Methamphetamine and Child Maltreatment

As methamphetamine use escalates across the country, there are increasing effects on the child welfare system. Communities struggle with how to prevent use of the substance, how to protect children with addicted parents, and how to help parents complete treatment. This article will offer an overview of the challenges and highlight some of the promising practices that practitioners can consider.

What is Methamphetamine?

Methamphetamine is a powerfully addictive central nervous system stimulant. According to Volkow (2005), there are only a few medically accepted uses, such as treatment for narcolepsy. Methamphetamine can be injected, “snorted”, smoked, or swallowed. It is usually in the form of a white, odorless, bitter-tasting powder that dissolves easily in water. Crystal meth is often clear and in chunks that can be smoked.

Methamphetamine dramatically affects the human nervous system. While it is similar to amphetamine in its chemical structure and effects, the stimulant effects are more powerful. It increases wakefulness and physical activity while decreasing sleep and appetite. Thus, users may believe that it is a performance-enhancing drug. A brief, intense “rush” is reported by those who smoke or inject the substance while oral ingestion or “snorting” produces a long-lasting “high” instead of a “rush.” The “high” can last half a day or more (compared to the effects of cocaine use which lasts 30 minutes to two hours). Both the “rush” and the “high” are believed to be due to release of very high levels of dopamine (a chemical involved in neurotransmission) into areas of the brain that regulate pleasure (McCann, 2005; National Institute on Drug Abuse, 2002; Rawson, 2005; Swetlow, 2003).

Methamphetamine remains active in the body longer than stimulants such as cocaine. The prolonged stimulant effects may permanently change and damage blood vessels in the brain. The drug produces abnormal brain chemistry in all areas of the brain (Otero, Boles, Young & Dennis, 2006). Other short-term effects of methamphetamine are increased respiration and hyperthermia (elevated body temperature). The chemical has toxic effects and can cause convulsions and even death. In animals, a single, high dose can damage nerve terminals in the brain that contain dopamine (NIDA, 2002).

Long-term use of methamphetamine results in addiction and a number of psychiatric and medical problems. Chronic abusers can exhibit violent behaviors (including out-of-control rages), anxiety, confusion, and insomnia. They can develop psychotic features including paranoia, auditory hallucinations, visual hallucinations, mood disorders and delusions...
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(false beliefs) (NIDA, 2002). Discontinuing the use of methamphetamine often results in extreme depression, fatigue, and cognitive impairments that can last from two days to two weeks (Rawson, 2005).

Physical changes include weight loss and the possibility of strokes. Within a few years or even months, the user’s appearance is drastically altered (readers can view “before” and “after” pictures of users on the web at: http://www.drugfree.org/Portal/DrugIssue/ MethResources/faces/index.html).

Methamphetamine causes rapid heart rate, irregular heartbeat, increased blood pressure, and irreversible damage to small blood vessels in the brain. Chronic use can result in inflammation of the heart lining. Among those who inject the drug, skin abscesses can occur.

Unlike cocaine and other stimulants, methamphetamine results in an accumulation of dopamine and the excess of dopamine appears to produce the stimulation and feelings of euphoria. In contrast to cocaine which is removed quickly from the body (about half is gone within an hour), methamphetamine has a much longer duration (half is removed in about 12 hours) and a larger percentage of the drug remains in the body unchanged (NIDA, 2002).

Acute lead poisoning is an additional risk for users. A common method of illegal production uses lead acetate. Production errors can result in a product contaminated with lead. Increased HIV and hepatitis B and C transmission are also likely consequences of long-term methamphetamine use, particularly for those who inject the drug (NIDA, 2002).

Methamphetamine use increases the risk for HIV and other sexually transmitted diseases not only due to use of contaminated equipment but also due to an increase in risky sexual behaviors as well as physiological changes that may favor HIV transmission (Volkow, 2005). Not only HIV but also tuberculosis and hepatitis can spread among users who prefer injection of the drug. About 20% of users inject methamphetamine (studies cited in Bishop, 1999).

Wilson M. Compton, M.D., M.P.E. is Director of the Division of Epidemiology, Services and Prevention Research at the National Institute on Drug Abuse. In a keynote talk at the Prevention Comes First/KIDsafe Conference in Richmond on December 11, 2006, he explained that methamphetamine and similar drugs disrupt the motivation pathways of the brain. The greater the release of dopamine, the more the drug is intoxicating and reinforcing. While the initial use is voluntary, addiction occurs rapidly. “The memory is hijacked,” said Dr. Compton, “and can not respond normally. Inhibition is compromised and controls are weak while the memory of the drug effect is strong.”

Dr. Compton further explained that drug use can cause the brain to operate differently due to decreased blood flow to the frontal areas which moderate decision-making and judgment. “With extended drug use, there is a measurable difference in brain functioning,” he commented.

Methamphetamine appears to damage neurons in ways that are different from and may be more severe than other drugs that are abused. It is believed that high dosages of methamphetamine can permanently damage neuron terminals (although some regrowth may occur) (Rawson, 2005). Research at UCLA has linked chronic methamphetamine use to a substantial reduction in the volume and functioning of areas of the brain that control cognition, memory, and emotion (Rawson, 2005).

There is some hope that some of the effects of methamphetamine use are reversible. Recent studies suggest that protracted abstinence appears to reverse some of the damage with recovery related to the amount of time the user has remained abstinent (studies cited in Otero et al., 2006).

Typically, methamphetamine is made in illegal labs. It is manufactured from basic ingredients that are easily acquired including ephedrine or pseudo ephedrine, acetone, paint thinner, ammonia, lye and hydrochloric acid. In addition to the harm caused to individuals who ingest methamphetamine, the manufacture of it harms the environment. The production of a pound of methamphetamine creates five to seven pounds of toxic waste. It is not unusual for this waste to be discarded into drains, sewers, or simply dumped onto the ground (McCann, 2005).

History of Methamphetamine

According to McCann (in Obert et al., 2005), amphetamine was first synthesized in 1887 by a German chemist and the derivative, methamphetamine, was synthesized in Japan a few years later in 1893. The initial use was in nasal decongestants and inhalers.

Use of methamphetamine became common in World War II to increase endurance for pilots on long missions. Following the war, use of methamphetamine became widespread in Japan.

In the United States in the 1960’s amphetamines were prescribed for weight control and for depression with 31 million prescriptions written in 1967 alone (McCann in Obert et al., 2005). After greater controls were placed on prescriptions for amphetamine and methamphetamine, illicit labs began to appear. Illicit methamphetamine first became available on the West coast, and then gradually spread into the Midwest, then to the Eastern coast.

Incidence

Methamphetamine has been widely available since the late 1960’s when it was called “reds” and was used by truckers, flight attendants, and “bikers.” It has been known “on the street” by many names – crystal meth; meth; shaboo; chris; gak; crank; speed; go fast; ice; crystal; chalk; glass; and tina (Amadaeus, 2006; McCann, 2005; Murphy, 2005; Swetlow, 2003). Methamphetamine has traditionally been associated with white, male, blue-collar workers but is now used by diverse groups and in all parts of the country (NIDA, 1998). Once almost exclusively limited to western and southwestern regions of the United States, use spread since the early 1900’s eastward to both major cities and rural areas (Peed, 2004).

According to the 2000 National Household Survey on Drug Abuse, approximately 8.8 million people in the United States (about 4 percent of the population) have tried methamphetamine at some point in their lives (NIDA, 2002). Results from the 2004 Survey are similar. A total of 11,726,000 people have tried methamphetamine in their lifetime (4.9 percent of the population) and 583,000 (0.2 percent of the population) report use in the past month (Office of National Drug Control Policy, 2006). The average user started at age 22. Dr. Compton notes, “Drug abuse is a developmental disorder. The average age of onset is late teens. It is unusual for an individual to start an addiction after age 25.”

Not all users meet criteria for drug dependence as defined in the Diagnostic


This report reviews the rise and spread of methamphetamine, the impact of the drug on grandparents or other relative-headed families, promising approaches for the child welfare community, and policy recommendations.

and Statistical Manual of Mental Disorders (DSM-IV). According to a National Survey on Drug Use and Health, there was a significant increase in the estimated number of past-month users who met criteria for methamphetamine dependence or abuse from 2002 to 2004. Users who met criteria increased from 164,000 (27.5%) in 2002 to 346,000 (59.3%) in 2004. The estimated number who had used methamphetamine in the past year in 2004 (1.4 million) and in the past month (600,000) remained similar to 2002 and 2003.

Rates of use of methamphetamine are higher for young adults between ages 18 and 25 (1.6 % of the population). The next largest age bracket is youth 12 to 17 (0.7 %) and then adults over age 26 (0.4 %). For all those ages 12 and older, males were more frequent users (0.7 %) than females (0.5%).

In the United States, women are disproportionately represented among users of methamphetamine, compared to other illicit drugs. Compared to men who use the drug, women who use methamphetamine have worse medical, psychiatric and employment profiles. They are also more likely to be single parents who live alone with their children (Generations United, 2006; Young, 2005). Of the total number of persons admitted for treatment for methamphetamine, 46 percent are women (Young, 2005).

The comparatively inexpensive price, the accessibility, and the ease of manufacture from commonly-available chemicals increase the appeal and popularity of methamphetamine (Rawson, 2005). Women especially find the drug attractive because it reduces fatigue, suppresses the appetite, and temporarily lifts symptoms of depression. Adolescent girls are intrigued by the weight-loss potential. Some men are attracted to the drug because it initially enhances sexual activity (Rawson, 2005).

According to the Office of National Drug Control Policy (retrieved 01/25/06), there were 14,260 methamphetamine lab-related incidents (raids by law enforcement) during calendar year 2003. At 1442 of the lab incidents, a total of 1,870 children were present. The labs affected more than 3000 children (this includes children residing at the labs but not present at the time of the police raid as well as children visiting the site). (Readers should note a 2004 U.S. Department of Justice publication by Carl R. Peed says 3,474 children were found in labs in 2003.) Nearly 1,300 children were exposed to toxic chemicals. The statistics include 724 children taken into protective custody, 44 injured children and 3 children killed. Except for the numbers of children injured or killed, these figures are a decrease over calendar year 2002. The numbers of methamphetamine labs seized, however, continued to increase with about 17,500 seized in 2004 (Office of Drug Control Policy, 2006).

Lab seizures dropped in 2005 to 12,185 (Associated Press, June 20, 2006). Between 2005 and 2006, police seizures of illegal labs dropped more than 30 percent. The drop was attributed to limiting access to ingredients used to make the highly addictive drug. The drop in lab seizures was reflected in statistics from the nation’s largest drug testing company which reported that the numbers of job applicants and workers testing positive for methamphetamine plunged 31 percent of the first five months of 2006 (Associated Press, June 20, 2006).

Considering the summed data over four years (2000 through 2003), children affected by seizures of methamphetamine labs totaled over 10,000 with nearly 3800 shown to be exposed to toxic chemicals, 96 children with injuries, and 8 children killed. These figures are likely under-reported, since many states do not keep records on children present at laboratory sites, nor do they medically evaluate children for the presence of drugs or chemicals (Young, 2005).

In 2006, the National Association of Counties (NACO) did a survey of 500 county law enforcement officials in 44 states (Hanssell, 2006). Most counties (48%) reported that methamphetamine is the primary drug problem – more than cocaine (22%), marijuana (22%) and heroin (3%) combined. Most counties (90%) have some sort of precursor legislation in effect and 46% reported that the number of methamphetamine labs seized is down because of this legislation. However, crimes such as robberies continue to grow in most (55%) jurisdictions while 48% report an increase in domestic violence calls due to methamphetamine. Methamphetamine has increased the workload of public safety staff for 63% and those who abuse methamphetamine account for 1 in 5 inmates in nearly half (48%) of the counties.

Local law enforcement officials document an increase in methamphetamine arrests despite a decline in labs. Sergeant Harold Adair of the Tulsa Oklahoma Police Department comments, “Both the state of Oklahoma and the City of Tulsa have experienced an increase in methamphetamine abuse. Oklahoma passed a bill in April 2004 which did result in a significant decrease in the number of labs investigated, but abuse is still high.” Jerry Webber of the Eugene Police Department in Oregon agrees. “We have seen a decline in labs but we are not certain if this is due to drastic budget and personnel cuts or because the availability of ephedrine has dwindled.” Tom Murphy of the RUSH Drug Task Force in Harrisonburg, Virginia says there is no question that methamphetamine use is escalating. “What we are seeing is an influx of the crystal ice form of methamphetamine. It is more potent and more addictive than other forms. The high lasts longer and there is greater chance of an overdose.” Murphy notes that the Task Force has dealt with 396 drug cases and 55 percent of them involved methamphetamine.

Patterns of Use

One study (Simon et al., 2002) has examined patterns of methamphetamine users compared to users of cocaine. In this study, 120 methamphetamine users and 63 cocaine users reported on their patterns of use. Those using cocaine reported fewer days of use and use primarily in the evenings. The typical methamphetamine user (both male and female) reported using more than 20 days a month, starting use in the morning and spacing use evenly throughout the day. This all-day, most-day pattern of use has implications for parenting and child care, as methamphetamine users report being under the influence fairly constantly.

Effects on Children

Methamphetamine users have discovered ways to manufacture the drug in small quantities in their homes or backyards using readily available ingredients (such as cold medicine, matches, drain cleaner, and paint thinner). Although the process of making methamphetamine is extremely dangerous, it does not require training in chemistry or sophisticated equipment. Homemade labs continued on page 4
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for methamphetamine manufacture have been found in houses, apartments, hotel rooms, and backyards. Most users with labs make the drug 48 to 72 times a year (McMahon, 2005).

Each batch requires four to six hours of time.

Children living in homes with methamphetamine labs face a number of dangers described below (Altsheler, 2005; Children’s Services Practice News, 2005; Ells, Sturgis & Wright, 2002; Generations United, 2006; McMahon, 2005; Marielli-Casey & Messina in Obert et al., 2005; Peed, 2004; Swetlow, 2003).

Fires and Explosions – The overheating of volatile chemicals and unsafe manufacturing methods can result in fires and explosions. It is estimated that one in every six labs discovered by law enforcement is due to a fire or an explosion drawing attention to the lab. In several states, methamphetamine production is legally categorized as an inherently dangerous felony because of the danger of explosion.

Chemical Contamination – The chemicals used to produce methamphetamine and the toxic compounds and byproducts resulting from its manufacture produce toxic fumes, vapors and spills. Chemicals can be spread throughout the living unit. Methamphetamine has been found in walls, carpets, microwaves, table tops, and clothing.

Some fumes and gases produced during the production of methamphetamine are heavier than air and will sink to children’s level, increasing their exposure. Children come into contact with the chemicals through inhalation, through absorption through the skin, and by exposure to second-hand smoke. Children’s skin is not as thick as an adult’s, causing them to absorb chemicals more quickly. In addition, their higher metabolism level (faster breathing and heart rates) means toxins are inhaled and absorbed at a faster rate than adults.

Children may also swallow the chemicals which can be fatal. Young children have frequent hand-to-mouth behaviors and may crawl on contaminated floors and rugs. Lead ingestion is of particular concern. Lead is a byproduct of methamphetamine manufacture. Lead poisoning is particularly devastating to children as their bodies accumulate it at a faster rate than adults and also because it can be absorbed into the bones in place of calcium.

Long-term exposure to the chemicals typically used in the manufacture of methamphetamine can damage children’s nervous system, brain, lungs, kidneys, liver, eyes and skin. The toxins can cause cancer and impair the child’s immunologic system. Some children have chemically-induced asthma or pneumonia which can resolve after removal from the toxic environment. Due to their smaller size and higher metabolic and respiratory rates and due to a developing neurological system, children are more vulnerable than adults to negative effects of chemical toxins.

Sources vary in estimates of how many children rescued from methamphetamine labs test positive for toxins. McMahon (2005) says that 35% test positive for toxins while Peed (2004) reported that 70 to 80% test positive. Neither source clarified what toxins were included in the tests. Marinelli & Messina (in Obert et al., 2005) cite pilot studies showing that 38 percent of children removed from home-based methamphetamine labs test positive for methamphetamine. Tom Murphy of the RUSH Drug Task Force in Harrisonburg, Virginia says it is very common for both adults and children to test positive for contamination when a lab is discovered.

Hazardous Conditions – Additional hazards may be associated with methamphetamine labs. Dangerous animals might be trained to protect the lab. Explosives and booby traps (such as trip wires, light switches connected to explosive devices, and hidden sticks with nails or spikes) have been found at some lab sites. Loaded firearms have been found in easy-to-reach places in most methamphetamine labs. According to Murphy of the RUSH Drug Task Force, the likelihood of firearms at drug labs is very high. He cites a recent seizure of 65 firearms confiscated at one location due to a single search warrant.

Neglect – Parents who use methamphetamine operate in cycles. At some points they are unable to function. Even low-level abusers will experience mood swings and as the effects of the drug dissipate, they are likely to feel a need for sleep which can interfere with care giving.

Children found in labs often have experienced lack of adequate food, water, shelter, and medical care. Sources cite methamphetamine labs as homes characterized by squalid conditions, exposure to dirt, garbage, rodents, insects, and poor hygiene. It is common for living areas to have animal feces, ticks, fleas, rotten food, and discarded drug paraphernalia. Sergeant Harold Adair of the Tulsa Police Department comments, “Nothing is ‘typical’ but the more addicted the parents are, the more likely the living conditions will be filthy, and we will find clothes unwashed, inadequate food, and lack of utilities. Lack of proper medical care and immunizations for the children are common.”

After a binge, addicted parents may fall into a deep sleep from which they can not be aroused. This state may persist for hours or even days. Unsupervised children can injure themselves. In particular, razor blades and hypodermic needles may be left in places accessible to children. The refrigerator may contain unlabeled hazardous chemicals stored in containers usually used for food. Spoiled or rotten food might be on floors or tables. Child Protective Service workers may find children who suffer from physical harm, including burns, bruises, untreated skin disorders, bites and infections.

Bob Ladd, a counselor with Galax Treatment Center in Galax, Virginia is aware of the neglect that children suffer. He explains, “There is no child care when the parent is addicted to methamphetamine. The parent is too busy relating to the drug.”

Physical and Sexual Abuse – Parents who are under the influence of methamphetamine exhibit poor judgment, irritability, paranoia, and violent episodes. Children may be physically abused or injured inadvertently during these episodes. Since methamphetamine increases sexual desire, children can be at risk for sexual abuse by either their parents or visitors who are using the drug. Older children left in caretaking roles can be a source of physical or sexual abuse as well.

Emotional Abuse – Brown and Hohman (2006) recently published the first study to interview parents addicted to methamphetamine about their parenting practices. They documented many of the conditions already discussed (lack of supervision; poor hygiene; lack of consistent physical care) but also uncovered additional behaviors, beliefs and practices detrimental to children. It is interesting some parents, even while describing their detrimental and damaging actions, clung to the idea that they were “a good parent” and insisted that their children were routinely fed, cared for and sent to school. Others showed appreciation for the damage to their children but noted that at the time they did not realize the consequences of the addiction for their children.
One of the patterns described by the parents was labeled “polar parenting” by Brown and Hohman. This refers to polarized styles of expression towards children that “were not balanced out with expressions of interest, joy or even peace” (p. 70). Parents related to their offspring with either apathy and inattention or with extreme expressions of anger. There did not appear to be any “middle ground.”

Participants in Brown and Hohman’s study described active avoidance of their children, locking themselves in bath or bedrooms to avoid contact or sending older children outside with younger ones so the parent could do drugs without distractions. When the parent was high children were told “Do what you want” (except don’t bother me). Children might be left alone or with inappropriate caretakers for hours, days, or even a week, resulting in some children developing severe separation anxiety.

An additional source of emotional distress was the exposure to domestic violence. Brown and Hohman found 60 percent of their subjects reported significant domestic violence witnessed by the children. Children usually tried to intervene, putting themselves in harm’s way.

Short-term Effects – Marinelli-Casey and Messina (in Obert et al., 2005) report on a pilot study in California. Children removed from home-based methamphetamine labs showed higher-than-expected incidence of respiratory (such as pneumonia or chemically-induced asthma), dermatological, and dental problems and 43 percent had abnormal medical exam results. Forty-two percent had developmental delays or challenges.

Longer-term Effects – Less is known about the long-term effects to children from exposure to methamphetamine. There is concern about damage to the brain, liver, kidneys, lungs, eyes, skin and the neurological system, as well as the possibility of cancer. Long-term emotional and behavioral problems are also likely, due to the abuse and neglect experiences (McMahon, 2005; U.S. Department of Justice, 2002).

A field study of 35 adults (child welfare workers; foster parents; professionals) who had regular contact with children of methamphetamine-abusing parents offers some interesting hypotheses. Haight et al. (2005) sought to learn about the psychological development and mental health of school-aged children in rural Illinois who had been living with a parent addicted to methamphetamine. The adults described the children as being introduced by their parents into a rural drug culture characterized by distinct antisocial beliefs and practices. Children acquire these beliefs through direct teaching of parents and by observing their parents’ antisocial behaviors. Children may be taught to lie to teachers, police and others. They are taught to limit their communication and to be fearful of outsiders. They may be taught to steal and to use guns. They observe domestic violence and out-of-control behaviors. They begin using substances themselves early, sometimes with encouragement from parents.

Adult providers described the children as experiencing externalizing and disrespectful behaviors such as out-of-control behaviors and delinquency. Some showed hoarding, self-mutilation and suicide attempts. They had problems regulating behaviors and handling strong emotions. Social development problems included trouble following rules and difficulty understanding consequences of actions. Others were described as isolated and “emotionally dead.” Some were ashamed of their family.

Children with support from extended family or who had other protective factors functioned better. If the child had positive relationships at school, behavioral disturbances were less. Participants discussed the vital need for quality mental health and psychiatric care for this population.

INTERVENTION

Community Response

The costs of methamphetamine for communities are high. Cleanup is costly. Property owners or local governments must spend between $4000 and $10,000 to decontaminate a methamphetamine lab (McMahon, 2005). The activity of methamphetamine production can be a hazard to the general public since producers are known to dispose of waste by burning (toxic fumes), dumping in streams, fields or down toilets, or simply leaving toxic waste behind in hotel rooms, on roadsides or in public areas such as parks.

Implications for Law Enforcement

At seizures of methamphetamine labs, law enforcement needs to be certain that all children are taken to safety. They need to document the dangers present so that information is available as evidence of child endangerment. They should also file child endangerment charges against the appropriate adults. Tom Murphy, Coordinator of the RUSH Drug Task Force comments on procedures in Harrisonburg, Virginia. “The typical charge would be child endangerment. We take photos and make a videotape of the living conditions of the home. We even open the refrigerator and document the amount of edible food present. We record the conditions of the bathroom and bedrooms. The photos and videotapes are shown in court and can be powerful evidence in obtaining a conviction.”

The U.S. Drug Enforcement Administration released “Guidelines for Law Enforcement for the Cleanup of Clandestine Drug Laboratories” in 2005. The Guidelines offer safe standards that remain fluid to allow entities to adapt to local scenarios. State and local law enforcement, environmental protection groups and public health agencies are the primary users of these guidelines (see http://www.dea.gov/resources/redbook.html).

First Sergeant John Ruffin of the Virginia State Police detailed the problems presented by clandestine methamphetamine labs for law enforcement when he spoke at the Prevention Comes First/KIDSafe Conference in Richmond on December 11, 2006. He presented a Best Practices Protocol for use by law enforcement and emergency response agencies regarding clean-up of abandoned or deactivated methamphetamine production sites. This protocol was developed by the Virginia Department of State Police, the Department of Environmental Quality, the

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Michigan Drug Endangered Children (DEC) Medical Protocol

This medical protocol is a guide for managing the health issues of children who are found at drug labs and/or homes. It may be used by medical, mental health, developmental and dental professionals to help assure the child’s physical, emotional and developmental well-being. There are also procedures for first responders (fire, rescue, law enforcement, public health and social services workers) who respond to children living in drug labs or homes.

This 4-page document can be downloaded at:

National Protocol for Medical Evaluation of Children Found in Drug Labs

This protocol outlines steps for law enforcement, child protective services, emergency technicians, and medical professionals when children are found in drug labs. The protocol fits on one 8.5 by 11 inch sheet (front and back) and can be posted.


Due to the dangers from chemical contamination, fire or explosion, or harm from a paranoid and disordered parent protecting an investment, law enforcement should always accompany a CPS worker investigating a lab where methamphetamine abuse is suspected. The team approach may never be left behind all clothing and personal belongings. If there has been an explosion, obvious chemical exposure, if the lab is active or if the child(ren) appears ill, transport should be by EMS (emergency medical system) directly to the hospital. The children will need to be bathed in warm (not hot) water and washed completely with plenty of soap. The tub should be drained and thoroughly cleaned afterwards. Some areas have mobile decontamination units specially equipped for this purpose (Pollack, 2005).

A complete medical examination, including examination for Hepatitis B & C is needed. The National Alliance for Drug-Endangered Children recommends that a medical stability evaluation be completed within 2 to 4 hours after CPS involvement. Urine needs to be collected for toxicology as soon as possible but no later than 12 hours after removal from the lab. Blood tests and a Chemistry Panel should be completed within 72 hours. A detailed health history should be collected.

A complete developmental and mental health evaluation is required to ascertain neurological and psychiatric status. A dental examination is recommended. The Alliance recommends that medical evaluations be completed again in 30 days, 6 months, and 1 year. Several medical protocols have been published. One from the Minnesota Multi-Agency Drug Lab Task Force is available from http://www.health.state.mn.us

CPS also needs to determine if there are other children who have lived in the location of the methamphetamine lab in the past or who were not present at the time of the seizure. All children who have lived in the home will need to be examined. The medical histories of all children need to be obtained and documented.

Because some effects of chemical exposure develop slowly, foster parents should be alert to symptoms of difficulty that may appear hours, days, weeks or even months later. Medical attention should be sought immediately if the child develops any of the following symptoms in the upcoming months: headache; drowsiness; unusual movements such as tremors, shaking, “jumpiness,” agitation, or seizures; trouble breathing; coughing; poor color; fever; hallucinations; mental confusion; or any other unusual symptom that seems severe (McMahon, 2005).

Foster parents should also anticipate emotional trauma and stress. Police raids of labs may be SWAT operations with officers in Hazmat suits for protection against chemical contamination. Children may have witnessed their parent(s) being arrested. In addition, the child may be a victim of prior physical or sexual abuse. Children and infants who have been drug-exposed may have difficulty regulating their behaviors. They may be overly sensitive to stimulation, show difficulty with concentration, and show a wide range of behavioral, emotional, and social difficulties. Foster parents should have consultation and respite available. Children may need extensive counseling and support. Some may need special education services or additional assistance at school (Elstein, 2001/2002).

There are also implications for reunification. Reunification takes longer than average if parents are addicted to methamphetamine, a greater number of families have failed reunification efforts, and a higher percentage of families cannot be reunified (Generations United, 2006). Generations United supports efforts for increasing permenancy through subsidized guardianships, especially for grandparents or other relatives. Subsidized guardianships provide a stipend and other support that allows children to leave the foster...
The proportion of methamphetamine users seeking treatment (out of all substance abuse admissions in the United States) increased from 1 percent in 1992 to 6 percent in 2001. Emergency room visits related to methamphetamine use increased 54 percent between 1995 and 2002 (statistics cited in McCann in Obert et al., 2005). Nationally, from 1993 to 2003, the rate of admissions for primary methamphetamine/amphetamine abuse increased from 13 to 56 admissions per 100,000 population aged 12 or older (The DASIS Report, 2006).

In the mid-1980’s, large numbers of methamphetamine users began to seek treatment in western states and Hawaii. In the 1980’s several forms of substance abuse treatment were available, but no treatment method was specific to methamphetamine abuse (Obert et al., 2005). There were 28-day inpatient programs, designed primarily for clients with alcoholism. These programs were expensive and not accessible to those without medical insurance. The outpatient methadone maintenance programs were not suitable for those addicted to methamphetamine. There were long-term therapeutic residential programs of six to nine months. These programs were not practical for those using methamphetamine, as they were often employed with family and financial responsibilities. Alcoholics Anonymous support was even limited due to the differences between the addiction experiences of those with alcoholism and methamphetamine users.

Rawson (2005 in Obert et al.) comments about the lack of treatment protocols and the idiosyncratic nature of the treatment that was available. He notes that methamphetamine users could be offered treatment ranging from a weekly group session to intensive treatment three hours a day, five days a week. Treatment approaches were adaptations of inpatient and residential programs. And, there was little data on the efficacy of treatment for those abusing methamphetamine.

There is reason to believe that treating methamphetamine abusers poses unique challenges, even for seasoned substance abuse therapists (Marinelli-Casey in Obert et al., 2005). Methamphetamine has overdose potential and produces medical and psychiatric symptoms that may differ from symptoms of other substance use. According to Rawson (1998), clinicians are challenged by poor treatment engagement rates, high dropout rates, severe paranoia, high relapse rates, ongoing episodes of psychosis, severe cravings, and high levels of distress.

Assessment

Since methamphetamine use can produce symptoms of psychosis, severe paranoia, weight loss and other medical or psychiatric symptoms, all methamphetamine users should receive a medical evaluation prior to treatment (Marinelli-Casey in Obert et al., 2005). However, readers should be aware that currently, there is no effective pharmacological treatment available specifically for methamphetamine dependence.

Typical areas of assessment for the substance abuse clinician include demographic characteristics, drug use history, past diagnoses, treatment history, and life domain problems. Understanding the client’s pattern of use and vulnerability to relapse is vital to tailoring a treatment plan to each client’s unique needs. Sensitivity to the client’s culture and beliefs is also important (Rawson, 2005; Marinelli-Casey, 2005 in Obert et al.).

Those responsible for diagnosis of methamphetamine abuse or dependence can use clinical tools, tests, self-report, observations, and interviews. One measure is the Addiction Severity Index (McLellan, Kushner & Metzger, 1992). Hair analysis or urinalysis can determine the presence or absence of recent use.

It is important for clinicians to consider the possibility of co-occurring psychiatric disorders. Rates for comorbidity as high as 53% have been reported. The presence of major depression, alcohol use disorder, pathological gambling and antisocial personality show higher rates in those abusing methamphetamine than in the general population. Women users report more suicidal ideation and suicidal behaviors than men (Obert et al., 2005). Other psychiatric diagnoses should wait until the client has at least 30 days of abstinence, however, as methamphetamine use causes a host of psychiatric symptoms that can clear when the person is not using.

Substance abuse treatment providers need to become aware of family and parenting issues and consider these in any assessment process. For example, it is important for counselors to keep in mind that a parent who is using or abusing substances such as methamphetamine is not able to adequately supervise children. Unless other adults are known to be present and caring for a child, clinicians should alert CPS about potential neglect if parents are known to be using. It is then the task of CPS to determine whether or not to investigate (Breshears, Yeh & Young, 2004; Howard, 2000).

One analysis of those seeking treatment for methamphetamine found two distinct groups (Bishop, 1999). One cohort were young people (most under age 24) who were attracted to the drug’s potency, lower price and ease of availability. The other group were older adults who were chronic abusers of other drugs and whose current drug of choice was methamphetamine because it was inexpensive and easy to obtain.

The clinician should be aware of barriers to recovery. For example, women may be reluctant to pursue treatment if it interferes with caring for their children or if they fear that being in treatment might lead to loss of custody of their children. Women who are pregnant or nursing may be rejected by treatment programs. Parents in rural areas may have problems with transportation or have an excessive commute to reach services. The lack of anonymity in small communities can be a barrier as addicted parents may fear that their situation will become public knowledge despite confidentiality of providers (Tracy & Martin, 2006).

Treatment Practices

Traditional outpatient treatment programs may not be effective for methamphetamine dependence. Outpatient clinicians must engage their clients and motivate them to return for the next session. Clients addicted to methamphetamine are particularly difficult to engage due to paranoia and increased irritability. Residential programs may achieve better results initially, but there can be rapid relapse after release (Obert in Obert et al., 2005). While drug therapy is under investigation, there currently are no medications that can quickly reverse the life-threatening overdoses or that can reliably ameliorate the paranoia and psychotic symptoms that contribute to dangerous and violent behaviors (studies cited in Rawson et al., 2002).

Obert describes some successful practices.

* Establishing a collaborative therapeutic relationship. Treatment providers who are aware of the extreme paranoia, hallucinations, and strong memories of euphoria can explain to clients that these symptoms are typical and will subside as treatment progresses. Reducing shame and fear can enhance treatment engagement.

* Motivational interviewing. Therapists need to build and foster feelings of self-worth and create a safe environment where clients are treated with dignity, warmth and respect. The therapist must communicate interest in the person.

* Contingency management. Providing rewards for attendance, for clean drug...
Tests and for other identified behaviors is important. Reinforce any step in the proper direction.

* Create explicit structure and expectations. Learning skills of self-management and practicing behaviors that promote safety are one of the first priorities of treatment. Clients need to learn how to avoid triggers and how to schedule their time. A predictable schedule lowers stress. Activities can include “down time” such as watching TV, talking to friends, and taking naps as well as working, exercising, running errands, and attending Twelve-Step meetings.

* Offer information. When clients are educated about their addiction, they know what to expect in the treatment and recovery process. Information about how methamphetamine changes brain chemistry can be very illuminating and helpful to clients and can reduce guilt and confusion. Clients should learn that relapse is most likely through the mechanism of secondary drug use. They may not perceive alcohol and marijuana use as a problem. Understanding the chronic, relapsing nature of the addiction will aid in a realistic view of the recovery process.

It is important to note that chronic methamphetamine use impacts learning, memory, and the decision-making capacity of the brain. Information needs to be simplified, as the recovering individual may not be thinking rationally. Brain chemistry changes can impede the client’s ability to recognize and deal rationally with self-destructive behaviors. A supportive therapist will focus on “one day at a time” and on the things that a client can do well. Positive reinforcement from peers is particularly reinforcing.

* Involve family in the recovery process. The more family members, friends, and even employers understand the recovery process, the more supportive they can be. Another goal of family involvement is handling strained relationships.

* Encourage self-help participation. Sober friends can offer support. Twelve-step groups can make critical contributions to the recovery process.

* Use urinalysis to monitor drug use. Since clients may be reluctant to report slips and relapse, drug testing can serve as an early warning of problems. Negative tests can provide verification of the client’s progress.

**Stages of Recovery**

According to Marinelli-Casey (in Obert et al., 2005), users of methamphetamine move through a series of stages during the recovery process based on the brain’s biological recovery.

Withdrawal—During the first 15 days, clients may be disoriented, depressed and very fatigued. Since clients feel out of control during this period, very specific direction is needed.

Honeymoon Stage—From day 16 to day 45 cravings are reduced, mood stabilizes, energy returns and some confidence and optimism develops. The client may feel the need for treatment is over. Clients are also at high risk to begin alcohol or other drug use.

The Wall—From day 46 to day 120 is a major hurdle in recovery. Clients may experience a return of low energy and little pleasure in living, trouble concentrating, irritability, loss of sex drive and insomnia. While these symptoms may not be severe, clients may feel that there is no relief and believe these symptoms will persist indefinitely. The highest rates of relapse occur in this stage. Physical activity and 12-step meetings may improve a client’s chances of maintaining sobriety.

Adjustment Stage—From day 121 to day 180 clients may feel much accomplishment and a sense of return to normalcy. Clients will begin to adjust to changes in relationships and lifestyle.

Resolution Stage—From day 181 forward, there is a shift to learning skills, monitoring for relapse, maintaining a balanced lifestyle and developing areas of interest. For some clients, there may be relationship issues that need attention.

**Evidence-based Treatments**

There is reason to believe that treatment can be effective. According to Richard Rawson, Ph.D., at the University of California, Los Angeles, people addicted to methamphetamine respond to treatment as well as people addicted to other drugs such as cocaine (Dingfelder, 2005). For example, Huber et al. (1997) found that methamphetamine users and cocaine users were similar in attendance at treatment sessions and total amount of treatment received. An analysis (Luchansky, 2003) of 10,284 adults and 5903 adolescents receiving treatment for drug abuse between 1995 and 1997 found no significant differences in treatment outcome between those abusing methamphetamine and those abusing alcohol, marijuana, heroin or cocaine. The only exception was that users of methamphetamine had fewer post-discharge admissions to inpatient hospital care.

A 1998 report on treatment for methamphetamine abuse in California by the National Evaluation Data and Technical Assistance Center (Bishop, 1999) found that methamphetamine abusers were more likely to complete treatment than heroin users and slightly less likely to complete treatment than individuals treated for crack/cocaine or marijuana use. Those abusing methamphetamine were nearly twice as likely, however, to report dissatisfaction with the treatment program. More than a third relapsed during or directly after treatment, a rate somewhat higher than other clients.

A 12-month follow-up found that 60% of methamphetamine abusers had relapsed which was similar to users of heroin and cocaine concurrently and to marijuana abusers, better than heroin abusers and less successful than cocaine or “crack” users. In comparison to other users, methamphetamine abusers had a greater incidence of arrests following their discharge from treatment, were more likely to be troubled by anxiety, were less likely to show signs of depression, reported greater family difficulties and expressed greater dissatisfaction with their lives.

A cost-benefit analysis by the Washington State Institute for Public Policy examined evidence-based treatments for substance addiction. In a report on June, 2006, Amos, Mayfield, Miller & Yen report that the average evidence-based treatment for drug disorders can achieve a 22 percent reduction in short-term (a year or less) drug use. The evidence-based treatments were found to be cost-effective, with $3.77 in benefits for every treatment dollar spent, the equivalent of a 56 percent rate of return on the investment. Further, the group found that the risk of losing money with an evidence-based treatment is small. Still, research with substance-abusing parents suggests that a minority complete treatment. A 2006 study by Ryan showed that approximately 22 percent of 871 caregivers in substance abuse treatment in Illinois between 2000 and 2004 completed that treatment. Length of treatment varied from 3 months to almost 4 years.

SAMHSA (Substance Abuse and Mental Health Services Administration) maintains a list of model, effective, and promising prevention and treatment programs. (See http://modelprograms.samhsa.gov/template_cf.cfm?page=model_list ). Additionally, NIDA (National Institute on Drug Abuse) has disseminated empirically-validated treatments through the publication of manualized treatment approaches. Each of the Therapy Manuals for Drug Addiction delineates a specific therapeutic modality: cognitive behavioral therapy; reinforcement plus vouchers; and individual drug counseling (Obert, London & Rawson, 2002). The goal for both efforts is to bring scientific advances from research centers into community treatment programs. In the past, the average gap between the time a researcher publishes a new research finding and practitioners in the field using the information has been 17
There is some evidence to suggest that cocaine and methamphetamine abusers respond similarly to behavioral and cognitive-behavioral strategies (studies cited in Rawson et al., 2002). Cognitive behavioral therapy techniques and contingency management have the strongest empirical support with stimulant users (studies cited in Rawson et al., 2002).

One model developed specifically for the needs of cocaine and methamphetamine users is the Matrix Model, available from Hazelden Publishing and Educational Services (Obert et al., 2002). It is a 16-week curriculum of intensive outpatient treatment. Client education is one component of the treatment. Both clients and their families need to understand how methamphetamine changes the brain. Family involvement is positively associated with increased rates of entry into treatment, decreased dropout rates during treatment, and better treatment outcomes (CSAT, 2004).

There are handouts for each of the sessions. Each topic is introduced by a simple exercise in which scientific information is explained in patient-friendly terms with questions directed to participants to help them apply the information to their immediate situation. If complex scientific information can be simplified and explained to clients, it can reduce clients’ confusion about their own behavior, promote treatment engagement and retention and help family members understand and support patient recovery efforts.

The client needs to be supported by carefully planned schedules in order to create a safe recovery environment (Obert et al., 2002). Since the methamphetamine use has changed their brains, clients may have difficulty making decisions about how to spend time. A planned schedule can prevent relapse that can occur if clients rely upon decision-making from their “addicted brains.” Another technique is “thought-stopping.” This technique can prevent initiation of the craving sequence. The client should avoid “triggers” (associations) which cause the release of neurotransmitters that stimulate a desire to use. Avoiding all contact with the drug and with “triggers” is the best way to avoid relapse and thought-stopping is the second-best way.

According to Obert et al (2002) studies consistently show that the recovery process often results in some brain functions worsening prior to improvement. Further, the brain needs a drug-free environment for healing to occur and the recovery process requires considerable time.

Several studies were located that followed methamphetamine abusers. Huber et al. (1997) reviewed the charts of 500 methamphetamine abusers and 224 cocaine abusers who were treated with the Matrix Model between 1988 and 1995. Treatment retention was similar with cocaine abusers remaining in treatment an average of 18.0 weeks compared to 17.1 weeks for methamphetamine abusers. Positive drug screens indicating continued use were 13.3% for cocaine users and 19.3% for methamphetamine users. Thus, both cocaine and methamphetamine abusers had a favorable response to treatment over a short period of time.

Rawson et al. (2002) followed a sample of 114 clients from a pool of 500 who were in the Huber at al. study. They were assessed 2 to 5 years after treatment. Prior to treatment, 86% reported they had been actively using methamphetamine. During the 30 days prior to follow up, 17.5% reported using methamphetamine. This study is limited by use of self report rather than more objective criteria such as drug screens. It is encouraging, however, that 62% reported being employed at the time of follow up compared to only 26% who were employed when admitted into treatment.

The largest randomized clinical trial of treatments for methamphetamine dependence to date was conducted at eight sites (six in California, one in Montana and one in Hawaii). Over an 18-month period, 978 treatment-seeking methamphetamine-dependent individuals were randomly assigned to either “treatment as usual” (TAU) or to the Matrix Model (MA). Although both groups benefited in the overall sample, those assigned to the Matrix treatment attended more sessions, remained in treatment longer, had more negative drug screens and longer...
periods of abstinence than those assigned to TAU. However, the superiority of the Matrix model was not maintained either at discharge or at the six-month follow up. Both groups had a rate of 66 to 69% negative urine samples at discharge and 6-month follow up.

Otero et al. (2006) cite a study in Los Angeles County (Brecht, Von Mayrhauser & Anglin, 2000) that found a 50 percent relapse rate for methamphetamine users with 36 percent of relapses occurring within six months of completing treatment and an additional 15 percent occurring between seven and 19 months after treatment. This finding is similar to the California Drug and Alcohol Treatment Assessment study (Bishop, 1999) which found that 60 percent of methamphetamine users had relapsed at 12 months after treatment. This relapse rate was similar to those who abused heroin and cocaine concurrently and to marijuana abusers, was better than heroin abusers and worse than cocaine users.

More data is needed over a longer time period and with larger subject groups before conclusions can be drawn regarding the prognosis for those dependent upon methamphetamine. Even though some clinicians and researchers feel that methamphetamine abusers have greater difficulty completing treatment and remaining substance free, the preliminary findings suggest a more optimistic outlook. The persistent cognitive impairments and ongoing depression are factors which may complicate treatment.

Special Needs of Women Addicts

Methamphetamine is an attractive drug for some women who view it as a readily available, inexpensive appetite suppressor and energy enhancer (Obert et al., 2005). Of the total number of individuals admitted to treatment in 2003 for methamphetamine abuse, 45% were women. This percentage of female admissions is higher than the percentage of female admissions associated with any other drug except tranquilizers, sedatives, and other opiates (drugs with morphine-like effects) (Otero, Boles, Young & Dennis, 2006).

Compared to male users, women who use methamphetamine use it more days in a 30-day period; smoke rather than inject or “snort” the drug; are more likely to be single parents living alone with children; have worse employment profiles; and have greater medical and psychiatric problems (Otero et al., 2006).

Women who are abusing substances are twice as likely as male counterparts to report depression (NSDUH, 2004). Anxiety, excessive concern about weight and appearance, risky sexual behavior, and psychiatric disorders can accompany substance abuse.

Women addicted to methamphetamines often face additional barriers to treatment. A study by Tracy and Martin (2006) found that the most powerful barrier was fear of losing children. Other barriers are fears of exposing a partner’s drug use, fear of domestic violence resulting from their seeking treatment, lack of child care, lack of money, and lack of accessible programs (Obert et al., 2005).

Treating women with methamphetamine dependence can involve a variety of issues. These include pregnancy, abuse history, parenting abilities and socioeconomic problems in addition to issues noted above. How these factors are addressed can change long-term treatment outcome. For example, providing child care on site is one way to engage women in treatment (Obert et al., 2005) and there is suggestion that mothers who are able to retain custody of their children have higher rates of treatment completion (studies cited in Grella, Hser & Huang, 2006).

The combined stresses of work, caring for a home, child care and family responsibilities plus attending treatment frequently can result in exhaustion, making relapse more attractive (Rawson et al., 2002). Furthermore, residing in neighborhoods where drug use is prevalent presents a higher risk for relapse. Lack of resources for housing, transportation and child care are also obstacles in caring for or reuniting with children. Given their more severe employment and economic problems, services to help the women be self-supporting are necessary. Thus, a broad range of services may be needed for women to sustain their recovery after treatment (studies cited in Grella et al., 2006).

For women whose children have been placed in foster care or who have lost parental rights, dealing with feelings of grief, shame and loss may be critical to their recovery process. Even women in specialized treatment programs for those involved with child welfare may not receive family counseling (studies cited in Grella et al., 2006).

Pregnant women frequently require increased levels of care. Attention must be given to monitoring and promoting proper prenatal care. Staff will need to be able to react to relapse with empathy, despite the pregnancy.

Teen Treatment Programs

According to SAMHSA’s report “Substance Use Treatment Need among Adolescents 2003-2004,” about 1.4 million youth (5.4%) need treatment for illicit drug use. Adolescents with substance abuse problems require specially designed treatment programs because they are at vulnerable stages of developmental change (SAMHSA, 2006). To determine whether or not treatment centers were following best practice recommendations, researchers compared data from SAMHSA’s 2003 National Survey of Substance Abuse Treatment Services (N-SSATS) with nine key quality elements identified by experts as best practices. A total of 2,499 facilities were examined. The results documented that providers of substance abuse services for adolescents are not yet offering integrated treatment. For example, only half of the facilities offer special programs for those with co-occurring mental health and substance use disorders. Almost all programs (96.6%) provide comprehensive assessment of the substance use disorder but not of accompanying mental health (50%) and medical (38.9%) needs. Other recommended practices were found more frequently. Facilities generally offer discharge planning (84.8%), aftercare counseling (82.2%), and relapse prevention groups (84.4%).

A new resource will soon be available for clinicians who treat adolescents. Hazelden Publishing company will be releasing “The Adolescent and Young Adult Matrix Model Intensive Outpatient Program” in September, 2007.

Treatment Issues for Parents

Parents who are abusing substances may have been victims themselves of child abuse and/or neglect during their growing up years. It is important for counselors to learn about the parent’s upbringing and how childhood experiences are affecting the parent in daily living and in their parenting efforts (Howard, 2000).

Counselors should remain alert to clues that the parent is abusing their own children or failing to meet their physical and emotional needs. Breaking the cycle of abuse requires that the parent have or obtain realistic knowledge about child development; problem-solving and parenting skills; ability to empathize with children; positive adult relationships; and adequate social skills to interact with schools and the larger community.

Managing the addiction is obviously crucial in family reunification. However, addiction control is not sufficient to allow families to reconstitute. While substance abuse professionals deal with addiction management and relapse prevention, child welfare workers must also be concerned with...
Parents of clients with methamphetamine addiction are generally young and are likely to have low educational attainment and poor employment histories (National Resource Center for Child Protective Services, 2005). If the parent has permanent or long-term physical, cognitive, or emotional damage, then employment and social stability become even more difficult. Stability is important in predicting treatment success. Employed parents, those with housing and a support network and older parents appear more likely to complete treatment and experience success (James Bell Associates, 2003).

Additionally, ASFA timelines for the length of stay in out-of-home placement may not be consistent with the amount of time needed for recovery of the parent, especially if the recovery period is lengthened by incarceration. Since relapse rates are high, child protective service workers and foster care workers should include contingency plans for the possibility of relapse. The case plan should specify an individual who can provide shelter, safety and supervision for the child(ren) in the event of relapse.

**Virginia’s Picture**

VCPN staff interviewed ten substance abuse treatment programs across the Commonwealth. Except for facilities in the Shenandoah Valley and southwest Virginia, treatment providers reported few or no clients with methamphetamine abuse. Some facilities such as the Hampton Roads Clinic said they had not treated any individuals with methamphetamine abuse. A number of providers reported seeing an increase in opium addiction. For all those interviewed, alcohol is the most frequent drug of choice.

There was no program that offered treatment specific to methamphetamine abuse. Janet Davis, a Regional Specialist for Virginia’s Department of Mental Health, Mental Retardation and Substance Abuse Services, confirms this finding. “All the treatment will be general,” she affirmed. “In Health Planning Region I there is no treatment intervention specific to methamphetamine.”

Harry Hurst of the Harrisonburg-Rockingham Community Services Board expressed a common sentiment. “Separate programs just do not seem feasible,” Hurst explained. “The resources aren’t available.” Hurst added that substance abuse treatment principles are similar regardless of the drug of choice. He also noted that many addicts use several substances and that it is rare to find individuals who limit their use to only one substance.

No program interviewed had data about the success rate of their treatment. Some of the programs were time-limited, for example the program at Galax is between 7 and 28 days. None did follow up with clients. Patty Dean, RN at New Hope Detoxification Center noted that persons with methamphetamine addiction have a poorer prognosis. “Individuals with methamphetamine addictions are significantly harder to engage in treatment,” she commented. “They are also significantly more likely to drop out of treatment. The symptoms while in detox are much more intense. It may take 48 hours for the withdrawal symptoms to begin, but it is a very painful and emotional process with much depression,” explained Dean.

The New Hope Center serves over 800 clients a year with a maximum of 16 at any one time. Clients stay 5 to 7 days. Many of their clients have methamphetamine as their drug of choice. “The goal is to provide a safe detox,” says Dana Fitzgerald, a staff member at the Center. “We provide education as well as support through AA and NA meetings daily. Individuals can safely detox without medications and get connected with outpatient treatment,” she added.

Several programs have a family treatment component. Galax Treatment Center orients families on weekends and offers education to help family members understand the dynamics of addiction. They also can work individually with families. New Bridges Outpatient Rehabilitation Center in Virginia Beach offers multi-family intervention. Harrison House of Virginia (in Annandale) offers family group sessions on Sundays. Family members are strongly encouraged to be involved. The sessions cover various topics including codependency, enabling, communication, and family roles. Individual family meetings are also available.

Those who had experience working with clients with methamphetamine abuse reported a significant number of clients. Hurst said that methamphetamine use is very prevalent in the Shenandoah Valley. “Our area has one of the highest incidences in the state and in the Eastern seaboard. About 20 percent of our substance abuse clients are methamphetamine abusers,” related Hurst.

Hurst reports that the Harrisonburg-Rockingham Community Services Board uses components of the Matrix Program. The program encourages, but does not require NA (Narcotics Anonymous) or other 12-Step program attendance. “We are a recovery model, and we match interventions based on the client’s readiness for change,” says Hurst. He thinks it is a misconception that

Available from: Hazelden, 15251 Pleasant Valley Road, P.O. Box 176, Center City, MN 55012-0176, 1-800-328-9000, FAX: 615-213-4590, E-mail: info@hazelden.org Web site: www.hazelden.org


This well-written guide is designed for practitioners who encounter methamphetamine users in treatment. The information is based on the treatment approach used at the Matrix Institute on Addictions outpatient clinics in South California. The approach has been used with more than 10,000 cocaine and methamphetamine users. The Matrix materials have been translated into eight languages and are in use around the world.

The first chapter covers basics about methamphetamine and its use. Chapter 2 considers the clinical challenges of treatment with this population. Methamphetamine appears to damage neurons in ways that are different from perhaps more severe than other drugs of abuse. The stages of recovery are discussed.

Seven effective treatment strategies are discussed in Chapter 3. Chapter 4 deals with assessment; chapter 5 considers special issues with adolescents. The final chapter considers children and the effects of living in a family with methamphetamine abuse.

**The Matrix Model: Intensive Outpatient Alcohol and Drug Treatment** by Richard Rawson, Ph.D., Jeanne L. Obert, M.F.T., Michael J. McCann, M.A., and Walter Ling, M.D. $695 with either videos or DVDs.

In 1984, the authors of this model established the Matrix Organization with the expressed purpose of developing treatment protocols for outpatient substance abuse treatment. They were also dedicated to employing techniques supported by empirical evidence. Matrix’s goal was to create treatment protocols that would specifically meet the needs of cocaine and methamphetamine users. Their California office has treated approximately 10,000 users of methamphetamine. It is from these patients that the clinical experience and research data has evolved.

The Matrix Model Intensive Outpatient Alcohol and Drug Treatment is a comprehensive, evidence-based, sixteen-week individualized program. It reflects the clinic’s studies on the elements that produce addiction and promote recovery. The comprehensive program covers six key clinical areas: individual/conjoint therapy, early recovery, relapse prevention, family education, social support, and urine testing.

The Matrix Model comes with: a therapist’s manual; reproducible client handouts (also on CD): a month of stickers (1,280 total) for tracking drug-free days on a monthly calendar (stickers are available for reordering); a research CD; a 12-week family education component including lecture notes and handouts (also on CD) and three videos. All components are packaged in a three-ring binder.

The Matrix Model was recently tested in the CSAT Methamphetamine Project. Development of the Matrix Model was funded in part by NIDA. Evaluation was funded in part by SAMHSA/CSAT.

continued on page 24
Drug Courts

In the late 1980’s nonviolent substance-abusing offenders were overwhelming the criminal justice system. The offenders were tried, sentenced, served prison time, and were released only to start the cycle over. The traditional responses of jail, prison, and probation were not effective for many offenders.

Begun as a single pilot project in Florida in 1989, drug courts have spread to 1,078 programs operating in all 50 states with hundreds more in the planning or implementation stages (VDTCP, 2006). The National Association of Drug Court Professionals sets the number at 1,753 drug courts of all types with 212 more in the planning stages. A drug court is a special court given the responsibility to handle cases involving offenders with substance abuse disorders. Drug courts offer comprehensive supervision, drug-testing, treatment services, immediate sanctions and incentives for abstinence.

Drug courts bring a multidisciplinary approach including judges, prosecutors, lawyers, substance abuse treatment specialists, law enforcement, educational and vocational experts, community leaders and others, increasing coordination of agencies and resources. In addition, drug courts ensure consistency in judicial decision-making.

Once accepted into the drug court, participants begin a process that lasts 12 to 18 months. The offender receives intensive substance abuse treatment and intensive case supervision and monitoring. Case managers help with arranging transportation, locating employment and finding housing. Case managers may assist the participant in obtaining benefits, medical insurance and finding a primary care physician. They may help in locating educational and training opportunities. Some programs even link the offender to recreational opportunities and support groups.

The offender is drug screened multiple times each week. If goals of employment, negative drug screens, supervision compliance, and treatment participation are met, the offender remains free and may even be given rewards. Rewards might include praise, handshakes from the judge and audience applause, or tangible items such as vouchers for food or transportation, vouchers for children’s books, or free dental care (especially attractive to those who abuse methamphetamine as it destroys teeth and gums). If the criteria aren’t met, then the offender faces sanctions such as more frequent drug tests, more intensive treatment, an electronic ankle bracelet, spending weekends in jail, or longer jail time.

According to Huddleston (2005), the immediacy of the sanctions for noncompliance and the repetitive reinforcement of the requirements and target behaviors are especially important for those abusing methamphetamine because of the frequent cognitive impairments in this population. Random and frequent home visits are also of utmost importance, according to Huddleston, because of the high public safety risk of those abusing methamphetamine. Officers need to both drug test the offender and canvas the home for any signs of drug activity.

Methamphetamine abusers require services that are both more intensive and longer in duration than offenders addicted to other drugs. For the brain to begin to recover from methamphetamine use, the clinician should structure sleep, exercise and eating goals for the offender, as well as offering the usual comprehensive treatment (Huddleston, 2005).

Types of Drug Courts

There are several types of drug courts which include: adult drug treatment courts; juvenile drug treatment courts; and family drug courts. All types of drug treatment courts are similar in trying to break the cycle of substance dependency by ensuring that offenders receive substance abuse treatment and comprehensive case management. Another similarity is that offenders must agree to enter the drug court.

Adult drug treatment court programs aim to change the relationship between the offender and the judicial system. Instead of adversarial relationships, everyone is working towards the same goal. The team includes the judge, case managers, treatment providers, the public defender, a police officer, and representatives from probation and from the prosecutor or Commonwealth’s Attorney’s office. Any team member or the offender’s attorney can refer a nonviolent offender to the program once the person is facing incarceration. The team reviews the person’s criminal record and the substance abuse pattern. Those who appear appropriate for the program are approved by the prosecutor or the Commonwealth’s Attorney.

Family Drug Treatment Court Programs focus on the welfare of children. They handle civil cases rather than criminal cases. The target population is parents whose substance use has put them at risk of losing custody of their children. The family comes to the attention of child protective services for child maltreatment, rather than having criminal charges related to drug use. When a substance abuse problem is identified, the family can be referred to the Family Drug Treatment Court Program. Parents undergo treatment for substance abuse and mental health issues while family care workers monitor progress during home visits. Children receive services as well through social services departments. Cases are reviewed by the team and with the parents very frequently— even as often as weekly. The judge and all of the treatment providers develop a full understanding of the family’s history and dynamics through the frequent reviews and interaction. As of April, 2006, there were 183 Family Drug Treatment Courts operating in 43 states in the United States with more than 100 additional courts under development (BJA Drug Court Clearinghouse, 2006).

Juvenile drug treatment court programs follow the model of the adult drug treatment court programs, adding components of education and including providers who specialize in adolescent needs. Juveniles can be a difficult population to serve in part because their families must agree to be involved with the drug court as well.

Costs

According to NADCP (2007), incarceration of drug-using offenders costs between $20,000 and $50,000 per person per year. The costs of building a prison cell can be as much as $80,000. In contrast, a comprehensive drug court system typically costs between $2500 and $4000 per offender per year. NADCP says the savings are $10 for every dollar invested.

Effectiveness

Over 400,000 offenders have participated in drug court programs since 1989. In 1997, the General Accounting Office reported that 71% of offenders entering drug courts either successfully completed their drug court program or were currently actively participating in their program (NADCP, 2007). In 2001, Columbia University’s National Center on Addiction and Substance Abuse updated its 1998 review of drug court research, finding that drug courts continued to provide the most comprehensive and effective control of offenders’ criminality and drug usage. A 2003 National Institute of Justice recidivism report found that the rate of recidivism after one year was 16.5% and 27.5% after two years (NADCP, 2007). According to studies reviewed by Huddleston, drug court success rates represent a six-fold increase in retention over most previous efforts.

Huddleston discusses some model programs and their results. The Butte County
California drug court program serves mainly (87%) methamphetamine abusers. Of the approximate 500 graduates of the drug court program over a nine-year period, the reconviction rate for any misdemeanor or felony was 14.9 percent. In Orange County California, the drug court program serves 500 participants each year of which 73 percent are using methamphetamine. Over a nine-year period, more than 1000 have graduated from the drug court program. The program boasts a 72 percent retention rate and 80 percent of graduates had no re-arrests for drug offenses while 74 percent have had no re-arrests at all.

In Salt Lake City Utah, the drug court serves 1000 active participants at any one time with 81 percent having methamphetamine as their drug of choice. In an outcome study reported by Huddleston, 15.4 percent of program graduates were arrested on new drug offenses compared to 64 percent of eligible defendants who did not attend the drug court program. The Thurston County Washington Family Treatment Court served 54 adults and 82 children between March 2000 and October 2003. Most (70%) were methamphetamine involved. Of the 82 children, 75 percent were placed back with their birth parents or were pending return from foster care to their family. All of the pregnant women participants graduated and delivered a total of 13 drug-free babies (Huddleston, 2005).

Huddleston (2005) discusses why drug courts are “unprecedented” and “unequaled by any other criminal justice response” (p. 2) in their ability to deal with parents who are addicted to methamphetamine. “Drug courts offer longer treatment periods, an emphasis on addressing co-occurring mental health disorders, and intensive community supervision and monitoring. They are also helping children who are exposed to methamphetamine use by providing them with health care, educational, and child protective services” (p. 1).

Only one research study of Family Drug Treatment Court was found (Green et al., 2007). This study compared outcomes for 250 family drug court participants to matched controls in four sites. Green et al. found that participants in the family treatment drug courts entered treatment more quickly, stayed in treatment longer, and were more likely to complete treatment. The family drug treatment court participants were more likely to be reunited with their children and their children were placed in permanent living situations more quickly than children in the comparison groups. Also, children whose parents were served by the family drug treatment court were less likely to experience a subsequent out-of-home placement.

An approach similar to drug courts is court teams for maltreated infants and toddlers, being piloted by ZERO TO THREE. The Court Teams for Maltreated Infants and Toddlers Project has been successfully launched in Texas, Iowa, and Mississippi. The model pairs judicial leadership with child development expertise to increase awareness of the impact of maltreatment on very young children, to improve outcomes and to prevent future court involvement for families.

The ZERO TO THREE project addresses the co-occurrence of child maltreatment, substance abuse (especially methamphetamine use), domestic violence and parent mental illness. The work of the Court Teams is based on a model developed by Judge Cindy Lederman and psychologist Dr. Joy Osofsky in the Miami-Dade Juvenile Court. Babies and toddlers are screened for developmental delays and chronic health problems as soon as they come to the court’s attention and they receive care and healing along with their families. Judges are in a unique position to insure that the infants and toddlers receive the needed care and supports to address any special needs.

The Court Team makeup can vary from community to community but often includes pediatricians, child welfare workers, guardians ad litem, Court Appointed Special Advocates (CASAs), mental health professionals, substance abuse treatment providers, early childhood educators, and representatives of foster parent or child advocacy groups. Each month, the team meets to review the cases and be certain that the infants and toddlers as well as their parents are receiving the services they need. More information about the project is available from ZERO TO THREE (202) 638-1144 or at their web site: http://www.zerotothree.org/policy.

In addition to the positive results for parents and their children, drug courts and court teams offer distinct benefits to the community. Research suggests that sustained abstinence from drugs is associated with significant reductions in crime rates (studies cited in Huddleston, 2005). Drug courts offer the opportunity for systems within the community to work together to improve public safety, effectively treat parents with methamphetamine addiction and to reunite families.

References Available Upon Request
In 1994, the State Crime Commission recommended establishment of a drug court pilot project in Virginia. A year later, the Twenty-third Judicial Circuit (Roanoke City; Roanoke County; Salem) established the first drug court in the Commonwealth.

Anna Powers is the current Drug Treatment Court Coordinator for the Supreme Court of Virginia. She reports that over the past decade, the number of operational drug treatment courts has grown to 29. While most of the drug courts are adult felony courts (16), there is also one adult misdemeanor DUI drug treatment court, 8 juvenile drug treatment court programs and 4 family drug treatment court programs. “Similar to national trends, Virginia started with offering the drug courts in criminal cases, and then moved to offering juvenile drug courts. There are a growing number of DUI Drug Treatment Court Programs, and now we have four Family Drug Treatment Courts,” explained Powers.

“Drug treatment courts are a very effective approach,” she added.

In the FY 2002 budget, funding from the Intensified Drug Enforcement Act (IDEA) was made available and totaled $2.7 million dollars. However, in FY 2003, a shortfall meant that drug court funds were eliminated. State support was found to continue 14 programs. The remaining 15 exist on in-kind or volunteer services and local funds. These programs are limited in the number of offenders they can accept.

Patty Gilbertson is the Planning Director for the Hampton Drug Court. She has experience as a substance abuse worker and she has also served in state and national positions of leadership. Gilbertson served as president for the Virginia Drug Court Association from 2002 to 2005 and she has been involved in the National Association of Drug Court Professionals as Virginia’s representative to the Congress of State Drug Courts.

Gilbertson relates that, as a substance abuse treatment professional, she watched her clients aging but not improving their addiction status. She heard about the drug treatment court model and became inspired to write and receive a planning grant. “At first some jurisdictions were not receptive to the idea. After we were able to launch some successful programs, others asked to join,” she explained.

Gilbertson describes the model as a specialized court docket. “The Judge becomes part of the team. Offenders who participate have their time very scheduled. They are in treatment five days a week, have jobs, attend AA meetings, and are drug screened daily. The rules and expectations are very clear,” she explains. Not all users qualify for drug court programs. “We are not serving casual drug users. For the adult drug court, there has to be a felony and the offender must have pled guilty. Their sentence is withheld pending treatment,” she says. A drug court does not accept violent offenders or those convicted of distribution. The prosecutor always has the final determination of who can be accepted. Gilbertson notes that for offenders, drug court programs are long and demanding. She says, “The drug court program is voluntary. When offenders hear all that they must do, some prefer to serve time in jail.”

Gilbertson talks about the program successes. “When I watch the participants graduate, they are so happy to be drug-free. Some even invite the officer who arrested them and thank him for starting their recovery. The graduates are allowed to list their accomplishments. It is a true celebration and that’s all I need to keep me working with the program!” she says enthusiastically.

Judge Judith Kline of Newport News has had experience as a judge for a juvenile drug court. She also serves on the State Drug Court Advisory Committee. She notes that drug court is more time consuming and harder than the traditional court model. The advantages, however, are great. “You get to know the families so much better!” she exclaims. “Drug court is a very collaborative process and the discussions are very informative,” she adds.

The Juvenile Drug Court in Newport News can manage up to 25 youth at a time. Most started smoking marijuana at about age 12 and smoke daily. The drug use affects school attendance and grades and often leads to much family conflict. Judge Kline notes that juveniles are a difficult population. “The theory is that immediate sanctions and rewards will be effective. However, detention does not appear to be terribly effective in changing their behaviors. I do see response to rewards if those are meaningful,” says Judge Kline. She relates a case of a young man who refused to quit drug use despite repeated punishments but did change and have clean drug screens when he was offered a reward of a special pair of shoes he wanted. The court also attempts to change life patterns by involving the juveniles in many activities and opportunities for positive relationships. “Paying attention to them and making them feel that someone cares seems to be effective in changing their habits,” notes Judge Kline.

The Newport News Family Drug Court is working closely with the Hampton-Newport News Community Services Board in starting a Family Drug Court Program. The program is ready to begin accepting families. Judge Kline explains the criteria. “We plan to serve families where either the mother or her baby tested positive for drugs at the time of birth.” The drugs of choice for women in their area are cocaine, heroin, and prescription drugs. They have not yet seen women with methamphetamine addiction.

Judge Kline explains the process when a newborn or new mother has a positive drug screen. “The hospital will alert child protective services and a worker visits the mother at the hospital. A referral to substance abuse treatment is made. As long as the mother participates voluntarily in treatment, there is no protective order.” Judge Kline explains. She adds that participation in drug court is voluntary.

In Alexandria, Judge Nolan Dawkins has been coordinating a successful Family Drug Court Program since August of 2001. When the program began, the Alexandria court was one of only 12 Model Court Programs in the nation. They retain that distinction, but now share the honor with 32 programs.

Judge Dawkins advises communities to “start small.” “We began our program with five parents. Now we are operating at capacity. Our program serves 12 to 15 parents and about 60 children. The true impact of our court is on the children,” Judge Dawkins explains.

Judge Dawkins contrasts the family drug court model to the adult drug court model. “A traditional drug court begins with the commission of a crime. The court holds freedom as the motivator for the offender to achieve abstinence. If the offender is in violation, the result is jail. In contrast, the family treatment court’s involvement begins when a child is abused or neglected. Time with the child or custody of the child is the motivation for abstinence,” he explains.

In Judge Dawkins’ court, the team is composed of representatives of social services, substance abuse treatment, CASA (Court Appointed Special Advocates), housing, schools, and a case manager. Services offered include substance abuse treatment, family counseling, individual counseling, job counseling, random drug testing twice a week, help finding housing, and other support for the parent to engage in “sober living.” The primary goal of the court is permanency for the children. Most of the parents served in the Alexandria family...
drug court have been mothers (in the past five years, only four fathers have been in the program). So far, none of the parents have had a methamphetamine addiction.

Parents undergo a judicial review once every two weeks where progress and compliance is assessed. “The information is very powerful” says Judge Dawkins. “Sometimes the parent will come to a realization that the problems are great and that someone else should raise their children,” he adds. In any event, there is little argument about the parent’s progress or lack thereof. The parent’s status is always apparent to the judge. Since all providers and attorneys are updated so frequently and are working together, the emotional and sometimes contentious atmosphere that can accompany a traditional 6-month foster care review hearing is avoided.

Judge Dawkins encourages other communities to explore establishing a family drug court. While resources and time may limit what a locality can reasonably accomplish, Judge Dawkins notes that his program operates without federal support. Each agency involved has made the adjustments to allow staff the time to devote to the families in the program. The coordinator has been funded locally as well, although initially the department of social services worker assumed this role. “Don’t allow dollars to stop you from adopting this highly effective model,” says Judge Dawkins.

Janet Glenn, MSW is the coordinator for Charlottesville’s Family Drug Treatment Court. Charlottesville’s program serves 11 active participants and has 6 pending referrals. Most referrals come from the department of social services when children are either removed or at risk of removal due to parental substance abuse. Their team is comprised of five partners – Piedmont CASA (Court Appointed Special Advocates), Region Ten Community Services Board, the Charlottesville and the Albemarle Departments of Social Services, and the courts. Judge Edward Berry stresses the collaborative nature of the team. “We started with no money – just a great deal of effort and cooperation. We built trust between the agencies and it has been a wonderful dividend for the families we serve,” says Judge Berry.

Glenn relates that the majority of the participants are addicted to cocaine or “crack” but several have had addiction to methamphetamine. Glenn attributes the success of their program to several key factors. The team meets every Tuesday at court to discuss the participants’ progress and needs. After the staffing, the participants come before Judge Berry. At first participants appear before the Judge weekly. As they progress in treatment, they come every other week, then monthly until graduation. There is a considerable number of support staff (approximately 22) who assist with Family Drug Treatment Court and these providers are also present at every meeting where their cases are reviewed. “We offer tremendous support,” exclaims Glenn, “and the participants feel that we are ‘on their side’ to help them recover and live a substance-free lifestyle that will enable them to parent their children successfully. We work on their behalf. There is true synergy.” Glenn emphasizes that cohesive teamwork is the key to success, along with the dedication and interest of Judge Berry. “Our judge is dedicated and so significant in the process!” she says.

Judge Berry concludes by emphasizing that the Family Drug Court is able to achieve permanency more quickly than the traditional court methods. “This does not mean that every child returns home to their parents,” he notes. “Children are placed in appropriate arrangements which may include relative placements or adoption.” The Judge adds that sometimes parents are able to make a difficult decision to allow their children to be raised by others. “Many parents after a period of sobriety are able to make appropriate decisions for the welfare of their children that they would not do without the intervention of the Family Drug Treatment Court and the intense level of supervision and services offered,” explains Judge Berry.

The City of Richmond established a Family Drug Treatment Court in 2002 in order to provide parents with the best possible chance of being safely reunited with their children. Per capita, the City of Richmond has more children in foster care than any other jurisdiction in the state (526 children in June, 2006). Of these cases, over 80% originated from abuse/neglect related to substance abuse. “Substance abuse is a part of nearly every child abuse and neglect case we see in Richmond,” says Judge Kim O’Donnell. “We needed to do something creative and collaborative if we were to give these children a chance of being reunited with their parents,” she added.

Former Judge Anne Holton agrees. Speaking on a DVD presentation (“Richmond Family Drug Treatment Court: New Blueprint for Hope and Healing”), former Judge Holton remarks, “I served on the Richmond JDR court for many years. The longer I worked with children in foster care, the more I realized how crucial family preservation is. Foster care is a last alternative and often not an adequate alternative.”

Participants of Richmond’s Family Drug Court receive intense services similar to those already described (substance abuse treatment/parenting classes/medical care employment/housing) over 12 to 18 months. The integrated, collaborative, four-phase program is designed to support and encourage the parent by creating close relationships and an individualized treatment plan. The program helps clients stay engaged in treatment by helping every member of the family.

Judge O’Donnell remarks, “The process is simply amazing. The courtroom experience is different from the traditional courtroom experience. Our goal is to interact with people in a way to motivate them to change. By encouraging parents when they are doing well and holding them accountable when they are struggling, we are giving them what they need to overcome addiction.” Judge O’Donnell continues, “Most of the parents in our program have addictions that span over half of their lives. Their ability to overcome these addictions is nearly impossible without support.”

Team members agree that the needs of the families are complex and not easily addressed in a traditional court room. By bringing multiple specialists and community partners together, the program can be successful. The program is intense and requires parents to bare their lives. The rewards are considerable. “Successful people’s lives are absolutely changed” says Judge O’Donnell. As evidence of changes, team members say that parents enrolled in the drug court program spend more time in treatment, are more likely to have babies born drug-free in the future, and reunite with children faster. Children of successful parents spend less time in foster care and are placed in permanent homes sooner. Taxpayers also benefit because of significant savings in foster care payments.

Former Judge Holton concludes, “If you can defeat this addiction and break the cycle that would then be replicating itself through generations…you are making a huge impact over the long term.”

Additional information on Virginia’s Drug Court Programs is available from Anna Powers, Supreme Court of Virginia, 100 Ninth Street, Richmond, VA 23219 (804) 786-3321, FAX: (804) 786-4542
E-mail: apowers@courts.state.va.us
Website: http://www.courts.state.va.us
Pregnant women who use alcohol, tobacco or illicit drugs risk their infant’s health and development. Abuse of prescription or over-the-counter medications can also create health risks. VCPN has reviewed the literature on substance exposed babies in Volume 33 and discussed the needs of HIV-infected babies in Volume 69. This article will discuss what is known that is specific to methamphetamine use.

Readers should be aware that substance-using individuals rarely confine their use to a single substance, making it difficult or impossible to determine the effects of a particular substance on the developing fetus. Also, individuals who use substances are at high risk for poor diet, inadequate sleep, and other practices that can compromise fetal development as well. According to Wouldes et al. (2004), pregnant women using methamphetamine had no prenatal care and virtually all smoked cigarettes.

### Incidence

In general, pregnant women have a lower incidence of illicit drug, alcohol and tobacco use than non-pregnant women of the same age. In 2002, 10% of non-pregnant women compared to 3.5% of pregnant women reported using an illicit drug in the past month (NAIARC, 2004). While percentages are low, the number of infants born who are exposed to substances is considerable. The 1998 estimate was 202,000 pregnancies with illicit drug exposure and 823,000 pregnancies with exposure to alcohol (NAIARC, 2004). Approximately 7% of pregnant women ages 18 to 25 reported illicit drug use in the past month compared to less than 1% of pregnant women ages 26 to 44. The rate for illicit drug use in the past month compared to less than 1% of pregnant women ages 26 to 44. The rate for illicit drug use in the past month (NAIARC, 2004).

According to NAIARC (2004) 6% of African-American pregnant women, compared to 4% of Whites and 2% of Hispanic pregnant women report using an illicit drug in the last month.

### Co-occurring Problems

According to NAIARC (2004) mental illness and histories of emotional, physical and sexual abuse are common among female substance abusers. According to studies cited by Wouldes et al. (2004), pregnant women receiving treatment for drug dependence show a high incidence of psychopathology, including affective and personality disorders and depression. These co-occurring conditions have additional risk factors for poor outcomes in child-rearing (see VCPN, Volume 56 for a review about parents with serious mental illness).

### Effects on the Developing Fetus

All illicit drugs taken during pregnancy cross the placental barrier and reach the fetus. Negative effects can be caused directly or they can be due to changes in the fetal environment. For example, methamphetamine has been shown to decrease placental blood flow which restricts the nutrients reaching the fetus. An indirect negative effect could be due to the mother eating less, which can result in intrauterine growth retardation (Wouldes et al., 2004).

In general, the effects of methamphetamine on the developing fetus are not well documented and are felt to be less predictable than the effects from other illicit substances (NAIARC, 2004). What little we know about the effects of methamphetamine use during pregnancy come from animal studies and a few human studies with methodological problems. Some writers consider the more recent literature on cocaine abuse as possibly related (Wouldes et al., 2004).

Woulde and her colleagues caution against the “rush to judgment” about potential developmental outcomes. Driven by intense media interest, dire effects were predicted for children exposed to cocaine. The reality has been more subtle but significant effects. The more subtle effects do cause concern and expense. For example, it is estimated that prenatal cocaine abuse has caused a 1.5-fold increase in the number of children requiring special education services, at a cost nationally of more than an additional $352 million dollars per year (Woulde et al., 2004).

Also informative are studies of drug-exposed children who were adopted. Barth and Needell (1996) report that prenatally drug-exposed children compared favorably to adopted children who were not drug-exposed four years post-adoption. Outcomes at 8 years post adoption were a bit different with a significantly higher number of the adoptive parents of drug-exposed children reporting developmental disabilities, learning disabilities, and behavioral and emotional problems. Still the researchers conclude that the two samples were “more similar than different” (Barth & Brooks, 2000, p. 38).

### Animal Studies

According to studies cited by Wouldes et al. (2004), prenatal exposure to methamphetamine in animals has been linked to higher maternal and offspring mortality, defects of the retina, cleft palate malformations, rib malformations, decreased physical growth and delayed motor development. Neurochemical alterations in the central nervous system have also been found and these are thought to be related to learning impairments, behavioral deficits, increased motor activity and enhanced conditioned avoidance.

### Human Studies

There is research showing an association between fetal growth retardation, low birth weight, and prenatal exposure to methamphetamine. The effects are further pronounced if the mother is also smoking cigarettes (Kim & Kral, 2006). Cranial abnormalities were detected by ultrasonography in over 35% of infants exposed to cocaine and/or methamphetamine compared to a 5.3% rate of abnormalities in non-exposed infants (Dixon & Bejar, 1989).

Studies cited in Wouldes et al. (2004) and in Hohman, Oliver & Wright (2004) include findings of premature delivery and placental problems; spontaneous abortion; cleft palate; cardiac abnormalities; cranial abnormalities; smaller head circumference; cerebral infarctions; and higher incidence of fetal distress. Methamphetamine-exposed children at one year appeared less impaired than those exposed to cocaine, but were still found to be lethargic, with poor eating and alertness (studies cited in Hohman et al., 2004).

A recent large-scale study of 1618 patients in four medical centers, published in Pediatrics (Smith et al., 2006), showed that newborns exposed to methamphetamine are three times more likely to be born underweight. The drug appeared to restrict the nutrient-rich flow of blood into the placenta, increasing the chances of being born "small for gestational age." Infants were full-term but below the 10th percentile for weight. The study noted potential long-term problems such as increased risk for type 2 diabetes and a collection of heart attack risk factors such as high blood pressure and obesity. Developmental implications include higher incidence of behavioral problems, hyperactivity, and learning difficulties.

A Swedish study (Cernerud et al., 1996 cited in Wouldes et al., 2004) examined long-term effects of prenatal methamphetamine...
exposure by completing developmental assessments on the drug-exposed children from birth to age 14. Comparisons were to non-exposed Swedish peers born in 1976. At birth and 4 years of age, the methamphetamine-exposed group had lower mean weight, height and head circumference. Females but not males remained significantly shorter and lighter at age 10. At age 8 there were significant differences in aggressive behavior and social adjustment (Billing et al., 1994). At age 14, academic achievement of methamphetamine-exposed children was statistically below their classmates in areas of mathematics, language and sports.

Researchers note that all studies to date are limited by small numbers, lack of control groups, and effects of the environment which may confound the findings.

Related Findings from Studies on Cocaine

Most of the research on prenatal substance abuse over the past two decades has focused on cocaine exposure. Since the pharmacological properties of cocaine are similar to methamphetamine, some have suggested that findings about cocaine may be helpful in suggesting possible effects of methamphetamine (Alexander & Moskal, 1997;Woudles et al., 2004). Readers should be aware that findings on the effects of cocaine on the developing fetus may or may not be similar to effects of methamphetamine use.

Prenatal substance exposure is generally associated with greater risks of premature delivery and deficits in physical growth (low birth weight; small head size; short birth length) compared to unexposed infants (Kim & Krall, 2006). However, the effects of single substances are difficult to distinguish. Differences in physical growth rates have been documented for infants exposed in utero to cocaine with some deficits still apparent at age 7.

One set of findings about prenatal cocaine exposure deals with the infant’s ability in state regulation. Infants cycle through six ‘states’: quiet sleep; active sleep (rapid eye movement); drowsy; alert; fussy (active); and crying. The infant is most able to learn during the alert state. Studies cited in Woudles et al. (2004) found shorter sleep periods and longer crying and fussy bouts. The babies did not modulate attention relative to their arousal. Ondersma et al. (2000) in a review of the literature, state that there is consensus that cocaine exposure in utero can lead to deficits in the ability of infants to self-regulate and habituate, especially in stressful circumstances.

A prospective, longitudinal multi-site study of the effects of cocaine and/or opiate exposure on neurodevelopmental outcome of 658 exposed and 730 comparison infants (Lester et al., 2002) found subtle but significant deficits. Cocaine exposure was related to lower arousal, poorer quality of movement and self-regulation, higher excitability, more hyperactivity, and more nonoptimal reflexes. The authors hypothesized that higher doses of cocaine may produce excitable infants whereas lower doses produce lethargic infants. Both lower arousal and higher excitability result in poor self-regulation. The long-term implications may not be apparent until the child is in school.

Lester et al. (2003) found that prenatal cocaine and/or opiate exposure affects neural transmission, although detection of these effects requires a large sample. Using four Neonatal Research Network sites (Brown University; University of Miami, Wayne State University and the University of Tennessee at Memphis), researchers tested 477 exposed and 554 comparison infants matched for race, sex and gestational age on auditory brain response. The implications of the differences found await further research.

Motor development does not appear to be affected by cocaine abuse according to some researchers but other researchers differ and have found deficits in motor skills at least to age 7 (Kim & Krall, 2006). Some studies have found that cocaine-exposed children have trouble with inhibitory motor control (Woudles et al., 2004).

Some researchers feel that the cognitive delays that have been documented are due to poor environment rather than to cocaine use in utero (Kim & Krall, 2006). Other researchers have concluded that cocaine use by pregnant women has a direct and negative impact on their children. Negative outcomes include lowered IQ scores, deficits in visuospatial memory, and slower visuomotor speed (Kim & Krall, 2006).

Some hypothesize that cocaine may affect areas of the brain that are not manifest until children enter school. For example, adult cocaine users show problems with executive functions (decision-making, judgment, attention, planning and mental flexibility). Cocaine is believed to compromise areas of the brain involved in these functions. For children, deficits in these functions will become evident as the child matures. Thus, long-term follow up is needed to determine deficits that might not be evident in younger years (Lester et al., 2002).

Language skills are another area where the effects of drug exposure, home environment, and maternal characteristics appear to overlap and intertwine (Kim & Krall, 2006). More

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recent research (studies cited in Kim & Krall, 2006) shows that prenatal exposure to cocaine increases the risk for language deficiencies. The environment after birth may have an impact. For example, prenatally-exposed children in out-of-home care or adoptive families have higher language skills than those in kinship care or in their biological home.

Behavioral effects of exposure to cocaine include decreased emotional expressiveness, increased aggression, and a higher rate of hyperactivity, more problem behaviors and higher levels of externalizing behaviors. Some studies have shown differences between effects on male versus female children (studies cited in Kim & Krall, 2006).

Several studies reveal no differences in academic performance based on cocaine exposure in utero when children were compared to matched inner-city children in disadvantaged environments. Both groups had very low academic performance (Kim & Krall, 2006).

**Intervention**

There does appear to be much hope for intervention. A growing body of research suggests that negative effects of prenatal substance exposure can be mitigated or even overcome through environmental intervention. Likewise, the environment can compound and worsen the effects of prenatal exposure (Drescher-Burke & Price, 2005).

Prior to 2003, there was no federal policy requiring the reporting of or services for substance-exposed newborns (SEN). State laws vary considerably and some have no legislation at all addressing the issue (Drescher-Burke & Price, 2005). The Keeping Children and Families Safe Act of 2003 recognized the serious impact of the post-natal environment for the substance-exposed infant and the need for services. The legislation amended CAPTA (the Child Abuse Prevention and Treatment Act) to require that all states have a protocol for responding to SEN. The amendment is intended to link child welfare services with developmental, mental health, early intervention, and health services in order to access supportive help for at-risk children.

A 2005 study by Drescher-Burke & Price found that policies on testing or screening at birth were generally set by hospitals rather than states. There was an apparent lack of standardization leading to under-identification of substance-using women and newborns in need of services. While the federal policy provides guidance, it is too early to assess the impact that the CAPTA amendment will have on local policies and practices. Readers interested in Virginia’s legislation can consult a separate block article, page 17.

Pregnancy-specific treatment programs have been developed for substance-abusing mothers-to-be. These programs address concerns specific to pregnancy (such as health and nutrition), and provide support throughout the pregnancy and with childbirth not offered in more traditional substance abuse treatment programs. Programs can be offered in inpatient and outpatient settings, hospitals, public health departments, or community settings. Studies have shown that providing programs specific to substance-using pregnant women is cost-effective and results in lower treatment drop-out rates compared to those offered only traditional substance abuse treatment (NAIARC, 2004).

CSAT/SAMHSA has established a Treatment Improvement Protocol (TIP) for substance-exposed newborns. It stresses the use of culturally-competent services, coordination between providers, and non-traditional, home-based services. The Abandoned Infants Assistance (AL) program has developed a set of recommendations and guidelines in their monograph “ALA Best Practices: Lessons Learned from a Decade of Service to Children and Families Affected by HIV and Substance Abuse” (National AIA Resource Center, 2003). An underlying principle emphasized in this document is the importance of developing a strong relationship and building trust between the project staff and the family. Home-based, nonjudgmental intervention strategies that are barrier-free and flexible are emphasized.

A comprehensive intervention will include: assessing the family’s strengths and resources; care coordination and case management; developmental monitoring for the children; parenting and family support; assistance to fathers and family caregivers; and empowerment of parents to consider voluntary relinquishment of children in order to offer them permanency.

The NAIARC (2006) reports on many successful intervention projects for substance-exposed infants and children. They note, however, that the most successful projects are those that target mothers during their pregnancy. VCPN has reported on early intervention programs in detail in Volume 77 and readers are referred to this issue.

**Summary**

It is likely that methamphetamine use adversely affects the developing fetus, although the literature is in the early stages and is inconclusive and in some instances contradictory. Effects at birth likely include higher incidence of preterm birth, growth retardation, and neurobehavioral deficits due to toxic effects on the central nervous system.

In early childhood, there are likely to be effects on state regulation, arousal, attention and psychomotor development.

Deficits are compounded by compromised parenting due to effects of substance use (see main article), low socio-economic status, co-occurring conditions that impair parenting, and risk of or experiences of child neglect, child abuse and child sexual abuse. Thus, adverse outcomes may involve a combination of damage from exposure to methamphetamine plus damage due to the environment.

Lack of specific information about the effects of methamphetamine on the developing fetus should not be a reason to delay intervention. Efforts to identify and treat pregnant mothers who are substance-abusing or substance dependent show promise. The intervention programs for pregnant women, like treatment programs and drug court programs, can be offered regardless of the drug of choice. Modifications specific to those using methamphetamine will likely enhance the intervention’s effectiveness and will be developed as providers gain more experience with this vulnerable population.

Treatment programs for pregnant women who are using substances can be effective, resulting in better delivery outcomes, infants with higher birth weights and longer gestational ages. These infants also require less intensive care than infants of untreated mothers, resulting in considerable savings over the substance abuse treatment costs (a savings of $4644 per infant/mother pair in one study, Svikis et al., 1997 in NAIARC, 2004). This estimate does not even consider the considerable cost savings to CPS, child welfare, and educational systems. Likewise, policies that support early intervention for drug-exposed children appear to be beneficial, cost-effective, and offer a proven record of accomplishment (Kim & Krall, 2006).

References Available Upon Request
Methamphetamine and Child Maltreatment

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care system to live with a permanent family.

Despite the discouraging outlook, some states (North Carolina, for example – see Children’s Services Practice Notes, April, 2005) are facing the challenge of reuniting families and providing effective treatment to parents. While there is limited research, recent data suggests that those abusing methamphetamine may have a prognosis similar to those abusing other stimulants (such as cocaine) and reunification is a reasonable goal for some families (Luchansky, 2003; see also article on Treatment, page 7).

Interdisciplinary Response

Some communities have created specially-trained teams of professionals to respond to children removed from methamphetamine labs. One project is the Drug-Endangered Children (DEC) Project in Spokane, Washington. They have piloted a collaborative response among law enforcement, prosecutorial, medical, and social service professionals described in Altshuler, 2005. The collaboration was triggered by the growing need. The number of labs and “dump sites” went from 13 in 1999 to 248 in 2001.

According to Laura J. Birkmeyer (2005), Chair of the National Alliance for Drug Endangered Children, DEC teams were first piloted in Butte County, California in 1997. The participants are trained to view children found at narcotics crime scenes as crime victims. DEC partnerships are designed to coordinate the efforts and activities of the “first responders” to a drug scene or crisis intervention. In most communities, this would include law enforcement, child protective services, emergency room personnel, prosecutors, and fire and Hazmat crews. A National DEC Training Program which started in 2004 has educated more than 5,500 professionals from multiple disciplines.

In addition to coordinating efforts and protocols for the crisis, some DEC teams are addressing ongoing needs of children and families. They have educated grandparents and other caregivers about the effects of methamphetamine and the effects of witnessing drug abuse.

Legal Response

Before 1995, little thought was given to prosecuting parents for child endangerment if children were present during a laboratory seizure. However, after a home explosion in Riverside, California killed three children, the mother was convicted of second-degree murder and the conviction was upheld on appeal. The Fourth Circuit Court of Appeals in California in the People versus James in 1988 ruled that exposing children to methamphetamine production was “an inherently dangerous felony.” Subsequent legislation allows prison enhancement for those caught manufacturing methamphetamine in the presence of children younger than 16. Parents are not charged with exposing children to methamphetamine per se but with permitting children to be in situations that endanger their person or health (Hohman, Oliver & Wright, 2004).

Law enforcement officers interviewed noted a number of possible criminal charges that can be applied when parents expose their children to the manufacture or use of methamphetamine. Murphy (in Virginia) and Sergeant Webber (in Oregon) both indicated that the usual charges would be child endangerment. Sergeant Adair (Oklahoma) noted several options under drug laws, crimes against children and juvenile statutes. These were: Possession of a Controlled Drug in the Presence of a Child Under 12; Soliciting the Use of Services of Persons Under 18; Delivery of Drug Paraphernalia to Youth Under 18; Endangering a Child by Allowing in a Clandestine Drug Lab; Injury to a Minor.

Treatment for Parents with Addictions

There is a misperception that methamphetamine is so addictive that it is impossible to treat (Office of National Drug Control Policy, 2006). Dr. Compton noted that “without treatment, 70 to 90 percent of those addicted to methamphetamine will relapse.” He related that there is a high drop out rate from treatment as well. Because of the high drop out rate, very close supervision is essential. Dr. Compton agrees with others (such as Generations United, 2006) that short-term treatment is unlikely to be effective.

However, comprehensive and readily accessible treatment programs are scarce. (Generations United, 2006). Treatment programs may have waiting lists and residential treatment may be limited. Children suffer further damage if they are reunited with their families only to have the parents relapse causing the children to re-enter foster care.

There are some promising approaches to treatment. VCPN reports elsewhere in this issue on the research and promising approaches to treatment and intervention for methamphetamine dependence (see Treatment for Methamphetamine Abuse, page 7).

Drug Courts

Drug Courts, together with support of family, friends and mental health professionals, have helped nonviolent offenders achieve abstinence and avoid recidivism. Drug courts are special courts that handle cases involving substance-abusing offenders. Drug courts offer comprehensive supervision, frequent drug testing, immediate sanctions, and incentives to participate in treatment. They combine intensive, comprehensive treatment with legal requirements to complete treatment. Drug courts also help children living in families with addicted parents by providing the children with health care, educational services and protective services (Huddleston, 2005).

More detailed information on Drug Treatment Courts is available in a separate article, page 12.

Prevention

Much of the response to the rise in methamphetamine use has been law enforcement approaches to curtail the availability of products used to produce methamphetamine such as limiting over-the-counter medications used to manufacture methamphetamine. It is difficult to know the long-term effects of such efforts. In Oregon, there has been a 50% reduction in “meth labs” in the four months since the governor’s task force recommended that stores and pharmacies keep cold tablets behind the counter (reported on the Marion County Oregon Children and Families Commission website: http://co.marion.or.us/CFC/community/nometheefforts.htm).

There have been efforts to enact stiffer penalties for manufacture of the drug in the presence of children, selling or giving drugs to children and youth, exposing children to illegal drug activity, and use of a controlled substance by caretakers that impairs their ability to care for children (Generations United, 2006). Still, enforcement strategies alone are unlikely to be sufficient.

The National Institute on Drug Abuse (NIDA) continues to support research to develop effective drug abuse prevention programs for youth. Most efforts are not targeted to a specific drug or substance.

For more information about successful prevention efforts, see the separate article on substance abuse prevention, page 20.

Summary

Methamphetamine has made a significant impact on child welfare services. Parents who are addicted to methamphetamine present significant challenges requiring a community response. It is vital that law enforcement, prevention specialists, mental health substance abuse specialists, social services, courts and other treatment providers work together to serve these difficult families.

References Available Upon Request
Preventing substance abuse begins by supporting families. Parents who are “hands on,” who are engaged with their children, who actively supervise them, and who have rules and standards of behavior are much less likely to have children who abuse substances. Children with actively engaged parents are at one-fourth the risk for abusing substances compared to children and youth whose parents are not engaged (Califano, 2007).

Prevention efforts must start early. The sooner a child or youth begins to use substances, the greater the likelihood of addiction (Szapocznik, Tolan, Sambrano & Schwartz, 2007). If a youth reaches age 21 without smoking, using illegal drugs, or abusing alcohol, he or she is unlikely to develop an addiction or embark on illicit drug use (Califano, 2007).

Availability is part of the problem. Sixty percent of high school students (9.5 million) and 30 percent of middle school students (5 million) say they have ready access to illicit drugs (Califano, 2007).

Incidence

The numbers of children and youth who experiment with substances is high. In a 2004 survey of high school students, 64% reported alcohol consumption in the past 30 days while 35% said they had smoked marijuana in the last month and 19% had used illicit drugs. For middle school youth, 44% reported alcohol use, 16% had used marijuana and 12% had used illicit drugs within the prior month (Szapocznik et al., 2007). Of those in high school, 42 percent say they can obtain marijuana within a day and 21 percent say they can obtain it within an hour (sources cited in Califano, 2007).

Speaking at the December, 2006 Prevention Comes First/KIDsafe Conference in Richmond, Dr. Wilson M. Compton, Director of the Division of Epidemiology, Services and Prevention Research for the National Institute on Drug Abuse cited findings about lifetime use. According to Dr. Compton, 33.6 percent of high school youth have experimented with marijuana; 8.6 percent have tried amphetamines and 2.5 percent have used methamphetamines. Other drugs taken illicitly include vicodin (9.5%), sedatives (7.2%), tranquilizers (6.8%), oxycotin (5.5%), cocaine (5.1%), inhalants (5.5%), cocaine powder (.5%) and Ritalin (4.4%). Lifetime non-medical use of methamphetamine has decreased from 5.3 percent of the general population in 2002 to 4.3 percent in 2005.

Still, the good news is that teen drug use has declined 23 percent over the last five years for 8th, 10th and 12th graders combined. There are reductions in the use of nearly every drug and every drug prevalence category (Office of National Drug Control Policy, press release December 21, 2006). The rates have declined from 11.6 percent of youth using drugs in the past month in 2002 to 11.2 percent in 2003, to 10.6 percent in 2004 to 9.9 percent in 2005.

Based on a study by the University of Michigan called “Monitoring the Future,” the finding means that 840,000 fewer youth were using illicit drugs in 2006 compared to 2001. Teen use of amphetamine and methamphetamine dropped significantly. The prevalence rates for use of methamphetamine for all three grades is either the lowest or among the lowest rates since the question was first included in the MTF survey. Past-month use of methamphetamine among youth plummeted by 50 percent since 2001, with less than 1 percent (.7%) of students using methamphetamine at least once in the 30 days before the survey. Officials at the Justice Department are quoted as feeling that the decreases are an encouraging sign that the prevention efforts currently under way are effective.

The MTF study is the largest survey of youth drug use and measures drug use and attitudes of students nationwide. This past year 48,460 students from 410 public and private schools participated. The survey is funded by the National Institute of Drug Abuse (NIDA), a component of the HHS’s National Institutes of Health and has been conducted since its inception by the University of Michigan. Complete results can be viewed at http://monitoringthefuture.org

Predictor Variables

Research has found four predictor variables for youth substance abuse:
• the parents’ investment in their child’s development (effective parenting);
• the child’s social competence (ability to get along with others);
• the child’s self-regulation and control (aggression and impulse control);
• the child’s bonding to the school (academic success) (studies cited in Dunn & Mezzich, 2007 and Szapocznik et al., 2007).

In early childhood a sense of competence forms the basis for the child’s formation of self-concept. Adequate physical care gives is not sufficient for a child to develop a positive self-concept. Developmental pathways are set early in life with parents responsible for teaching problem-solving (through verbal exchanges and reasoning and negotiation) and supporting practices to encourage self-regulation. Once the child establishes patterns, they become stable. In early childhood, substance abuse can be predicted by deficits in self-regulation, aggression, and poor social skills or rejection by peers (studies cited in Dunn & Mezzich, 2007). Interventions that improve self-control and emotional regulation have the potential to lower the risk of later substance abuse.

Virginia leaders agree about the importance of early intervention. Governor Tim Kaine, addressing the Prevention Comes First/KIDsafe Conference in Richmond on December 11, 2006, stressed his support for early intervention. As an example, he noted that children who are failing at third grade tasks are likely to still be failing when they reach fifth grade. He stated, “There is no excuse to not focus on these children. We know they are not succeeding.” John L. Brownlee, U.S. Attorney for the Western District of Virginia, addressed the same conference. He commented, “Education is important at all levels but it is especially vital for young children. We must talk to them early and often.”

In middle childhood and preadolescence the tasks of self-regulation, social competence and general competence continue. In addition, the child adapts to school and applies his or her skills to the social context of school and neighborhood. Teachers and peers become important. Children who experience peer rejection and social isolation in early elementary years are subject to early onset drug use and other negative outcomes (Dunn & Mezzich, 2007). Social skills training can reduce the use of substances in early adolescent years (studies cited in Dunn & Mezzich, 2007).

Parent involvement has two related components. The first is adequate involvement in terms of supervision, control, monitoring, and supportive parenting. The second is interest in the child’s social and academic functioning and overall development. Effective parenting is related to academic achievement at all levels including the high school years (studies cited in Dunn & Mezzich, 2007).

Researchers have found that high engagement in school in the form of involvement in activities, bonds with teachers and peers and pride in accomplishments reduces the risk for substance abuse. Brownlee agrees. Speaking about older children, he emphasized, “We must provide meaningful activities. Those who want to fight could be encouraged to try wrestling. Those who are acting out might find direction in theatre. Those who enjoy creating graffiti could be encouraged to develop artistic talents.”

Substance abuse prevention requires both family and school involvement. Interventions combining developmentally appropriate parenting classes, teacher training and social competence training for children can have long-term effects on the severity of substance abuse (studies cited in Dunn & Mezzich, 2007).

Adolescence involves broader exposure to peers and the community. Families continue
to be significant, as do schools and academic success. Thus, prevention programs that promote connections between systems of home and school are more likely to be effective (studies cited in Szapocznik et al., 2007).

Prevention Strategies
Prevention strategies start and end with the greatest influences on children and youth—families and schools.

Strategies for Families
Research suggests that parents are the most important influence in their offspring’s decisions about drug use. For example, Borawski, Levers-Landis, Lovegreen & Trapl (2003) found that parental trust was a powerful deterrent to risky behavior among female adolescents. The National Survey on Drug Use and Health 2002, 2003 and 2004 found that parental disapproval of drug use was a strong factor in youth decisions. Youth who thought their parents strongly disapproved of drug use were six times less likely to use marijuana or alcohol. Youth who felt their parents did not strongly disapprove. Parent monitoring and supervision of their youth is also crucial and has been shown to be a protective factor against initiation of youth drug use (Orwin et al., 2004). Parents assistance in decision making about drug use were six times less likely to use marijuana or alcohol.

Strategies for Schools
One prevention strategy is to ensure that schools are substance-free. However, schools need to do far more than eliminate substances. Schools must encourage youth to attach positively to the school. They need to provide clear and consistent guidelines and impart sound social values. Further, schools must insist upon parent involvement and help to coordinate services to child, youth and their families (Tolan et al., 2007).

The Federal Advisory Committee on Methamphetamine Intergency Task Force (2000) spent two years examining methamphetamine prevention, education, treatment and law enforcement needs. They set forth guiding principles related to prevention and education efforts:

* Effective drug prevention programs are long term, comprehensive and designed to prevent use of any category of illicit drugs.
* Effective prevention programs include a wide array of components rather than a single strategy or curriculum. These include teaching social competence and drug resistance skills, promoting positive peer influences and anti-drug social norms, having an emphasis on skills-training teaching methods, and providing multiple years of intervention.
* School-based programs should not only involve parents but should also collaborate with community organizations. These include law enforcement, health, businesses, media and faith communities.
* Programs should be age-specific, culturally sensitive, and target risk factors for the local community.
* Successful programs are guided by research findings.
* Programs should engage in ongoing evaluation to monitor effectiveness.

There are few evaluations of prevention programs that are specific to methamphetamine abuse. Two studies published in 2006 (Spoth, Clair, Shin & Redmond) and the only ones located that were specific to the prevention of methamphetamine abuse. From 1993 to 2004, Richard L. Spath, Ph.D. and his colleagues at Iowa State University conducted two studies of the effects of prevention programs offered to sixth and seventh grade students.

In the first study, 667 sixth grade students were assigned to either a control group, to the “Iowa Strengthening Families Program”, or to the program “Preparing for the Drug-Free Years”. When the youth were in 12th grade, 457 participated in the follow-up. The second study involved 679 students divided between a control group, the “Life Skills Training” program, and a combined program of “Life Skills Training” plus the “Iowa Strengthening Families Program”.

Methamphetamine use rates among the control groups were similar to rates found in national surveys (3.2% in study one).
and 5.2% in study two). “Preparing for the Drug-Free Years” did not significantly reduce methamphetamine use. However, the “Iowa Strengthening Families Program” (with and without the “Life Skills Training” course) produced a statistically significant decrease in both short-term use and lifetime use of methamphetamine. Also, the “Life Skills Training” by itself showed significant reductions in lifetime use of methamphetamine.

Strategies for Communities

One of the best practice recommendations mentioned earlier is for schools and community agencies to collaborate in offering drug-resistant education to youth. An example of that collaboration is the MethSMART prevention program offered by the Boys and Girls Clubs of Harrisonburg and Rockingham County (Virginia). The Club offers the program to children and youth after school but also teaches some groups at the local middle school Teen Living classes.

Dorita Moore, Grant Administrator, explains the collaboration. “The MethSMART program is being funded by a grant from the Department of Justice. We are teaching nine groups that average 25 youth in each group. We have separate groups for children 6 to 9 years, for youth who are 10 to 13 years and for teens who are 14 to 18,” says Moore. Parents are also involved and receive instruction during the monthly family nights when parents and their children gather for a family dinner at the center.

The MethSMART Program uses a curriculum guide prepared by the Department of Justice. The focus is on teaching youth to identify dangerous situations, to build drug resistance skills and to help children and youth identify who to tell if they encounter methamphetamine use. All participants have taken pretests. At the end of the 6-lesson program, there will be a post-test. Moore says that the Boys and Girls Club will continue to offer the program even after their grant funding ends. “This effort is something we want to sustain in our community and it is definitely needed because of the high incidence of methamphetamine use in our area,” she comments. “So far, the youth have responded positively to the program.”

National Strategy

In 1998, with bipartisan support, Congress created the National Youth Anti-Drug Media Campaign with the goal of preventing and reducing youth drug use. The Campaign combines advertising with public communications outreach to deliver anti-drug messages and skills to America’s youth, their parents and other influential adults.

Campaign components include advertising on television, radio, print and the internet to more than 1,300 media outlets across the country. Advertising and outreach is multicultural and targeted to specific groups such as African-American, Hispanic, Asian-American and American Indian/Alaska Native audiences. Materials are available in Spanish, Mandarin, Cantonese, Korean, Vietnamese and Cambodian. Campaign partners distribute the anti-drug information and messages to the community. Campaign partners include the Boys and Girls Clubs of America, the National PTA, the YMCA, the National Middle School Association, the American Academy of Pediatricians, the Congress of National Black Churches and many others. The Campaign developed an @ Work program in order to reach parents where they spend much of their time-at work.

An extensive evaluation of the National Youth Anti-Drug Media Campaign was released in 2004 by Westat (Orwin et al., 2004). The evaluation covered the time period of 1999 to June 2004. The majority of parents and youth report weekly exposure to anti-drug ads (median of 9.5 exposures per month for parents and 12 exposures per month for youth). Some of the measured effects on parents were favorable. Parents report significantly greater amounts of talking with youth about drugs, increases in doing fun activities with their children and changes in their beliefs about the need to talk with and monitor children. Actual monitoring behaviors did not show change. According to the researchers, “this pattern of results suggests that despite the evidence supporting Campaign effects on parent outcomes, the likelihood of those effects translating into effects on youth behavior may not be high” (p. x).

Indeed, the evaluation found no changes overall in the percentage of youth using marijuana (lifetime, past year, past month, or regular use). Among non-using youth there were changes over time in attitudes towards drug use (less tolerance for drug use and a higher proportion saying they would never try drugs) but it was not possible to determine if the Campaign was instrumental in that attitude change.

In conclusion, the Campaign showed some favorable outcomes for parents but no evidence thus far that changes in parents’ perceptions resulted in improved outcomes for youth.

Concluding Thoughts

The costs of substance abuse are high with estimates at $500 billion per year (not counting costs of incarceration and lost productivity). While over 5.5 billion dollars are spent each year on treatment costs, less than one penny per dollar spent on treatment is allocated to prevention of substance abuse (Szapocznik et al., 2007).

Effective approaches are partnerships. As Brownlee noted, “Our approach must be collaborative. Law enforcement, social services, education and health services must work together.” There is persuasive data that significant positive impact on youth substance use is possible. While a variety of approaches are successful, a developmental, ecological perspective that emphasizes effective parenting and positive family relationships, child competence, school involvement, school achievement and behavioral control offers much promise (Tolan et al., 2007).

In his remarks to the Prevention Comes First/KIDsafe Conference, John Brownlee summarized the importance of prevention. “If a society does nothing else, it must protect our children,” he declared. “We need to steer children into positive activities.” Challenging the audience, he added, “Commit yourself to changing one child’s life.”

References Available Upon Request

METH KILLS: Virginia Fights Methamphetamine Abuse, in DVD format, Project Safe Neighborhoods, 13 minutes.

For more information, contact: John Brownlee, U.S. Attorney, Western District of Virginia, (540) 857- 2250 or john.browlee@usdoj.gov

This DVD contains information about the dangers of methamphetamine and testimony from former addicts. It skips the “facts and figures” and goes straight to the faces and stories. Comments from John Brownlee, U.S. Attorney and from Virginia Attorney General Bob McDonnell are included. The symptoms and consequences are stressed, as well as the legal consequences. This DVD has been distributed to all Virginia high schools.
National Clearinghouse for Alcohol and Drug Information, P.O. Box 2345, Rockville, MD 20847-2345, (800) 729-6686 or (301) 468-2600, TDD: (800) 487-4889, FAX: (301) 468-6433, E-mail: info@health.org Web site: http://ncadi.samhsa.gov/
A list of resources on methamphetamine is located at http://nccanch.acf.hhs.gov/topics/issues/meth.cfm

Substance Abuse and Mental Health Services Administration (SAMHSA), 1 Choke Cherry Road, Rockville, MD 20857, (800) 729-6686, TDD: (800) 487-4889, in Spanish (877) 367-8432
Web site: www.samhsa.gov

National Center on Substance Abuse and Child Welfare, located at www.ncsacw.samhsa.gov/


MethResources.gov
Contains resources including “Criteria for the Assessment and Remediation of Clandestine Methamphetamine Laboratories.”

www.TargetMeth.com
Contains the Target Meth Community Action Guide (“Building a Vision for a Drug Free Community”) and other resources.

The Partnership for a Drug-Free America offers national methamphetamine links. Access these at www.drugfree.org/Portal/MethResources/national_meth_links.html
Also check the resources on the home page: www.drugfree.org/

KCI: The Anti-Meth Site contains methamphetamine drug prevention and educational resources for teachers, including a site (MEDFELS) for educational tools for elementary students.
www.kci.org/meth_info/links/htm

Safe and Drug-Free Schools Program
Materials can be accessed at http://www.ed.gov/admins/lead/safety/edpicks.jhtml

National Youth Anti-Drug Media Campaign can be accessed at www.MediaCampaign.org
Started in 1998 by Congress with bipartisan support, the Campaign is designed to reach Americans of diverse backgrounds with clear, consistent and credible anti-drug messages.

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Want More Information?
Children in any type of substance-abusing home are frequently victims of child maltreatment. VCPN has devoted several prior issues to this topic. To learn more about general effects of living with a substance-abusing parent, request issues 16 and 53. For reviews of the effects of fetal exposure to substances, request issue 33. For articles on health care needs of drug-exposed children and HIV-exposed or infected children, see VCPN volume 69. For a review of prevention efforts in schools, request volume 53. Some issues are available for download on the VCPN website. We are always glad to send single copies of any back issues. The request can be mailed or made on our website.

National Drug Endangered Children (DEC) Alliance
In October, 2003, the Office of Community Oriented Policing Services (a division of the U.S. Department of Justice) joined with the U.S. Attorney’s Office in San Diego, California to address the problem of drug endangered children. Members of the steering committee included doctors, lawyers, law enforcement, chemists, and scientists.

The main goal of the National DEC Alliance is to develop partnerships so that local professionals can cooperate among themselves to identify, help, and protect drug-endangered children. Their website serves as a platform for presenting problems and answering questions. They also provide multidisciplinary trainings throughout the United States and sponsor conferences.

The group has produced a national protocol for the medical evaluation of children found in drug labs which is available at www.nationaldec.org
For more information, contact: National DEC Resource Center, 1942 Broadway, Suite 314, Boulder, CO 80302, (303) 413-3064, FAX: (303) 938-6850. E-mail for the Executive Director Lori Moriarty: lmoriarty@nationaldec.org
methamphetamine offenders are untreatable. “We have seen successful outcomes and I am encouraged by positive changes we see every day,” he states.

The program that appeared to be the most developed and specific for methamphetamine addiction is offered by Valley Community Services Board. Kathy Kristiansen, LPC, CSAC, Director of Behavioral Health Care, explained the program. “Since the end of August, 2006, we have been using the Matrix Model. We like it and the clients like it,” declared Kristiansen. She explained that the Early Recovery group meets twice a week (for four weeks) and a relapse prevention group meets twice weekly (for 16 weeks). In addition, there are 8 to 10 conjoint or family sessions. One night a week is devoted to family education. Clients are encouraged to attend three 12-step meetings per week. After completing the 16-week program, all clients then attend an aftercare group for a minimum of 40 weeks. “The client is with us for an entire year, at the minimum,” explains Kristiansen.

Kristiansen says that Valley CSB currently has three treatment groups with 12 to 15 members in each. The majority of those attending the groups are court-ordered into the treatment. Kristiansen likes the Matrix Model because it offers structure and because of the involvement of family and significant support persons. “We interact with not only the client but his or her parents, spouse, siblings, adult children and other family members. We tell them to bring someone who cares about them and involve those persons in their treatment.”

While successful outcomes are possible, there are many obstacles to linking clients to effective treatment. Tracy Harper, Probation Officer for the District 39 State Probation and Parole Office in Harrisonburg encounters these obstacles daily as she tries to monitor and help parents with methamphetamine addiction. “It is difficult for these parents, especially if they do not have a support system for sobriety. Lack of transportation, child care and income present obstacles to treatment. Most of these people do not have a driver’s license, making transportation an issue. Treatment programs don’t provide child care and many people do not have suitable child care or a means to get their children to child care. The cost of treatment also creates a problem for many of my cases because they do not have health insurance,” explains Officer Harper.

Officer Harper is acutely aware of the risk for children who live with addicted parents. “We do home visits and I always consider the children and how the condition of the home affects them. I make note of the condition of the children and report to Child Protective Services if there are unsafe conditions,” she relates. “While methamphetamine use may constitute a danger to children (due to inattention or to symptoms of irritability and short temper that can lead to physical abuse), relapse or testing positive for methamphetamine may not be sufficient to trigger a CPS investigation,” notes Harper.

Summary

There is much hope for parents who are abusing methamphetamine. While studies are just now being published, treatment providers are excited about new treatment models and about the literature indicating that those dependent upon methamphetamine can respond positively to treatment. Coordination and collaboration between child protective services and treatment providers appears to improve the likelihood of success and reunification. The Family Drug Court Model (described elsewhere in this issue) offers a collaborative team treatment effort between the courts, treatment providers and child protective services. This model offers much promise and perhaps the greatest hope to parents and children who want to remain together or be reunited after the parent stabilizes.

References Available Upon Request

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