Synthetic Drugs Are Dangerous, Possibly Deadly, Impacting Our Communities and Available at Your Corner Stores

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Abstract

This research paper provides information in regard to the dangers presented by synthetic drugs. Synthetic drugs are a billion dollar industry in the United States alone. Store owners and sales clerks are exploiting legal loopholes and continue to sell these products without any apparent care of the impact these substances are having on people or the communities. These products were developed without human testing. The short and long term medical effects on humans have not been determined. All level of deputies employed at the Okaloosa County Sheriff's Office were surveyed to determine the risk, they felt, synthetic drugs presented to the community and public safety personnel. The information gathered from this research and analysis shows, without significant and immediate legislative change, these substances will continue to threaten lives and present difficulties for public safety and medical personnel.

Introduction

The explosion of designer synthetic drug use is causing problems for law enforcement, medical professionals and governments not only in Florida, but across the nation, and around the world. Drug chemists are designing compounds that are chemically similar to, and to mimic the effects of controlled illicit substances.

In Okaloosa County Florida, we have seen obvious signs of abuse of these substances with instances of users displaying unnatural strength, pain tolerance, unexplained aggression, hallucinations and a plethora of medical complications.

Governments are struggling to work within proper legal guidelines to control the explosion of new substances which are at times five thousand times more potent than the drugs they are designed to mimic. By the time a government detects, analyzes, identifies and determines that there is a high potential for abuse and goes through the process of banning a new substance, before the legislation is passed, there are multiple other substances being sold as replacements.

These substances are untested, unregulated, marketed and sold as something other than what it is. These items are often labeled "not for human consumption" but sold for that exact purpose. People that are abusing these substances are playing "Russian roulette." When they use these products, they could get high, they could end up in a hospital, or they could end up in the ground.

Literature Review

There are two categories of synthetic drugs, synthetic cathinones and synthetic cannabinoids. Synthetic cathinones are commonly sold as “bath salts” and have pharmacological properties that are similar to amphetamine. The exact pharmacology is unknown; it is believed synthetic cathinones increase release of dopamine, norepinephrine and serotonin in the brain. There are no clinical comparative analysis conducted but it’s believed users may experience tachycardia, agitation, hypertension, mydriasis and tremors. (Benson, 2011)

Synthetic drugs are not limited to mimicking marijuana; there are other synthetic drugs which mimic methamphetamine, cocaine, ecstasy, lysergic acid diethylamide (LSD) phencyclidine (PCP) and cocktails of those substances mixed together. (Paynter, 2011)

Synthetic cannabinoids are commonly sold as Spice, K2, fake weed, Sence and other names. There are a wide variety of synthetic cannabinoids capable of activating the cannabinoid receptors in the brain. These receptors are CB1 (euphoria) and CB2 (immune and pain response). Synthetic cannabinoids have stronger affinities for cannabinoid receptors than actual tetrahydrocannabinol (THC) with clinical responses more pronounced than when individuals use marijuana. Users of synthetic cannabinoids have a much higher incidence of paranoia, agitation, chest pain and incidence of life threatening clinical effects (seizures, coma, arrhythmia) in comparison to marijuana. (Benson, 2011)

Spice and Bath Salts are not necessarily as benign as their names may imply. Users of certain brands of these products have been known to experience paranoia, severe anxiety, hallucinations, nausea, elevated heart rate and in some cases death. (Lawrence, 2011)

These products are part of a new generation of substances that are designer drugs, but marketed under various names. They are designed to mimic synthetic marijuana, cocaine, and ecstasy. Up until recently, all of these substances were completely legal. Many of these are still available at convenience stores and head shops. (Lawrence, 2011)

“The presence of [these drugs] is extremely troublesome for a number of reasons,” was stated by Kansas Senator Vicky Schmidt. “These compounds have been linked to a number of health concerns. Hospitalizations, emergency room visits and calls to poison control centers have increased everywhere these products are sold.” (Lawrence, 2011)

“Spice” is a brand name of synthetic cannabinoid, which acts as a chemically designed version of THC. More than 1,600 calls in the first 4 months of 2011 were attributed to synthetic cannabinoids according to the American Association of Poison Control Centers. (Lawrence, 2011)

“The products are meant to create a similar reaction to marijuana,” stated Dr. Anthony J. Scalzo, medical director of the Missouri Poison Control Center. “But in fact, patients report the opposite – a fast, racing heartbeat, elevated blood pressure and nausea.” Dr. Scalzo says, “a number of deaths have been reported across the country.” (Lawrence, 2011)

Idaho Senator Denton Darrington thinks the use of synthetic cannabinoids is on the rise, partially because of their states success in combating other illicit drugs, therefore users are seeking other methods to get high. (Lawrence, 2011)

Kentucky Senator John Tilley said "it was a major concern that kids could walk up to the counter and buy it. It just wasn't acceptable." (Lawrence, 2011)

After passing laws to ban certain synthetic substances, numerous other compounds began appearing. Senator Schmidt says "The manufacturers of these compounds understand the laws." She further stated "and have demonstrated their ability and determination to stay several steps ahead of the law by transiting away from scheduled compounds to uncontrolled compounds." (Lawrence, 2011)

These drugs are chemically engineered; therefore drug makers need only make minute changes to the chemical structure to create a new, non controlled compound. (Lawrence, 2011)

Scientists have found more than a dozen different synthetic cannabinoid compounds in spice products and estimate there could be hundreds more. (Lawrence, 2011)

Law makers in Kansas, Idaho and a half dozen other states developed a broad ban of general chemical classes of synthetic cannabinoids rather than individually listing specific compounds. (Lawrence, 2011)

The other synthetic drug that drew the attention of law makers was "bath salts." These designer drugs are classified as synthetic cathinones and are chemically designed to be similar to methamphetamine and ecstasy and have the same effects as the illicit drugs when smoked or inhaled. (Lawrence, 2011)

Poison control centers documented more that 1,800 calls associated with synthetic cathinones in the first 4 months of 2011. (Lawrence, 2011)

'Foxy' is a street name for a hallucinogenic drug containing a tryptamine derivative 5-methoxy-N,N-diisopropyltryptamine also known as 5-MeO-DIPT. The DEA classified 5-MeO-DIPT as a Schedule I substance in 2004. The Japanese Ministry of Health, Labor and Welfare has also restricted this substance since 2005. However, this substance is still available and in chemical analogs. These analogs are chemically designed to escape legal restriction and sold under a different name, rather than the known name and is spreading to youth via internet websites. (Matsumoto & Okada, 2006)

In a specific reported case, a 22-year-old man with no previous criminal history or mental illness was arrested for homicide although he previously admitted to using psychotropic mushrooms and marijuana. Prior to his arrest, the man admitted to purchasing the three designer drugs, named 'Foxy', 'Wild Game' and 'Mipty', on the internet. Two weeks prior to his arrest, he tried 'Foxy' with no real effect. On the night of his arrest, he ingested unknown amounts of the other two substances he purchased on the internet called 'Wild Game' and 'Mipty.' His intention was to enhance sexual pleasure with his girlfriend who, also did not know the chemical content of the two drugs. Immediately after taking the substances, he experienced palpitations and nausea. Approximately 1 ½ hours later he was delusional, experienced sensory distortion, visual illusion and intermittent loss of consciousness. (Matsumoto & Okada, 2006)

When found by police, the man was obviously confused, incoherent, naked and bloody. He had killed his girlfriend in his apartment with a kitchen knife. Police found 5-MeO-DIPT and 5-MeO-MIPT in the package labeled 'Mipty' and 5-MeO-DIPT in the package labeled 'Wild Game'. These substances were found in the urine of the suspect and the deceased. No other psychoactive substances were detected. (Matsumoto & Okada, 2006)

This is the first known clinical report of a homicide apparently committed while under the influence of tryptamine derivatives. Several clinical reports have reported concerns over 5-MeO-DIPT intoxication. Other reports show the substance may cause hallucinations and other issues lasting for hours and only made worse when taken in conjunction with 5-MeO-MIPT which could cause severe and long lasting psychosis. (Matsumoto & Okada, 2006)

The action of several government entities, including the United States and Japan, need to restrict internet sales of analogs such as 5-MeOMIPT. The danger of designer drugs needs to be publicized to prevent unnecessary tragedies from occurring. (Matsumoto & Okada, 2006)

Nabilone is a synthetic cannabinoid that has been used as a prescription drug since 1981 in Canada to help cancer patients that were suffering from side effects caused by chemotherapy. Those patients often suffered from nausea and vomiting. Nabilone is seeing increased use for chronic pain management. Some doctors have expressed concerns about nabilone becoming a drug of abuse. Nabilone is reported to have more undesirable side effects such as (drowsiness, dizziness and dry mouth), and take longer to work and is more expensive than smoked cannabis. An internet review, showed isolated instances of recreational use of nabilone. Additional studies are needed to address the issue of nabilone abuse because even though the abuse of recreational cannabis has been studied extensively, the abuse of chemicals derived from or chemically designed to mimic cannabis have not. (Ware & Arnaud-Trempe, 2009)

A medial report, describes several cases of patients that were treated at emergency rooms after ingesting designer drugs, and the negative impact, those substances had on them. In one case a 20 year old was brought into an emergency room by a friend because the 20 year old started to feel ill after smoking "spice" at a party. They admitted they did not know what was in "spice" but stated that it was not illegal. The 20 year old had an elevated heart rate, was anxious, shaking mildly, was confused, nauseous and could feel his own heart beating. A chemistry panel and urine drug screen tests were negative. After two hours, the patient was released. (Quan, Hasse & Levitan, 2011)

THC is the active ingredient in marijuana. It is known for its effects of relaxation, euphoria, and analgesia. There is a significant amount of literature which shows a frequent and significant amount of THC is associated with psychosis and schizophrenia. JWH-018 is probably the most researched synthetic cannabinoid. It has shown to be a potent cannabinoid receptor (CB) agonist. The 3 CB1 is the principal receptor is thought to be highly responsible for the euphoria and psychoactive effects of THC. (Quan, Hasse & Levitan, 2011)

Most people that respond to emergency rooms after ingesting synthetic cannabinoids do not report the classic signs or symptoms of THC use that normally begins to show 30 minutes after use and lasts for several hours. The most common complaints are of an elevated heart rate, elevated blood pressure, palpitations, diaphoresis, tremulousness, anxiety, and agitation. Psychosis with auditory and visual hallucinations has been reported in some instances, most commonly with people that suffer from additional psychiatric disorders. There have been rare reports of seizures and arrhythmia. Because the symptoms of synthetic cannabinoid intoxication may be similar to those exhibited by other illicit substances, a full toxicological test may be required. (Quan, Hasse & Levitan, 2011)

There are chemical structural similarities between synthetic cannabinoids and THC however, common urine drug screens are unable to detect synthetic cannabinoids in urine. The opposite also holds true, a positive test for THC does not exclude the use of synthetic cannabinoids. There is no current emergency room test that can confirm intoxication with synthetic cannabinoid intoxication. (Quan, Hasse & Levitan, 2011)

Individuals that arrive at the emergency room with abnormal vital signs and appear to be suffering from intoxication may be under the influence of illicit substances or "bath salts" if they are also displaying signs of psychosis or other indicators normally associated with phencyclidine intoxication. (Quan, Hasse & Levitan, 2011)

Synthetic cannabinoids, more, sold under the brand names "K2" or "Spice," have become a new phenomenon in the United States. Synthetic marijuana analogues first appeared in the United States in 2006, but did not become a widespread drug of abuse until early 2010. (Quan, Hasse & Levitan, 2011)

There were only 13 known calls to the Association of Poison Control Centers (AAPCC), in 2009 for adverse exposures to synthetic cannabinoids. In 2010 there were 2,915 calls. There were more than 2,476 calls to poison centers in the first few months of 2011. (Quan, Hasse & Levitan, 2011)

There is a widespread availability of synthetic cannabinoids. These substances are marketed as incense or potpourri and are sold everywhere. They are often packaged with the marking, "not intended for human consumption," to avoid Food and Drug Administration (FDA) regulation. These substances are found in head shops, tobacco shops, gas stations, convenience stores, and even some grocery stores. (Quan, Hasse & Levitan, 2011)

Synthetic cannabinoids received mainstream media attention when in June 2010 an Iowa teenager with no history of depression or illness committed suicide after using K2. Witnesses reported after smoking K2, the teenager began to "freak out" and shot himself in the head. (Quan, Hasse & Levitan, 2011)

In November 2010, the Drug Enforcement Agency (DEA) placed a 12-month ban on the sale of products containing five of the most common synthetic cannabinoids: JWH-018, JWH-073, JWH-200,CP-47,497, and cannabicyclohexanol which took effect in March 2011. Further research was conducted to conclude that the chemicals have a potential for abuse and have no known medical use. However despite the DEA ban, new synthetic cannabinoids have been advertised on the internet. By altering the molecular structure of JWH-018, the new compounds are not controlled. (Quan, Hasse & Levitan, 2011)

In Germany, the synthetic cannabinoid, JWH-122, is being sold as “Lava Red” has show to cause elevated heart rate, elevated blood pressure, agitation, and psychosis. There have been additional reports of seizures, cardiac arrhythmias, and loss of consciousness requiring intubation have been
reported. This is a very strong cannabinoid (CB) receptor agonist and is very similar to JWH-018. This suggests that even minor changes to the chemical structure can have extreme changes on the effect it has on people. (Quan, Hasse & Levitan, 2011)

Chemists that are attempting to avoid laws and government restrictions are creating potentially hazardous and even lethal chemical structures. (Quan, Hasse & Levitan, 2011)

Most brands of synthetic cannabinoids have a variety of scents, because they are sold as synthetic potpourri or incense. There is concern by the medical community, that these additional additives may be responsible for some of the side effects seen with the use of these products. These additional chemical additives are not identified on the packaging. (Quan, Hasse & Levitan, 2011)

In another reported case, hospital and security staff were in a physical altercation with a man who was yelling, swearing, agitated and combative. He was delusional, had an elevated heart rate, blood pressure, temperature and respiration. After several hours, the man admitted to snorting and injecting “bath salts” with friends. (Quan, Hasse & Levitan, 2011)

Various “bath salts” or “plant foods” are marketed which actually contain stimulant compounds such as 3,4-methylenedioxypyrovalerone (MDPV) or 4-methylmethcathinone (mephedrone). These compounds are used illicitly by being snorted, and injected. (Quan, Hasse & Levitan, 2011)

Bath salts are structurally similar to cathinones. There are multiple synthetic cathinones. Cathinone is a compound of cathine, which is controlled in the United States. There are 20 cathinones that are similar to amphetamine in chemical appearance and effects. Human studies are limited, but studies in rats show mephedrone has similar neurochemical and functional properties as MDMA. (Quan, Hasse & Levitan, 2011)

Synthetic cathinones have a dramatic effect on dopamine and serotonin levels in the brain affecting the reward system of the brain similar to both MDMA and amphetamine. (Quan, Hasse & Levitan, 2011)

People who report to emergency rooms under the influence of synthetic cathinones exhibit signs similar to methamphetamine or cocaine intoxication. These are often hypertension, tachycardia, hyperthermia, agitation, tremor, seizure, delusions, hallucinations, and paranoia. There is no emergency room tests that detects bath salts in urine. (Quan, Hasse & Levitan, 2011)

These bath salts should not be confused with actual bath salts used as aromatherapy or relaxation. They are not sold in expensive packaging from bath and beauty supply stores, as if used for actual bathing. Synthetic cathinones are also sold as “bath salts” and “plant food” marketed under the names “Vanilla Sky,” “Ivory Wave,” and many others. (Quan, Hasse & Levitan, 2011)

Bath salts initially made their appearance as a designer drug in Western Europe in the 21st century. There have been multiple cases reported of fatalities associated with synthetic cathinones use. These substances have been linked to a 19-year-old man's cardiopulmonary arrest, overdoses and fatal traffic crashes attributed to synthetic cathinone intoxication. (Quan, Hasse & Levitan, 2011)

Spice is the generic term for multiple herbal products (Spice, K2, Genie, and Yucatan Fire) with marijuana-like effects, sold on-line and in "head shops." Most of these products contain synthetic cannabinoids that have largely circumvented scheduling by the Drug Enforcement Administration (DEA). This makes them legal to purchase, possess and distribute throughout the United States and parts of Europe. The brand Spice became the most popular and now that name has been applied to all synthetic cannabinoids. It is believed the name "Spice" and the brands logo were stylized after a fictional drug referenced in the science fiction classic "Dune." (Johnson, Johnson & Alfonzo, 2011)

Multiple synthetic cannabinoids have been identified and introduced to plant material to promote a response similar to THC. Pharmacodynamic testing has determined to affect the cannabinoid receptor in the brain by several orders of magnitude far greater than THC found in natural marijuana. (Johnson, Johnson & Alfonzo, 2011)

Germany is recognized in the international community in the initial research in identifying the substances in spice for criminalization efforts. In January 2009, Germany banned the production, sale, purchase and possession of specific psychoactive substances they found in spice. Four weeks after their ban, spice found throughout the country contained non-regulated chemical homologs. It is believed drug designers intentionally searched for a family of unregulated psychoactive compounds that can easily be replaced with equally effective homologs to avoid the law. (Johnson, Johnson & Alfonzo, 2011)

There are multiple formulations of synthetic cannabinoids worldwide. The scientific community is unable to match the speed of drug designers, and the composition of synthetic cannabinoids in each product. Significant law changes are required on the approach of controlled substances to prevent the endless cycle of criminalization efforts between drug designers and legislative bodies. (Johnson, Johnson & Alfonzo, 2011)

The U.S. military is concerned with Spice intoxication which will render the users unfit for duty. Reports suggest that there is widespread use throughout all branches of the armed forces. Interviews with "head shop" owners report that 50% of their customers purchasing spice are active duty military. (Johnson, Johnson & Alfonzo, 2011)

The inability to test for spice abuse is believed to contribute to its popularity among members of the armed forces, law enforcement, firefighting, and other professionals that are subjected to regular drug testing. The US Army has banned use of any synthetic cannabinoid substance in July 2008 "for the purpose of inducing excitement, intoxication or stupefaction of the central nervous system." In June 2010, the Air Force issued a guidance memorandum saying "the knowing use of any intoxicating substance, other than the lawful use of alcohol or tobacco products that is

inhaled, injected, consumed, or introduced into the body in any manner to alter mood or function is prohibited." Currently all services recognize the possession, use, and distribution of spice is grounds for involuntary separation or bad conduct discharge. (Johnson, Johnson & Alfonzo, 2011)

There are a number of non-endogenous compounds that target the CB1 and CB2 receptors in the brain that possess potential for medical management of several disorders. These include THC or nabilone, which are both CB1 and CB2 agonists. Nabilone is already approved in the use of the suppression of nausea and vomiting produced by chemotherapy and stimulation of appetite. AIDS patients in Europe that suffer excessive loss of body weight have been administered a drug called Sativex, which contains THC. It was also prescribed for pain management in adults with multiple sclerosis and for adult patients with advanced cancer. Safety concerns have risen in regard to these substances, particularly an increase in depression and suicide prompted that use of this product be halted. (Pertwee, 2010)

Many synthetic cannabinoids have shown to have a stronger impact on the CB1 and CB2 receptors. Where THC has a 5.05 to 80.3 value on the CB1 receptor, JWH-133 is 677, HU-308 is greater than 10000, JWH-015 is 383 and AM630 is 5152 to name a few. On the other side, as a CB2 receptor THC has a 3.13 to 75.3 value while AM251 is 2290, AM281 is 4200 and LY320135 is 14900 among others. (Pertwee, 2010)

Prescription drugs are not the only rising trend. Synthetic drugs marketed as specialty products have uses other than what is on its packaging. (Wethal, 2011)

Bath salts are anything but bath salts. They contain psychoactive drugs such as MDPV, mephedrone and other stimulants. Users smoke or snort the substances to receive a cocaine or meth-like high. (Wethal, 2011)

Dr. Nora Volkow writes that the addictive quality of bath salts rates high, much like other street drugs. "Mephedrone is of particular concern because, according to the United Kingdom experience, it presents a high risk for overdose," Volkow further writes "These chemicals act in the brain like stimulant drugs (indeed they are sometimes touted as cocaine substitutes) thus they present a high abuse and addiction liability." (Wethal, 2011)

The difference between illicit drugs and bath salts is bath salts are readily available at various stores and specialty shops selling from $40 to $100 a gram. (Wethal, 2011)

In April 2011, Joseph Rannazzi, deputy assistant administrator for the DEA's office of Diversion Control, wrote that bath salts, also sold as plant food, are a threat to human health and public safety. Use of these products has caused medical related emergencies throughout the nation. (Wethal, 2011)

This administrative order of the Drug Enforcement Administration (DEA) placed five commonly used synthetic cannabinoids temporarily into the federal Controlled Substance Act (CSA). This order was implemented to avoid an imminent hazard to public safety. These substances were not intended for human consumption however, there has been a rapid and significant increase of abuse of these substances in the United States. This order refers to a "cannabinoid" as a class of chemical compounds in the marijuana plant. Synthetic Cannabinoids were developed and evaluated as research tools with no other legitimate uses. Synthetic cannabinoids were not intended

for human consumption. These substances are commonly found laced on plant material and they are being abused for their psychoactive properties. There is no evidence that these synthetic cannabinoids have value as an additive to herbal incense products. Health warnings have been issued by several state and local health departments and poison control centers, warning of the adverse health effects associated with using synthetic cannabinoids. (Leonhart, 2011)

Wesley Upchurch, a 24 year old owner of Pandora Potpourri, which is an unmarked garage bay adjoining an auto body shop in Columbia, Mo. which looks abandoned is a manufacturer of "incense" which is laced with a synthetic cannabinoid. At the time of this article, he was selling approximately 41,000 packets a month. He projected his company would earn $2.5 million with $500,000 in profit. (Paynter, 2011)

Jeffery A. Miron of Harvard and the Cato Institute estimates the supply of synthetic cannabinoids, mostly enabled by the internet to be a $121 billion dollar industry in North America. (Paynter, 2011)

Scott Collier, of the Drug Enforcement Administration, estimates there are at least 1,000 synthetic drug makers in the US with recognizable brands. "Factor in the number of people using the internet as a supply store and making stuff out of their basement, and the number jumps considerably," says Collier. Synthetic are not difficult to make and there are YouTube videos with instructions. (Paynter, 2011)

The products that are sold as incense contain non-psychotropic plant material which acts as a vehicle for the laced synthetic chemicals that are added to produce the high. (Paynter, 2011)

An internet search was conducted using "buy JWH" and you'll find 3,800 Chinese labs prepared to ship you these chemicals. Hubei Prosperity Galaxy Chemical notes it can ship 5,000 kilograms of JWH-019 per month. One hundred kilograms is enough to make the equivalent of 1 million marijuana cigarettes and is completely unregulated. (Paynter, 2011)

After testing more than 100 packets from different suppliers, a disturbing trend was observed, there is no trend. The type and quality of mind altering drugs may very between brands, but also between packets of the same brand. Synthetic cannabinoids were detected between two to more than five hundred times stronger than THC. Several manufactures are mixing multiple chemicals together to create signature blends. (Paynter, 2011)

Method

A survey comprised of ten (10) questions was submitted to two hundred and forty three law enforcement officers with the Okaloosa County Sheriff's Office who work throughout Okaloosa County Florida. The information identified the years of experience, the rank, geographic assignment, familiarity with synthetic drugs, encounters with these substances, persons under the influence of them, whether they have formed an opinion on them, and the availability of synthetic drugs in their assigned areas of responsibility.

The survey was sent to law enforcement officers from patrol level to command level officers, incorporated municipalities and rural areas. The survey was submitted to personnel with little experience to veteran officers with many years of experience.

The data from this survey helped identify that law enforcement both in metropolitan areas and rural areas are encountering synthetic drugs, and the effects they have observed of people under the influence of these substances that they have come in contact with them.

This study provided data as to encounters, opinions and perceived danger to the public in regard to synthetic drugs.

The strengths of this survey are that it spreads the experience and contact levels among a large demographic of law enforcement officers at various levels and their encounters with citizens of diverse back grounds. The weakness of this survey was the number of returned surveys to ensure an appropriate sample of the diversity of the community.

Results

I sent out 250 surveys with 128 received back for a return rate of 51%. The returns were from personnel with a broad range of law enforcement experience, with 18.8% of with 0-5 years' experience, 26.6% of 6-10 years, 18.8% of 11-15 years and 35.8% with 16 or more years law enforcement experience.

A majority of the law enforcement officers that responded to this survey were front line, or initial responders. 64% were first responders, 15.6% were corporals, 10.2% were sergeants, 5.5% were lieutenants and 4.7% were command staff of the rank of captain or above.

The results were spread pretty evenly between the rural districts, higher density districts and the officers which were not restricted to a single district. District 1, which is primarily rural consisted of 24.2% of the responses, District 2, which is primarily residential and business district was 25.8%, and District 3, which is primarily tourism, business and residential provided 22.7% of the results with 27.3% of the responses returned from officers that are not assigned to individual districts.

96.1% of responses states that synthetic drugs are sold or have been sold in their districts with 3.9% not knowing.

Over the past 3 years, 108 of the 128, or 84.4% responded that they have encountered synthetic drugs in the performance of their duties, with only 20, or 15.6% saying they have not. 78.1%, stated during that same time, they believed they had encountered someone under the influence of synthetics, while 21.9% stated they had not. Of those 78.1% of encounters, 69.5% of those individuals were acting bizarre, irrational or violent and required law enforcement of medical intervention.

95.3%, or 122 of those surveyed, have formed opinions in regard to the danger synthetics pose to public safety. 6 or 4.7% have yet to form an opinion. 75.8% of law enforcement officers surveyed believe synthetic drugs are very dangerous, 19.5% believe they are dangerous and 4.7% that did not have an opinion did not answer this question. No one surveyed, considered synthetic drugs safe.

Discussion

Synthetic drugs are being sold and abused in our area, across the state, the nation and the world. I've seen families torn apart due to these substances. People that have never exhibited violence or bizarre behavior that are using these products are increasingly becoming aggressive, hostile and violent toward loved ones.

I found it socially unacceptable that approximately 80% of those surveyed, have encountered synthetic drugs or individuals under the influence of synthetic drugs in the performance of their duties in the last three years. This clearly shows the availability and ease in obtaining and abuse of these substances.

While reviewing the returned data, I was able to determine a flaw in my survey. I asked how many times in the past three years, those surveyed, had encountered what they believe to be synthetic drugs in the performance of their duties, and another question in regard to how many times they had encountered someone they believed to be under the influence of synthetic drugs. I did not specify to put a number as a response, and received responses such as, "numerous, more than I can count, too many to count, multiple times and getting more frequent, just a few, daily" and other responses.

Legislative bodies try to combat the threat of synthetic drugs by creating new laws and banning certain substances, however; the drug manufactures simply change the formula to remain outside the enforceable scope of the law. These drug manufactures market and sell these products under the name of various non-consumable products. By selling a synthetic drug as a non-consumable product, they lay blame of the abuse and use of these substances on the users themselves.

These merchants will sell a half gram of white powder in a jewelers bag that can be identified as a synthetic cathinone, for $45. They can call it whatever they want, and not have to show proof, or research that it actually works as claimed, such as plant food, or jewelry cleaner. Due to the fact that it is not a consumable, they are not required by law to list what substances are present. The consumer never knows what they are purchasing.

Each person that takes these substances can react to them differently based upon their own chemical physiology, tolerances and sensitivity to various substances. They may believe that they are purchasing the same product but the substance may actually be something completely different or a combination of multiple substances. They may be allergic to one of these substances, so in fact they are playing "Russian Roulette" each time they use these products. They may achieve the desired high they are seeking; they may end up in the hospital, or in the ground.

I believe the only way to successfully combat these substances, is through education, awareness and a combined effort between law enforcement, lawyers, chemists, doctors, and legislators. Until appropriate laws are written and enforced, people will continue to go to stores, licensed by our state and local governments, purchase these substances and abuse them. Many of these stores will continue to put the public at risk, simply because of the high profit margin.

Lieutenant Michael Card has been in law enforcement for 27 years. He started his career as a law enforcement specialist in the United States Air Force. He began his civilian career with the Okaloosa County Sheriff's Office in 1989. Since that time, he has worked and supervised road patrol, community policing, street crimes and the multi-agency drug task force. He is currently assigned as the Special Investigations Section, which oversees the drug task force, fugitive warrants, sexual predator/offender and gang units.

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Appendix A

Survey

1. How many years have you been in law enforcement?

    0-5 years
    6-10 years
    11-15 years
    16 or more years

2. What is your current rank?

    Deputy Sheriff
    Corporal/Investigator
    Sergeant
    Lieutenant
    Command Staff

3. What District do you primarily work in?

    District 1
    District 2
    District 3
    Multiple Districts

4. Are synthetic drugs (Spice, K2, Bath Salts, etc) sold or previously sold in the district you work in?
    Yes
    No
    Unknown

5. In the past three (3) years, have you encountered what you believe to be synthetic drugs in the performance of your duties?
    Yes
    No

6. In the past three (3) years, have you encountered an individual that you believe was under the influence of synthetic drugs?
    Yes
    No

7. If you answered “yes” to question #6, can you advise if the subject was acting bizarre, irrational, violent or required law enforcement of medical intervention? If you answered “No”, please choose N/A.
    Yes
    No
    N/A

8. Do you have any personal knowledge, received any training, or been offered training on synthetic drugs?
    Yes
    No

9. Do you have an opinion as to the level of danger posted to the public and public safety personnel in regard to synthetic drugs?
    Yes
    No

10. If you marked “yes” to question #9, please indicate the level below. If you marked “No”, please choose “No Opinion.”
    Very Dangerous
    Dangerous
    No Opinion
    Safe