Chapter 3

Methamphetamine and Children: A Social Work and Criminal Justice Perspective

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This chapter provides an overview of Methamphetamine's (Meth) devastating effects on the family. These effects are discussed from the perspectives of both social work and criminal justice professionals. The chapter compares Meth to other drugs and discusses some of the reasons that Meth has become the most addictive drug in the world. Specific characteristics of Meth are also mentioned. Regarding this epidemic, there is much more to be known that is not covered in this short chapter. It is intended as a basic introduction to the Meth epidemic. Social workers, law enforcement officers, educators, school nurses, child advocates and others should find this introductory information useful.

The chapter describes how Meth is unique in that the drug often takes over all of a user's life until the parenting of children of users essentially ceases. It also discusses the deadly risks involved with producing the drug around children. Finally, the chapter discusses the dangers faced by social workers and law enforcement officers who are actively involved in the removal of children from active Meth labs. The importance of training human service workers in "Meth awareness" is highlighted, and the term "Methcognition," signaling the broad-based scope required in approaching the epidemic, is introduced.

The Methamphetamine Epidemic

The responsibility of society to protect children, its most vulnerable citizens, is widely recognized and accepted. In recent years, the production and use of Meth have placed thousands of innocent children at serious risk of injury or death. Meth production and use in Western society have reached the level of an epidemic which has been noted by the media. The subject

was recently highlighted in *Newsweek* and on the National Geographic Channel. A 2009 PBS documentary, "The Epidemic," also addressed the issue.

According to the National Drug Intelligence Center, the total economic impact of Meth in the United States was $23.4 billion in 2009 (compared to $215 billion for all drug use). This statistic further highlights the devastating effects that this particular drug is having on our society. This chapter points out that parenting children and Meth use is a dangerous combination.

In spite of the new recognized danger, drug use, especially Meth use, is still accepted by some sub-groups. Although the impact and dangers of drug abuse are clear, illegal drugs continue to hold a strong grasp on popular culture. Songs like *Cocaine* and television shows glorify the life of the cocaine user. As far as we can tell, no popular artist has made a similar case for Meth. But the number of users, including parental users is still high.

As we show in this chapter, there are so many factors that support Meth use, that a new society-wide approach is needed. The authors of this book believe that a multidisciplinary approach, symbolized in the new term *Methcognition*, is needed. Methcognition implies and encourages a move from the realm of detached academic thought and speculation to the multidisciplinary practice and broad awareness in the field. Stated simply, Methcognition involves thinking wholistically about Meth to increase general societal knowledge about the broad and many interacting levels of this deadly drug. An important step to bring Methcognition into reality is to provide individuals such as school social workers, teachers, counselors as well as first responders (law enforcement child protective services) with the training and resources necessary to recognize the signs and symptoms of Meth abuse and *to motivate them to help to protect children.* Service providers to children come from a broad spectrum of professions (e.g.,

education, ministry, justice, social work, etc.), and the understanding (Methcognition) of Meth must become a part of the professional education of all.

Millions of teachers, school social workers, school nurses, school resource officers, members of the clergy, athletic coaches, support staff, and community volunteers are already in place and are working with children every day. If the children living in Meth environments are to receive the protection they need and deserve, these professionals and pseudo-professionals must become involved. Methcognition has four major principles. In contrast to the pop culture view of the glorified life of a drug dealer, the life of a Meth user or addict is anything but glamorous. The threat to innocent children is especially serious when their adult caregivers are manufacturing Meth. An example of the exposure experienced by many children living with Meth-using caregivers was reported by Swetlow (2003) in California. This scenario described five children ages 1 to 7 living without electricity or heat. The children's play area was overrun with used hypodermic needles and dog feces. The bathroom had sewage backed up into the tub, and all of the children were infected with Hepatitis C. The children had needle marks on their hands, feet, and legs resulting from accidental contact with syringes. This type of environment is obviously not conducive to proper physical health, to adequate educational preparation, or to development of a child's sense of security, necessary components in the child's environment (Maslow, 1954).

Comparison of Meth to Other Drugs

The familiar illegal drugs, marijuana and cocaine have produced devastating effects for many years. But as one Meth "pusher" said, "you ain't seen nothing yet."More recently an entirely new and more highly addictive drug in the form of Meth is growing in popularity. In comparison to other drugs, Meth is inexpensive, easy to produce, and capable of delivering an

intense high to the user that is unparalleled to other illegal substances. Rawson, Anglin, and Ling (2002) observed that Meth is second only to marijuana as the most widely used illegal drug across the globe. Holley (2005) suggested that 35 million individuals worldwide regularly use Meth. Holley also noted that crystal Meth has a 95% to 98% addiction rate. Of the people trying Meth for the first time, Holley estimated that 95% of them become addicted within 1 year. By contrast, the addiction rate for alcohol is 10% to 15%, and 60% to 70% for nicotine, and 75% to 80% for cocaine. Meth may be the most addictive substance known. The pushers of Meth believe that any user of this drug, even a first time user is a potential addict and customer. The pushers feel confident that there will always be a market for their product.

Characteristics of Meth

A unique aspect of Meth is that it does not need to be imported into the United States. Meth can be produced using a few legal ingredients by anyone with enough Internet savvy to retrieve the cooking instructions. A number of books have been published under the name of Uncle Fester, an author whose real name is Steve Preisler. Preisler explains how to make Meth following an easy a step-by-step process. These books, all of which are widely available in the United States, are legal to produce, sell, and own (Preisler, 2009). With the basic knowledge of only high school chemistry, some teens can produce the drug themselves. By using online or printed instructions, anyone of almost any age can synthesize Meth in a matter of hours. Unfortunately, the potential profits from the production of Meth are enormous, and there are two primary motivations for undertaking the production of Meth: first, it is often produced for self-use by addicts; second, it is produced for the potential high profits from the production and sale of the drug.

Although Meth can be produced easily in the United States, McGuiness and Pollack (2008) claim that an increasing percentage of the Meth used in this country is being imported.

They suggested that large “Superlabs” in Mexico are producing major amounts of Meth that are easily transported across the Mexico-USA border. A major concern is that this recently developed Mexican production often leads to a more potent variety of Meth that is even more addictive. Importation may be contributing to an increased Meth use use in urban areas as well as use by minorities (Weisheit & White, 2009). The popularity, widespread use and its addictive potential means that it Meth probably the most significant drug threat to society and contributes an especially dangerous risk to children.

Meth use produces an intense high that can last for up to 12 hours. “Tweakers,”or users who are in the most dangerous stage of Meth abuse, seldom do a single high; instead, they will go without sleep, and do successive highs for 2 to 4 days. In this state, tweakers are dangerously irritable and paranoid.

An additional threat to children living in production facilities is that for each pound of Meth that is manufactured, approximately 5 to 6 pounds of toxic waste also are produced (Nicosia, Pacula, Kilmer, Lundberg & Chiesa, 2009). The risk of fires, burns, and chemical exposure inherent in Meth production put Meth in a class by itself in relation to the harm that can be caused by its production. This toxic waste in Meth production creates a unique problem that is not associated with cocaine production. Also, cocaine is not usually produced in the United States. Furthermore, drugs that can be grown in this country, such as marijuana, do not produce chemical byproducts more dangerous than the drug itself.

Finally, Meth can be produced easily, rapidly, and cheaply and sold for a large profit. The end result is a drug that creates an intense high, can be produced using legal ingredients, and can be manufactured virtually anywhere. The trunk of a car has been used as a portable Meth laboratory. The final product has addictive properties seen in few other drugs and also leaves a

chemical byproduct that is even more dangerous than the drug itself. The extremely addictive nature of Meth means that many first-time users come back for more. The result, (a continual cycle of production, use, sale, addiction, and toxic chemical byproducts) is repeated again and again in communities across the country.

Social Cost of Meth

Although the social and economic costs of Meth use are high, it is difficult to accurately evaluate the cost of Meth production and use. It is especially difficult to assign a dollar amount to the destruction and broken lives caused by the use and production of Meth. How can society quantify an appropriate dollar amount for a child who has lost his or her life in a Meth lab explosion? Similarly, it is not possible to put a dollar figure on the emotional, physical, and sexual abuse experienced by the children living in these environments.

Although the overall costs to society are difficult to ascertain, some aspects of the Meth epidemic can be quantified. One impact of Meth abuse can be seen in an overburdened justice system, lost job productivity, a strained health care system, and environmental destruction. The cost of arrests, prosecutions, incarceration, treatment, and the clean-up of toxic chemicals has been estimated. In 2005, it was estimated that the total economic impact of Meth was approximately $23.4 billion (Nicosia et al., 2009). The National Drug Intelligence Center (2010) placed the economic impact of drug abuse in general in the United States at $215 billion annually.

Accidents at Meth Labs are also a Huge Problem

The Institute for Intergovernmental Research (2011) estimated that depending on the severity of the spill, it can cost between $5,000 and $100,000 to clean up a Meth lab. In a survey of 39 states in the United States, Hopkins (2006) reported that Meth-related emergency visits had

increased over the past 5 years and that Meth users rarely had health insurance. The absence of health insurance also impacts children, who are less apt to receive regular medical checkups or appropriate emergency treatment. This lack of access to medical care creates problems that can continue indefinitely. Sullivan (2006) reported that taxpayers are assuming the burden for the significant medical and dental expenses associated with Meth use.

Methamphetamine and Parenting

Thoughtful members of society recognize that nothing is as important in the emotional development of children as providing environments where young children are surrounded by caring, nurturing, and supportive adults. No parents are perfect, of course, but some are more effective than others. Some adults, even those involved in criminal activity, may be effective and successful parents or caregivers. These adults may or may not be law-abiding citizens, but they may still effectively fulfill the parent and guardian role. It is possible to imagine some socially unacceptable parental behaviors that have little or no negative impact on the parenting skills of the adults or the environmental development that children are experiencing. For example, embezzling and other nonviolent forms of robbery usually do not engage or threaten the children. Also, practitioners of the emerging activity of cybercrime, such as identify theft, may be very effective parents. In short, some crimes do not inherently undermine the parenting skills or the developmental environment, but it is difficult to imagine a successful parenting environment where the adults are the users or producers of Meth. Meth reduces and often completely destroys the parenting skills and care-giving behavior of Meth users. A Meth high can last at least 12 hours; a marijuana high usually lasts about 1 hour, and a cocaine high lasts less than 30 minutes. The special impact of Meth on infants and toddlers is obvious when it is noted that infants may need to be fed or otherwise cared for every 3 to 4 hours and that toddlers are in need of constant

supervision. As the addiction takes control of the user, the Meth high becomes more important than the parenting of children. Although the research is still developing in this area, Smith et al. (2008) observed that "prenatal Meth exposure is associated with poor quality of movement, low arousal, and increased stress signs in the newborn period" (p. 177). Children born to Meth-addicted mothers have been known to experience painful periods of withdrawal for weeks or even months (Lacour & Gregory, 2004).

This information is particularly important for policy issues for human service workers during their interaction with children. The statistics on prenatal drug use are staggering. In 2008, the Substance Abuse and Mental Health Services Administration reported that 5.1% of pregnant women between the ages of 15 and 44 used illicit drugs while pregnant and an estimated 5% of individuals ages 12 and older reported using Meth at least once in their lives.

The addictive nature of Meth, coupled with the psychological impairments that result, serve as a recipe for disaster. Cohen et al. (2003) and Cretmeyer, Sarrazin, Huber, Block, and Hall (2003) asserted that Meth abusing parents may become paranoid or delusional, have disorganized thoughts, and must deal with periods of interpersonal violence. This type of unbalanced and erratic behavior is especially damaging to the developing parent-child relationship. The link between Meth and violent behaviors has been well documented. Catalano, Gainey, Fleming, Haggerty, and Johnson (1999) recognized the impact of the drug-abusing world on children. Similarly, Weisheit and White (2009) identified five factors in the Meth-violence link: paranoia, social isolation, preexisting aggressive tendencies, life in a drug culture, and use other drugs.

Because Meth can produce paranoid thoughts and psychosis, it is especially dangerous for children in Meth-abusing families. For example, some users experience prosopagnosia, the

inability to recognize faces. In essence, the Meth users may be unable to distinguish their children from complete strangers (Ellinwood, 1969). The Meth addict is unpredictable, moody, irritable and grouchy, all characteristics that lead to a dangerous parent-child relationship. When they are high users are happy, energetic, talkative and fun. When they crash they are tired and depressed. They stop enjoying being a parent and caring for children drops in priority. Typical statements such as, "Shut up and get out of here" are common in Meth families. In short, nothing pleases them. Historically, children from Meth-abusing families have experienced neglect that can include dirty homes, limited food, and dangerous syringes in the children's playground areas. Altshuler (2005) observed that children are at risk from the toxins found in the Meth home. For example, infants are at risk of crawling on Meth-exposed carpets, and children are at risk of using the same microwave ovens used by their caregivers in cooking Meth. Highlighting the toxic nature of the Meth-exposed home, Bearer (1995) noted that lead poisoning is particularly dangerous in children because of the rapid rate of absorption. The nature, character, and behavior of Meth abusers mean that children are unable to bond with their Meth-using parents and develop the important sense of security of having their basic needs met that is important to their development (Ells, Sturgis, & Wright, 2002; Hohman, Oliver & Wright, 2004). Meth also has been linked to issues of violent behavior and domestic violence, especially during a binge stage. Weisheit and White (2009) observed that in some parts of the United States, Meth use and domestic violence may cross two to three generations. This places domestic violence and Meth systemically within the family unit, placing new emphasis and concern for the children growing up in the cycle of Meth abuse.

Children exposed to the traumatic nature of the Meth-involved family experience higher rates of mental health issues. Asanbee, Hall, and Bolden (2008) noted that the mental health

outcomes of rural children in the custody of Tennessee was 3 times higher than the rate of a control group of preschool-aged children from similar socioeconomic backgrounds. This study highlighted the need for practitioners to be aware of and recognize the signs of potential mental health issues in young children who may be from Meth-involved families.

One major concern noted by scholars interested in child abuse involves the increased interest of Meth users in sexual activity. The fact that Meth use enhances the libido is a concern, especially in regard to the potential for the sexual abuse of young children in the home (Gibson, Leamon, & Flynn, 2002). The large amounts of pornographic materials commonly found in Meth labs and related to the increased sex drive of Meth users can also be damaging to young children.

This Is Not Your Typical Sandbox: Risks in Producing Meth

Meth-exposed children are at great risk when they live with adults who are Meth users and addicts. The risk is even greater when the children are exposed to the production of Meth in clandestine labs. Unfortunately, this kind of exposure is widespread. Many addicts become producers. It is the easiest and most rapid way to support one's addiction. In 2003, the Drug Enforcement Administration (DEA) reported that 3,300 children were found in 8,000 Meth labs seized (Community Anti-Drug Coalitions of America, 2003).

The toxic nature of Meth production poses serious concerns for abusers, children, neighbors, and the environment. Meth can be produced anywhere; in laboratories, in homes, apartments, hotel and motel rooms, garages, vehicles, storage sheds, barns, vacant buildings, and the outdoors. The mobile Meth laboratory has increased in popularity because of the ease of dismantling it. In 2012, a Walmart store was evacuated due to a customer attempting to "cook" Meth inside the store. Disturbingly, Meth laboratories have been found close to schools and youth organizations (Wagoner, 2004).

Because Meth production requires the use of toxic chemicals like ephedrine and pseudoephedrine, the dangers in producing the drug are obvious. These toxic chemicals can be purchased from drug stores, feed stores, and farm supply outlets. Many "convenience stores" in rural North Carolina serve as one-stop shopping centers that have aisles of anhydrous ammonia and lye, both of which can be purchased and used to produce Meth.

The toxic fumes in Meth laboratories should be of grave concern to the welfare of the drug producers, their loved ones, and the surrounding community. Breathing these toxic fumes can result in irreparable harm to nasal passages, lungs, and the brain. Because most Meth producers are not chemists, they may not be aware that the toxic ingredients can ignite, corrode, and react, possibly causing fires or explosions. Swetlow (2003) noted that approximately 15% of clandestine labs are discovered because of explosions or fires. Campo-Flores (2005) reported that one third of the admissions to the Vanderbilt Burn Center were linked to Meth-related burns.

Because many Meth "cooks" are also Meth users, it is reasonable to question their mental stability. Meth use impares logical judgment and hallucinations and delusions can create a dangerous situation when coupled with 5 to 7 pounds of toxic waste produced per pound of Meth. These toxic chemicals are often dumped on the ground, poured into nearby streams or lakes, buried, or simply abandoned. The toxic nature of the dumping often contaminates drinking water.

One interesting problem concerns unsuspecting tenants who move into areas formerly used by Meth producers. Low-income families may not be aware that they are residing in a home once used as a Meth laboratory, and their children may be exposed unknowingly and unintentionally to the effects of the drug without the unsuspecting family ever knowing that such exposure has occurred. All human service workers must express these concerns to parents and

stress that they inspect the home for brown and red stains on the walls, find out about the behaviors of the former tenants, and observe the area outside the home for tell-tale items commonly associated with Meth use, items such as cold tablet packages and matchbook covers.

Cleaning Up the Mess: Social Work and Law Enforcement at Intervention

When a Meth lab is discovered, especially a lab to which children have been exposed, a complex, difficult, and traumatic set of activities is unleashed. Most states have established protocols for social workers and law enforcement officers to deal with Meth labs. It is obvious that arresting the perpetrators is the primary law enforcement concern. Just as important, law enforcement and social service officials have a duty to protect the underage children who are in no way responsible for the criminal activity. They also must protect the surrounding community from the inherent physical dangers that Meth labs present. It is not a win-win for the community if the criminals are arrested and the Meth labs are destroyed but unnecessary harm is done to the children and the community in the process.

Expanding Awareness and Increasing Anti-Meth Personnel:

Bratcher, Clayton, and Greeley (2007), as well as Sprang, Clark, and Staton-Tindall (2010), brought attention to the growing evidence that social work and criminal justice professionals have not been trained in the specialized conceptual framework or in the protocols necessary when dealing with children who are living in a Meth environment. Beyond the first responders to Meth intervention, the community mental health professionals who care for children who have been removed from these environments also need specialized training.

Social workers and criminal justice professionals need to recognize the importance of a metacognitive approach. Metacognition is a term used often in the social sciences to identify an underlying, holistic, generalized approach to a problem, sometimes labeled as “thinking about a problem.” The authors began to recognize that the approach to the Meth epidemic has to be

broad based, generalized, and multifaceted. We coined the term Methcognition to describe the need for a broad-based, multi-professional response to this epidemic.

Principles of Methcognitiion

1. Safety of engagement personnel
2. Increased knowledge and understanding of the various facets of the Meth epidemic
3. Increased cooperation between all professionals who deal with children
4. New concepts, approaches and actions in response to the Meth epidemic

The professionals who are working with children need to understand the trauma experienced by children frequently taken away from their parents is not unlike the trauma experienced by homeless children. These children are not only being separated from their parents but also from their familiar surroundings and familiar toys. The challenge for social workers and law enforcement officers is to support the adjustment of these displaced children (Hendricks & Barkley, in press a, in press b.

It is important to understand that the children of Meth users face a double victimization. Their first victimization is the trauma of living in a home where Meth is produced. This situation alone carries the risk of injury, disease, and Meth addiction. The National Jewish and Medical Research Center (2004) noted that children living in homes with Meth laboratories might as well be taking the drug directly. The children who live in close proximity to these laboratories experience the harmful biological, psychological, and social consequences of being reared in this type of environment.

Their second victimization is the forced, but necessary, separation from the family unit. The National Center on Addiction and Substance Abuse (1999) reported that of the children who enter the child protective service system, 50% to 90% of their caregivers have used alcohol,

cocaine, marijuana, and, most notably, Meth. This traumatic separation often requires that the children have their bodies scrubbed and decontaminated and all of their clothing and toys destroyed. To a young child, a special toy of a favorite piece of clothing often serves as a comforting mechanism. Removing such items at a time when the child is also experiencing parental separation is a traumatic combination and a complete social disruption. The magnitude of this trauma, coupled with the problems inherent to Meth exposure may produce such clinical issues in children as depression and posttraumatic stress disorder. Furthermore, the emotional consequences of inadequate parenting by careless, irritable, and violent parents create lasting issues for children still in the developmental stages of growth. Denehy (2006) described a program in Iowa in which law enforcement and social service personnel paid particular attention to the emotional needs of the children, highlighting the growing concern for the overall welfare of Meth-involved children. More emphasis and training are needed for social workers and law enforcement officials to deal with such children.

In a sense, the negative impact of the Meth environment on children constitutes a new and special class of child abuse. Social workers and criminal justice personnel have only just begun to recognize the inherent risks to children being reared in Meth-related homes . Walsh, MacMillan, and Jamieson (2003) asserted that the risk of children experiencing physical abuse, sexual abuse, and neglect increases twofold when parental substance abuse also is present. Within the framework of the dual victimization already discussed, the elements of danger, physical violence, and sexual abuse must be addressed.

The overall Meth environment is very dangerous for law enforcement and child protective service workers. Approximately 15% of all Meth labs are discovered as the result of fires or explosions (Swetlow, 2003). In 2005, this percentage translated into approximately

15,000 children nationwide (Zernike, 2005). Reflecting this danger, the El Paso Intelligence Center National Clandestine Laboratory Seizure System (2003) estimated that 55% of children removed from a living environment in which an active Meth lab was discovered tested positive for toxic levels of chemicals.

In addition to the inherent dangers of the chemicals themselves, these labs often breed violence. Firearms and other weapons are commonly found in Meth labs, and users have been known to booby trap their labs to prevent law enforcement officials from seizing them. Physical violence also is prevalent. Cohen et al. (2003) reported that that 85% of women and 70% of men who abuse Meth have suffered a violent victimization. Meth use also may account for 33% of all domestic violence among drug users (Office of National Drug Control Policy, 2007).

Summary of a Meth Exposed Child

Neither the complete trauma experienced by the children nor the complete absence of parental responsibility is adequately captured by statistics or scientific descriptions. The best picture of the desperation of these children could probably be achieved in art or literature. Unfortunately, a search by the authors could find little literature and no artistic studies addressing the conditions of Meth-exposed children. The poem by F. Bemiss (personal communication, July 11, 2011) in the appendix was based on the personal family experience associated with Meth use and illustrates the life of a child exposed to the dangers of residing in a Meth-exposed home.

The next chapter looks into the ways in which the personnel from various disciplines can assist in responding to the Meth epidemic. All professional disciplines which interact with children need to be trained and educated about Meth and motivated to help protect children.

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Chapter 4:
Methcognition: Taking the Information to the Front Lines

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This chapter has two purposes. The first is to provide enough information about Meth markers to equip virtually untrained front line professionals who work with children to be able to recognize the markers. The second is to motivate these professionals to understand and accept their role in dealing with the consequences of the Meth epidemic. In addition there are three appendices at the end of the chapter related to Methcognition. The first Appendix describes the Montana Meth Project for which claims have been made of significant reduction in Meth use in Montana. The second Appendix describes a facility on the Methodist University campus which developed simulation experiences for training personnel who might encounter Meth. The third Appendix suggests an in school resource team to help the school personnel become more motivated and effective in addressing the Meth problem.

Expanding the Team: The Multidisciplinary Approach

To an important question: Who in society has the primary responsibility to protect children from the dangers of Meth abuse? In response, most people will mention police officers or social workers. Others may look to those working in probation, in parole, or in corrections for the answers. These individuals certainly do need to be properly educated because they play a key role in this ongoing struggle. It is the case, however, that information about most clandestine labs discovered across the country come from sources other than the police or child protection agencies. Children can be exposed to Meth long before the production lab is reported. Given this reality, more than the efforts of law enforcement or child protective services are needed to save the children victimized by such exposure.

The nature of the current Meth epidemic is such that it cannot be adequately addressed by using only the methodology and personnel of the criminal justice system or child protective services. A holistic approach involving a broad range of modalities and personnel from many disciplines and professions beyond criminal justice and child protective services must be developed. As described in the previous chapter, we label this broad, all inclusive approach Methcognition. The concept of Methcognition needs to become a reality not only for social workers and criminal justice professionals but for many other professions as well. Human service workers have been trained to approach this or any threat to children with special sensitivity. The needs of innocent children who have been drawn into the Meth vortex are a special case. Human service professionals must be knowledgeable and sensitive to dual victimization and trauma. These children, if they are in Meth labs that are discovered and destroyed, are usually separated from their families and furthermore are often deprived of their toys and familiar objects. These children very likely have experienced violence and often physical and sexual abuse. Such abusive experiences are frequent among Meth exposed children (Austin & Osterling, 2006; Howard, 1994; Magura & Laundet, 1996; Wolock & Magura, 1996; Zuckerman, 1994). This dual victimization must be considered and integrated into policies and practices that protect the children involved.

Fortunately, the professional framework needed to accomplish this task is already in place and Methcognition can provide key individuals with the training and resources necessary to recognize the signs and symptoms of Meth abuse and to motivate them to help to protect children. Millions of teachers, school social workers, school nurses, school resource officers, members of the clergy, athletic coaches, support staff, and community volunteers are already in place and are working with children every day. *If children living in Meth environments are to*

receive the protection they need and deserve, these professionals and pseudo-professionals must get involved.

The Meth problem can be addressed on three different levels: first through the education of human services professionals who may be trained to recognize the "markers" evident in Meth exposed children, second through the identification, location and destruction of Meth laboratories; and third, through the advocacy for and protection of children who are discovered in Meth laboratories.

Methcognition also implies a move from the realm of academic detachment and speculation to practice in the field. Stated another way, the information regarding Meth must be taken from the classroom and laboratory to the field where it can be used by the individuals on the front lines.

A major challenge for the criminal justice system is that, more often than not, law enforcement must rely on personnel outside of the criminal justice system as the means of identifying the location of Meth production facilities. Calls and complaints about suspected Meth labs and operations made to local police departments or departments of social services are often the first information that law enforcement has about Meth activity. A large number of labs are found accidently. When calls are made to one of the criminal justice agencies or to child protective services, then standard protocols to protect Meth-exposed children can be put into place.

Without the broad sources of information regarding possible Meth labs, the proper authorities may never be aware of the labs that place children and the larger society at risk. As a result, children may never get to the protocol intervention stage and may never receive interventions.

Training for Professional Responders (Police officers, social workers)

The professionals who can address the problem can be divided into two groups: (1) law enforcement and social services and (2) individuals such as teachers, nurses, clergy, coaches, etc who have possible contact with meth-exposed children.

The sad reality is that many local police departments and social service agencies do not have adequate training or expertise regarding Meth. Although specialized knowledge and training often exist at the state level, such expertise does not often extend to the local level where the true first responders are usually formed.

New police officers in all states go through some form of basic training that teaches them what they need to know to enforce the law in their jurisdictions. This training often can last for weeks or months, depending on the state. While examining the specific curriculum taught to new police officers in Ohio and North Carolina, two diverse states, the authors were surprised at the lack of focus and absence of detail about the Meth problem. Although the normal cautions and overviews were provided, the basic theme of the material centered on protecting the officers' safety. Especially relevant from a social workers perspective was the realization that missing from the training were the proper procedures for dealing with any children who might be present.

Like any other component of the criminal justice system, basic police officer training is ongoing and a constantly changing. Changes must be made to officer training as new situations and demands concerning Meth are required. This ongoing training presents an opportunity for police officers to become educated on the topic or to receive a refresher course with current, updated information.

Similarly, local departments of social services, especially through their role in child protective services, are expected to be active participants in dealing with the Meth problem once

it is discovered that children are involved. Disturbingly, local social service agencies are facing an exponential growth in the number of Meth-related cases. Child protective services are called on to investigate complaints and take the appropriate action under the drug-endangered child policy. Child protective services agencies are typically understaffed across the United States. Unfortunately, this increase in cases also coincides with historic budget cuts to state and local social service providers.

One of the serious challenges faced by law enforcement and child protective services is how to effectively and humanely, handle the children of parents who create and operate Meth production labs. When the labs are discovered, the parents are often incarcerated. But, what happens to the children? Manning (1999) reported that if children were present at a lab seizure, there were often no standard procedures regarding their treatment. Often the police had to transport the children to relatives. Kyle and Hansell (2005) estimated that a minimum of 40% of social service agencies across the country are reporting more children in need of placement because of conditions related to Meth use and production and that this number is higher in more rural areas.

According to Holley (2005), a national expert on Meth, there are certain items that social workers and criminal justice officials need to be aware of and look for on visits where Meth might possibly be present:

> You are the eyes and ears of your local police department. You are looking for canisters of anhydrous ammonia and discarded cans of Red Devil Lye accumulating in the yard. Cooks go through thousands of packages of Sudafed or Actifed to get the ephedrine they need to make Meth. They will dispose of the discarded packaging in their burn pile. You might notice large quantities of Coleman fuel, lithium batteries, and books of matches in

> the garbage, starter fluid, Murantic Acid for cleaning swimming pools, rock salt, toluene or iodine. Be alert to unusual odors. The fumes may have the overwhelming odor of cat urine, or smell like the chemistry lab when you were in high school. (p. 13).

Recent Legal Steps

In 2006, North Carolina followed similar laws in other states by monitoring the amount of pseudoephedrine purchased. In the same year, North Carolina also imposed harsher penalties for exposing children under the age of 18 to drugs within the home environment (NC House Bill 1536). Many states have passed such bills to toughen the standards associated with drug abuse. In 2008, the North Carolina Division of Social Services established the Drug Endangered Child Policy for dealing with Meth. The protocol specified the procedures that social workers should follow when a Meth laboratory was identified. It also discusses the importance of human service professionals working with various agencies such as law enforcement to provide a multidisciplinary perspective. The protocol also specifically provides information on how to protect, advocate and support children in the removal process. This protocol provides social workers with guidelines to be followed when dealing with Meth-exposed children. It also provides guidance for working with such other multidisciplinary team members as law enforcement and emergency services. The policy specifically notes that all reports of children being exposed to suspected or confirmed Meth laboratories must be investigated by local departments of social services. Other states have similar protocols (North Carolina Division of Social Services, 2008).

Professional Training for the Eyes and Ears of Meth Workers

As is often the case with many major societal problems, the Meth epidemic has been addressed in piecemeal fashion. What is needed is a comprehensive societal perspective. More

in-depth training is required to fully prepare social workers and criminal justice workers for the dangers associated with Meth and to increase their knowledge base. In addition, an integrated approach would help to prepare school social workers and criminal justice professionals and many other professionals who might interact with Meth-exposed children to deal with the possible child abuse associated with Meth use. A major component of such a holistic approach would involve many professionals who regularly encounter children. This broad approach would include teachers, school nurses, school resource officers, etc. These professionals need to be educated about the underlying societal issues that have impact on children in the Meth-abusing family. They need to be motivated to "buy into" the process to which they can make valuable and often singular contributions.

It is important that all human service workers with children have a basic understanding of the biological, psychological, and social facets of the problem (Engel, 1977). The information in this chapter is intended to develop an appreciation of the biological, psychological and social indicators of the presence of Meth and to encourage all professionals who work with children to become involved in monitoring "the Meth markers" of children with which they work. Suggested readings in the bio-psycho-social area that can serve as good references include: Halkitis (2009), Holley (2005), Reading (2009), and Weisheit and White (2009).

The complaints that come to child protective services are not usually about the behavior of the children or their emotional stability but instead involve allegations regarding the environment or possible abuse of children. Child protective services, like law enforcement, have no way to know about a Meth environment until a specific Meth complaint is made. In the case of child protective services, it is possible that information regarding a possible lab might have resulted from a visit to the home by a social worker or some other human services professional.

Current instruction regarding Meth generally prepares social workers and criminal justice officials to recognize, identify, and understand the potential physical dangers to their clients and themselves. Sadly, many child advocates have been in and around Meth labs without even realizing it. Beyond the safety issues, however, the broader social issues resulting from Meth use and production, especially the traumatic experience of innocent children, are not ordinarily covered and adequate training is far from universal.

The community officials who are the most likely to first notice that something is wrong with a particular child are the teachers who are actively engaged in the child's life on a daily basis. Next to the child's parents, educational professionals have more contact and influence on children than anyone else. But school counselors, coaches, clergy may also have significant contact. It is important to educate, sensitize, and train such persons to take note of the signals or markers provided by children who are associated with Meth production. For example, the production of Meth often gives rise to certain odors that may be present on the clothing of children. Also, children may have respiratory problems resulting from inhaling the toxic fumes arising in Meth production. School attendance may be poor because of the drug-exposed lifestyle.

A Status Report in the War on Meth

We have not been able to locate a state or local agency that has developed a plan for the broad training necessary to meet the criteria for Methcognition. The basic question of who is responsible for providing basic Meth awareness and training has not been answered. At present time, it is apparent that there is no overriding authority or plan in any state for providing and controlling the content of education and training materials. Millions of individuals across the country (teachers, school nurses, police officers, probation and parole officers, social workers,

members of the clergy, mental health professionals, and others) have the kind of contact with children which provide the opportunity to observe Meth markers. Providing these professionals with training and knowledge to perform task and to motivate them to accept the role is an important challenge that must be addressed before Methcognition becomes a reality. It is the children whom these other professionals serve who need protection.

It is clear that both initial and additional in-service training is needed for many professions. What remains unclear is who needs to provide this training and in what format it should be provided. There are two basic paths to the delivery of effective cognition. The first focuses on the educational institutions (e.g., technical colleges, 2- and 4-year programs, and graduate programs) that train human service providers. Beyond that, little is done. A second path focuses upon professionals already employed in the field. Although drug education courses or, at a minimum, components of other courses, are relatively common in criminal justice and social work programs, they are rare or nonexistent in nursing, teacher training, and seminary programs. These courses, when they exist, also tend to focus on the larger nature of the drug problem in general and not specifically on the Meth problem.

The holistic approach to Methcognition does not need to present detailed information about the science or chemistry involved in the production of Meth, nor with detailed methods concerning the decontamination of persons affected nor the cleanup of a lab or processing site. The approach needs to focus on providing everyday information to help distinguish Meth-involved children from children in other problematic situations.

The first bit of information that general human service workers need is the realization that the majority of Meth labs that are discovered in North Carolina, as well as across the entire country, are simply stumbled upon (North Carolina Division of Social Services, 2008). An

individual who discovers a lab may be visiting the home for another reason and may not suspect Meth abuse when first arriving at the home. **In all cases when the professional in the field believes that he or she has entered a home with a Meth laboratory, the worker needs to leave the residence and notify the police immediately.**

Second, professionals must know what to look for. They must know the warning signs that indicate potential Meth exposure and abuse as well as the presence of a lab. Once the professionals are aware of the markers and know when and how to protect themselves, a major component of Methcognition will have been achieved.

Observed Behavior in Meth Exposed Children

The following list includes signs and symptoms of behaviors and characteristics that are often exhibited by children who have been exposed to Meth. This list may be helpful to those individuals interested in identifying *potential* Meth-exposed children. *These behaviors do not guarantee or prove the presence of Meth but are often observed in Meth exposed children*.

Potential Check List Signs of Meth Use, Abuse, or Exposure

- ✓ Respiratory problems
- ✓ Delayed speech and language skills
- ✓ Elevated risk for kidney problems and leukemia
- ✓ Lack of immunizations and medical care
- ✓ Malnourishment
- ✓ Developmental Problems
- ✓ Poor dental health
- ✓ Hygiene Issues
- ✓ Stange body odor resembling cat urine
- ✓ Lice
- ✓ Obesity
- ✓ Chemical burns
- ✓ Severe neglect
- ✓ Physical abuse
- ✓ Sexual abuse
- ✓ Teen pregnancy
- ✓ Pornographic materials
- ✓ Advance sexual knowledge

- ✓ Behavioral issues
- ✓ Cognitive Issues
- ✓ Emotional issues
- ✓ Mental health issues
- ✓ Alcohol and drug abuse
- ✓ Isolation
- ✓ Lack of sleep
- ✓ Low self esteem
- ✓ Poor social skills
- ✓ Poor peer relations
- ✓ Drug use
- ✓ Lack of boundaries
- ✓ Delinquency
- ✓ Inappropriate conduct
- ✓ Violent behavior
- ✓ Poor school performance/attendance problems
- ✓ Easy attachment to strangers
- ✓ Unusual care of younger siblings
- ✓ Caring for an incapacitated parent or sibling
- ✓ References to dangerous animals
- ✓ References to booby traps in and around the home
- ✓ Discussing large amounts of cold medicine containing ephedrine
- ✓ Participation in after school activities (lack of wanting to go home)

Persons with Formal, Official , Contact with Children

Classroom Teachers

Classroom teachers are the professionals most likely to have regular contact with children. More than any others they are in a position to observe Meth-related signals. Over a period of 13 years, children spend almost 682 seven-hour days in school. For this reason, it is especially important that classroom teachers be familiar with the signs and symptoms that can be apparent with children who are involved in the Meth situation. Without a good understanding, these behaviors and traits may go undetected for years, posing grave dangers to the children involved and to society.

Children often display certain characteristics associated with living with parents who are abusing Meth. Teachers are in a unique position to be the first responders to assist children from

Meth-involved families. Physical characteristics such as the smell of a child, emotional characteristics such as a depressed mood, and behavioral characteristics such as restlessness, agitation, and exhaustion may help educators to recognize the possible exposure to Meth and may prompt them to seek assistance for the child.

On rare occasions, at a parent-teacher conference, classroom teachers also may confront a caregiver or other significant adult in a child's life who is under the influence of Meth It is important to understand the characteristics of someone who is abusing Meth. Some of the more common characteristics and obvious signals include mood fluctuations, violent behavior, poor impulse control, and lack of attention to basic hygiene.

Because classroom teachers will not normally make home visits, they should be familiar with the characteristics displayed in the classroom by Meth-exposed children. Haight et al. (2005) observed that if children attend school smelling like cat urine, they may be involved with Meth. An ethnographic study by Asanbee, Hall, and Bolden (2008) revealed that preschoolers in the Meth-exposed group displayed symptoms of more aggressive behavior than did peers from homes not associated with Meth use. By being trained in Methcognition and sensitized to their role, teachers can become familiar with the connection between Meth and aggressive behavior.

Support Personnel: The Next Line

Support personnel such as school social workers, school counselors, school nurses, and school resource officers can also play an important role in implementing a program of Methcognition. In most situations, school social workers are one of the few school employees who often, even regularly, conduct home visits related to issues involving the children. School social workers can investigate school attendance issues, discuss behavioral issues with parents, advocate for homeless families, and provide the basic needs (e.g., food, clothing, and shelter)

required for effective education. In essence, school social workers connect the home, the school, and the community. This concern for children may manifest itself in referrals for counseling, establishment of attendance contracts with the school, or the provision of school supplies for students. School social workers need to be especially cognizant of the signs indicating that they may be in a Meth lab while they are on a home visit. Many social workers, especially school social workers, have been in Meth labs without realizing it. When dealing with children, professionals in the field need to watch for issues related to basic needs (i.e., food, clothing, and shelter). These professionals need to actively look for evidence that some children are being exposed to Meth or Meth labs. For example, poor hygiene, a consistent lack of lunch money, and the lack of appropriate clothing may be signs that children are being exposed School social workers also need to be aware of the possible connection between Meth and other forms of abuse.

Support Personnel: School Counselors

School counselors tend to have a hit-and-miss relationship with some students in the school. Counselors may be involved with students through classroom activities such as character education or through individual counseling regarding issues such as conduct, attention problems, and mood disorders. These issues can be the result of living in Meth-exposed families (Sroufe, Dougal, Weinfeld, & Carlson, 2000). Counselors need to be trained to identify potential Meth use by parents. Interestingly, not all children growing up in Meth-involved environments will develop mental health issues. Haight et al. (2005) observed that some Meth-exposed children develop positive peer relationships and perform well in the school environment. This difference only solidifies the need for a solid ~~bio-~~psycho-social approach that emphasizes Methcognition.

Support Personnel: School Nurses

School nurses are the only school employees who may medically examine a potentially Meth-exposed child. A medical referral may come to the school nurse, for example, as a breathing difficulty. Because of the drug-addicted environment and neglect often seen in Meth environments, school nurses may function as the primary, and sometimes only, source of medical care. Consequently, school nurses are in the unique position of often being the first medical professionals to examine children affected by Meth (Roper, 2007). School nurses need to watch for biological concerns, such as poor dental health, respiratory problems, lack of proper and current immunizations, lice, obesity, and elevated heart rate (Kansas Meth Prevention Project, 2004). One interesting development concerns the possible confusion over Meth bugs and bedbug bites. Serious bedbug bites may resemble "bugs", or the picking at the skin associated with Meth use. The training of school nurses should prepare nurses to make this distinction.

Support Personnel: School Resource Officers

A policeman or deputy sheriff is often stationed in many public schools. They are usually labeled school resource officers. School resource officers deal with the legal side of school-related issues. In many states they are law enforcement officers working with either the sheriff's department or the police department, and have full arrest authority. They deal with such behavioral issues as assault, gang behavior, and the possession of drug paraphernalia, weapons, and pornographic material. The extreme nature of the Meth-abusing family causes concerns over drug involvement and pornography. While bringing pornography to school to show one's friends is certainly not a new phenomenon, studies show that a large percentage of Meth labs contain pornography (Zernike, 2005). While the presence of an adult magazine in a child's possession does not necessarily indicate a Meth lab as the culprit, like all of the other markers, it

is a *possible* sign. If brought to the attention of the school resource officer, the possession of pornography may be only the first sign, or may perhaps the tipping point indicating a more serious problem.

Persons without Formal, Official Contact with Students: Clergy, Coaches, Big Brothers, Big Sisters, etc

Part of the value of program in Methcognition is the realization that the community has many more resources than it may at first realize. Many people interact with children across the country on a daily basis. Armed with knowledge and training these people can act as additional eyes and ears in the quest to protect children from the effects of Meth. These individuals can be taught to look for the same physical characteristics and to detect the same markers as classroom teachers. Community volunteers, such as Big Brothers and Big Sisters, interact with children and are often in the child's home. Having these individuals trained in marker identification can provide important information not available from other sources.

Is it Meth or Something Else?

At this point, it must be stated emphatically that even if a child exhibits one, two, or perhaps more symptoms on the checklist, this evidence does not prove or guarantee that the child is being exposed to a Meth environment. So what exactly might it mean? There are several possible answers. First, it may not mean anything at all. Depending upon which characteristics are in question, the child may simply be from a poor socioeconomic background or may simply be lacking in basic hygiene skills. Second, a child displaying such characteristics might be from a home where a different kind of drug is being abused. If markers are detected or suspected, the responsibility of the human service professional is to convey their information to the appropriate law enforcement agency to determine if a child is being exposed to a Meth lab or environment.

At some point a reader of this text, using the principles of Methcognition, will discover a child exposed to a Meth lab or environment. What happens then? As has been noted, training is sparse even for law enforcement and professionals in the criminal justice system and the overall goal of Methcognition is safety. The safety of the school worker, of the volunteer, of the police professional, and of the children exposed in the environment are all important. Bearing that in mind, no one but a trained expert should ever knowingly enter an active Meth lab. There is no reliable way for the average school worker or community volunteer to know if the lab in question is currently active. Again, safety for all involved is paramount. When an active lab is suspected or confirmed, the police must be notified immediately. After that notification is made, then the proper chain of command must be followed in the school or social service agency or community organization by which one is employed. If the children are still in the home, plans must be coordinated with the police and the appropriate social service agency to remove the children and to ensure that they receive proper medical attention. Methcognition alone does not shut the lab down or undo the damage children have already faced. It seeks to prevent further damage and provide children with the highest level or coordinated care and treatment possible.

It is worth noting again that the majority of Meth labs are discovered as the result of an accident. Whoever discovered that lab was not expecting it when they arrived at the premises. Methcognition seeks to tip the balance, to allow for the discovery of more Meth labs, and to provide for the protection of more children.

Regardless of the final outcome, Methcognition can be an aid in providing services to the family. If there are drug issues in a household, the same team of school leaders and community volunteers can provide a support network for the family in need, providing valuable referrals to community resources. If it turns out to be a neglect or abuse situation, again, those in a school

setting or active in the life of the child may be the first to pick up on the signs and symptoms. There are many more families in need of a helping hand than there are families running clandestine Meth labs. Nonetheless, the principles of Methcognition can still aid in the healing and recovery of the family unit.

Conclusion

The purpose of Methcognition is to provide broader community awareness and understanding and support. Children displaying the characteristics mentioned in this chapter are most likely in need of some type of intervention. Whether a child's specific situation requires simple assistance, a helping hand, or removal from the home can only be determined through professional investigation. The purpose and focus on Methcognition is to make as many individuals as possible aware of the potential signs of Meth abuse in order to provide the best chance for early intervention.

The authors are recommending the formation of school action resource teams, but schools vary as to funding and staff levels, and not all schools will have all of the listed personal. The idea of the team is to bring together school officials who have varying levels of involvement with the child. Recommended members are as follows: teachers, school resource officers, school social workers, school nurse, school counselors, coaches or club coordinators. All of the above mentioned professionals interact with the child on different levels. As a result, they are likely to see different signs and symptoms as listed in the previously-provided check list. Given the hectic environment of most schools, it is understandable that a teacher, for example, may see one or two warning signs displayed, yet not see the underlying problem. The existence of a school action resource team would allow the teacher to mention the possible warning signs he or she has witnessed. A school nurse, resource officer, or social worker may have additional information to

share, and a more detailed picture of the problems facing the child in question will begin to develop.

It is recommended that either the school resource officer (in many cases a certified law enforcement officer), or the school social worker lead the teams. These individuals are most likely to have received up to date Meth training. Moreover, the authors suggest expanding or creating these teams with an increased emphasis on Methcognition. The inclusion of school nurses, for example, is critical. The action resource teams would simply discuss observations about a child in their care, and attempt to determine if a closer look is needed. The action resource team may determine that there is a need for follow up, that a potential abuse or neglect problem exists, that Meth exposure is a possible problem, or that no further action is needed.

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Appendix 1

Montana Meth Project: An Example of a State-wide Approach to Meth Intervention

In 2001, the citizens of Montana, were shocked and devastated to learn about the brutal murder of an adolescent in the eastern part of the state. As the details became available, it was determined that a 16-year-old boy had been murdered and that his body had been burned and mutilated over a Meth deal that had gone bad. This incident prompted the state to examine the crisis and epidemic confronting them (Montana Department of Justice, 2009).

It is important that the practitioners working in and around potential Meth users advocate for prevention programs. The Montana Meth Project (2011) has been very popular in actively promoting Meth education through television and radio ads, print impressions, and billboards. The goal of the program is to educate individuals about the harmful consequences of Meth use. As reported by the state, since the program's inception in 2005, adolescent Meth use has declined by 63%, adult Meth use has declined by 72%, and Meth-related crime has decreased by 62%. In 2006, the Montana Meth Project campaign was cited by the White House as a model prevention program. Seven other states have followed the Montana Meth Program. They include the Arizona Project, the Idaho Project, the Illinois Project, the Wyoming Project, the Colorado Project, the Georgia Project and the Hawaii Project. The impact of the program seems to be spreading nationwide.

There has, however, been some debate in the literature about the legitimacy of the statistics found in the Montana project. In a statistical analysis of the Montana Meth Project, Anderson (2010) reported that the program "did not contribute to the decrease in Meth use among Montana's youth" (p. 741). It is important that states wanting to adopt this popular

initiative be aware of the debate about the effectiveness of the program. This debate further highlights the need for proper training, education, and information in the area of Meth.

Appendix 2

The Methodist University Meth Simulation Center: Raising Methcognition Awareness

Methodist University, located in Fayetteville, North Carolina, has one of the only Meth awareness training and simulation centers in the United States. In response to the social problems associated with Meth, the federal government funded a grant to educate and train students and professionals in the recognition of Meth abuse. The simulator is equipped to visually take the trainee through Meth simulations in the home environment. The simulation uses the senses of vision, hearing and smell to prepare trainees in recognizing Meth labs. For example, the simulation has the capability to replicate a child protective service worker entering the home where there is potentially a Meth lab. The trainee confronts many of the major items associated with lab involvement (red devil lye, empty containers of cold medication, etc.) Both students and professionals alike, have the opportunity to receive a minor in clandestine labs through coursework in social work, justice studies, environmental management and forensic science. This multidisciplinary approach provides a broad spectrum of educational services for undergraduate students as well as continuing education for professionals in the field. This is a first step in filling the gap that exists as a consequence of inadequate training for professionals in this area.

Appendix 3

Methcognition in Practice: The Formation of School Action Resource Teams

Dobkin and Nicosia (2009) identified three effective methods used to decrease drug use: enforcement, treatment, and prevention. While we certainly support these methods we believe a fourth component is needed: Broad societal education and participation. For Methcognition to become a reality, an education and training component for front line workers such as school officials and community volunteers is necessary. Social workers and law enforcement officers need to advocate for prevention efforts that can reduce the impact of the recent Meth epidemic and additional education and training is essential. While this type of training is not yet widely available, works such as the current project can fill in the gaps for school officials, and, as was mentioned previously, basic law enforcement training can be expanded and refined to include a more comprehensive examination of the Meth problem.