THE JOURNAL OF
GLOBAL DRUG POLICY AND PRACTICE

Studies of Gateway Drugs Have Been Done Throughout Generations of Adolescents

Gerald M Aronoff, MD, DABPM

Recent studies performed in conjunction with the National Institutes of Health found that prescription stimulants primarily for Attention Deficit Disorder and Attention Deficit Hyperactivity Disorder were the "NEW" gateway to drug abuse for many youths. The studies reported that these prescriptions led to the early onset of abuse of medication.[1] In my experience as a Chronic Pain physician, I have found that upon taking a detailed history of patients with addiction and chronic pain, the early[2]abuse of stimulants is often discovered. The abuse of stimulants is widespread and deserves our attention as medical providers.

Thirty-six countries were studied regarding the abuse of stimulants and it was found that the gateway choice of drugs-- in high-school students--second to the use of marijuana was that of popularly prescribed amphetamines / methylphenidate.[3] The World Report of 2010[4] found that in various high-income countries over 1 percent of the population surveyed reported the use of stimulants. North America, South America, and southern Africa were the highest reported areas

[1]Wu L, Pilowsky DJ, Schelenger WE, Galvin DM. Misuse of methamphetamine and prescription stimulants among youths and young adults in the community.Drug Alcohol Depend. 2007 July 10; 89(2-3): 195–205
[2]Bartelson BB, Bailey, Lowenstein S, et al. Characterization of adolescent prescription drug abuse and misuse using the Research and Abuse Addiction-Related Surveillance (RADARS). J Am Acad Child Adolesc Psychiatry 2013; 52(2):196–2.
[3] Smart RG, Ogborne AC. Drug use and drinking among students in 36 countries. Addict Behav 2000;25:455–460.
[4] United Nations, Report of the International Narcotics Control Board for 2008, retrieved from. www.incb.org/incb/annual-report-2008.html, January 12, 2010. last accessed June 18, 2014.

of the misuse of such stimulants. As physicians, we need to ask ourselves if these reports indicate the prescribing of stimulants without considering the patient-reported epidemiology of attention deficits.

Sweeny and Sembower et al, reported 9.5 percent of children ages 4-17 in the United States as having been diagnosed with attention deficit disorders. In their study, the significance of prescribing both methylphenidate and or amphetamines presents risk of abuse just as much as other Central Nervous System (CNS) medications.[5]How well are we as physicians assessing the actual need for such medications? A 2013 study of college students may imply a lack of discernment on the part of physicians. Multiple studies reported an estimate of up to 35 percent of individuals abusing the stimulants; indicating that the risk of abuse between the ages of 18-26 years of age is greater than those between the ages of 12-17 and that of the general adult population.[5]The National Survey on Drug Use and Health (NSDUH) has reported the increased occurrence of marijuana abuse and prescription opiate abuse in individuals who use stimulants. The correlation between such abuse is one of much concern as the chances of such individuals abusing at least three substances is alarming according to the earlier mentioned study conducted by Wu et al.[1]

A study of patients I treated between 2008-2013 with opioid abuse disorder revealed an estimated 26 percent reported the diagnosis of ADHD in youth. During follow-up visits with these patients, I found that acknowledged having manipulated their physicians in order to receive ADHD medications. When I ask them how they manipulated their physicians, invariably I find that they have researched the complaints of symptoms online and falsely reported these symptoms. Others have reported taking these medications from siblings, friends or other sources.

[5]Sweeney C, Sembower MA, Ertischek MD, et al. Nonmedical use of prescription ADHD stimulants and preexisting patterns of drug abuse.Journal of Addictive Diseases, 32:1–10, 2013

Some report that in order to receive their own prescriptions, they have asked their pill sources how to report attention deficit symptoms to their physicians. Upon further history taking, I try to uncover whether or not they themselves believe that they have attention deficit disorders and 9 times out of 10, they admit to not having any of these symptoms.

Sollman, Ramsey and Berry's report of feigned symptoms of ADHD among young adults highlighted the import of physicians' responsibility in this epidemic. The responsibility of performing proper examinations before making a diagnosis of ADHD is that of the clinician and not the patient.[6]Physicians need to avail themselves of the psychological assessment tools that rule out depression and anxiety, take proper interviews of the patient, assess impairment, symptom inventory and, in some cases, neuropsychology testing --which include explanation of brain function in conjunction with physical behavior. Proper treatment requires ongoing assessment such as cognitive performance testing (CPT), symptom validity tests (SVT) and word memory tests (WMT). Most of the patients who come into my office with a history of stimulant abuse, history of feigning ADHD or other attention deficit disorders report not having an initial nor a continued assessment.

My experience with patients who abused stimulants corresponds to the results of a study of a sample of college students who were evaluated regarding their diagnoses of ADHD. An estimated 22 percent of these students failed to meet criteria for ADHD when taking the WMT and SVT. Riggs et al noted students reported being coached on how to seek stimulants and fake ADHD symptoms. If the physicians involved in Riggs study had not utilized the proper tools for

[6]Sollman MJ, Ramsey JD, Berry DTR.Detection of feigned ADHD in College Students.Psychological Assessment.2010, Vol. 22, No. 2, 325–335.

evaluation they too would have been part of an ever growing trend of the "NEW" gateway drug of choice[7].

The Midwestern Prevention Project successfully reduced the rate of gateway drugs such as cigarettes and marijuana through the end of high-school. Their latest project has been that of reducing the use of amphetamines by adolescents to downsize the risk of abuse on a long-term basis[8] The results of this project were enlightening; they strongly suggest that early prevention of gateway drug use-- stimulants in particular-- significantly decrease the risk of drug use in adulthood.

The Journal of Substance Abuse Treatment published an article in November 2013 emphasizing the need for clinical monitoring of high-risk populations to prevent misuse and diversion in individuals with ADHD treatment history. The need for routine clinical and psychosocial assessment in patients with ADHD was a key factor in whether or not the patients would develop substance abuse. The evidence gathered by Bihlar, Mud et al[9] indicates relapses for substance abuse may be less frequent with combined pharmacological care and routine clinical assessment. Our job as both physicians and citizens of our communities is to consider the benefits and "first do no harm." No matter how long it may take us to assess a patient who 'self-reports' symptoms of ADHD the benefits of performing proper clinical assessment before being pressured to prescribe medication, outweigh the future harm and risks to the patient and the community on a whole.

---

[7] Riggs NR, Chih-Ping C, Pentz MA. Preventing growth in amphetamine use: long-term effects of the Midwestern Prevention Project (MPP) from early adolescence to early adulthood. Addiction, 104, 1691–1699.

[8] Vermeulen-Smit E, Verdurmen JEE The Effectiveness of Family Interventions in Preventing Adolescent Illicit Drug Use: A Systematic Review and Meta-analysis of Randomized Controlled Trials… - Clinical Child and Family, 2015 - Springer

[9] Bihlar Mud B, Joiken J, BÖlte S, Hirvikoski T. Long-term outcomes of pharmacologically treated versus n on-treated adults with ADHD and substance abuse disorder: a naturalistic study.

About the Author

Gerald M Aronoff, MD, DABPM, Past President American Academy of Pain Medicine Carolina Pain Associates, PA, Charlotte, North Carolina