

## Diversion of Medical Marijuana: When Sharing Is Not a Virtue

To the Editor:

Previous research published in the *Journal* has documented that diversion of medical marijuana to adolescents in substance treatment is common.<sup>1</sup> However, the rate of medical marijuana diversion to other samples of adolescents is unknown. To address this important research gap, we proposed and tested the following hypotheses: that medical marijuana diversion would be common among adolescents in primary care and that those knowing someone with a medical marijuana registration would have more favorable marijuana-related attitudes and more frequent marijuana use.

Participants were 33 consecutive female and 33 consecutive male adolescents presenting to a primary care clinic in Denver, Colorado. Inclusion criteria were age 15 to 19 years, enrollment as a patient at the clinic and a willingness to complete the research questionnaires.

Participants completed anonymous, confidential, self-report questionnaires:

1. Demographic questionnaire. This questionnaire asked about age, gender, race, and ethnicity.
2. Marijuana use. "Ordinarily, how many times each month have you used marijuana in the past year?" Response categories were 0 (0 times), 1 (1–2 times), 2 (3–9 times), 3 (10–20 times), or 4 (>20 times).<sup>2</sup>
3. Medical marijuana questionnaire. This questionnaire obtained information about marijuana access, perceived harmfulness, and social norms.

Prior approval was obtained from the Colorado Multiple Institutional Review Board. Participant recruitment took place from November 2010 to June 2012.

Pearson  $\chi^2$  analyses or Fisher exact tests were completed to compare adolescents who knew with those who did not know someone with a medical marijuana registration on demographics, perceived risk of regular marijuana use, perceived availability of marijuana, friends' approval of using marijuana regularly, and past-year marijuana use.

The average age of the sample was 16.67 years (SD = 1.11, range 15–19 years). Fifty-eight participants (87.9%) were Hispanic/Latino, 4 (6.1%) were Asian, 1 (1.5%) was African American, 2 (3%)

were white, and 1 youth (1.5%) reported being African American and white.

Twelve adolescents (18.2%) reported ever obtaining marijuana from someone with a medical marijuana registration. None had their own registration.

Twenty-four participants (36.4%) reported knowing someone with a medical marijuana registration. Those knowing and not knowing someone with a medical marijuana registration did not differ with respect to age or gender. A smaller proportion of those knowing someone with a medical marijuana registration were Hispanic (75%) than those not knowing someone with a medical marijuana registration (95.2%; Fisher exact test,  $p = .023$ ). There was not a significant difference in those knowing someone with a medical marijuana registration compared with those not knowing someone in the proportion reporting great risk of harm from regular marijuana use (26.1% versus 50%;  $\chi_1^2 = 3.39$ ,  $p = .066$ ). Adolescents knowing someone with a medical marijuana registration compared with those not knowing someone were more likely to report fairly or very easy marijuana availability (95.8% versus 71.4%; Fisher exact test,  $p = .023$ ), close friends who do not disapprove of regular marijuana use (54.2% versus 23.8%;  $\chi_1^2 = 6.20$ ,  $p = .013$ ), and past-year marijuana use (70.8% versus 38.1%;  $\chi_1^2 = 6.55$ ,  $p = .011$ ).

There are several limitations to this study. The results of this study may not generalize to other communities. The cross-sectional design also does not allow for causal inferences between knowing someone with a medical marijuana registration and marijuana-related attitudes and behaviors.

Nevertheless, diversion of medical marijuana is common even in a sample of adolescents who are not necessarily at high risk for marijuana use and diversion. Knowing someone with a medical marijuana registration is also associated with more favorable marijuana-related attitudes and more frequent marijuana use.

**Christian Thurstone, M.D.**

**Margaret Tomcho, M.D.**

Denver Health and Hospital Authority  
Denver, CO

Christian.Thurstone@dhha.org

**Stacy Salomonsen-Sautel, Ph.D.**

**Taylor Profita, B.S.**

University of Colorado Anschutz Medical Campus  
Aurora, CO

This research was funded by National Institutes of Health grants DA000357-06A1K12, DA026739, and T32AA007464.

Dr. Salomonsen-Sautel served as the statistical expert for this research.

Disclosure: Drs. Thurstone, Salomonsen-Sautel, and Tomcho, and Mr. Profita report no biomedical financial interests or potential conflicts of interest.

0890-8567/\$36.00/©2013 American Academy of Child and Adolescent Psychiatry

<http://dx.doi.org/10.1016/j.jaac.2013.03.019>

## REFERENCES

1. Salomonsen-Sautel S, Sakai JT, Thurstone C, Corley R, Hopfer C. Medical marijuana use among adolescents in substance abuse treatment. *J Am Acad Child Adolesc Psychiatry*. 2012;51:694-702.
2. Kirisci L, Mezzich A, Tarter R. Norms and sensitivity of the adolescent version of the drug use screening inventory. *Addict Behav*. 1995;20:149-157.

All statements expressed in this column are those of the authors and do not reflect the opinions of the *Journal or the American Academy of Child and Adolescent Psychiatry*. See the Instructions for Authors for information about the preparation and submission of Letters to the Editor.