Drinking at an early age can lead to later alcohol dependence

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An early age at onset of drinking (AOD) is a strong predictor of subsequent alcohol dependence (AD). Following through on previous research that found substantial increases in drinking and AD among women born between 1944 - 1983, compared to women born between 1934 - 1943, this study examined the influence of AOD. Results showed that women born after 1944 also began drinking earlier than their predecessors, which might help to explain their higher rates of AD.

Results will be published in the August issue of *Alcoholism: Clinical & Experimental Research* and are currently available at *OnlineEarly*.

“Previous work had found that about one in three individuals who reported having started drinking at ages 17 or younger also reported having been alcohol dependent, either currently or previously,” explained Richard A. Grucza, an epidemiologist at Washington University School of Medicine and the study’s corresponding author. “For people who reported that they started drinking at age 21 or older, that number is one in ten. In other words, individuals who begin drinking at 17 or younger are more than three times more likely to develop AD than those who begin at age 21 or older.”

“This manuscript has elegantly demonstrated that the reduction in AOD seen in women born after 1944 was associated with an increase in AD,” said Wilson M. Compton, director of the Division of Epidemiology, Services and Prevention Research, at the National Institute on Drug Abuse. “By analyzing information from two large studies [conducted 10

years apart], the researchers have disentangled *when* in history there was a change in AOD in comparison with rates of AD."

The two large, national surveys used were the National Longitudinal Alcohol Epidemiologic Survey (NLAES), conducted in 1991 and 1992; and the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), conducted in 2001 and 2002. Grucza and his colleagues looked at changes in AOD as well as the lifetime prevalence of AD, while simultaneously controlling for age-related factors.

"In our previous work, we found that women born between 1944 and 1983 had a substantially higher risk for AD compared to women born prior to 1944," said Grucza. "In this work, we found that women born during this "high risk" period also began drinking earlier than their predecessors, and that this earlier drinking might explain the higher rates of AD. Women who began drinking at age 18, for example, during the "high risk" period did *not* have significantly higher risk than women who began drinking at age 18 during the earlier period. But the fact that more women were drinking earlier means that, overall, more women *were* at elevated risk."

While both men and women born between 1944 and 1963 had earlier AODs than the earlier group (1934 -1943), the net decrease in AOD was twice as large for women (3.2 years) than it was for men (1.6 years).

"The decrease in AOD occurred roughly at the same time as the minimum legal drinking age (MLDA) was being reduced in the 1970s," added Grucza. "But the minimum age was changed largely as a response to social change. So, earlier drinking was probably a result of *both* legal and social change. For women, social changes were greater than for men -- they entered the work force, became more economically independent, and so on – so, it's not surprising that they started to 'catch up' to men in terms of drinking behavior."

Grucza said that there are several interpretations of the correlation between AOD and AD. “One compelling perspective is that people who are at high *genetic* risk for AD begin drinking earlier for the same reasons that they develop AD. For example, they may be more impulsive, prone to greater risk taking, have a harder time controlling their behavior, and so on. Since delaying AOD by itself wouldn’t change these other factors, it wouldn’t necessarily lead to reduced AD.” However, he noted, these most recent findings contradict that point of view because changes in AOD over time *do* predict changes in AD.

“Since genes don’t change over that short of a period of time, the genetic explanation can’t be the whole story. Earlier AOD may have contributed directly to increased AD, or changes in the social environment may have influenced both AOD and AD.”

Both Grucza and Compton agreed that this would indicate that delaying alcohol use, possibly through prevention programs, could lead to reduced alcohol problems and dependence later in life.

“This study comes at a time when there is a lot of discussion in the popular press about whether the MLDA should be lowered again,” said Grucza. “From a public-health point of view, the short answer and best-educated guess is ‘*no*.’ These results suggest that relaxing MLDA laws could lead to increased AD … although it would appear that MLDA is not the only factor influencing AOD. We are in the process of undertaking more formal analyses of the effects of MLDA laws on both AOD and AD.”

Compton added that he would also like to see a state-by-state comparison of MLDAs. “Different states lowered and then increased the age for legal drinking at different times in the 1970s and 1980s,” he observed, “and these changes present a potential opportunity to more closely examine the connection between alcohol policies and rates of AD

over time.”

Source: Alcoholism: Clinical & Experimental Research