male and female users who reported that the particular problem had occurred at T1 ("ever") or at T2 ("last three years"). In addition, Table 3 indicates which percentages of users had experienced a specified number of different problems at T1 or T2. As can be seen, the most frequently mentioned problems include (*1*) getting into fights, (*2*) causing shame or embarrassment, (*3*) neglecting one's responsibilities, (*4*) noticing a change in one's personality and (*5*) having a bad time. In contrast, the least frequently mentioned problems include (*1*) having withdrawal symptoms, (*2*) feeling that one is going crazy and (*3*) feeling physically or psychologically dependent on alcohol.

TABLE 3. Percentages of users reporting occurrence of problems by sex and time

	Males		Females	
Variable	T1	T2	T1	T2
n	462	558	442	557
RAPI ITEM:				
1	27.1	29.4	19.5	17.8
2	35.1	41.4	22.4	25.1
3	27.3	28.3	12.7	15.6
4	22.1	30.6	10.2	15.8
5	27.9	29.9	20.6	20.1
6	37.4	42.3	26.0	29.4
7	15.8	11.8	8.4	5.0
8	27.7	33.9	16.1	18.1
9	23.6	20.3	13.6	10.2
10	9.1	7.0	4.3	3.9
11	29.4	30.1	23.8	21.9
12	12.6	15.9	5.2	8.6
13	13.4	25.3	12.7	23.3
14	16.9	26.7	13.8	16.2
15	23.8	27.1	12.9	19.6
16	18.2	21.9	13.8	19.2
17	25.3	31.0	18.6	22.1
18	11.3	14.5	9.7	9.2
19	12.1	17.7	8.4	12.0
20	9.7	7.5	7.5	6.5
21	28.1	34.9	22.9	26.0
22	5.6	6.5	2.5	3.2
23	11.3	12.5	6.8	7.2
NO. OF PROBLEMS:				
0	35.1	21.3	40.8	34.5
1-2	14.9	19.1	20.9	21.9
3-4	10.4	12.9	9.5	12.0
5-6	6.9	12.0	11.9	11.0
7-8	10.2	10.0	5.6	7.1
9-10	5.6	7.5	4.8	4.3
11-15	10.8	10.2	4.0	6.7
16-23	6.1	7.0	2.5	2.5

As shown in Table 3, the percentage of users not experiencing any problem decreases from T1 to T2 and reflects the aging of subjects and associated increases in use intensity. Similarly, the percentage of users not experiencing any problem is higher for females than for males. At the same time, the percentage of male users reporting more than 10 different problems is about twice as large as that of female users. These sex differences may result, at least in part, from the fact that males tend to report higher alcohol-use intensities.

Three-year stabilities and correlations with use intensity

Stability coefficients and correlations with use in-

TABLE 4. Three-year stability coefficients for problem drinking and use intensity by age and sex

		Variables					
Age-sex	*n*	Use	Total	RAPI	FI	FII	FIII
12-M	163	−.03	.23†	.20†	.31†	.06	.34†
12-F	159	.10	−.01	.00	−.03	.04	−.02
15-M	215	.47†	.25†	.22†	.28†	.23†	−.03
15-F	212	.44†	.39†	.38†	.43†	.32†	.30†
18-M	198	.56†	.59†	.55†	.52†	.45†	.60†
18-F	207	.49†	.53†	.45†	.56†	.40†	.17

† $p < .01$.

tensity were computed separately by age and sex for all subjects who had used alcohol on at least one of the two occasions. Stability coefficients are presented in Table 4; correlation coefficients with use intensity are shown in Table 5. As can be seen, stability coefficients tend to be smallest for the period from 12 to 15, probably because of a lack of variance in both use intensity and problem drinking among 12-year-olds. (The fact that problem drinking among 12-year-old males exhibits somewhat more variance than does use intensity is probably due to the larger time frame of "ever" used with the former as compared to the time frame of "last year" used with the latter.) From age 15 on, individual differences in both use intensity and in problem drinking begin to exhibit moderate stability. Furthermore, over the period from 15 to 18 differences in male problem drinking are less stable than are differences in use intensity.

According to Table 5, correlations between use intensity and each of the five problem-drinking measures are weakest for age 12, again due to the lack of variation in the various measures at that age. From age 15 on, correlations between use and FI range from .49 to .67, those between use and FII from .23 to .53, those between use and FIII from .03 to .36, and those between use and RAPI from .35 to .57. In other words, scores on FI exhibit the strongest and those on FIII the weakest relationship with use intensity. In comparison, the strength of the relationship between use intensity and RAPI tends to fall between those found for FI and FII. Overall, the observed range of correlation coefficients suggests that measures of use intensity and measures of problem drinking are not interchangeable but need to be used in combination.

TABLE 5. Correlations between problem drinking and use intensity by age and sex

	Time 1		Time 2	
Variables	M	F	M	F
AGE 12 AT TIME 1:				
Total	.21†	.34†	.42†	.50†
RAPI	.20	.32†	.37†	.42†
FI	.25†	.19	.49†	.52†
FII	.27†	.40†	.37†	.44†
FIII	.11	.06	.15	.28†
AGE 15 AT TIME 1:				
Total	.44†	.64†	.52†	.46†
RAPI	.40†	.57†	.44†	.39†
FI	.50†	.66†	.61†	.59†
FII	.34†	.49†	.37†	.32†
FIII	.13	.31†	.20†	.14
AGE 18 AT TIME 1:				
Total	.44†	.43†	.64†	.59†
RAPI	.37†	.35†	.57†	.51†
FI	.56†	.51†	.67†	.62†
FII	.23†	.32†	.53†	.39†
FIII	.10	.03	.36†	.33†

† $p < .01$.

Sex differences and age trends

Based on all subjects who had used alcohol on at least one of the two occasions, separate 3 × 2 × 2 (Age at Time 1 × Sex × Occasion) analyses of variance with repeated measures on the third factor were computed for FI, FII, FIII and RAPI as dependent variables. Significant ($p < .01$) main effects of age, sex and occasion as well as significant ($p < .01$) age by sex and age by occasion interactions were found for FI, FII and RAPI. In comparison, for FIII only a significant main effect of sex was obtained (see Table 6).

As indicated by the means associated with the various significant effects (see also Table 7 and Figure 1), males tend to score higher than females on all four scales. In addition, sex differences on FI, FII and RAPI tend to increase in magnitude as age increases. Furthermore, scores on FI, FII and RAPI also increase with increasing age and are higher at T2 than T1. Finally, these age-related increases are

TABLE 6. Summary of analyses of variance: *F* values

		Variables			
Effect	*df*	RAPI	FI	FII	FIII
Age (A)	2	53.6†	180.6†	53.8†	3.0
Sex (S)	1	41.3†	59.1†	35.8†	14.4†
A × S	2	9.2†	23.7†	7.7†	0.7
Occasion (O)	1	36.1†	228.4†	24.6†	5.8
O × A	2	14.5†	8.9†	25.9†	1.3
O × S	1	0.3	5.1	0.6	0.6
O × A × S	2	1.7	1.1	2.7	0.3

† $p < .01$.

TABLE 7. Means on problem drinking dimensions by age, sex and occasion

	FI		FII		FIII	
Age-sex	T1	T2	T1	T2	T1	T2
12-M	0.3	1.9	0.5	2.7	0.2	0.5
12-F	0.1	1.4	0.5	1.9	0.1	0.3
15-M	1.6	4.7	2.8	3.7	0.5	0.6
15-F	1.3	3.4	2.3	2.8	0.2	0.2
18-M	6.2	8.0	5.1	4.2	0.6	0.8
18-F	3.1	4.5	2.8	2.5	0.3	0.3

strongest from 12 to 18 followed by a leveling off from 18 to 21. Considering the magnitude of the means on the three problem dimensions, it is evident that the symptoms and consequences included in FIII are the least frequently experienced. Those included in FI and FII tend to be reported with similar frequencies except for males who report higher mean scores for FI than for FII for the period from 18 to 21.

Discussion

The objectives of this study involved (*1*) the description of dimensions of adolescent problem drinking along with sex differences and age trends on those dimensions, and (*2*) the construction of a measurement instrument that is applicable to adolescents and young adults, can be administered in a standardized fashion, is relatively brief and has adequate reliability.

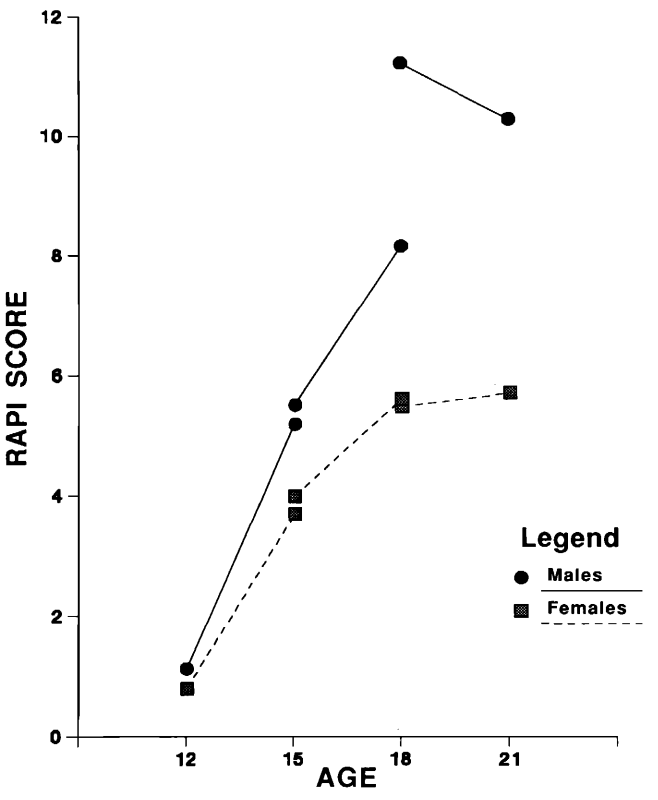

FIGURE 1. Mean scores on the Rutgers Alcohol Problem Index, by age, sex and occasion

As far as the first objective is concerned, the content of the marker items for the three problem dimensions does not appear to us to be sufficiently unique to suggest that these item clusters represent conceptually distinct entities. Considering the fact that the three dimensions form a positive manifold and given the magnitude of the correlations between RAPI and each of these dimensions, we propose the use of the RAPI as an appropriate empirical measure of adolescent problem drinking. In other words, we do not think that much information is lost when using the RAPI instead of the three problem dimensions or instead of scores based on the total set of items.

As far as the second objective is concerned, the 23-item RAPI covers all criteria required for a DSM-III-R diagnosis with the exception of reasons for use (American Psychiatric Association, 1987). However, as discussed earlier, other empirical work suggests that although reasons may be associated with heavy use and problem use, they may not clearly fit into an operationalization of problem drinking (White, 1987). In contrast to DSM-III-R interview procedures, the RAPI presents a more objective and standardized assessment and is more easily and efficiently administered than is a clinical interview. According to the present findings, the RAPI has good internal consistency (reliability), at least in relation to two different time frames ("ever" and "last three years"). Finally, the correlation between RAPI and alcohol-use intensity is comparable to those found for other measures of problem use (Jessor et al., 1968; Polich and Orvis, 1979). The moderate correlation between use intensity and RAPI provides convergent validity, yet is low enough to suggest that diagnoses are improved if based on both types of measures (use intensity and RAPI). Therefore, we think that the RAPI is a promising and appropriate instrument for use with both clinical and nonclinical samples of adolescents.

In our research project, the 52 problems, of which the 23 RAPI items represent a subset, were presented as a contiguous set of items in the context of a longer questionnaire. Therefore, we believe that the RAPI can also be used as a brief, self-administered questionnaire (taking about 10 minutes to complete). In the present study we used two different time frames (i.e., "ever" at T1 and "last 3 years" at T2), but we realize that clinicians may find shorter time frames (e.g., "last year" or "last 6 months")

more useful. Finally, although we presented subsets of items with two different response scales (i.e., *never* to *always* and *never* to *more than 10 times*), test administration can be further simplified by adopting a single response format for all items. Specifically, the latter format (*never* to *more than 10 times*) would seem to be particularly appropriate in conjunction with the use of shorter time frames. (A copy of the RAPI is available from the authors upon request.)

There are two issues requiring further research. First, the proposed instrument obviously needs to be administered to clinical samples to assess its reliability in those populations and to demonstrate that it can discriminate between clinical and nonclinical samples. Such a procedure will also help to establish appropriate quantitative cutoff points for problem drinking.

Secondly, use of the RAPI in conjunction with measures of use intensity makes it possible to compare among heavy alcohol users those who report low levels of problem use with those reporting high levels of problem use. Specifically, these two groups of heavy drinkers need to be compared in terms of both intrapersonal and interpersonal characteristics. For example, some heavy users who report few problems may simply lack knowledge or awareness to make appropriate causal attributions with regard to their alcohol-use behavior. Alternatively, some may engage in a lot of denial and, in that sense, represent a more pathological group of adolescents. On the other hand, some heavy users may simply be more adept at managing their alcohol use so as to avoid problems. Most importantly, results of such comparisons should help to shed some light on the question of which adolescent heavy users are more likely to seek treatment or to be amenable to effective interventions.

Finally, two possible limitations must be kept in mind when evaluating the results of this study. First, the participants of this study, though selected through a stratified, random sampling procedure, are probably most representative of suburban, middle-class adolescents. Thus, whether the RAPI is equally adequate for economically deprived inner-city youth, for instance, or for clinical samples remains to be established. Second, as a measurement instrument the RAPI is based on self-report and, therefore, subject to possible biases of under- and/or overreporting. In the present study, participants were repeatedly assured that all their responses were confidential and anonymous. However, as stated before, we believe that comparisons within the group of heavy users as outlined above, as well as comparisons of the RAPI with other measures and procedures (e.g., interviews), are necessary to establish the RAPI as an adequate indicator of adolescent problem drinking.

Appendix

Total list of alcohol-related problems

A1 Not able to do your homework or study for a test.
A2 Got into fights, acted bad, or did mean things.
A3 Not remember things you said or did after a certain point in time.
A4 Drive a car or a motorcycle.
A5 Worried or felt guilty about your drinking.
A6 Missed out on other things because you spent too much money on alcohol.
A7 Went to work or school high or drunk.
A8 Caused shame or embarrassment to someone.
A9 Tossed down several drinks fast to get a quick effect.
A10 Neglected your responsibilities.
A11 Friends or neighbors avoided you.
A12 Relatives avoided you.
A13 Felt paranoid or "up tight."
A14 Felt that you needed *more* alcohol than you used to use in order to get the same effect.
A15 Felt that you needed *less* alcohol than you used to use in order to get the same effect.
A16 Wanted to stop drinking but you couldn't.
A17 Tried to control your drinking by trying to drink only at certain times of the day or certain places, that is, tried to change your pattern of drinking.
A18 Had withdrawal symptoms, that is, felt sick because you stopped or cut down on drinking.
A19 Noticed a change in your personality.
A20 Felt that you had a problem with alcohol.
A21 Been in trouble with the police for *having* or *drinking* alcohol.
A22 Spent a whole weekend drinking.
A23 Had to see school authorities.
A24 Had a drink before or instead of breakfast.
A25 Lost a job.
A26 Been in an alcohol treatment program.
A27 Got hurt or had an accident.
A28 Missed a day (or part of a day) of school or work.
A29 Tried to cut down or quit drinking.
A30 People told you about things you said or did that you cannot remember.
A31 Suddenly found yourself in a place that you could not remember getting to.
A32 Passed out or fainted suddenly.
A33 Been in trouble with the police for something *you did* while drinking.
A34 Had a fight, argument or bad feelings with a friend.
A35 Had a fight, argument or bad feelings with a family member.
A36 Left a party because there was no alcohol.
A37 Charged with driving under the influence.
A38 Kept drinking when you promised yourself not to.
A39 Sought advice about your drinking.
A40 Felt you were going crazy.
A41 Had a bad time.
A42 Felt physically or psychologically dependent on alcohol.
A43 Was told by a physician to stop or cut down drinking.
A44 Was told by a relative to stop or cut down drinking.
A45 Was told by a friend or neighbor to stop or cut down drinking.

A46 Hurt chances of getting ahead on your job.
A47 Turned anyone on to alcohol for their first time.
A48 Got in trouble with your parents.
A49 Experienced a noticeable weight loss.
A50 Unexpectedly became terrified or unreasonably fearful and anxious for no apparent reason.
A51 Sold alcohol illegally.
A52 Had the shakes, fits, seizures, DT's, or "seen or heard things that were not really there" when you were coming off a period of drinking or after you stopped drinking.
A53 Used false identification.

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