I Am a Pediatric Dentist: Why Is Substance Abuse among My Patients My Concern?

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The rapidly evolving demographic base of our communities intensifies the need for an awareness which in the past seemed beyond the traditional concerns of pediatric dentists; in this case, substance abuse by teenagers. A review was carried out regarding evolving demographics, the proportion of teenagers involved with substance abuse, the rationale for the use of varying elicit substances and the associated symptoms. A series of options for action are considered given the potential for pediatric dentists to be involved in the care of teenagers using elicit substances.

Key words: Substance abuse, adolescents, pediatric dentists.

"**Pediatric Dentistry is an age-defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs. (Adopted 1995)"** [1]

INTRODUCTION

In the decades since the American Dental Association adopted this definition for the specialty of Pediatric Dentistry, the health professions have recognized the need to expand the immediacy of their concerns beyond the boundaries of particular anatomical organs and areas (heart, lungs and yes, the oral cavity), gender, an arbitrary date on a calendar (age) and past health histories. In addition, health providers are aware of the impact of the family setting and the general community where the youngster is being raised. We are (and increasingly will be) providing health services for a population with a rapidly evolving demographic base. The need has been to expand the scope of a dental practice to provide care beyond the traditional population that served as the mainstay of many dental practices; i.e. white middle and higher income populations. [2]

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> "The term 'minority' at least as used to describe racial and ethnic groups in the United States, may need to be retired or rethought soon; by the end of this decade, according to Census Bureau projections, no single racial or ethnic group will constitute a majority of children under 18. And in about three decades, no single group will constitute a majority of the country as a whole." [3]

For example, the Hispanic population is projected to "…more than double, from 53.3 million in 2012 to 128.8 million in 2020. Consequently, by the end of the period, nearly one in three U.S. residents would be Hispanic, up from about one in six today." [4] The Census Bureau reported that in mid-2014 non-Hispanic whites are less than a majority in four states (California, Texas, New Mexico and Hawaii) and the District of Columbia. [4] In response to these and related developments, schools of dentistry have introduced admission requirements and courses in the behavioral sciences, public health issues, outreach programs and varying components of sociology and psychology reflecting our evolving social structure.

The need is to prepare dental students to provide care for the young and not so young patients with different cultures, priorities, attitudes and perceptive heritages with regard to preventive and necessary dental and general medical care. Unfortunately, for many children, all too often the realities of the teen years are not filled with the glowing idealized depictions of youngsters in the many of Normal Rockwell's paintings from the 20th century. For example, a higher percentage of children live in poverty now than did during the Great Recession.

- "About 22% of children in the U.S. lived below the poverty line in 2013, compared with 18% in 2008… In 2013 the

U.S. Department of Health and Human Service's official poverty line was $23,624 for a family with two adults and two children." [5]

- There are "…the underserved dental needs of the more than a half billion people throughout the world with one or more disabilities; or specifically in the United States, the underserved dental needs of the 57 million, men, women and children with intellectual disabilities, physical and/or sensory impairment (including more than 38 million with severe disabilities)." [6,7]

Substance abuse

A recent report from the Substance Abuse and Mental Health Services Administration highlighted some of the facts regarding the illegal use of drugs by teenagers.

> "In 2013, 10.4% adolescents had treatment for illicit drug use…
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> In 2013, 6.2% of U.S. adolescents (an estimated 1.6 million adolescents) were binge alcohol users in the month prior to being surveyed…Among U.S. adolescents, higher percentages of whites and Hispanics engaged in past-month binge drinking than did blacks or Asians…
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> The percentage of Major Depressive Episodes (MDE) among U.S. adolescents in 2013 was about 3 times higher among females (16.2%) than among males (5.3%).
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> In the United States, 38.1% of adolescents aged 12–17 with MDE (an estimated 977,000 adolescents) in 2013 received treatment for depression within the year prior to being surveyed.
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> In the United States, 5.6% of adolescents aged 12–17 (an estimated 1.4 million adolescents) in 2013 reported using cigarettes within the month prior to being surveyed." [8]

In 2014, there was a progressive increase in the proportion of teenagers (between twelve and seventeen years of age) who reported using any illicit drugs, including marijuana, alcohol and tobacco. (Table 1) In most states in the U.S., many of the Provinces in Canada and all of Greenland and Mexico, the minimum age for purchasing tobacco is 18 years of age. (Map) Between ages 18 and 25 years, there is a marked increase in the use of these substances. Questions: Is experimentation by youngsters the first step in the overuse and overdose in early adult years and beyond? Does the "early" start in the use of illicit substances play a role in subsequent use of these substances?

> "Individuals who begin using drugs as juveniles are at greater risk of becoming addicted compared to those who begin drug use as an adult due to the immaturity of the teenage brain, particularly of that part of the brain that controls impulses." [11]

Prescription drug abuse

This form of drug abuse is when someone takes a medication that was prescribed for someone else or takes their own prescription in a way not intended by a prescriber or for a different reason—like to get high. It has become a big health issue because of the dangers, particularly the danger of abusing prescription pain medications. For teens, it is a growing problem:

- "After marijuana and alcohol, prescription drugs are the most commonly abused substances by Americans age 14 and older.
- Most teens get prescription drugs they abuse from friends and relatives, sometimes without the person knowing.
- Boys and girls tend to abuse some types of prescription drugs for different reasons. For example, boys are more likely to abuse prescription stimulants to get high, while girls tend to abuse them to stay alert or to lose weight.

There are three kinds of prescription drugs that are commonly abused.

- Opioids—painkillers like Vicodin, OxyContin, or codeine
- Depressants—like those used to relieve anxiety or help a person sleep, such as Valium or Xanax
- Stimulants—like those used for treating attention deficit hyperactivity disorder (ADHD), such as Adderall and Ritalin. " [12]

And what role can pediatric dentists play in dissuading their use?

First, why do teens use drugs? 5 top reasons

1. **Stress:** A recent study showed that, "… 73% percent of teens report the number-one reason for using drugs is to deal with the pressures and stress of school. Surprisingly, only 7% percent of parents believe that teens might use drugs to cope with stress…
2. **Social Acceptance and/or Low Self-Esteem:** A study reported 65% percent of teens say they use drugs to "feel cool." Teens' self-worth depends on the approval of others, and their desire for social acceptance can drive them to engage in destructive behaviors, even if they know it could harm them.
3. **Self-Medication:** The teen years are rough, and many teens who are unhappy don't know how to find a healthy outlet for their frustration. These pent up emotions can take an emotional toll and can even lead to depression or anxiety…
4. **Misinformation:** Studies show that teens are widely misinformed about the dangers of drugs. Did you know that 40% of teens don't perceive any major risk with trying heroin once or twice? While abuse of serious drugs is steadily declining among teens, their intentional abuse of prescription and over-the-counter medications remains a serious concern...
5. **Easy Access:** One reason teens use drugs is simply because they're easy to get. Nearly 50% percent of teens report that it's easy for them to get marijuana; 17 percent say it's easy to get meth; 14.4% say it's easy to get heroin; and more than half of teens say that prescription drugs are easier to get than illegal drugs." [13]

Some symptoms of drug use

- Narcotics: Lethargy, drowsiness, constricted pupils that fail to respond to light, redness and raw nostrils from inhaling heroin in powder form. Scars or tracks found on inner arms or other parts of the body.
- Stimulants: Dilated pupils when taken in large amounts, dry mouth and nose, bad breath, frequent licking of lips, excessive activity, fidgety, difficulty in sitting still, lack of interest in food and sleep.
- Marijuana: Rapid, loud talking and bursts of laughter in early stage of intoxication. Conversation is not continuous and forgets easily. The white of the eye is inflamed. There is an odor similar to burnt rope on clothing or breath.
- Hallucinogens–LSD, mescaline: Extremely dilated pupils, warm skin, excessive perspiration and body odor. There is a distorted sense of sight, hearing, touch and time perception.
- Inhalants–Glue, vapor producing solvents, propellants (spray paint cans, household cleaners): There is a persistent substance odor on breath and clothes, runny nose, watery eyes and poor muscle control. [14]

What is a pediatric dentist to do?

"A group of researchers wanted to know how common it is for teens to lie about drugs. They asked 400 teenagers if they used cocaine, then took hair samples to test for traces of the drug. Even though they knew their answers were private, and that the drug test would prove them right or wrong, most teens who had cocaine in their systems denied using it. The hair samples revealed drug use 52 times more often than the teens admitted." [15]

"Kids Lie, and Parents Believe Them" [15]

"Other people were smoking marijuana. I must have inhaled some by accident."

"My friend had a cold, so I gave him our bottle of cough medicine."

"I was the only one at the party who wasn't drinking, but they arrested all of us."

"I ate a poppy seed muffin. That must be why the drug test came back positive." [15]

Questions were raised in a series of conversations with pediatric and general dentists regarding the steps they would take if they suspected that a teenage patient was using illicit drug; (prior to 18 years of age, at which point they would be considered an adult – unless there were intervening factors; e.g. intellectual limitations). The responses included 1) ignoring it, 2) attempting to discuss the issue with the youngster, 3) giving the child the choice of he/she informing their parents or the dentist would, 4) informing the parents/guardian directly, and 5) notifying a child protective government agency.

Further discussion with individuals who had formal legal training changed the dynamics of the discussion. Depending upon the statements by the teenager, which could then be considered "privileged information", the actions by the dentist may well be limited. After discussion with the teenager and his/her comments (e.g. don't tell my parents or anyone else) the dentist would be unable to discuss the matters with others; unless the teenager's actions boarder on "self injury." At that time, the practitioner could ignore the teenager's directive "not to tell…" and direct effort to secure what would be best for the teenager; whether it be informing parents/guardians or a child protective agency.

Why is substance abuse among your patients your concern? Yes, you are a pediatric dentist. However, the reality is that some of your teenage patients may be experimenting, under stress, have low self-esteem, have misinformation and easy access to drugs. *And you may be able to help.*

Table 1. Use of selected substances in the past month among youngsters 12-17 years and young adults 18-25 years age: 2014 [9]

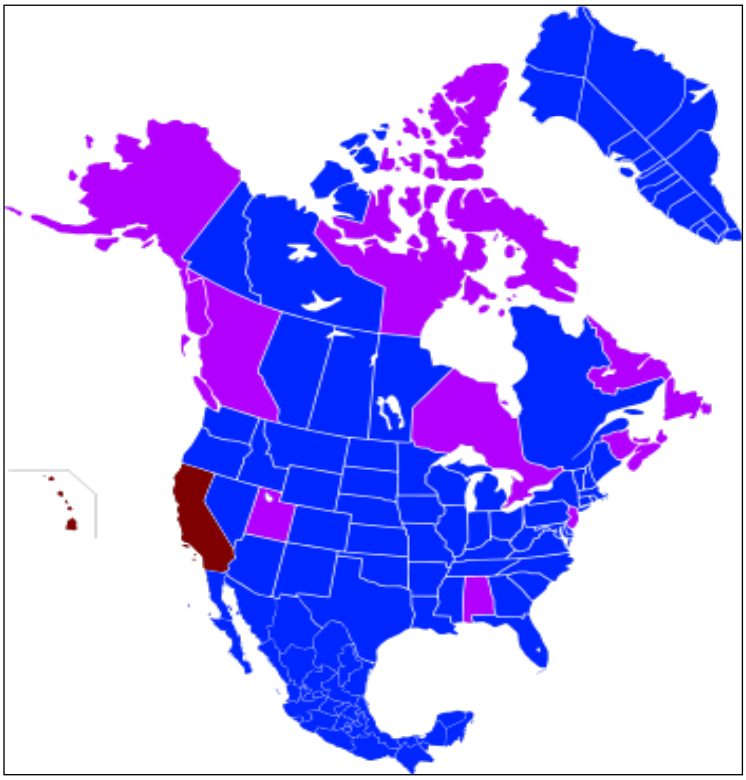
	12-13 yrs	14-15 yrs	16-17 yrs	18-25 yrs
Any illicit drug	3.4%	7.9%	16.5%	22.0%
Marijuana	1.1	5.5	15.0	19.6
Non medical use of any psycho-therapeutic drug	1.8	2.6	3.4	4.4
Alcohol use	2.1	8.5	23.3	59.6
Binge alcohol use*	0.8	3.9	13.1	37.7
Heavy alcohol use**	0.1	0.5	2.4	10.8
Any tobacco	1.1	5.1	14.4	35.0

*Drinking 5 or more drinks on the same occasion on a least one day in the past 30 days

** Drinking 5 or more drinks on the same occasion on a least each of 5 or more days in the past 30 days

Minimum age to purchase tobacco in Canada, Greenland, Mexico, and the United States as of June 2016 [10]

Minimum age is 21
Minimum age is 19
Minimum age is 18



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