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## Early Onset of Substance Abuse: Implications for Student Assistance Programs

By William L. White, Mark D. Godley and Michael L. Dennis

Student assistance (SA) professionals regularly encounter youth involved in a variety of high-risk behaviors — substance experimentation, high-risk sexual activity, sensation-seeking, intentional self-injury and acts of aggression toward property and people. Particularly striking to many long-tenured SA professionals is the growing co-occurrence of these behaviors and the lowering of the age at which these behaviors are seen. This article explores the early age of onset of substance use and its implications for the student assistance professional.

### Age of onset trends

For fear of distorting the overall picture of adolescent drug use trends, we should start with some good news: youthful experimentation with alcohol, tobacco and other drugs (ATOD) in the United States has been relatively stable for the last few years and has even declined slightly at all grade levels as reported in the latest Monitoring the Future survey (Johnston, O'Malley, & Bachman, 2003). There are, however, three pieces of bad news from that survey. First, drug use remains almost twice as high as the

1991 low. According to this survey:

- four of five seniors consume alcohol before leaving high school,
- rates of current drinking (past 30 days) show significant alcohol exposure (20% for 8<sup>th</sup> graders,
- 35% for 10<sup>th</sup> graders and 49% for 12<sup>th</sup> graders),
- more than a quarter (27%) of high school seniors are regular smokers, and
- more than half (53%) of students consume illicit drugs before leaving high school.

Second, the perception of risk related to substance experimentation is decreasing at all grade levels while the perception of drug availability is increasing (47% of 8<sup>th</sup> graders, 76% of 10<sup>th</sup> graders, and 87% of 12<sup>th</sup> graders report easy accessibility to illicit drugs). These factors, along with perceived levels of parental and peer disapproval, are among the best predictors of future levels of drug use.

Finally, the age of onset of ATOD experimentation and regular use has

progressively declined (Dennis, Babor, Roebuck, & Donaldson, 2002). A tri-generational study of those born before 1930, between 1930 and 1949 and those born after 1949 found a progressive decline in the age of onset of regular alcohol consumption and the probability of developing an alcohol-related problem before age 25 (Stoltenberg, Hill, Mudd, Blow, & Zucker, 1999). In a study comparing the drug using behaviors of college students under 21 and those 21 or older, the younger students presented significantly lower age of onset of drinking than older students. More than half of the younger students surveyed began drinking before age 16 (Presley, Meilman, & Lyerla, 1991). Between 1965 and 1995, the rate of initiation of alcohol consumption by 12- to 17-year-olds doubled (National Institute on Drug Abuse, 1999) as the median age of onset of alcohol consumption (more than a few sips) declined to age 13 (Substance Abuse and Mental Health Services Administration, 1999). This trend crosses gender lines. The percentage of girls who began drinking between ages 10 and 14 rose from 7% in 1965 to 31% in 1995 (Substance Abuse and Mental Health Services Administration, 1999).

This lowered age of onset of drug exposure is particularly evident in populations of adolescents entering the criminal justice system and addiction treatment programs. In 1994, 38% of drug-using youth incarcerated within state-operated juvenile facilities reported onset of drug use before age 12 (19% before age 10) (U.S. Department of Justice, 1994). In the just-completed Cannabis Youth Treatment Study, more than 80% of the 600 youth admitted to the study began regular substance use between the ages of 12 and 14 (Dennis, Titus et al., 2002).

### **Forces influencing onset**

Several factors are being examined for their potential contribution to the early onset of substance experimentation:

- decreased perception of risk among young people regarding the potential harm of ATOD use,

- decreased perception of parental and peer disapproval of ATOD use,
- decreased supervision of children and adolescents,
- intergenerational transmission of early onset male drinking, and
- targeting of young people by licit and illicit drug industries.

Understanding how new promotional forces and the diminishment of traditional inhibiting forces are interacting to lower the age of alcohol and other drug use will be crucial to implementing future strategies to reverse this trend.

### **Effects of early age of onset**

Concern about lowered age of onset of substance use springs from several sources. First, there is a growing body of research linking early onset substance use with increased risk for subsequent substance use disorders. Information from the National Longitudinal Alcohol Epidemiological Survey revealed that the risk of adult alcohol dependence was directly related to age of onset: before age 15 (40%), age 17 (24.5%), ages 18-19 (16.5%), age 20-22 (10%). The risk of adult alcohol dependence increased an average of 9% for each decreasing year of age of onset (Grant & Dawson, 1997). In another study comparing symptoms of dependence in the past year to age of first use, it was discovered that those who started using a given substance before age 15 (when compared with those who began use after age 18) were 1.49 times as likely to have problems with tobacco (39% vs. 30%), 2.74 times as likely to have problems with alcohol (45% vs. 23%), 2.45 times as likely to have problems with marijuana (63% vs. 41%) and 2.65 times more likely to have problems with other drugs (71% vs. 53%) (Dennis, Babor et al., 2000).

In preliminary studies, early onset (before age 15) of alcohol, tobacco and other drug use also has been associated with:

- faster development of drug dependence (Kreichbaun & Zering,

2000), greater problem severity — early onset smoking is associated with heavier smoking (Chen & Millar, 1998);

- early onset drinking is associated with greater alcohol-related cognitive impairment and liver dysfunction (National Institute on Alcohol Abuse and Alcoholism, 2003; Arria, Dohey, Mezzich, Bukstein, & Van Thiel, 1995), greater problem complexity — the presence of comorbid physical disorders and psychiatric disorders and less social support for subsequent recovery (Sobell, Sobell, Cunningham, & Agrawal, 1998),
- increased risk of other life problems — lifetime risk of accidents while under the influence of alcohol (Hingston, Heeren, Jananka, & Howland, 2000) and alcohol-related violence (Hingston, Heeren, & Zakocs, 2001), and
- poor intervention outcomes via less help-seeking and greater post-intervention relapse (Keller et al., 1992; Kessler et al., 2001; Chen & Millar, 1998).

There are two views about the relationship between early onset of substance use and subsequent substance use disorders and related problems. The first is that early onset is a direct cause of such disorders and problems. The second view is that early onset substance use reflects a broader pattern of life disruption that causes both early onset and a wide range of subsequent problems (McGue, Iacono, Legrand, & Elkins, 2001). These theories are not mutually exclusive. We may find that early onset substance experimentation is both a cause and consequence of other problems.

### **Implications for SAPs**

We have seen from the above review of the research that lowered age of onset of substance use is associated with the future risk, intensity, complexity and intractability of substance use disorders and related life

problems. Lowered age of onset of drug use interacts with personal vulnerabilities (family history of substance problems, substance-saturated family/social environments) to generate multiple problems (for example, educational/vocational failure, depression, suicide, crime, pregnancy, infectious diseases) that compromise intervention outcomes and heighten the toll on individuals, families and communities. The early onset of substance use and related disorders also has a contagious quality in that it usually unfolds and flourishes within a peer context.

The issue of lowered age of onset of substance use has particular relevance to student assistance programs. The precocious onset of substance use in children signals vulnerability for the development of other problems (conduct disorder, attention disorders and affective disorders, among others) and behaviors that pose risks to the individual child and others. These other problems have a complex interaction with substance use and can precede, co-occur, or follow substance initiation. Intervening in these other problems and behaviors constitutes a crucial prevention or early intervention strategy for substance-related problems, just as proactive intervention into early substance use serves the same functions for these other problems. “Silo programs” that target a single problem or risk behavior must eventually give way to more integrated programs that focus on promoting the global health and development of these children.

SA programs can play an important role in lowering the short- and long-term risks to individuals, families and communities by postponing substance use initiation as long as possible, and by recognizing developmental windows of vulnerability and opportunity in the transitions from early drug experimentation to chronic drug dependence. More specifically, SAPs can:

- enhance protective factors (pro-social values, skills and family and peer relationships) prior to the developmental period (ages 9 to 12) of

greatest vulnerability for drug use initiation and related problems;

- deliver focused support to children at risk for the development of substance use problems (family history of alcohol and other drug problems, parental detachment, access to alcohol and/or other drugs at home, academic struggle/failure, emotional distress, involvement in drug-oriented peer cultures, behavioral problems, involvement in criminal justice system, and atypical drug sequencing (use of marijuana before alcohol and use of other illicit drugs before marijuana) (National Institute on Alcohol Abuse and Alcoholism, 2003; Kandel, Johnson, & Bird, 1999; Mackesy-Amity, Fendrich, & Goldstein, 1997));
- prevent or slow the movement from initial to regular drug use;
- intervene before the transition from single to multiple drug experimentation;
- interrupt the progression from regular drug use to drug-related problems and drug dependence;
- prevent an expanded repertoire of high risk, health-threatening behaviors, for example, unprotected sex with multiple partners, high risk behavior in vehicles, crime, and violence; and
- intervene with those experiencing substance use disorders to restore personal health and diminish problem contagion within the school and community.

SA professionals can help communities examine the national and local changes that are contributing to lowered age of onset of ATOD use (and other risk behaviors) and find ways to sustain and strengthen those strategies that reduce these problems. SA professionals also can play an active part in shaping community norms and standards related to ATOD use, confronting and countering the targeting of young people by licit and illicit drug

industries, and advocating a full continuum of community-based youth-oriented prevention, early intervention, treatment and post-treatment recovery support services.

Early ATOD exposure, whether as a consequence or cause of other problems, seems to be a visible indicator for inclusion in a growing group of individuals who exhibit early and prolonged physical, social, and educational/vocational disability. This group goes on to consume massive quantities of human services that do little to alter the quality of their lives or their level of functioning. Early intervention is the key to preventing this pattern. Research is showing that the earlier the age of intervention into such problem constellations, the greater the long-term prognosis for problem resolution, even when that resolution requires multiple interventions over time (Dennis, Scott, & Funk, under review). Investment in SA programs is an effective strategy for positively altering the developmental trajectory of children at high risk for life-shortening and life-impairing problems.

Young people are developing life-impairing and life-threatening problems with alcohol, tobacco and other drugs who would not have developed these problems if their initial exposure to these substances could have been postponed (Chou & Pickering, 1992). ATOD-related problems resulting from early age of onset are among the most preventable causes of death and disability. For more than 150 years (1820 to 1970), this country successfully postponed significant (defined as frequent, heavy or binge use), unsupervised (outside the context of family/religious rituals) alcohol and other drug exposure until after puberty. In the past three decades, ATOD experimentation has shifted from a symbolic rite of passage from late adolescence into adulthood to a rite of passage from childhood into adolescence. It is time this shift was recognized as the most clinically and socially significant drug trend of the past century (White, 1999). SA professionals and other activists must call upon America and its local communities to examine the sources and solutions to early onset ATOD use. This trend must be reversed.

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