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## Krokodil: A New Synthetic Drug Emerging Substance Use Prevention in American High Schools

### LaVelle Hendricks, EdD

### **Associate Professor of Counseling**

Department of Psychology, Counseling, and Special Education Texas A&M University-Commerce Commerce, TX

### **Delores Rice, PhD**

### **Assistant Professor of Educational Leadership**

Department of Educational Leadership Texas A&M University-Commerce Commerce, TX

### Linda Ball, EdD Assistant Professor of Counseling

Department of Psychology, Counseling, and Special Education Texas A&M University-Commerce Commerce, TX

### Steven Ball, PhD Associate Professor of Psychology

Department of Psychology, Counseling, and Special Education Texas A&M University-Commerce Commerce, TX

#### **Abstract**

Krokodil is the new drug that destroys mind, body, and soul. The medical name for the drug is desomorphine. It's the new home made heroin. A toxic mixture of eye drops, codeine, paint thinner, gasoline, hydrochloric acid, iodine, and the read phosphorous from matchbox strike pads. School officials should be on high alert because of the destructive and addictive nature of this new drug.

Substance use in high school students is not a new problem, but it is a problem that warrants the attention of school administrators in force. Since the early 1990s, the drug problem has only become more diverse and widespread. A group of researchers published a survey of public schools that utilize curricula for substance use in 2008. They found that only 56.5% of the nation's districts with high schools administered any substance abuse professional development for school administrators, and only 5.7% reported that they used one of six curricula rated effective by the Substance Abuse and Mental Health Services Administration's National Registry of Effective Programs and Practices or Blueprints for Violence Prevention (Bowling, et

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al., 2008, p. 480). They point out the numerous indicators for the need for substance use prevention in middle and high schools, has been identified as the initiation of substance use. Although *No Child Left Behind* requires schools to administer prevention programs, most of these programs are geared below the middle and high school levels and fail to mention the importance of synthetic drug prevention programs.

In addition to the identified dangers of prevalent drug use in the middle and high school levels, there are added factors of the stressors common to the average teenager faces. T. Elijah Hawkes (2008) identifies some of the common stressors outside of substance abuse that are commonplace, such as sexuality and seeking to find a place in society. Hawkes reiterates that there is a responsibility of the adult population to provide more resources for the individuals of middle and high school age in regards to drug use. Combining the aforementioned aspects of the plight of the American teenager, the prevalence of synthetic drugs at the middle and high school ages, and the low percentage of public schools utilizing curricula for substance use, there is a clear need for better resources for these students. The current gap in resources leaves a clear opening for newer, synthetic drugs to take hold of the student population and spread quickly, under the noses of school administrators.

### Krokodil

Substance abuse in the United States has reached an all-time "high." The development of synthetic drugs such as K2, Spice, and Bath Salts has created a new threat throughout our schools and communities. These products are being produced and distributed faster than lawmakers can out-law them. Just when we think we have these dangerous substances under control, a new compound or formula is created to attempt to by-pass new and existing laws.

These new synthetic drugs mimic the dangerous effects of other drugs such as cocaine, marijuana, and amphetamines and the effects of the synthetic drugs are often more potent and way more harmful.

If these synthetic drugs are not menacing enough, think about one that literally eats away your flesh down to the bone. It may be hard to believe that anyone would subject their body to such treacherous treatment. Nevertheless, millions of people in Russia are injecting themselves with this new drug that can potentially lead to death.

The drug desomorphine is a synthetic opiate that is reportedly much more powerful and dangerous that heroin. It is a home-made drug concocted using codeine and various household items such as iodine, gasoline, lighter fluid, and hydrochloric acid (Shuster, 2011). The active ingredient in desomorphine is codeine. On its own, codeine is non-toxic, however mixed with ingredients like gasoline, iodine, and lighter fluid makes it highly dangerous and lethal. Codeine is sold in Russia as an over-the-counter pain killer, making it easily accessible.

Desomorphine first appeared in Russia in 2002. Since then, it has spread through the country like wildfire and grown into a full blown epidemic (Shuster, 2011). The drug has been nicknamed "krokodil" or crocodile because of the "greenish and scaly appearance of a user's skin at the site of injection" (Miller, 2011, para. 6). Users inject themselves anywhere from the forehead to the feet. Once injected into the skin, blood vessels burst and the skin around the injection site starts to die or rot. In some cases the flesh peels away leaving bones exposed.

Gangrene often develops followed by amputation and eventually death. The average krokodil user has a life expectancy of two or three years (Shuster, 2011).

Dr. Artyom Yegorov of the main drug treatment center in Tver, Russia claims krokodil causes the most aggressive levels of addiction and is the most difficult to cure (Walker, 2011). In addition, Dr. Yegorov explains that the pain experienced while going through withdrawals from krokodil are far worse than that of heroin. "With krokodil, the pain can last up to a month, and it's unbearable." He continues, "they have to be injected with extremely strong tranquilizers just to keep them from passing out from the pain" (Walker, 2011, para. 13).

Russia reportedly has the most heroin users than any other country in the world. According to Viktor Ivanov, the head of Russia's Drug Control Agency, in 2009 the majority of drug users were using heroin. Today more than half are addicted to desomorphine (Walker, 2011). With little help from the Russian government to treat and rehabilitate krokodil users, the number of addicts continues to rise.

Many Russian authorities suggested banning the sale of codeine or requiring a prescription for its purchase. As of June of 2012, codeine can no longer be purchased in Russia unless you have a doctor's prescription. The Russian government has banned the free sale of any drug containing codeine ("Sale of Drugs," 2012). With limited access to the purchase of codeine, krokodil users in Russia may now have a chance of survival.

According to the United States Drug Enforcement Administration (DEA; as cited in Miller, 2011), there have been no reports of krokodil cases in the U.S. However, the DEA does report that they are closely monitoring the situation in Russia to make sure krokodil does not make its way into the U.S. Dr. Ellen Marmur, chief of dermatological and cosmetic surgery at the Mount Sinai Medical Center in New York City reaffirms the DEA's claim that there have been no reports of krokodil use here. However, she does claim that the physical effects of krokodil somewhat resembles that of skin popping—a method used by intravenous drug users to administer heroine and other drugs (Miller, 2011). Yet krokodil is extremely more catastrophic causing severe disfigurement and death. Krokodil is not something we want here, threatening the citizens of our country. Krokodil is dangerous and deadly.

#### **Conclusion**

Synthetic drugs have been landing in the hands of adolescents and high school students who are looking for a cheap and "legal" high. According to the 2011 *Monitoring the Future Survey of Youth Drug-Use Trends*, 11.4% of 12th graders used synthetic drugs in the past year, making synthetic drugs the second most widely abuse drugs by high-school seniors (Johnston, O'Maley, Bachman, & Schulenberg, 2011, p. 312). The American Association of Poison Control Centers says the calls they received relating to human exposure to synthetic marijuana double from 2,906 calls in 2010 to 6,959 in 2011; whereas, the number of calls received related to bath salt exposure was 20 times higher from 2010 to 2011. The calls rose from 304 in 2010 to 6,138 in 2011 (Bronstein, et al., 2011).

With this emerging trend it is critical for school administrators and researchers to be prepared for the next lethal and emerging synthetic drug trend. This research is to educate school administrators on the new, and emerging synthetic drugs. In schools, teachers and school administrators are urged to exercise a more proactive approach towards the emerging synthetic

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drug use. Some schools districts are enforcing random drug tests to curb illegal drug use, as well as launching programs to educate students about the dangers of synthetic drugs.

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