

# Association of Lifetime Mental Disorders and Subsequent Alcohol and Illicit Drug Use: Results From the National Comorbidity Survey–Adolescent Supplement

Kevin P. Conway, PhD, Joel Swendsen, PhD, Mathilde M. Husky, PhD,  
Jian-Ping He, MS, Kathleen R. Merikangas, PhD

**Objective:** To estimate the association of prior lifetime mental disorders with transitions across stages of substance use in a cross-sectional, nationally representative sample of US adolescents.

**Method:** The sample includes 10,123 adolescents aged 13 to 18 years who participated in the National Comorbidity Survey–Adolescent Supplement (NCS-A), and who were directly interviewed with the Composite International Diagnostic Interview (CIDI) Version 3.0 that generates criteria for *DSM-IV* disorders.

**Results:** Adolescents with prior lifetime mental disorders had high rates of both alcohol (10.3%) and illicit drug (14.9%) abuse, with or without dependence. Alcohol and drug abuse were highest among adolescents with prior anxiety disorders (17.3% and 20%, respectively) and behavior disorders (15.6% and 24%, respectively). Any prior disorder significantly increased the risk of transition from nonuse to first use, and from use to problematic use

of either alcohol or illicit drugs. Multivariate models attenuated the magnitude of the risk of transition associated with each disorder, although prior weekly smoking and illicit drug use demonstrated significant risks of transitions across the 3 stages of alcohol or drug use, as did behavior disorders.

**Conclusion:** The findings provide the first evidence from a nationally representative sample that prior mental disorders represent risk factors for the transition from nonuse to use, and the progression to drug- and alcohol-related problems. Treatment of primary mental disorders is likely to be an important target for the prevention of secondary substance use disorders in youth.

**Key words:** adolescence, alcohol use, comorbidity, drug use, epidemiology

*J Am Acad Child Adolesc Psychiatry* 2016;55(4):280–288.

Nationally representative surveys of substance use disorders (SUDs) in adults<sup>1–3</sup> have generated lifetime rates of SUDs that are only moderately higher than those among adolescents.<sup>4–8</sup> This suggests that the majority of lifetime cases of SUDs have their onset in mid to late adolescence. However, although more than 3 decades of research in psychiatric epidemiology have shown that the prevalence of these conditions varies considerably by sociodemographic characteristics and co-occurring mental disorders, few nationally representative samples of American adolescents have systematically investigated the impact of prior mental disorders on multiple stages of substance use.<sup>1,7–12</sup>

The numerous studies of adults consistently suggest that a history of mental disorders is a salient risk factor for diverse forms of SUDs.<sup>13–19</sup> Although “forward telescoping” and other memory biases may reduce the reliability of such

estimates,<sup>20</sup> the 10-year follow-up of the National Comorbidity Survey, as well as the 2-wave analyses of the National Epidemiologic Survey on Alcohol and Related Conditions, has confirmed the prospective risk posed by primary mental disorders.<sup>21–25</sup> The etiologic importance of these associations is particularly relevant to youth in light of findings that most mental disorders, including the major categories of mood, anxiety, behavior, and eating disorders, each have an average earlier age of onset than SUDs.<sup>26</sup>

Among the important advances in understanding the etiology of substance use disorders among adults is the finding that risk factors may differ substantially by stage of substance use. In particular, the associations between common sociodemographic factors (such as sex or race/ethnicity) with both alcohol and illicit drug dependence have been shown to vary according to specific stages of use.<sup>2,3,27–29</sup> The associations observed for prior mental disorders in adults have also been shown to vary according to stage of substance use, as well as by mental disorder type.<sup>22</sup> Research that clarifies the role and timing of prior mental disorders across substance use stages therefore holds promise for optimizing interventions designed to prevent substance use disorders.

The existing regional or community studies have shown that the majority of youth with alcohol or drug use disorders



This article is discussed in an editorial by Dr. Karen M. Abram on page 265.



This article can be used to obtain continuing medical education (CME) at [www.jaacap.org](http://www.jaacap.org).



An interview with the author is available by podcast at [www.jaacap.org](http://www.jaacap.org) or by scanning the QR code to the right.



have comorbid conduct disorder, oppositional defiant disorder, or depression,<sup>30</sup> and also that prior psychiatric conditions during adolescence predict substance use disorders later in life,<sup>31-35</sup> with some evidence of differential effects as a function of gender and age.<sup>36</sup> Although nationally representative surveys conducted in the United States have also provided rich information concerning risk factors for substance use in adolescents, notably including the National Survey on Drug Use and Health,<sup>4,7,9</sup> the National Health and Nutrition Examination Survey,<sup>5</sup> and the Monitoring the Future study,<sup>6,8</sup> the association of mental disorders with the risk of transition across the different stages of substance use has been conducted almost exclusively with adult samples. To address these concerns, the current study examines this topic in the National Comorbidity Survey–Adolescent Supplement (NCS-A), a nationally representative survey of youth aged 13 to 18 years conducted between February 2001 and January 2004. Using direct diagnostic interviews, information was collected for a large number of mental disorders as well as for diverse stages of alcohol and drug use, ranging from first opportunity to use substances, to abuse, and abuse with dependence. The objectives of the present investigation are to estimate the association among prior mental disorders among adolescents with the different stages of alcohol and illicit drug use, and to estimate the association between prior mental disorders and the probability of transition from earlier to later stages of use.

## METHOD

### Sample and Procedure

The NCS-A is a cross-sectional, nationally representative, face-to-face survey of 10,123 adolescents aged 13 to 18 years in the continental United States.<sup>37</sup> The survey was administered by trained lay interviewers from the Institute for Social Research at the University of Michigan. The NCS-A was carried out in a dual-frame sample that included a household subsample and a school subsample.<sup>38-40</sup> The overall NCS-A adolescent response rate combining the 2 subsamples was 75.6%.<sup>38</sup> The recruitment and consent procedures were approved by the human subjects committees of both Harvard Medical School and the University of Michigan.

Comparisons of sample and population distributions on census sociodemographic variables, and in the school sample on school characteristics, documented only minor differences that were corrected with poststratification weighting. Once the survey was completed, cases were weighted for variation in within-household probability of selection (in the household subsample) and for residual discrepancies between the sample and the US population on the basis of sociodemographic and geographic variables. These weighting procedures are discussed in more detail elsewhere.<sup>38,39</sup>

Sociodemographic variables examined in this report include age (in years), sex, and race/ethnicity. About half the sample (51.3%) was male, and the mean age was 15.2 years, with a larger proportion of youth aged 13 to 14 years (36.2%), and approximately equal distributions of youth aged 15, 16, and 17 to 18 years. The sample comprised 65.6% non-Hispanic whites, 15.1% non-Hispanic blacks, and 14.4% Hispanics.

### Measures for Diagnostic Assessment

Details of the diagnostic and risk factor measures are described by Merikangas *et al.*<sup>37</sup> Briefly, adolescents were administered a

modified version of the World Health Organization (WHO) Composite International Diagnostic Interview Version 3.0 (CIDI), a fully structured interview administered by trained lay interviewers to generate *DSM-IV* diagnoses.<sup>41</sup> For the purpose of this investigation, age of onset of a lifetime mental disorder was defined as the age at which the individual met full diagnostic criteria for that disorder, grouped into 5 main categories including mood disorders (major depression or dysthymia, bipolar I or II disorder), phobia disorders (agoraphobia, social phobia, specific phobia, and separation anxiety disorder), anxiety disorders (generalized anxiety disorder, panic disorder, posttraumatic stress disorder [PTSD]), behavior disorders (attention-deficit/hyperactivity disorder [ADHD]), conduct disorder, oppositional defiant disorder, and eating disorders (anorexia, bulimia, binge eating disorder). Lifetime substance use disorders included alcohol and drug abuse, and individuals fulfilling abuse criteria were administered questions concerning dependence. In this way, instances of alcohol and drug dependence without a history of abuse were not assessed. This report therefore presents both categories of abuse (with or without dependence). In addition to *DSM-IV* diagnoses, all respondents were asked about their use of diverse substances and the age at which specific stages of use first occurred. Adolescent self-reports of substance use have been found to have good concordance with parental reports.<sup>42</sup> For alcohol, the lifetime use question concerned age at which respondents first (if ever) had a drink with alcohol, specified as beer, wine, wine coolers, and hard liquor (such as vodka, gin, whiskey, and mixed drinks). First regular use of alcohol was defined as the age at which the respondent first had at least 12 drinks within a single year as a proxy for nonexperimental alcohol use that approximated monthly use. For illicit drugs, participants were asked the age at which they had first (if ever) consumed a range of specific substances, including marijuana or hashish; cocaine in any form (e.g., powder, crack, free base, coca leaves, or paste); tranquilizers, stimulants, pain killers, or other prescription drugs, either without the recommendation of a health professional or for any reason other than a health professional said they should be used; and heroin, opium, glue, LSD, peyote, or any other drug. Participants were also asked about the first time that they had an opportunity to drink alcohol or to use drugs, regardless of whether they used them. Opportunity to use was defined as when someone either offered them alcohol or drugs, or when the individual was present when others were using and could have used if he or she had wanted to. The age of first opportunity to use substances was recorded separately for alcohol and drugs. In light of the very high availability of legal substances such as alcohol, only opportunity to use illicit drugs is examined in this investigation.

### Statistical Analysis

Cross-tabulations were used to calculate the prevalence of lifetime mental disorders having an onset at least 1 year before the onset of the different stages of alcohol and drug use. Conditional prevalence estimates for each alcohol or drug use stage were also calculated among those who had reached the earlier stage of use. Estimated projections of the cumulative probability of stages of alcohol or drug use as of age 18 years were obtained by the actuarial method implemented in PROC LIFETEST in SAS (version 9.2, SAS Institute). Predictors of transitions across the alcohol or drug stages were examined using discrete-time survival analysis using the logit function with person-year as the unit of analysis.<sup>43</sup> The person-year data array used in the transition from no use to first use of alcohol (or opportunity to use illicit drug) includes all years in the life of the respondents before and including their age at having their first alcoholic drink (or having an opportunity to use an illicit drug). The person-year data array for the following 2 stages of analysis (ever use to regular use, regular use to abuse/

Download English Version:

<https://daneshyari.com/en/article/324475>

Download Persian Version:

<https://daneshyari.com/article/324475>

[Daneshyari.com](https://daneshyari.com)