The DRAM, Vol. 1(12) – Assessment of alcohol use among adolescents

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Adolescent alcohol and substance abuse has been linked to a variety of personal and public health concerns, such as an increase in sexually risky behavior (Dunn, Bartee, & Perko, 2003), and higher rates of mortality due to automobile accidents (Morbidity and Mortality Weekly Report, 1995), homicides and suicides (Brent, 1995). Early detection of abuse among adolescents provides an opportunity for early intervention that can lower their risk of suffering harmful alcohol or substance-related consequences. Therefore, health care providers should take advantage of the opportunity to address alcohol and substance use when they meet with their adolescent patients for any reason: all health care visits can include assessment, education, and a discussion of possible consequences of abuse in a private and confidential setting. Currently, however, not all health care providers screen for alcohol or substance abuse during visits. When they do, providers often rely on their impressions rather than structured interviews designed to recognize problems. This week The DRAM reviews a study by Wilson, Sherritt, Gates, and Knight (2004), which compared the accuracy of medical care providers' impressions to structured assessments of alcohol use, abuse, and dependence during routine and urgent care visits.

The data for this study was collected during the CRAFFT validation study by Knight, Sherritt, Shrier, Harris, and Chang (2002)., Adolescents between the ages of 14 and 18 years, who presented to a large urban hospital-based adolescent clinic for routine or ambulatory care between March 1999 and September 2000, were asked to participate in the study at the conclusion of their medical visit. Their medical care providers were also asked to participate at the conclusion of the visit. Participating adolescents took the Adolescent Diagnostic Interview (ADI; Winters & Henly, 1993), which is based on criteria for alcohol- and drug-related disorders according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 1994). The authors used the ADI to classify participants into one of five mutually exclusive groups that described their past 12-month alcohol and drug use: none, minimal, problem use,

abuse, and dependence1. Medical care providers (MCPs) completed a questionnaire about their clinical impressions of the patient's alcohol and/or substance use. The questionnaire contained 7 items, each of which asked the MCP to place the patient in one of the five categories described above. Of the 670 patients eligible to participate, 533 agreed (80%). Demographics of those who refused to participate did not vary significantly from those who agreed. One hundred nine medical care providers participated: 68 residents, 19 medical students, 14 staff clinicians (faculty physicians and nurse practitioners), and 8 fellows.

The results showed that MCPs significantly underestimated the occurrence of alcohol- and substance-related problems among their patients compared to the ADI (see Table 1 for details). Providers identified as users only 63% of adolescents who reported any alcohol or substances use. The ADI diagnosed 101 patients with problem use, 50 with http://www.basisonline.org/dram/printready.htm (1 of 3)12/28/2005 12:48:20 PM The Dram: Drinking Report for Addiction Medicine abuse, and 36 with dependence. Of those diagnosed with problem use by the ADI, MCPs correctly identified only 15.1%, and of those diagnosed with abuse by the ADI, MCPs correctly identified only 10.5%. MCPs did not correctly identify any of the 36 patients diagnosed with an ADI diagnosis of dependence. Of the 86 patients with an ADI diagnosis of abuse or dependence, MCPs identified only 75.6%. Overall, there was only marginal agreement (K < .4) between MCP impressions and ADI diagnoses. For alcohol use, specifically, the agreement was low, K = 0.29 (95% CI = 0.23-0.34).

	None	Minimal	Problem	Abuse	Dependence
MCP Impressions	314 (58.9)	191 (35.8)	18 (3.3)	10 (1.9)	0
ADI Diagnoses	268 (50.3)*	78 (14.6)†	101 (18.9) †	50 (9.4) †	36 (6.8) †

Figure. Medical Care Provider (MCP) Impressions and ADI scores of adolescent substance use classification (n = 533). # Percentages in parenthesis; * p = .05; † p < .05. Click image to enlarge.

There are several limitations to the study. The authors did not specify the number of patients evaluated by each MCP or their accuracy; they did not assess differences in accuracy among MCPs with varying levels of training. Future research should try to determine whether diagnostic accuracy improves with clinical experience. The authors also acknowledged that adolescents might have been more reluctant to discuss openly their alcohol and substance use with their

MCP than with the research assistants conducting the ADI interview. Additionally, the authors did not know whether MCPs asked directly about substance related problems, or signs or symptoms of abuse or dependence. Avoiding the direct questions might be the result of statutes such as, the Uniform Accident and Sickness Policy Provision Law (UPPL), which allows insurance companies to deny coverage for alcohol- and substance-related injury (Gentilello et al., 2005). Lastly, the statistics presented in this article are the result of a secondary data analysis; the main purpose of the MCP provider questionnaire was not to evaluate the accuracy of provider impressions and MCPs were not aware their impressions would be under investigation. If the impressions of providers who specifically set out to identify rates of alcohol use and abuse remain poor, the significance of these findings will be magnified.

Nonetheless, the results of this study indicate that the vast majority of adolescent alcohol and substance use, and the severity of such use, likely goes undetected by those who provide medical treatment. More research and training efforts should be directed to helping the full range of health care providers to more accurately identify youths having problems with alcohol. Furthermore, policies governing the health care field should ensure that providers can provide the best possible care.

—Siri Odegaard

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Notes

1. 'None' was defined as no reported use in past 12 months; 'Minimal use' was defined as use of alcohol and/or drugs, http://www.basisonline.org/dram/printready.htm (2 of 3)12/28/2005 12:48:20 PM The Dram: Drinking Report for Addiction Medicine but no reported problems relating to this use; 'Problem use' was defined as reporting one or more problems related to alcohol and/or substance use; 'Abuse' was defined as meeting 1 of 4 DSM-IV criteria for alcohol or substance abuse, but not dependence; and 'Dependence' was defined as meeting 3 of 7 DSM-IV criteria for alcohol or drug dependence, but not necessarily criteria for alcohol or substance abuse.

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