Does Age of Onset of Alcohol and Drug Use in Adolescence Predict Alcohol Abuse during Adulthood?

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Abstract

Early onset of alcohol use has been linked to later alcohol problems in adulthood. Currently, it is not clear whether early onset of marijuana use and tobacco use similarly predict alcohol problems. In addition, most studies focusing on the onset of substance use have used cross-sectional or short-term longitudinal designs. Moreover, studies examining the effect of early substance use onset on later substance problems typically have followed youth only into their early 20s. Therefore, the primary goal of this study was to examine whether the early onset of alcohol, marijuana, and tobacco use predicts alcohol problems beyond the transition to adulthood.

Sample

- 225 youth (60% girls; 62% Caucasian)
- Mean age at Time 1 = 16.70 (SD= 1.36)
- Followed up 5 and 10 years later
- From working class families in the Northeastern U.S.

Measures

Onset of Substance Use

Participants were asked how old they were when they began drinking regularly. More specifically, they were asked "At what age did you begin to drink regularly; that is, drinking at least once a month for 6 months or more?" They also were asked how old they were when they first used tobacco, and when they first used marijuana.

Because the distributions of these variables were skewed, they were trichotomized. For tobacco use onset, the categories were early onset=14 years of age or younger, middle/normative onset=15-19 years of age, and late onset=over 20 years of age.

For regular drinking and marijuana use onset, the categories were early onset=16 years of age or younger, middle/normative onset=17-22 years of age, and late onset=over 22 years of age.

Alcohol Use and Abuse

At each time of measurement, participants were asked how often in the past six months they drank enough to "get drunk" (loss of control of physical abilities, unsteadiness, aggressiveness, or nausea) and to "get high" (drowsiness, lightheadedness, etc.). The response scale was a Likert scale ranging from 1=*never* to 8=*nearly every day or more often*.

At each time of assessment, participants also completed the 25-item Michigan Alcoholism Screening Test (Selzer, 1971; MAST). At Time 3, they completed the 16-item Ethanol Dependence Syndrome Scale (Babor, 1996) as well.

Procedures

At baseline/Time 1 (1993-1998), participants completed the C-SSAGA-A clinical interview (the child version of the Semi-Structured Assessment for the Genetics of Alcoholism) and a series of self-report questionnaires. All participants were contacted for follow-up interviews and testing five years after the initial testing (1998-2003; Time 2; mean age = 21.35 ± 1.43) and again five years after Time 2 (2003-2007; Time 3; mean age = 26.10 ± 1.69). After the completion of data collection, participants received $100 at Time 1 and $150 at Time 2 and Time 3.

Results

Across all times of measurement, significant effects were not found for tobacco or marijuana use onset. In addition, interactions between the substance use onset variables were not observed.

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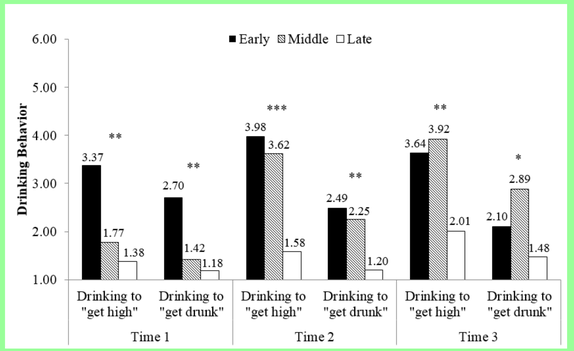

Figure 1. Drinking behaviors across time by regular drinking onset.

Time 1 Results

The MANOVA model predicting alcohol abuse at Time 1 yielded a significant multivariate effect for the onset of regular drinking, $F(6,424)=2.78$, $p<.05$. As shown in Figure 1, individuals with an early onset of regular drinking drank more frequently to get high, $F(2,213)=7.29$, $p<.01$, and to get drunk, $F(2,213)=5.73$, $p<.01$. In addition, those with an early onset of regular drinking had higher MAST scores, $F(2,213)=4.29$, $p<.05$, than those with a later onset of regular drinking (see Figure 2).

Time 2 Results

The model predicting alcohol abuse at Time 2 from the substance use onset variables also yielded a significant multivariate effect for the onset of regular drinking, $F(6,434)=6.28$, $p<.001$. Results indicated that individuals with an early onset of regular drinking drank more frequently to get high, $F(2,218)=15.38$, $p<.001$, and to get drunk, $F(2,218)=5.40$, $p<.01$, during their early 20s (see Figure 1). Young adults who had an early onset of regular drinking also had higher MAST scores, $F(2,218)=9.61$, $p<.001$, than those with a later onset of regular drinking (see Figure 2).

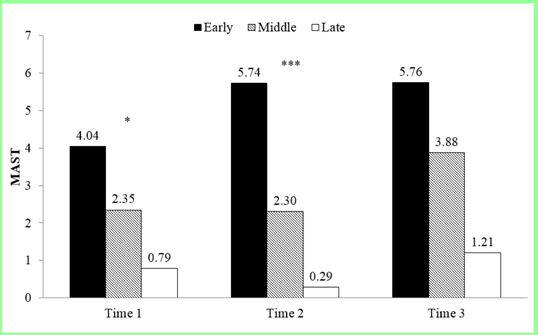

Figure 2. MAST scores across time by regular drinking onset.

Time 3 Results

The MANOVA model predicting alcohol abuse at Time 3 from the substance use onset variables yielded a significant multivariate effect for the onset of regular drinking as well, $F(8,228)=2.09$, $p<.05$. This model indicated that individuals with an early onset of regular drinking drank more frequently to get high, $F(2,116)=5.76$, $p<.01$, and to get drunk, $F(2,116)=4.03$, $p<.05$, during their late 20s in comparison to those with a later onset of regular drinking (see Figure 1).

Conclusions

Few studies have examined whether the risk of early alcohol use persists beyond the transition to early adulthood. Moreover, many studies have not taken into account the onset of other drugs and how they may interact with alcohol use onset to influence the risk of later alcohol problems. The present study included both alcohol and drug use and followed a sample of 15-19-year-old adolescents through their 20s. Results indicated that individuals with an early onset of regular drinking had relatively higher levels of problem drinking through their early 20s and drank more frequently to get high and to get drunk throughout their 20s. Findings from this study underscore the importance of delaying the onset of regular alcohol use among youth.

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