# **Parenting for Prevention**

Student Assistance Services Corp., 660 White Plains Road, Tarrytown, New York, 10591, December, 2017

### Wrap-up, 2017 Hot Off The Press

This newsletter will consider some of the latest research about topics that we covered during the past year.

There is understandable concern about unsuspecting teens getting addicted to prescription **opioids** and then having the addiction escalate to heroin use. There is new encouraging research that shows that taking alternative over-the-counter medications are effective for managing pain.

Additional new research continues to document the long term negative effects of **alcohol and marijuana** on the developing teenage brain. Once again, the persuading information shows that the earlier children start using alcohol and marijuana, the more significant is the negative impact.

More research is being published about the dangers associated with **vaping**. The latest is about the impact of various chemicals on the lungs.

A new book, *Why We Sleep*, gave additional insights into the importance of **sleep** for teens and adults.

Leading experts in the field of **marijuana** research spoke at the SAS annual conference this month and gave new information about marijuana being a "gateway" drug and stimulating psychosis.

Editor: Patricia Murphy Warble, LCSW, CCP

# Alternatives to Opioids for Pain

There is significant concern among the substance abuse prevention community about patients being prescribed opioids to deal with pain. A new study that was published in the Journal of the American Medical Association (JAMA) and was reported in the New York Times in November gives some encouraging information about other protocols that can be used to deal with pain.

A recent November article in JAMA reported about a randomized trial for the relief of pain in an emergency room. Researches studied 411 Emergency Department patients who were admitted with acute extremity pain in their arms or legs from sprains, strains, fractures or other injuries which was measured as a mean score, 8.7 on the 11-point numerical rating scale. The patients were randomly assigned to an oral dose of acetaminophen (Tylenol) with either ibuprofen (Advil) or the opioids oxycodone, hydrocodone or codeine. Two hours later, they questioned the patients about their pain, again using the 11-point pain scale.

#### "Some docs will reflexively give an opioid to anyone with a fracture," Dr. Chang said. "But if we can give the non-opioid and show the patient that it works, we can help with this ongoing opioid problem.'

The 11-point pain scale score decreased 4.3 points with Advil and Tylenol, 4.4 with oxycodone and Tylenol, 3.5 with hydrocodone and Tylenol, and 3.9 with codeine and Tylenol. In other words, there was no significant difference, either statistically or clinically, among any of the four regimens.

This study showed that a combination of Tylenol and Advil worked just as well as opioids for relief of pain in the emergency room. The lead author, Dr. Andrew K. Chang, a professor of emergency medicine at Albany Medical College, said that while any single patient might find opioids more effective, on average, even for the severe pain of fractures, non-opioids worked just as well. "Some docs will reflexively give an opioid to anyone with a fracture," Dr. Chang said. "But if we can give the non-opioid and show the patient that it works, we can help with this ongoing opioid problem.

It is important for parents to ask a medical professional, whether a medical doctor or dentist to consider a medication to deal with pain that is not an opioid but something that can be purchased over the counter that can be just as effective in dealing with pain from an injury, surgical or dental procedure.

## Alcohol Hurts Brain Development

A study by Pfeffabaum et al in the October, 2017 issue of the American Journal of Psychiatry found that moderate and heavy teenage drinkers had faster gray-matter decreases and slower white-matter increases than nondrinkers at 2-year followup, and increasing the amount of alcohol that was consumed worsened outcomes progressively.

Among the heavy drinkers, family alcoholism history was associated with steeper slopes.

### Early Drinking Onset in Youth and Cognition In Young Adulthood

A study in the October, 30 issue of Alcoholism: Clinical and Experimental Research found that "Earlier ages in adolescents and young adults of first alcohol use predict worse neuropsychological performance a few years later."

"Among adolescents or young adults not meeting the criteria for an alcohol use disorder, the quantity of recent alcohol use predicts subtle changes in the neuropsychological functioning. To learn how age of alcohol use onset might affect neuropsychological functioning, researchers conducted a longitudinal study on the effects of age at the first alcohol use and at onset of weekly drinking on later performance on multiple neuropsychological tests in 295 adolescents without baseline histories of drinking (mean age, 14.) ing levels of the ac cancer-causing che shows, flavoring c The latest data from more teens are usin any other tobacco study said **"As on years, e-cigarette can adolescents."** 

## Vaping: More Concerns

Harvard School of Public Health did a study on E-cigarettes published in December, 2015 in *Environmental Health Perspectives*. The researchers found that Diacetyl, a flavoring chemical used in E-cigarettes is linked to cases of severe respiratory disease, most notably the incurable condition called "Popcorn Lung." This condition was first noticed in workers in microwave popcorn processing facilities who inhaled the artificial butter flavoring. The disease is totally debilitating and irreversible. It's a respiratory disease which causes scarring in tiny air sacs in the lungs which leads to shortness of breath and excessive coughing.



David Christiani, Elkan Blout Professor of Environmental Genetics, was the co-author of the study and said the following: "Since most of the health concerns about e-cigarettes have focused on nicotine, there is still much we do not know about e-cigarettes. In addition to containing varying levels of the addictive substance nicotine, they also contain other cancer-causing chemicals, such as formaldehyde, and as our study shows, flavoring chemicals can cause lung damage."

The latest data from Monitoring the Future released this week shows that more teens are using e-cigarettes than traditional tobacco cigarettes or any other tobacco product. Richard Miech, a senior investigator of the study said **"As one of the newest smoking-type products of recent** years, e-cigarettes have made rapid inroads into the lives of American adolescents."

# Why We Sleep

A recent book written by neuroscientist, Matthew Walker, entitled *Why We Sleep*, provides new research about the importance of sleep. In one passage he states, "Scientists have discovered a revolutionary new treatment that makes you live longer. It enhances your memory, makes you more attractive. It keeps you slim and lowers food cravings. It protects you from cancer and dementia. It wards off colds and flu. It lowers your risk of heart attacks and stroke, not to mention diabetes. You'll even feel happier, less depressed, and less anxious. Are you interested?

Of course, the answer to that question is to get at least seven hours of sleep a night. Dr. Walker goes onto say that there is a sobering and vital message about the centrality of sleep to the proper development of young minds. Dr. Walker feels that the early school starting times can have a negative impact on the mental health of



teenagers, including depression. The early start times for high schools is a significant barrier to teens getting enough sleep. Parents can play an important role by helping their teen understand the importance of sleep, by monitoring their teen's sleep patterns and then helping them devise strategies to get more sleep. One practical suggestion is to limit the use of cell phones and computers in the bedroom after a certain hour and requiring that they be charged overnight in a room other than their bedroom. It is very seductive for teens to take one more look at their devices before they go to sleep which in turn can be distracting, anxiety producing and delay or make it more difficult to sleep.

# Marijuana Updates

The annual SAS conference featured two renowned experts on the impact of marijuana use. Amelia Arria, Ph.D. an associate professor at the Univ. of Maryland School of Public Health provided an update on the research on the impact of marijuana on student achievement. She cited the studies that demonstrated marijuana negatively impacts the neuro cognitive functions of perception and focus, selective attention, learning, information processing and memory all of which impact creativity, skill acquisition, communication skills and knowledge, the factors influencing academic potential.

Dr. Arria also shared the results of a September, 2017 study by Olfson et, al, demonstrating that "cannabis use appears to increase rather than decrease the risk of developing non-medical prescription opioid use and opioid disorder." This study expanded on the 2013 study by Fiellin et.a. in the Journal of Adolescent Health demonstrating that "marijuana use was the substance most closely associated with the abuse of prescription opioids and "was associated with a 2.5 fold increased use of subsequent opioid misuse."

Dr Arria explained that substance use including marijuana, "hijacks" reward pathways to the brain. Academic pursuits become less meaningful as drugs become more valued which results in poor academic performance as the cognitive functions become compromised. For people using marijuana, their future time perspective becomes distorted and they loose the ability to appreciate that the long term rewards of academic achievement are a college degree, an enriched life and employment. Instead they become focused on the short term impact of "feeling good" because they are using a drug.

Mohini Ranganathan, MD, Assistant Professor of Psychiatry at Yale University School of Medicine provided updated research on how the greater THC content in today's marijuana products are causing an increase in physical addiction to marijuana and psychotic symptoms including persistent psychosis, and delayed chronic recurrent psychosis (schizophrenia). THC is one of the two major ingredients in marijuana and the ingredient that causes the "high." Dr. Ranganathan noted that earlier, heavier and longer exposure to THC was associated with greater risk, and that adolescents are more vulnerable to the impact. She went on to say, that CBD the second major component in marijuana and which does not cause a "high," is being reduced in most marijuana products and in street marijuana further increasing the negative impact of marijuana.

It was clear from both Dr. Arria and Dr. Ranganathan presentations that **parents and schools should do every**thing possible to prevent youth and young adults from using marijuana.

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#### Reprinted from the Monitoring the Future Website

*Dec 15, 2017* Marijuana Use Edges Upward

ANN ARBOR—Marijuana use among adolescents edged upward in 2017, the first significant increase in seven years. Overall, past-year use of marijuana significantly increased by 1.3% to 24% in 2017 for 8th, 10th, and 12th graders combined. Specifically, in 8th, 10th, and 12th grades the respective increases were 0.8% (to 10.1%), 1.6% (to 25.5%) and 1.5% (to 37.1%). The increase is statistically significant when all three grades are combined.

"This increase has been expected by many" said Richard Miech, the Principal Investigator of the study. "Historically marijuana use has gone up as adolescents see less risk of harm in using it. We've found that the risk adolescents see in marijuana use has been steadily going down for years to the point that it is now at the lowest level we've seen in four decades." The results come from the annual Monitoring the Future study, now in its 43rd year. About 45,000 students in some 380 public and private secondary schools have been surveyed each year in this U.S. national study, designed and conducted by research scientists at the University of Michigan's Institute for Social Research and funded by the National Institute on Drug Abuse. Students in grades 8, 10 and 12 are surveyed.

This increase in marijuana drove trends in any illicit drug use in the past year. In both 12th and 10th grade this measure increased (although the increase was not statistically significant), while use of any illicit drug use other than marijuana declined (although the decrease was not statistically significant). In 8th grade neither of these drug use measures significantly changed, although they both increased slightly.



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