The student pharmacist chemical health scale (SPCHS) lifetable analysis of the percentage of student pharmacists transitioning from alcohol use to dependence: A research brief

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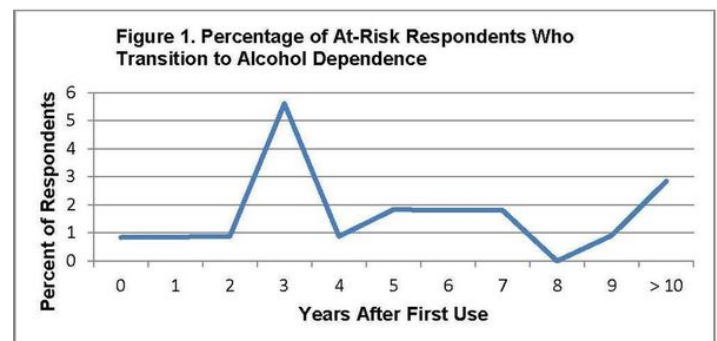[2]Assistant Professor, South College School of Pharmacy
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Alcohol dependence affects a small proportion of the population but contributes disproportionately to crime and other societal burdens.[1] Results from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) suggest that approximately 2% of alcohol users transition to dependence after their first year of use. This number increases to approximately 11% after a decade of use.[1] There remains, however, a paucity of evidence regarding alcohol use and dependence in healthcare students, particularly those entrusted with oversight of the medication use system. One important goal of the present study is to estimate the probability of student pharmacists transitioning from alcohol use to dependence.

This study was approved by the University of Georgia Institutional Review Board. The Student Pharmacist Chemical Health Scale (SPCHS) is an instrument developed to assess addiction risk in student pharmacists. The survey, described further in an accompanying article, was administered to a sample of pharmacy students (n = 395) in the opening days of fall semester 2012.[2] Figure 1 displays results from a cohort of student pharmacists who developed alcohol dependence as determined by application of DSM-IV-TR criteria to SPCHS responses.[3] A total of 127 respondents indicated alcohol use (32%), and of these, 20 respondents (5% of total, 16% of alcohol users) were classified as alcohol dependent. After respondents' first use of alcohol, data suggest that the probability of transitioning to dependence remains relatively constant at 1% for two years after first use. By the third year, the probability of transitioning to dependence peaks at approximately 6% but subsequently decreases to 2% years four through seven. A small but noticeable rise in probability occurs eight to ten years

after first use, increasing to approximately 3%.

Data suggests that the probability of student pharmacists transitioning from alcohol use to dependence is greatest three years after first use of alcohol (Figure 1), a finding similar to those in recent analyses.[1,4] Lopez-Quintero et al. show a similar cumulative probability three years after first use (approximately 5%).[1] Data from Wagner et al. suggest that the highest risk for transitioning to alcohol dependence occurs around age 20 to 21, with new cases of dependence occurring later in life.[4] The mean age of first use (approximately 17 years) in our sample of student pharmacists suggests that by age 20 (three years after first use), it can be expected that a small but significant percentage of students entering the profession as first year students are in active transition from alcohol use to dependence, with new cases occurring eight years after first use (Figure 1).

Figure 1. Percentage of At-Risk Respondents Who Transition to Alcohol Dependence

Results from this analysis highlight the importance of early identification of students at risk for substance use disorders. It is expected that substance use education, detection, and prevention strategies will gain importance in the coming years as more pharmacists enter the workforce. The SPCHS, a tool designed to aid in the

identification of student pharmacists at risk for substance use disorders, will hopefully fill a vital gap in this process.

REFERENCES

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