

## **Impact of Parental Methamphetamine Use on Pre-school Aged Children**

**Nina Lutmer, Psychology and Sociology**

Suzanne Griffith, Ph.D., Department of Counseling Professions

### **ABSTRACT**

*Little research has been published regarding the developmental effects methamphetamine exposure may have on children living in the home environment. This research attempts to discover some of the developmental effects experienced by children exposed to methamphetamine, and, in particular, those in northeastern Minnesota. In order to gather information, professionals affiliated with the Head Start program in the region were interviewed regarding their observations and experiences working with families where substance abuse, including methamphetamine, has been an issue. This researcher looked to see if the developmental effects experienced by children exposed to methamphetamine would be both distinguishable as well as detrimental.*

### **Introduction**

Methamphetamine appears to be having a significant impact on many areas of Minnesota (St. Louis County, 2007). Based on previous experience of this researcher as both a student and volunteer, this study focused on potential impacts in northeastern Minnesota in particular. While numerous articles currently exist regarding the effects of methamphetamine on the user and indirectly on the family, it appears that much less research has been done on the impact(s) of exposure strictly to methamphetamine use. This particular research was directed towards pre-school aged children with the intent to see what specific effects (if any) were observed among children of this age group who were thought to be exposed to methamphetamine use. This paper and its findings are organized so that the reader can develop an understanding of numerous aspects important to this topic. Included is a literature review that begins with an explanation of the general development of children of preschool age, a description of specific substances and their known effects on users, and an analysis of documented effects found with children of substance abusers (not specifically methamphetamine), as well as effects encountered with children specifically of methamphetamine users. In addition, this paper features primary research regarding observations from Head Start professionals detailing their experiences with children and families dealing with either confirmed or suspected drug use.

### **Literature Review**

#### *Introduction*

This literature review was developed with the goal of not only providing a description of the developmental effects experienced in children exposed to parents who use methamphetamine but also to provide an overview of numerous other aspects important to the topic. In addition to describing some of the general characteristics developing in children of this age, this literature review will discuss some of the effects substance users (not including methamphetamine users) experience while using said substance, as well as the consequences this may have on children in the household. Background on methamphetamine itself in terms of what the user experiences and its effects on the user will also be discussed.

#### *General developing characteristics of pre-school aged children*

Berger (2005), a noted developmental researcher, has published multiple developmental texts currently being used at almost 700 universities and higher education institutes worldwide. Berger reports that the dominant ability developed between the ages of two and six is the ability to regulate emotions. The author states that if children are able to develop and master this ability, they will become more competent in nearly every area of their life. Examples of the ongoing process at this age include such ideas as pride and guilt balancing each other, joy and sadness regulating each other, and anger being

tempered by fear. The ability to regulate emotions develops as children learn to meet and adhere to society's expectations including that they manage their frustrations and regulate their emotional expression. Despite the difficulty of these tasks, most children successfully accomplish them by the age of five. For instance, they learn that when interacting with someone they have just met or do not know well, it is all right to be friendly, angry, and frightened, but only to a certain extent. One of the most important aspects of emotional regulation is the ability to control impulses, most notably impulses concerning anger.

Developing the ability to regulate emotions is imperative, according to Berger (2005). Without the skills to do so, children may either experience externalizing or internalizing problems. The former describes children who, for example, physically lash out when experiencing an emotion such as anger. Children experiencing externalizing problems may attack both people and objects. In essence, their frustration is undercontrolled and directed at their surroundings. In contrast, children experiencing internalizing problems instead fail to express their emotions at all. They tend to internalize any kind of distress they experience. Such children may be described as "overcontrolled." Both externalizing and internalizing problems result when children are unable to regulate the expression of their emotions in a manner that is both healthy and acceptable.

According to Berger (2005), the cause of the inability to acceptably regulate emotions is thought to be a combination of both neurological and learned processes. For some children, a natural tendency towards being more communicative or reserved may be a factor. However, Berger states that early stress on the child may also be responsible for the brain-related differences in emotional regulation. Whether the stress was prenatal or postnatal, the effect it can have can be quite altering to children's ability to regulate their emotions. Some examples of early stress on the child that occur prenatally include if the pregnant mother was ill, stressed, or a heavy drug user. Postnatally, stressors can include such things as a child being repeatedly frightened, injured, or malnourished. When these stressors are not addressed and relieved, Berger reports that the repeated exposure can stop some neurons from working properly and even kill off existing neurons. In children where damage to the neurons has occurred, their brains may no longer respond properly to stressors they encounter. These stressors may range from an abrupt, loud noise to a critical remark addressed towards the child. When a stressor like this is encountered by a child who has experienced damage to the neurons due to repeated exposure to other stressors, the child may not respond in a manner considered acceptable. They may become violent or throw a tantrum at a time when other children that age may just become slightly upset.

An especially important concept regarding children of substance users is that of maltreatment. Berger (2005) notes that child maltreatment can, at times, be an issue within families. The term "child maltreatment" includes both child abuse and child neglect. The author reports that neglect among children is twice as common as physical abuse and can possibly be even more damaging. Berger lays out the potential impact of neglect. According to the author, the first sign of neglect tends to be a lack of normal growth in areas such as language, play, or laughter. An especially important sign of neglect is termed as a "failure to thrive," characterized by a young child or infant who stops gaining weight. Although a parent or guardian may claim the child will not eat, eventually (most often when hospitalization occurs), a non-organic failure to thrive is determined to be the issue. Also, hyper vigilance may become a concern in a child experiencing neglect. An important aspect of hyper vigilance is the fact that the child is unable to devote their full attention to any specific task because they always seem to be anxiously looking around. Although hypervigilance is an issue for children experiencing routine physical abuse for no apparent reason, it can also be present in neglected children who are witnessing frightening events periodically.

Berger (2005) states that many maltreated children grow up in an environment comparable to soldiers forced into an unpredictable battle. In addition to experiencing hyperactivity, children may also become hyper vigilant, causing them to be disturbed by any slight noise. Also, they may be quick to defend themselves from something they perceive as an insult and may be delayed developmentally in being able to distinguish between fantasy and reality. Berger concludes that all of these symptoms are symptoms of post-traumatic stress disorder, a condition linked to both combat veterans and, recently, to

some children raised in a home where maltreatment occurred, especially child abuse. She also comments on the fact that both medical neglect and educational neglect may be an issue for these children.

In terms of other consequences resulting from maltreatment, Berger (2005) describes two forms of brain damage a child may experience. When a child is repeatedly terrorized or despondent, extremely large amounts of stress hormones and neurotransmitters are released during the trauma. This may result in high levels of activation of the sympathetic nervous system. Consequently, the brain's biochemical state may be extremely modified compared to the state that occurs when ordinary experiences are instilled into the memory. As a result of this abnormal brain development, such things as memory and logical thinking may be delayed or even impaired. Another form of brain damage in maltreated children discussed by Berger occurs in children who are neglected as a result of their mothers' clinical depression. These mothers are unable to supply the child with the needed encouragement and emotional stability children require. Berger reports that it has been discovered in these children that the right side of the prefrontal cortex develops more than the left side. What results are negative emotions such as fear, sadness, and anxiety that dominate the individual. In addition, depression becomes more likely in these children. In depressed children, things such as learning become much more difficult.

In addition, Berger (2005) comments on the impaired social skills maltreated children sometimes experience. These children tend to be more suspicious of others, regarding others as being manipulative and hostile. As a result, maltreated children have been reported as being more aggressive, less friendly, and more isolated compared to other children. Berger describes maltreated children as often becoming bullies, victims, or both. As the children grow into adolescents and eventually into adults, they often become involved with alcohol or drugs as a means of ignoring their emotions. In addition, they tend to choose unsupportive relationships, to sabotage their own careers, to have dieting issues, to become victims or aggressors, and generally take part in behavior that is self-destructive.

Berger (2005) also discusses the importance of early childhood care in an individual's development. The author reports that this early care plays a role in either alleviating or aggravating stress experienced by a child. One source cited by Berger notes that if rat pups are raised in an extremely stressful environment but are cared for by nurturing mothers, their brains are not affected. Berger suggests that this may be the case for humans as well. If children are raised in an environment where they are well-cared for and nurtured, a secure attachment is most often formed. Berger states that, in contrast to children with insecure attachments, children with secure attachments are better able to control their emotional outbursts. The importance of early care becomes especially apparent in 4 to 6-year-olds who have been mistreated. Another study noted by Berger reported that 80% of this specific group was found to be "strangely indifferent or extremely angry when a stranger criticized their mothers" (p. 240). As mentioned above, both neglect and abuse are likely to cause problems with internalizing and externalizing behavior. In fact, the likelihood of either of these behaviors developing as a result of mistreatment is higher than at other points in life mistreatment may occur in. Brain circuitry laid down this early is hard to change later in life. It is because of this crucial development that occurs between the ages of two and six that this research is dedicated towards that age group.

### *Overview of Specific Substances' Effects*

In order to best understand what kind of effect a parent's substance abuse can have on children, it may be important to understand what kind of effects the users themselves experience. The impact substances can have on a user varies with the specific drug of choice. National Families in Action (NFIA) is a non-profit organization that seeks to help families and communities prevent drug use among children. An important part of the group's existence is its involvement in the Addiction Studies Program in collaboration with Wake Forest University School of Medicine. The group also produces a parenting prevention guide sponsored by the Substance Abuse and Mental Health Services Administration (SAMSHA), a division of the United States Department of Health and Human Services (see Appendix A for links to further information concerning NFIA). NFIA gives an overview of some of the different characteristics of specific substances and the effects often experienced by users involved with that substance. For example, the group reports that marijuana users may experience both impaired judgment

and reaction time while using. The group also discusses the fact that continued marijuana use may interfere with both memory and learning as well as critical skills related to attention.

NFIA (2001) describes cocaine as a highly addictive substance that traps dopamine in between nerve cells in a part of the brain described as the reward center. The trapped dopamine continues to stimulate the nerve cells, causing the user to experience repeated feelings of euphoria. The group notes that cocaine users are most often preoccupied with obtaining their next fix. Their judgment is impaired as the cocaine causes the user to experience exaggerated feelings of both confidence and well-being. As the strength of doses increase, the user may become both aggressive and violent and may also experience heightened feelings of paranoia. Opiates are another drug addressed by NFIA. According to the group's website, opiates bind to pain receptors in the brain. This not only produces addiction, but also changes the way the brain works. The effects of opiate dependence include feelings of euphoria, respiratory depression, drowsiness, and a diminished ability to fend off infection.

NFIA (2001) also discusses the effects of other substances such as LSD and PCP. LSD is described by the group as both a major hallucinogenic and an extremely powerful mood-changing chemical. The unique combination of the user's personality, the surroundings of the individual, and the individual's mood and expectations make the effects experienced extremely unpredictable. Common physical effects do include such things as increased blood pressure and heart rate as well as body temperature. Much more associated with LSD, according to NFIA, are the hallucinations and delusions sometimes experienced by users. Flashbacks are also not uncommon among LSD users while high. PCP users may differ from LSD users in the effects they may experience while using. PCP is often associated with feelings of invulnerability. The numbing effect on the mind sometimes experienced by users may result in anger or rage. PCP not only causes a decrease in pulse, heart rate, and respiration at high doses, its effects can even imitate some primary symptoms of schizophrenia.

### *Integration & Hypothesis*

Berger (2005) detailed many of the important developing characteristics of pre-school aged children. This source also mentioned the importance of brain circuitry laid down in this stage of life as well as the lasting effects experiences can have when occurring at this point in life. Coupled with the descriptions given by NFIA (2001) regarding possible effects users may experience while involved with a specific substance, it is the hypothesis of this researcher that children living in a home environment which supports some form of substance abuse, particularly methamphetamine could experience adverse effects in many areas of development. The literature that follows details some specific studies regarding this topic.

### *General Substance Use Implications on Children in the Household*

Kroll (2004) reviews and evaluates seven published studies concerning experiences of children growing up with a substance misusing parent(s). The author discussed many of the effects witnessed in these children's behaviors. (For clarification, it should be noted that the term "substance misuse" is generally described any "alcohol, drug, or polydrug use which leads to social, physical, and psychological harm" [p. 129].) The article notes that some research has pointed to the notion that parental substance misuse can negatively impact aspects such as relationships (especially attachment), family dynamics, and even the functioning of the child themselves. In addition, an increased risk of violence was noted. Kroll found that substance misuse by parents has been connected to neglect as well as physical, emotional, and sexual abuse of the children in the home. Child homicide was also linked to parental substance misuse.

Kroll (2004) found that in many cases, a "don't talk" (p. 132) rule was forced onto the children of the substance misusing parents. This often began at a young age, and as time passed, the children's sense of secrecy became harder to break. These children admitted to such things as developing a lack of trust with others outside their family, a disinclination to disclose, and unease at others' attempts to reach out to them. One study noted in the review found that the secrecy in the home gives way to secrecy in the children. Guarded behavior in the home, such as locking doors and a sense of surreptitiousness, may cause the child to feel ignored and left out, adding serious feelings of being "unwanted, rejected, and

unimportant” (p. 132). Kroll also noted other consequences of children living in this environment may face, including a sense of loss in such things as a dependable parent, a “normal” lifestyle, and even loss of self-esteem and self-confidence. Abandonment was especially a concern and, for some, a reality. The article also mentioned violence as being a serious concern for these children. A variety of different types of assaults and injuries were found with the children studied. In many instances, such things as verbal abuse, demeaning comments concerning the child’s capabilities or presence, and the children being told that they were not desired or loved were present.

Another study (Hogan, 2007) depicted the consequences of opiate dependence on parenting practices. Hogan noted that parental drug misuse appears to have a negative effect on several dimensions. For instance, Hogan found that children of drug users may have an increased risk of neglect. Specific parenting practices have been tied to parental drug misuse including methods of discipline and interaction and responsiveness to children. One source cited by Hogan found that, in mothers, the quality of parenting decreases as drug involvement increases. Such things as decreased supervision, more drastic disciplinary approaches, and less positive involvement with the kids were especially noted. Others sources cited in the study reported children of those using drugs to be “more likely than those in control groups to manifest behavioural [sic] problems and difficult temperament, and to fare poorly in terms of socially adaptive behaviour [sic].” (pgs. 618-619)

Hogan’s (2007) study itself (which comprised of questionnaires given to both opiate-using and non-opiate using parents) found that drug-using parents were more likely to perceive their amount of availability in both a physical and emotional aspect to their children as unsatisfactory. They also felt the level of stability in their homes was unsatisfactory. Many of these parents believed they were unable to adequately satisfy their children’s emotional needs, due to some of the physiological effects of their drug misusing. The study cited low levels of parental involvement as being linked with a variety of negative consequences in children, especially an increased risk of both emotional and conduct problems. In fact, according to Hogan’s study, emotional responsiveness in parents is a strong indicator of positive social development in children. Inconsistencies and disruption in parents’ care-giving were found to endanger their children’s emotional well-being.

### *Methamphetamine*

Methamphetamine is an extremely devastating and ruinous drug. Black, Haight, and Ostler (2006), part of a group that has carefully studied this specific drug’s impact on families, describe the drug as a “highly addictive form of amphetamine with strong effects on the CNS (p. 18).” After the initial exposure, the user often experiences feelings of euphoria accompanied with an increase in energy and alertness as well as a marked decrease in both appetite and fatigue. Black et al. note that consistent use among individuals can have quite serious effects on the brain. The effects themselves may be the cause for many of the behavioral and psychiatric symptoms many methamphetamine users experience. Some of these symptoms include psychosis, visual and auditory hallucinations, depression, extreme paranoia, rapid mood changes, irritability, and out-of-control rages. Their symptoms may even extend to behavior that is repetitive, violent, and even suicidal. The psychotic symptoms many methamphetamine users experience may not end with the drug use. In some cases, reports Black et al., these symptoms can last for months or years, even if the methamphetamine user has discontinued use. In addition, Black et al. note that prenatal exposure to methamphetamine often results in behavioral and cognitive effects for the fetus. These kind of long-lasting effects further emphasize methamphetamine’s ability to have an impacting effect on brain functioning.

Black et al. (2006) report that children living in homes where methamphetamine is being used may be exposed to higher levels of criminal behavior both in and around the home. Methamphetamine is frequently produced right in the household, often in rural areas where the powerful fumes emitted during production can not be easily detected. Because production of the drug often involves many ingredients that may be hard to come by or inaccessible at times, drug manufacturers must often steal the ingredients necessary for production. Children living in the home may either learn to steal from watching their parents, or be directly encouraged to steal in order to aid their parents in production.

In addition, Black et al. (2006) also report the children living in an environment where they are exposed to their parents' methamphetamine use may experience severe psychological stress. Some of the mental health problems discussed included dissociative and posttraumatic symptoms. Other problems noted were attention problems, aggressive behavior, and an inability to follow rules. Another important aspect to consider with regards to the effects on children may be the emotional pain many children endure. Often, children experiencing these kinds of effects lack appropriate resources to help them understand and deal with the problems in their family.

In a study performed by Ostler et al. (2005), the authors this time explored the emerging mental health needs of children who had been exposed to their parents' methamphetamine use. The researchers interviewed 23 children ranging in age from 7-14. Each of the subjects was individually interviewed and subjected to standardized assessment tools. During the course of the interviews, 17 of the children (74%) described emotional pain concerning their experience with methamphetamine in their family. Some of the children reported experiencing such emotions as intense anger, aggression, sadness, tension, fear, and misery. Other experiences described by the children as an effect of their parents' methamphetamine use ranged from nightmares to drug use to suicidal ideation and behaviors.

The majority of the children interviewed (78%) reported either ambivalent or negative outlooks on their relationships with their parents, according to Ostler et al. (2005). Some of the children reported feeling as though they had lost trust in their parent(s) or lost their parent altogether. A few also described feeling as though their parents did not care about them as much as they cared about the methamphetamine. Sibling relationships in the home were also reported to be affected by parental methamphetamine use. Out of the twelve children who discussed changes in their relationships with siblings, six reported their relationships with their sibling(s) to be either positive or neutral. Five of the children discussed feeling as though they had lost a sibling relationship. This "loss" was often the outcome of increased parenting behavior taken on by the child interviewed. Such parenting behaviors included feeding younger siblings and comforting them during times of distress, among other behaviors. One of the children reported negative experiences with his siblings, though this was not especially elaborated on.

A related and crucial study performed by Haight and her colleagues (Haight et al., 2005) found the effects of methamphetamine exposure in school-age children to be especially impacting. The study focused on a seven county area in Illinois, specifically rural parts of the area. Haight et al. used a number of approaches: participant observation, in which two of the researchers participated in investigations of homes in the rural area as well as shadowed a child welfare investigator; record reviews which entailed such materials as literature from law enforcement centers and counseling centers specific to substance abuse; newspaper articles; records of methamphetamine abuse specific to rural Illinois; as well as numerous state websites. In addition, Haight et al.'s study contained information obtained from interviews with individuals who had prior experience in dealing with families affected by methamphetamine use. The interviews focused not only on the experiences of the individual, but also the individual's perception of the consequences of parental methamphetamine abuse in school-aged children. Additionally, the interviewers asked the individual what they believed could be done to contribute to the improvement of the psychological development and mental health of the children affected.

The results of Haight et al.'s (2005) study concluded that exposure to methamphetamine use puts children at a great risk for a variety of negative effects. Participants in the study serving as informants described some of the homes of methamphetamine abusers as being chaotic, dangerous, isolated, and neglectful in regards to the children living there. In addition, Haight et al.'s study noted that the basic needs of children often went unmet. These needs ranged from dental and medical care to food and water. One informant in the study was quoted as saying, "The drug is so addictive, parents lose sight of everything else, including their children" (p. 958). Another informant described the chaotic conditions of children's living environment by saying that some days, children don't know "when or if they will eat, where they will sleep, or what will happen from one hour to the next" (p. 958). In addition, informants in the study noted that, in some cases, children of methamphetamine-abusing parents may lack the opportunities most children participate in such as play and recreation. Due to the severe neglect and lack

of parenting in these homes, children often take on the role of a caregiver to both themselves as well as other siblings.

In homes where methamphetamine is being abused, Haight et al.'s study (2005) reports that children living in these environments are at a greater risk of experiencing both physical and sexual abuse. This abuse was instigated not only by the methamphetamine-abusing parents, but also by the associates of these parents who are in the house to purchase, use, or help manufacture the methamphetamine. This increased risk of abuse was found, in part, to be a result of the heightened paranoia and irritability a methamphetamine user often experiences.

Another important effect in children with methamphetamine-abusing parents found in Haight et al.'s (2005) study is an extreme sense of loss. Haight et al.'s study reports that children may lose their belongings, homes, parents, and families in a relatively small amount of time. In addition, since parents involved in the production of methamphetamine often face extended prison sentences, the children of these parents may find themselves in foster care for the rest of their childhood.

Haight et al.'s (2005) study also underscored another effect: antisocial socialization. One of the most serious effects, antisocial socialization is described in the study as learned through direct teaching by parents or through example. Children of methamphetamine abusers may be taught to deceive teachers, police, and child welfare workers in the interest of protecting their parents and their parents' activities. The study found that children may be taught to practice a certain level of secrecy in communicating or interacting with teachers and others in order to maintain loyalty to their family. Also, informants in the study reported that in some cases, children may be encouraged to steal the ingredients needed to manufacture methamphetamine and even use guns to protect the methamphetamine lab.

In addition, the informants participating in the study (Haight et al., 2005) described the effects of parent methamphetamine abuse on children as disturbed psychological, social, and educational development. Psychological disturbance, for example, included psychological pain and trauma explained as a flat affect, staring into space, intense worry about parents, disturbed sleep, nightmares, fear of police, fear of adults, fear of what will happen to them in the future (where they will live, who will take care of them), grief, and hopelessness. In small towns where "everyone knows everyone," older children reported experiencing shame, believing that gossip about their parents will circulate. Also described by the informants in the study were such behaviors as delinquency, lying, disrespectful behavior towards adults, cutting school, and behaviors that were generally out-of-control. More serious effects described by the informants included hoarding, self-mutilation, and suicide attempts. Emotional problems were also an effect described as having problems expressing emotions in an appropriate manner, controlling strong emotions, and being emotionally unstable in general. These children were seen as experiencing quick transitions from one extreme to the next as well as going through frequent emotional meltdowns.

In terms of social development, many of the adult informants in the study (Haight et al., 2005) described children as experiencing disturbances. These children were depicted as having an unusually hard time following general rules, comprehending the consequences of their actions, and fitting into "normal" social contexts of family, school, and community. Informants in the study described these children as "lost" (p. 961). The children appeared alone and isolated. In terms of education, the adult informants deemed the children's normal development as stunted. It was believed by the informants that the trials and consequences the children experienced interfered with learning and normal development.

### *Conclusion*

This Literature Review attempts to pull together multiple aspects pertaining to the effect substance abuse, particularly methamphetamine, can have on children living in the home environment of a user. The goals of this review are to present an educational body of information that details general characteristics that develop in children ages two to six, highlight some of the effects specific substances can have on the user, discuss research demonstrating the effects that parental drug use can have on children of the user, and lastly to describe methamphetamine itself as well and its devastating effects.

After reviewing this information, it is the hypothesis of this researcher that methamphetamine exposure in children aged two to six may result in some detrimental consequences. These consequences

may include problems with self-regulation, attachment, development (in a variety of areas), learning difficulties, and an inability to acceptably adapt to a school environment.

## **Methods**

### *Introduction*

In order to look at the possible effects of methamphetamine use by parents on children, this study asked regional Head Start programs if interviews with teachers could be conducted, and permission was granted.

### *Program Information*

The Federal Head Start Program provides funding and grants from a federal level to each state to be distributed to both public and private non-profit and for-profit agencies that offer a full range of comprehensive educational services to children of economically disadvantaged families. The services are directed towards pre-school-age children. The Head Start program attempts to prepare these children for school by enhancing both the social and cognitive development through educational, health, nutritional, and social services directed towards both the child and the family (United States Department of Health and Human Services, n.d.). Currently, there is a school-readiness component, a family support component, and a parent education component. Launched in the summer of 1965 as part of the War of Poverty, the Head Start program now operates on a \$6 billion dollar budget and serves 900,000 children throughout the nation (Santa Clara County Office of Education, n.d.). Because of this researcher's interest in studying the impact of methamphetamine use by parents on the development of their children, this program was targeted due to the specific population it aims to serve. It should also be noted that the different sites visited that were affiliated with Head Start currently serve rural and small town areas in northeastern Minnesota.

### *Participants*

Before recruiting participants, the Head Start regional office was contacted in order to gain permission. Contact was initially made with the Community Relations Manager who then forwarded the information to the Program Manager/Supervisor. From there, approval was sought from the Director. In addition to discussing the purpose and intent of the study to be conducted, a copy of interview questions to be addressed with the subjects was also submitted to the program (see Appendix B). After obtaining approval and support for the study from the program, twelve professionals were contacted via email regarding their possible interest in participating in the interviews. Willing professionals were emailed a description of the study, a copy of the questions to be addressed in the interview, and in some cases, a copy of the Informed Consent (if they were unable to participate in a face-to-face interview) (see Appendix C). Professionals were also asked to designate a date and time that would be convenient for them to participate in the interview. For those able to participate in a face-to-face interview, the Informed Consent was presented at the time of the interview. This researcher went over the form and addressed any questions the participant had. In the cases of the phone interviews, participants were either mailed or emailed the Informed Consent prior to the time of the interview. The form was discussed over the phone with all questions presented by the participant fully addressed. The form was then sent back to the researcher.

### *Instruments*

The instrument used in these interviews was a set of questions designed specifically for this study. The questions themselves were not pre-existing, but instead were formulated from the above Literature Review concerning salient traits among previously studied children in similar environments. These questions were discussed with supervising researchers and submitted to and approved by the university's IRB.

The interview questions were designed to address four areas and contained questions pertaining to the professional (background, etc.), questions concerning the families of children suspected of



being/have been exposed to methamphetamine, questions dealing with the behaviors and characteristics of the children themselves, and questions regarding the use of methamphetamine in the community. The last section of questions sought to gain the professional's own view and opinion regarding both the prevalence of methamphetamine as well as its impact on the community.

#### *Procedure*

Participants were interviewed either in their classrooms or via phone. During the interview, the participants discussed their observations and individual experiences that pertained to the questions presented. All answers were recorded on interview sheets during the interview. The interviews took approximately 30 minutes each. After the initial interview, participants received a summary of the recorded data including verbatim quotes. Participants were asked to verify recorded information in order to ensure accuracy in the presentation of collected data. Of the ten subjects who participated, eight opted to reply with either corrections or approval. After sending the recorded data to be verified, all information concerning the participants' name and location was destroyed to insure the participants' privacy.

#### **Results**

Of the twelve professionals contacted, ten agreed to participate. The participants hailed from numerous areas throughout northeastern Minnesota. In the first section of questions, subjects were asked to detail a brief summary of their background including past education and work experience. Among the participants were eight Head Start classroom teachers as well as two family advocates for the program. While classroom teachers are in contact with the children on a daily basis in the classroom in combination with a few home visits a year, family advocates interact more closely with the family itself. Within the first few weeks of the school year, a family advocate will visit the home of a student about three times. After that, making contact with the family is aimed at once a month. The goals of these home visits are to address any issues that may be occurring in the home that may possibly impact the child, as well as to guide the family towards possible sources of aid for any problems they may be experiencing.

Based on their information, the ten participants worked in numerous areas throughout northeastern Minnesota. All ten participants were female. Of those ten, nine currently possess their bachelor's degree in either education or social work. Among the ten participants, the mean average years of experience in the early childhood educational field was 14.2 years (range=5.5-22 years).

Subjects were then introduced to the next set of questions which aimed to determine a number of aspects dealing with the families of children in the program. Topics discussed in this section included:

1. Whether or not suspected familial drug use has ever been an issue. If it had been, subjects were asked to estimate the number of occurrences in their career.
2. The prevalence of methamphetamine as the suspected drug of choice.
3. Whether or not the reason for their suspicion of possible drug use (including methamphetamine) was ever linked to contact with the parents. If it had been, participants were asked to describe the characteristics of the parent(s) that proved suspicion.

All ten of the interviewed professionals described suspected familial drug abuse as a concern of theirs, either currently or previously. The description in frequency, however, varied. Of the eight teachers interviewed, the prevalence of suspected familial drug use ranged from seven times in 22 years to approximately four times each year. One family advocate reported suspecting familial drug abuse being an issue at least once a year, while the other described it being an issue about 20 times in the "past few years."

In regards to methamphetamine, each of the ten participants noted that the drug has been a concern for at least one family they have come in contact with. However, once again, the prevalence of the suspicions related to possible methamphetamine exposure varied. Five of the teachers expressed confidence that at least one of their current or past suspicions regarding familial drug abuse could be tied to methamphetamine. Three of the teachers felt that they could not confidently limit any of their current or past suspicions to methamphetamine specifically. While one of the family advocates did describe methamphetamine as an issue in one of the families she is in contact with, she stated that the methamphetamine use had been confirmed a while back. Therefore, she could not tie any of her

unconfirmed suspicions to methamphetamine. The other family advocate interviewed stated that, of the approximately 20 cases where suspected familial drug abuse was an issue, she believed all 20 were related to methamphetamine.

Reasons for suspicion varied among interviewed professionals. Four of the subjects described their reason for suspicion as being observations they have made in the home. Among those four subjects, such things mentioned as raising suspicion were an extremely messy house, a certain smell or odor, and extremely large dogs in tiny apartments. One subject even reported discovering a surveillance camera in the home that looked out into the parking lot. More often, suspicion regarding possible familial drug use was linked to the parents. Nine of the ten subjects interviewed described their contact with the parents as being a major part of their suspicion. Suspicion was most often linked to the physical appearance of the parent(s). One teacher described parents she has come in contact with whom she has suspected of drug use as being “wide-eyed” with “an extreme sense of paranoia.” Another teacher cited such things as extreme weight loss, more agitation and alertness than usual, a lack of eye contact by the parent, a certain smell accompanying the parent, or even the parent wearing sunglasses to the classroom (located in the basement). One family advocate describing reasons for her suspicions cited similar observations including high anxiety, weight loss, jitter, and rotting teeth. Scraggly hair and sores on the face also lead to suspicion for another subject. Another teacher who dealt with a confirmed case of methamphetamine in a student’s household described the mother as repeatedly failing to greet her kids when they got off the bus (Head Start policy requires that a parent at least stand by the door when the children get off the bus to ensure safety). She also stated that the children reported being unable to wake their mother up at times. In addition, the mother would often appear in the classroom as “super charged-up.” Other things observed in parents as reported by the subjects included a parent repeatedly forgetting to pick up his or her child or refusing to answer the door for a home visit (the subject said this was unusual because she “knew” the parents were home).

While the second section included one question pertaining to the professionals’ contact with the children, section three was the section that focused solely on the effects witnessed in the children with either confirmed or suspected drug abuse as an issue in the family. Subjects were asked to identify any characteristics of the children in this category they believed to stand out. The subjects were not limited in their description and were encouraged to include characteristics from a variety of aspects including social, cognitive, behavioral, emotional, and learning. It was found within the responses to this set of questions that suspicion of drug use in the home was also linked to the professional’s experience with the children. The main topics discussed with the professional in this set of questions included:

1. What kinds of social, emotional, cognitive, and/or behavioral difficulties have been witnessed in children with suspected familial drug use as an issue?
2. Whether or not these difficulties present are apparent to other children in the classroom.

Five of the eight teachers interviewed described certain behaviors or characteristics portrayed by one or more children in the classroom that triggered the suspicion of possible drug use in the home. Two of the teachers reported witnessing children acting out and imitating such things as pretending to call the police or talking about their mom taking a lot of pills or how the house smells. One of the teachers interviewed described one child as stating, “Daddy locks himself in the basement.” Another teacher, who attributed all of her current and past suspicions (at least one a year) to methamphetamine, described signs she believed to be a result of methamphetamine exposure, including that the children had more health problems, could be described as having issues with Reactive Attachment Disorder (RAD), were very worrisome, displayed limited trust, had fits of anger or rage, were very street smart, and often were not excited to see their parents. One teacher reported witnessing such things as an inability to focus (perhaps due to situations at home), poor attendance, withdrawal, sadness, acting out, and children expressing great concern in their home life. The same subject also described one child coming to school in the winter with no socks. Another teacher described some of her suspicions as being related to delays (both mental and physical), learning difficulties, Attention Deficit Hyperactive Disorder (ADHD), RAD, and other behavioral issues. All five teachers described inhibited development (physical, emotional, social, cognitive, or learning) as a red flag.

One very important concern expressed by seven of the professionals interviewed was the difficulty in positively identifying children in the program who have been exposed to any sort of substance, including methamphetamine. One of the teachers described three ways professionals are alerted as to a child entering the program with confirmed familial drug abuse having been an issue: a doctor has identified certain developmental concerns, Social Services has been involved, or a parent has been sent to a treatment program. In all of these instances, Head Start professionals are made aware of the situation. Another participant said that she often became aware of the situation if one or both of the parents became incarcerated due to drug use. One teacher described her network at the school as being a source of information. For instance, she stated that if a school counselor knows of drug use as being an issue in the family previously, they will pass on their concerns or suspicions to the current teacher. Likewise, she said, she extends the same courtesy to her colleagues. Nearly all of the interviewed participants also shared that in many cases, they are informed of possible drug use in the family from other individuals. Sometimes, parents will “tell on one another.” Other times, grandparents or foster parents caring for the child may inform the professional of any past situations. In addition, it was reported by three of the participants that parents of children in their program have willingly shared information about their past that dealt with some form of substance use.

Nevertheless, many subjects exhibited a great deal of uncertainty concerning their suspicions. Possible drug use in the children’s family itself was most often just a suspicion, but trying to accurately identify that methamphetamine was the drug of choice appeared to be an even further reach. Only three of the interviewed professionals felt confident enough to attribute all or nearly all of their current and past suspicions to methamphetamine. One subject said that she tries to pay attention to such things as behavior and appearance, but most often, “It has to come down to an educated guess.”

The last section of questions aimed at gaining the professionals’ opinions of a number of aspects including their views on substance use and methamphetamine use (the two were addressed separately) in their communities and their feelings on further research into the effects of parental methamphetamine use on children living in the environment. Topics addressed in this section included:

1. Whether or not the professional felt that children living in an environment where drugs are used is a prevalent issue in the community where they teach/work.
2. The professionals’ feelings on the prevalence of methamphetamine in their community.
3. The professionals’ opinions on further research into the effects of exposure to methamphetamine.

Despite the uncertainties present regarding the actual prevalence of methamphetamine among families of children these professionals have dealt with, all of the professionals interviewed described researching and learning more about the impact of methamphetamine to be important, though the degree of importance varied among the subjects. While one of the subjects believed that “Meth does not seem as great of a concern as it was in past years,” eight of the other subjects expressed more extreme views towards the impact of methamphetamine and the importance of research concerning the drug. One teacher felt that even if one family is experiencing a meth problem, the issue is a big deal. Another teacher believed the issue of methamphetamine to be “sneaking up on people” because of its’ difficulty to detect, at least in the early stages. She expressed great concern about the social and emotional effects children exposed to methamphetamine might face. In addition, one subject expressed concern towards children exposed to methamphetamine as they may be “falling through the cracks.” Cognitive, behavioral, and learning problems that exposed children may face were of great concern for her. Even one professional who had been instructed on the impact of methamphetamine felt that further research was necessary being that “so many kids are affected by it.” She especially expressed the need for information to be integrated, citing her experiences at past conferences which talked about methamphetamine itself, but lacked any kind of information on the effects seen on children of users. She continued on by saying that teachers really need some “good” training on the topic. One teacher described methamphetamine as the number one negative in her community with the problem showing no signs of ending. Another subject described the use of methamphetamine as something in which we “haven’t even seen what is going to happen.”

## **Discussion**

The professionals interviewed for this research brought a significant amount of experience in their field. Of the ten females interviewed, nine possessed their bachelor's degree in either education or social work. In addition, the mean average years of experience in the early childhood educational field was approximately 14.2 years (range=5.5-22 years). Based on information given by the professionals, their experience seems to equip them well to accurately assess and describe their observations concerning the topic at hand.

Certain areas of information discussed by the professionals directly coincided with some of the literature reviewed by this researcher. For instance, in describing characteristics of parents the professionals had found suspicious, they cited such examples as a parent being "wide-eyed," having "an extreme sense of paranoia," being "super charged-up," extreme weight loss, more agitation and alertness than usual, high anxiety, and such aspects of physical appearance as scraggly hair, rotting hair, and sores on the face. Related descriptions throughout the Literature Review include National Families in Action's (2001) explanation of the effects of cocaine on the user (heightened feelings of paranoia), Black et al.'s (2006) description of the effects of methamphetamine on the user (an increase in energy and alertness, a marked decrease in both appetite and fatigue, and extreme paranoia), and Haight et al.'s (2005) study which also described heightened paranoia as an effect on a methamphetamine user.

In addition, the professionals' description of behaviors/effects witnessed in children suspected of living in a home environment plagued by drug use also coincided with descriptions presented by other researchers noted in the Literature Review. The professionals interviewed described witnessing such behaviors as children acting out and imitating, for example, pretending to call the police. Two of the subjects interviewed reported hearing a child talk about their mom taking many pills and describing how the house smells. Another teacher describing problems witnessed in children she believed to be exposed to methamphetamine cited such examples as health problems, issues with RAD, the child being very worrisome, a lack of trust, sudden fits of anger and rage, an abundance of street smarts, and a lack of excitement to see a parent. One other teacher described an inability to focus, poor attendance, withdrawal, sadness, acting out, and children expressing great concern with their home life as present in some of the children she had worked with. In addition, another teacher described noticing delays (both mental and physical), learning difficulties, ADHD, RAD, and other behavioral issues.

Many of the sources reviewed by this researcher presented information very similar to some of the information reported by the professionals. For instance, Kroll (2004) noted that parental substance misuse can negatively impact attachment in relationships and encourage the development of a lack of trust in children. Hogan (2007) found that emotional and conduct problems may be linked with low levels of parental involvement. In addition, Meade (n.d.) reported that the effects of familial drug use may compromise a child's psychosocial, developmental, behavioral, and learning competencies. These descriptions given by the professionals also aligned similarly with Black et al.'s report depicting such effects in children exposed to a parent's methamphetamine use as attention problems, aggressive behavior, and an inability to follow rules. Although Ostler et al.'s (2005) study focused on children ages 7-14, similar effects were also reported from that study including intense anger and aggression, sadness, and fear. Haight et al.'s (2005) study also highlighted some of the same effects in children reported by the professionals interviewed by this researcher including intense worry (about parents), problems controlling strong emotions and expressing emotions in an appropriate manner, and stunted educational development.

Many of the effects witnessed in both parents and children by participants in this study were related to those described in the Literature Review. Unfortunately, as noted in the Results section, the ability to accurately discern the effects of methamphetamine versus other substances is lacking. In fact, although many of the characteristics described by professionals interviewed are similar, if not the same, to some of those described in the few studies of the Literature Review related specifically to methamphetamine, they are also similar, if not the same, to many of the effects described in users (and those exposed to the user) involved in numerous other substances. Although, as hypothesized, exposure to methamphetamine may truly have serious detrimental effects on children, this researcher has not found

enough direct evidence to link the described effects to methamphetamine. Therefore, attributing these effects described specifically to methamphetamine may be premature as well as inaccurate and is a limitation of this study.

### **Limitations**

This study was limited in the number of professionals interviewed and the geographical area covered. In addition, the questions addressed only explored a relatively narrow angle of the topic. Future researchers would be best advised to increase the number of participants. Also, future questions addressed towards the participants may be more effectively reorganized and more specific about children's behaviors such as their social interactions, learning, attention, and language. In addition, asking for more clarification on certain responses would also increase the depth of information gathered.

### **Conclusions**

According to some media (St. Louis, 2007) and Head Start staff interviewed, methamphetamine seems to be having an impact on families in northeastern Minnesota. However, due to a lack of knowledge concerning the drug and its effects (both on the user and others in the household) professionals report having a difficult time discerning the effects of methamphetamine versus other substances. However, the professionals interviewed expressed deep general concern for the lives of their young students who are exposed to parental substance use, regardless of its source. It is important to note that these professionals see first-hand the difficulties experienced by these young children. They report behaviors indicating delays in development (cognitive, social, emotional, and physical), heightened anxiety and difficulty trusting, and problems in self-regulation. Recalling Berger's (2005) comments on the core importance of emotional regulation to future positive development, these children appear to be heading into a difficult future.

Importantly, the professionals interviewed expressed a desire to have more access to research and information as well as instruction on possible effects they may witness in children exposed to methamphetamine. Therefore, further research is needed into this topic to both discern the unique effects (if any) of methamphetamine as well as to better equip educators in their expectations and treatment of children possibly exposed to methamphetamine.

## References

- Berger, K. (2005). *The developing person*. New York, NY: Worth.
- Black, J., Haight, W., & Ostler, T. (2006). Health and psychiatric issues in children of rural methamphetamine abusers and manufacturers. *Psychiatric Times* 23(14), 18-19. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=23724739&site=ehost-live>
- Haight, W., Jacobsen, T., Black, J., Kingery, L., Sheridan, K., & Mulder, C. (2005). "In these bleak days": Parent methamphetamine abuse and child welfare in the rural Midwest. *Children and Youth Services Review* 27(8), 949-971. doi:10.1016/j.chilyouth.2004.12.025
- Hogan, D. (2007). The impact of opiate dependence on parenting processes: Contextual, physiological, and psychological factors. *Addiction Research and Theory*, 15(6), 617-635. doi:10.1080/16066350701663698
- Kroll, B. (2004). Living with an elephant: Growing up with parental substance misuse. *Child and Family Social Work* 9(2), 129-140. doi:10.1111/j.1365-2206.2004.00325.x
- National Families in Action. (2001). <http://www.nationalfamilies.org/brain/index.html>
- Ostler, T., Haight, W., Black, J., Ga-Young, C., Kingery, L., & Sheridan, K. (2007). Case series: Mental health needs and perspectives of rural children reared by parents who abuse methamphetamine. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(4), 500-507. doi: 10.1097/chi.0b013e3180306298
- Santa Clara County Office of Education. (n.d.) *Program history*. Retrieved June 25, 2008 from <http://www.sccoe.org/depts/headstart/proghistory.asp>
- St. Louis County. (2007, April 18). *County attorneys debut new meth documentary at depot* [Press Release]. Retrieved from <http://www.co.st-louis.mn.us/slcportal/SiteMap/HomePage/PressReleaseArchives/tabid/860/ctl/Details/mid/2105/ItemID/100/Default.aspx>
- United States Department of Health and Human Services. (n.d.). *About the office of Head Start*. Retrieved June 8, 2008 from [http://www.acf.hhs.gov/programs/ohs/about/index.html#prog\\_desc](http://www.acf.hhs.gov/programs/ohs/about/index.html#prog_desc)

**Appendices Table of Contents**

Appendix A. Additional Sources Describing NFIA

Appendix B. Interview Questions

Appendix C. Informed Consent

Appendix A

<http://www.addictionstudies.org/>

- Offers links to numerous sources detailing the Addiction Studies to which NFIA is a major sponsor

<http://www.addictionstudies.org/links.html>

- Details information about the goals and make-up of the Addiction Studies.

<http://www.family.samhsa.gov/>

- This website provides information on SAMHSA, another group that partners with NFIA.



Appendix B  
Interview Questions

**A. Questions Concerning the Professional:**

1. What got you interested in this field?
2. What training or education did you have for this career?
3. What do you like most about what you do?
4. What do you find most difficult?

**B. Questions Concerning the Families of Drug-Exposed Children:**

5. Has suspected familial drug abuse ever been an issue for you concerning one of your students?
  - a. If so, approximately how many times has this occurred?
6. Is there any way available to actually identify children entering your program who have been brought up in an environment where substance abuse has occurred?
7. Is the reason for suspicion ever linked to the contact you've had with the parents?
  - a. If so, what provoked suspicion?
8. Has the possibility of meth use in the family ever come up concerning one of your students?
  - a. If so, what led you to believe it was meth?
9. If you do suspect a problem in the home environment, what did you witness about the child in the classroom that led you to suspect something?

**C. Questions Concerning the Children:**

10. In the children suspected of living in an environment where drugs are used, what are some social difficulties you've witnessed?
  - a. Cognitive?
  - b. Emotional?
  - c. Behavioral?
11. If something in the child's behavior or appearance makes you suspicious, do you think that particular quality is apparent to other kids?

**D. Community:**

12. If a family drug problem is known or suspected, what kinds of steps are taken concerning the child at school?
13. Do you feel that children living in a home environment where drugs are used is a prevalent issue in the community where you teach/work?
14. Many have described meth as an upcoming epidemic in this region. How would you describe your feelings towards the drug regarding its prevalence in this area?

15. Do you think the impact of methamphetamine on kids exposed environmentally is something that should be a concern? Why or why not?

Appendix C  
**Informed Consent**

Thank you for volunteering to participate in this interview. As a current student at the University of Wisconsin-Superior and a participant in the McNair program, I am conducting research on the emotional, behavioral, social, and cognitive effects of methamphetamine exposure after birth. I am specifically looking at pre-school aged children. As a participant in this interview, you will be asked to answer the questions I have designed for this study. The interview is estimated to last about 30-45 minutes. Because the risk of discomfort or distress, please be advised of your rights as a participant (listed below). Your answers will help aid in supplementing the limited amount of information available concerning methamphetamine exposure in pre-school children. Your answers will remain anonymous. The only information noted besides your responses will be the location of the classroom for demographic reasons. This information will be coded so that only the researcher will know where the interview took place. As a participant in this interview, it is important for you to be aware of the following information:

1. Your participation, at all times, is voluntary.
2. You may refuse to answer any question you do not feel comfortable in responding.
3. You may stop this interview at any time.
4. Your responses will remain anonymous at all times.

If you have any questions or comments concerning your treatment as a participant in this interview, please contact the Provost and Dean of the Faculties at (715) 394-8449.

This project has been approved by the UW-Superior Institutional Review Board for the protection of Human Subjects protocol # 368

**I have read the above information and willingly consent to participate in this interview.**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_