

EFFECTS OF FETAL DRUG /ALCOHOL EXPOSURE AND
IMPLICATIONS FOR PRESCHOOL INTERVENTION
PROGRAMS

MASTER'S PROJECT

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by

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CHAPTER I

INTRODUCTION TO THE PROBLEM

Background

The incidence of alcohol and drug use during pregnancy has risen drastically in recent years. Use of alcohol among pregnant teens has hit a record high. However, the introduction of crack cocaine is responsible for much of this increase in prenatal exposure.

Children exposed to drugs and alcohol in utero demonstrate an increased incidence of hyperactivity, short attention span, problems in interpersonal relationships, deficits in play skills, lack of organizational skills, difficulties following directions and a variety of physical handicaps. These damaging effects of prenatal drug and alcohol exposure are generally first noted in early childhood and continue to cause problems throughout the school years and into adulthood.

Statement of Problem

Traditional training for educators leaves them poorly equipped to deal with this new generation of children. Specific and practical information is needed to help

teachers work with children with a combination of disabilities. With the increased incidence of short attention span, behavior disorders, hyperactivity, and learning difficulties, teachers need special instruction. In some instances children will be referred to special preschool classrooms for services. However, the majority of these children will remain in the regular preschool classroom. It then falls to the teacher without special training to meet the needs of drug and alcohol-exposed children.

The purpose of this project is to develop a handbook containing practical information for preschool teachers of children exhibiting the detrimental effects of prenatal drug and alcohol exposure.

Procedures

This handbook was designed to provide information to teachers working with preschool children who exhibit characteristics common to children exposed to drugs and alcohol in utero. This handbook targets teachers with preschool classrooms, but many techniques are also appropriate for regular elementary and learning disabilities classrooms.

The current drug problem affects children from various socioeconomic levels as well as both urban and rural students. This handbook focuses on meeting the needs of children from a variety of backgrounds through a wide range of methods.

Information on the characteristics of children prenatally exposed to drugs and alcohol were gathered from studies and journal articles. Specific ideas for meeting the needs of affected children were gathered from teacher experience, studies, articles, interviews and books.

Limitations

Research on the effects of prenatal alcohol use is plentiful. However, studies on the effects of prenatal drug use are less common. Most available information in this area comes from published and unpublished observation. Even less information is available on how to handle these children in the classroom.

Results

The result of this study is a handbook of ideas and techniques for the preschool teacher.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Incidence and Prevalence

Alcohol is classified as the most widely abused drug in the United States. Research indicates that while 32% of Americans are abstainers, 15% drink less than once a month, 28% drink at least once a month, 13% drink several times a month (three to four drinks each occasion), and 12% have five or more drinks almost every day. (Gold, 1984, p. 3) Estimates by the National Institute on Alcohol Abuse and Alcoholism indicate that 3 out of every 15 preschoolers have alcoholic parents. (Cole, Jones, and Sadofsky, 1990, p. 1) The Center for Disease Control reports one in six women between the ages of 18 and 34 drink enough alcohol for the alcohol consumption to be considered a risk factor in fetal development. (Jones, 1991, p. 1)

Prior to 1985 drug use among pregnant women was limited. In a study performed in 1982 at Prentice Women's Hospital and Maternity Center of Northwestern Memorial Hospital in Chicago, all women admitted were screened for legal and illicit drugs. Three percent of the women tested positive for use of "such sedative-hypnotic drugs as marijuana, benzodiazepine, and alcohol." (Chasnoff, 1987, p.

164) Van Dyke and Fox (1990, p. 160) noted that the drugs most frequently abused by pregnant women between 1967 and 1982 were tobacco, alcohol, marijuana, heroin, and cocaine.

More recent studies estimate that a much greater number of women now use drugs. While earlier studies estimated drug use among females at 3 percent, recent estimates are much higher. The National Association for Perinatal Addiction Research and Education conducted a study of thirty-six hospitals. Results indicate that approximately 11 percent of pregnant women use drugs during pregnancy. (Lumsden, 1990, p. 3)

When the Select Committee on Children, Youth, and Families conducted a survey of hospitals in 1989, fifteen of the eighteen hospitals surveyed reported a three-to-four fold increase in drug-exposed births since 1985. Nationwide an estimated 375,000 children born were exposed to drugs in 1988. (University of Minnesota, 1990, p. Number 4, Section 1) Besharov (1990, p. 25) reports that the number of drug-exposed infants born in New York City almost doubled for three years in a row, to the point where there were approximately 8,000 such cases in New York in 1990. In Washington, D.C., estimates are that 15 percent of all births are drug-exposed. In Los Angeles County, the number of known cases has increased from 543 in 1985 to 1,300 in 1987. At one hospital in Boston the percentage of drug-exposed babies went from 3 percent in 1985 to 18 percent in 1989.

This dramatic increase in drug use among women is attributed primarily to the introduction of crack cocaine in the mid 1980's. Besharov notes that, "Although other drugs have plagued our society, most users have been men." (1990, p. 22) Crack, a derivative of cocaine, has changed this pattern. For the first time there are large numbers of female addicts, many of whom have children or are pregnant. Gittler and McPherson reported that the "President's National Drug Control Strategy Report has estimated that 100,000 crack-exposed babies are born annually. One national expert has arrived at the somewhat lower estimate of 1 to 2 percent of all babies born each year, or 30,000 to 50,000 babies, perinatally exposed to crack." (1990, p. 3) In some urban areas cocaine is now considered the number one illicit drug of women of childbearing age. Other studies indicate that alcohol still remains the most significant threat to children. (Shores, 1991, p. 3)

Characteristics of Children Exposed to Alcohol

When consumed, alcohol is normally carried to all organs and tissues of the body. In pregnant women it is also carried to the placenta, where it easily crosses through the membrane separating maternal and fetal blood systems. (Association of Retarded Citizens, no date, p. 2) The blood alcohol levels of the fetus remain high for twice

as long as those of the mother. (Gold, 1984, p. 6) Alcohol consumption at any time during pregnancy is potentially harmful to the fetus, however the timing and duration of exposure can be related to the type of damage likely to occur. Studies indicate exposure early in pregnancy tends to present the greatest risk for serious physical defects, while later exposure increases the chance for neurological problems, growth deficiencies and miscarriage. (Association of Retarded Citizens, no date, p. 2)

Recent research has shown that a small amount of alcohol consumed during pregnancy can adversely affect the fetus. The neurobehavioral effects of prenatal alcohol exposure were documented by Streissguth and associates. They found that 1.5 ounces of alcohol per day is significantly related to "an average IQ decrement of almost five IQ points." (Bauer, 1991, p. 74) A broad range of IQ scores is seen in children prenatally exposed to alcohol. Bauer notes that children with more significant symptoms also demonstrate greater brain dysfunctions. (1991, p. 75)

Children exposed to alcohol prenatally may have any of several documented characteristics. Rossett and Weiner developed minimal criteria for the diagnosis of fetal alcohol syndrome. They recommended diagnosis when the child had characteristics in each of three categories. First, "prenatal and/or postnatal growth retardation: weight, length, and/or head circumference below the 10th percentile when corrected for gestational age." Second, "central

nervous system involvement: signs of neurologic abnormality, developmental delay, or intellectual impairment." And third, facial characteristics with at least two of these three symptoms: "(a) microcephaly, (b) microphthalmia and /or spaces between the margins of the eyelids, (c) poorly developed median groove between the upper lip and the nose, and/or (d) thin upper lip or flattening of the masillary area." (Bauer, 1991, p. 75)

Gold notes that even when a diagnosis of Fetal Alcohol Syndrome can not be made, the child may still "be at risk for a variety of learning and behavioral handicaps" that have only recently been recognized. (Gold, 1984, p. 6) These "difficulties may arise for children without the full fetal alcohol syndrome being present." (Gold, 1984, p. 3)

Maternal alcohol use during pregnancy may also be responsible for such conditions as attention deficit disorder, learning disabilities, hyperactivity, and behavioral problems. Children diagnosed during the 1970's as having fetal alcohol exposure exhibited learning problems, behavioral problems, and attention deficits in the 1980's. (Van Dyke and Fox, 1990, p. 160)

A study of mothers who reported occasional multiple drinks during the period prior to the recognition of pregnancy indicated that use was significantly correlated with lowered IQ. There was also a correlation in unsatisfactory academic achievement, difficulties in

classroom behavior, and problems in attention and vigilance. Other effects included poor short-term memory, impulsive problems, and difficulties with sustained attention. The children also demonstrated problems such as tremulousness, a weak and primitive grasp, poor finger articulation, delay in establishing hand dominance, and hyperactivity. (Bauer, 1991, p. 75)

Characteristics of Children Exposed to Drugs

The General Service Office of Alcoholics Anonymous reports 40 to 80 percent of women addicted to drugs are dependent on more than one substance. (Jones, 1991, p. 1) This makes it difficult to determine the effect of individual drugs. Women who use cocaine commonly also use marijuana, alcohol, benzodiazepines, and/or cigarettes. (Chasnoff, 1987, p. 164) Infants with "combined exposure to narcotics and cocaine, or narcotics and methamphetamines, have been shown to have the worst outcomes." These children have significantly increased incidence of growth retardation and other growth abnormalities. (Van Dyke and Fox, 1990, p. 161)

It is now known that the placenta does not protect the fetus from toxic substances such as drugs taken during pregnancy. Studies have shown that when drugs are used in pregnancy they freely cross the placenta. Chasnoff notes that many drugs taken by pregnant women have a "longer

half-life in the fetus than the adult because the fetal liver is incompletely developed and cannot excrete the drugs quickly." Chasnoff reports that cocaine and its metabolites require approximately 24 hours to clear an adult's urine. However, they persist for 4 to 6 days in children who have been exposed 2 to 3 days prior to birth. (Chasnoff, 1987, p. 175)

Use of Phenylcyclidine Hydrochloride (PCP) may cause neurobehavioral changes in infants. Children exposed to PCP are sensitive to touch and noise, are extremely tremulous, have increased muscle tone and show abnormal eye movements. They consistently demonstrate fine motor, adaptive and language scores in the low normal range. (Van Dyke and Fox, 1990, p. 161)

Heroin causes low birth weight and length, small head size, and difficulty responding to voice and touch. Infants also experience withdrawal symptoms and exhibit an increased risk for Sudden Infant Death Syndrome (SIDS). With marijuana infants tend to have low birth weight, withdrawal and an increased incidence of SIDS. (National Association for Perinatal Addiction Research and Education)

Some researchers stress that using cocaine when pregnant is one of the most dangerous things a woman can do. Cocaine and its derivative crack constrict the blood vessels of the placenta. This denies the fetus blood and nutrients which can cause strokes or stroke-like activity in the brain

and such birth defects as missing lungs and deformed hearts. (Besharov, 1990, p. 25) Experts such as Iris Smith believe there is no typical cocaine syndrome comparable to fetal alcohol syndrome. She believes that exposure to alcohol and premature birth, a typical consequence of maternal cocaine abuse, probably cause greater damage than cocaine itself. Smith stresses that "full-term babies with known exposure to cocaine seem to have fairly mild effects of the drug." (Shores, 1991, p. 14)

Conversely, Van Dyke and Fox (1990, pp. 160-161) express a growing concern about the long-term effects of cocaine on the fetus and the neonate. Some studies suggest that if cocaine is present during gestation, it may affect developing fetal neuroreceptor-neurotransmitter systems and have significant impact on the developing nervous system. In some of these cases, the central nervous system symptoms may be limited to the first months of age, but there is growing evidence that neurological and behavioral abnormalities may become evident later. Poor organizational skills, reading problems, and difficulties in acquiring satisfactory mathematical skills may result from these abnormalities.

In addition to the impact on the central nervous system, use of cocaine during the third trimester tends to induce uterine contractions. Uterine contractions and fetal activity can be noted within minutes of cocaine use. (Chasnoff, 1990, pp. 175) Some women use cocaine to relieve

the pain of contractions or to induce early labor and premature birth. In Harlem 30% of cocaine-exposed infants are born "extremely prematurely." (Rist, 1990, p. 2)

Infants exposed to cocaine during pregnancy tend to have a lower birthweight, have a smaller head circumference, be shorter, tremulous and irritable. Other complications can include: "intrauterine growth retardation, microcephaly, prematurity, infections, neurobehavioral abnormalities, neurophysiologic abnormalities, poor feeding, and small CNS bleeds." (Dixon, 1990, p. 80) The rate of SIDS is 15% for children exposed prenatally to cocaine. This is more than triple the rate in heroin-exposed infants. (Chasnoff, 1987, p. 176) The rate of Sudden Infant Death Syndrome among all infants is 0.5%. (Shores, 1991, p. 4)

Evaluations performed on infants three days after birth using the Brazelton Neonatal Behavioral Assessment Scale indicate that these infants are often "unable to respond to the human voice and face," have difficulties "in the ability to interact with others," and tend to be "highly labile emotionally, responding poorly to attempts at comforting." (Chasnoff, 1987, p. 176) Cole notes that a negative cycle often develops when the cocaine-exposed infant cannot be satisfied or soothed and the caretaker becomes frustrated. The caretaker may then turn the child over to someone else. This compounds the problems for infants who already have difficulties forming attachments. (Rist, 1990, p. 3)

Cocaine-exposed infants also retain more primitive reflexes than infants not exposed to drugs. (Schneider and Chasnoff, 1987, p. 61)

Children exposed to cocaine before birth exhibit a variety of problems as they mature. Some display fine motor difficulties. Others experience gross motor difficulties and tremors. Difficulties with word retrieval and articulation are problems for others. Many are disorganized, easily distracted and unable to focus on classroom tasks. They are often irritable, impulsive, and display exaggerated reactions to events such as transitions within the school day. Some children are easily overstimulated. For those who have difficulty modulating their behavior, giggles can turn into uncontrolled laughter, pleasant moods into sullen ones, independence into dependence. (Cole et al., 1990, p. 1)

Research by Howard and Beckwith of UCLA indicates drug-exposed toddlers score in the low-average range on structured developmental tests. However, the researchers noted that the children tested higher than observation would indicate. They found the children to have deficits in representational play. The study also showed that children exposed to drugs prenatally have an increased risk of affect regulation, social development, and cognitive development in the representational and symbolic aspects of play. (Howard and Beckwith, 1989, pp. 10-11)

Some research suggests that the effects of cocaine are unpredictable. Approximately 40% of the cocaine-exposed infants tested are at risk for motor development dysfunction, 30% are at questionable risk, and another 30% appear to be developing normally." (Schneider, no date or page) "Drug-exposed children are all over the bell curve. It's a crap shoot how much effect the drug has on kids," Davis says. She has become an outspoken critic of the assumptions that cocaine-exposed children have major behavioral and developmental problems. (Shores, 1991, p. 11)

The first crack-affected children are now entering the public school systems. Some of these children will require special services for developmental, behavioral, psychosocial, and learning problems caused by drug exposure. As more drug-affected children approach school age, schools must be prepared to offer the services needed by these children and their families/caregivers. (Lumsden, 1990, p. 3)

When cranial ultrasonography was used to contrast cocaine-exposed and drug-free yet clinically ill children the type, location, and distribution of lesions in cocaine-exposed children indicate that symptoms of neural damage may become evident only after the first few years of life. At that time more complex visual-motor and social cognition tasks are required of the preschool and school-age child. Dixon and Bejar suggest that even among

the drug-exposed normal neonates there is grave concern for abnormal neurologic, cognitive, and behavioral development as they approach school age. (Bauer, 1991, p. 74)

Indicators for Early Intervention

Evaluation of infants born to mothers known to use drugs would ideally occur three days after birth. By this time the infant will normally have stabilized from any trauma related to the birth process. The Brazelton Neonatal Behavioral Assessment Scale (BNBAS) is a generally accepted assessment for newborns. (Schnieder and Chasnoff, 1987, pp. 61-62)

For older children, Michael T. Stone of Pinellas County, Florida, recommends training for teachers in play-based assessment. (Shores, 1991, p. 8) Jones notes that the child's play provides information about his development. Since play is the method through which children integrate cognitive, language and social skills, problems in play skills may indicate a need for intervention. (Jones, 1991, p. 6) The PED program notes that while it is necessary to monitor skill development, how children use those skills can be of equal importance. (Los Angeles, 1990, p. 5)

It can be difficult to evaluate drug-affected children. Many display sporadic mastery of skills. They demonstrate a skill one day and not the next, even when the cues and context are the same. Evaluations involving more complex skills and problem solving are difficult for some drug-exposed children. (Cole, Jones, and Sandofsky, 1990, p. 1) Griffith reports that children often score in the normal range during individual evaluations in which children are presented with one task at a time. However, when these same children are given more than one instruction or presented with a toy they tend to withdraw or become hyperactive. (Rist, 1990, p. 4) Since drug-exposed children tend to score higher on one-to-one structured tests than their daily skills indicate, a play-based assessment gives a clearer picture of the child's true ability.

A transdisciplinary approach should be used in the assessment process because of the variety of problems the children exhibit. A comprehensive evaluation and intervention team might consist of a nurse, social worker, physical therapist, psychologist, occupational therapist, speech pathologist, audiologist and early intervention specialist (teacher).

Educational Implications

Public schools must deal with children who were exposed prenatally to drugs and alcohol. Many of these children will need early intervention services. Some school-age children will need special education. For a few this may mean special classes. For many it will mean a need for supportive services.

The special needs of these children will mean additional expense for the school systems. One school system estimated the cost of preparing a drug-exposed infant at \$40,000 annually. In one program the cost of educating a child in a special program cost \$15,000 yearly. The cost to educate a child in the regular classroom was \$3,000. (Gittler and McPherson, 1990, p. 5)

Administration must also be aware of the special in-class needs of many of these children. Classes must be small, allowing for individual attention. Traditional discipline techniques may in fact create additional problems. Directions, instruction and curriculum must be individualized. A few children may not be suited to the classroom. Referrals to programs for emotionally handicapped children may be needed on occasion. However, as

the author was careful to point out, there are so many variables the actual cause of such a disorder cannot be identified. (Shores, 1991, p. 11)

Teaching Strategies

Carol Cole, teacher and child development specialist in the Los Angeles Unified Schools, feels youngsters prenatally exposed to cocaine need stability and security. In the district's pilot program for drug-exposed children, a child comes into the program at age three and stays with the same teacher until ready for kindergarten two years later. That means teachers should develop warm and strong relationships with the children who show signs of prenatal cocaine exposure. (Rist, 1990, pp. 19-24)

Sudden changes in schedule, the appearance of unexpected visitors, and disruptions in routine are especially difficult for drug-exposed children, says Cole. She suggests following routines, establishing rituals, and sticking with schedules. The L.A. Unified program, for example, permits class visitors only one day a week--and then for only a short period. (Rist, 1990, pp. 19-24) Cole also suggests keeping interruptions and distractions to a minimum. (Cole et al., 1990, p. 2)

Cole suggests that we look at the ways schools are stressful, demanding, and unpredictable, then find ways to make them less stressful, less demanding, and more predictable. She says that can be done even in a classroom of thirty children. (Rist 1990, p. 21)

When given a structured setting the learning ability of cocaine-exposed children appears to be normal. (Jones, 1991, p. 2) Rist also notes that it is not that cocaine-exposed children can not learn, but that they can not learn in the typical classroom. She feels that given the proper support, structure, and low adult/child ratio these children will do better than in a typical classroom. The L.A. Unified preschool program uses an adult/child ratio of 3/8. (Rist, 1990, p. 24) Lumsden notes that programs designed for drug-exposed children must include structure, clear expectations, and boundaries. (1990, p. 1)

Children with a history of drug exposure need a responsive and nurturing environment. Positive reinforcement is more successful than negative reinforcement. (Shores, 1991, p. 16) Many techniques commonly used in the typical preschool classroom are not effective with this group. For example, use of time out is not generally effective when the child is acting impulsively. However, teaching children to monitor their own behavior and giving them the opportunity to choose a "quiet" center can prevent the loss of control.

Summary

In general, drug-exposed children need a structured classroom, a loving environment, and a developmentally appropriate curriculum. Davis notes (Shores, 1990, p. 11) many of the techniques needed to teach this new generation of children have been used successfully for years. We just need to take them out of the closet and dust them off. While some teachers may feel using only play-based methods is more advanced or enlightened, many of the old methods are essential for these students.

In "The South Looks For Answers," Turner concludes that that classrooms with a lack of structure and teachers with a negative attitude set the children up for failure. She feels teacher expectations have a direct influence on outcome.

A HANDBOOK FOR TEACHERS OF CHILDREN
EXPOSED TO DRUGS AND ALCOHOL

BY

Linda Belknap Chappie
July 1992

Handbook
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INTRODUCTION

The incidence of prenatal drug and alcohol exposure has risen sharply during recent years. Children exposed demonstrate an increase in hyperactivity, short attention span, problems in interpersonal relationships, deficits in play skills, difficulties in following directions and various physical handicaps. Many of these problems are documented as side effects of prenatal exposure. Some such as interpersonal difficulties may be compounded by unstable home environments.

The damaging effects of prenatal exposure are often first noted in infancy. For many children the deleterious effects continue through the preschool years and beyond. Facilities serving preschoolers are beginning to see these children in their centers and classrooms. Most are not prepared for the increase in children with high levels of activity, lack of self control, poor play skills and difficulties in interpersonal relations. In many programs the previously successful methods are no longer working.

Programs must now look closely at methods and setup. It may be necessary to alter classroom schedules, room arrangements, rules, and even possibly staff/child ratios to meet the needs of these children. The environment should reflect the needs of the children currently enrolled.

Many resources stress the need for structure and return to older methods. This should not be confused with a "seat-work" philosophy. A good curriculum is based on concrete experiences. The curriculum must be developmentally appropriate. Children learn best when given the opportunity to explore their environment, make choices and solve problems through concrete play experiences. However, the basic framework must be designed with the special needs of drug and alcohol-exposed children in mind.

All children need space to interact with adults and peers. They also need space to be alone. This is especially true of some children with characteristics of prenatal exposure. Providing a few, small one-person centers can alleviate the problem. Further, controlling the number of children permitted in a center at a time can help some children control their aggressive behaviors and develop positive social interactions.

Due to difficulties in interpersonal relationships, drug and alcohol-exposed children need a positive classroom environment. They need to feel accepted, safe and loved by preschool staff. The children also need consistency and security. If possible they should be allowed to remain in

the same teacher's classroom throughout the day. It may be helpful to allow the child to remain with the teacher for more than one program year.

The child's family should be involved in all aspects of the program. Since the child's caregivers know him best, they should be involved in evaluation, planning and goal setting. Teachers should continue to involve the caregivers in the child's ongoing development through classroom activities, field trips, home visits, phone calls and notes sent home.

This handbook is based on information obtained from the review of literature, interviews with professionals, and personal experiences. It is most important to remember that while all children are individuals, all children are much the same. Drug and alcohol-exposed children are no exception. Consider them first as children, then assist them in areas of difficulty.

In the following chapters many ideas are suggested. Choose only those that are developmentally appropriate for the child in question.

Behavior 1: The child becomes hyperactive when overstimulated. (Van Dyke and Fox, 1990, pp. 160-163) (Gold and Sherry, 1984, pp. 3-6) (Lumsden, 1990, pp. 3-4) (Gress, 1988, pp. 18-19)

The child becomes aggressive when overstimulated. (Rist, 1990, pp. 19-24))

The child becomes withdrawn when overstimulated. (Rist, 1990, p. 24)

The child "overreacts" to stimulus (Rist, 1990, pp. 19-24)

The child may show delay and exaggerated reactions to events. (Cole, Jones, and Sadofsky, 1990, 28-30)

The child is unable "to deal with many different stimuli at once." (Rist, 1990, p. 24)

Description: The child may move quickly about the room, unable to settle and play with one toy. He may pick up and discard toy after toy. He may ask questions without waiting for answers. One of the most common characteristics seems to be impulsivity or acting before thinking. Other children may become withdrawn or aggressive under similar circumstances. Some experts feel that although these children exhibit many characteristics of ADHD (Attention Deficit Hyperactivity Disorder) they do not suffer from true attention disorders. (Shores, 1991, p. 11)

Management Techniques: The most effective way to manage this behavior is to prevent its beginning. Whenever possible, structure the environment to reduce the stimulus causing the undesirable behavior. The teacher's goal should be to provide stimulation while not overstimulating the child. Once this stable environment has been created and the child feels secure in his ability to successfully handle the school environment, the focus will switch to helping the child learn to monitor his own behavior. The child needs to know he is loved and supported especially when he has difficulties. "Teachers should seek to acknowledge children's feelings before dealing with their misbehavior. This conveys the message that the feelings themselves are not wrong, but the way in which they are acted upon may need to be altered." (Lumsden, 1990, pp. 3-4)

The Carolina Curriculum notes that hyperactive children need a more consistent environment than other children and that adults must be "highly specific" regarding acceptable and unacceptable behaviors.

1) Class size will affect the level of stimulus in the classroom in a variety of ways. Children who have difficulty dealing with auditory and visual stimulation will find that a highly populated classroom provides

more stimulation than they can handle. Research indicates that the best class size for drug exposed and other at risk children to be a 3/8 (adult/child) ratio. (Rist, 1990, 19-24)

2) Class makeup is another important factor when working with children with an inability to cope with stimuli. Placing two such children in the same classroom or in the same part of the room can cause behaviors to escalate. When the hyperactive child is sensitive to noise or off-task behaviors, it is best to provide the hyperactive child with some time away from these stimulating children. In general, reducing class size cuts down on auditory and visual stimulation.

3) Classrooms with four walls and a door are more appropriate for children with hyperactive behaviors.

4) Room arrangement can be an effective method of reducing stimulation. Room arrangement is more easily controlled by a teacher than class size or class makeup. Visual stimulation can be reduced through the use of dividers. In a preschool classroom, learning centers may be set apart with shelving, furniture and free-standing dividers. The same setup allows the child with visual distractibility to concentrate on the task at hand rather than on the activities of classmates. Conversely classrooms with large open spaces and "runways" seem to encourage activity and distractibility.

5) Room location can be important. If the classroom is located near an entrance, gym, cafeteria, etc., the noise level can be highly distracting.

6) Private work space should be available for children to use when they feel a need to reduce stimulation. In a preschool classroom this can be a private reading center or a one-child work center. Private work areas should never be used as punishment, but rather as a tool to help children learn to monitor their own behavior.

7) Auditory stimulation can be reduced in a variety of ways. As mentioned previously, room location, class size, and class makeup can affect the level of auditory stimulation. The level of auditory stimulation can be reduced by carpeted floors, headphones for auditory equipment, wall hangings, etc...

8) Relaxing activities are useful in helping the hyperactive child calm himself. Calming activities generally provide tactile experience along with motor activity but do not require concentration or effort. Playdough, silly putty, slime, water play or a dishpan

filled with uncooked rice, funnels, and measuring cups can be very calming. These activities can be especially helpful when the activity is limited to one child.

9) New toys in the classroom can be very stimulating to some children. Part of the stress can be relieved by introducing all new activities during circle time. If each new toy is introduced, appropriate uses demonstrated and each child given the opportunity to see and touch the object, the problems associated with new toys can be greatly reduced.

10) The teacher's attitude has a profound influence on children. When working with children who tend to become overly active, it is important to remain calm, use a soft voice and let children know that you are sincerely concerned for their comfort and safety. The child also needs to know you will not allow disruptive or dangerous behavior.

11) Reducing the number of toys and activities can help the overactive child settle and play in one area. This is especially helpful at the beginning of the year when all toys are new and stimulating to the children.

12) The techniques listed to deal with the child who becomes hyperactive when overstimulated are also appropriate for the child who withdraws. Withdrawal can be an effective, if not always appropriate, method of reducing stimulation.

13) Comforting the child can add to the problem. If the child is withdrawing to reduce stimulation, the additional stimulation can cause the child to further withdraw or to act out in other ways. Allow the child time alone. When the child shows signs of relaxing, invite him to rejoin the group or suggest a new activity. Help the child understand that it is OK to take time alone and that he will be welcomed back to the group when he is ready.

14) It is difficult to handle the child's behavior when he has received too much stimulation. It is best to remove the child from the stimulating environment or to remove a portion of the stimulus from the child's environment. Allow the child to walk down the hall for a drink or take a message to another teacher while the room is made more orderly.

15) A developmentally appropriate curriculum is important in providing a sound learning environment for all children. It is especially important for children with a low tolerance for frustration. Provide constant successes and few failures.

16) Provide activities in which children learn through play and in which play itself is the child's objective.

17) A multi-sensory approach to teaching helps the child find his best learning styles and mediums. Be careful that material is not presented in too many styles at the same time. For instance, using recorded music while singing may be too much for some children. If the child also has difficulty with auditory figure grounding, the use of music can cause a great deal of frustration.

18) Children sometimes feel they must perform perfectly in order to succeed. Help them understand that perfect work is not expected. Point out times when you make mistakes. Let children see you can make mistakes and correct them in a logical and organized fashion.

19) Positive reinforcement helps the child by providing a low stress environment in which he can feel good about himself. During and following an incident the teacher must remain calm and supportive.

20) Traditional discipline such as time out can be counterproductive. In many children this discipline can cause undesirable behaviors to escalate. Others may know the punishment for breaking rules. However, this knowledge does not necessarily give them the ability to control their behavior. It is the teacher's responsibility to structure the environment so the child is not being overstimulated. The teacher must also teach the child to recognize signs he needs less stimulation and to find acceptable ways of dealing with the stimulation.

Behavior 2: The child is unable to cope with an unstructured environment. (Lumsden, 1990, pp. 3-4)

The child is unable to adjust to new surroundings. (Lumsden, 1990, pp. 3-4)

The child has a low tolerance of frustration and change. (Rist, 1990, p. 24)

Description: Sudden changes in schedule, the appearance of unexpected visitors, and disruptions in routine are especially difficult for drug-exposed children. (Rist, 1990, 19-24) They often display more difficulty with transitions times. (Cole, Jones, and Sadofsky, 1990, pp. 28-30) Transition time often provides a different level of stimulus than regular classroom activities. Such times tend to be noisier, less structured and faster paced and provide a great deal more tactile stimulation (children bumping into each other). For the child who exhibits behavior problems when exposed to too much stimulus, transition times are prime times for trouble.

Management Techniques: Due to the difficulties many children have with unstructured times, transition time should be viewed as an activity in and of itself. When carefully planned and executed these transitional times can help children learn how to deal with change. Structured transition times help by cutting down on the high level of stimulus generally associated with transition activities. Some drug-exposed children seem to be sensitive to noise and touch. Transition times may cause additional problems for these children.

1) Cleanup time is often one of the most loosely structured times in the preschool day. As a result it is also often the time many children experience behavior problems. Providing for structure and support can help prevent many problems.

- Give positive reinforcement freely.

- Work alongside the children. This provides the opportunity to model good organizational skills, to give positive reinforcement, and to gain a better understanding of the effectiveness of the room setup.

- Cleanup warnings are generally recommended. Observe your group closely. This practice can cause more disruptions than giving no warning. (Children with poor understanding of time concepts may not understand.) Quietly beginning cleanup while talking about the next activity may be more

effective. If children with different needs share the same playtime, a quiet, 3-minute warning can be given to those children who need it.

- Assign each child a specific area or type of toy to put away. This structure can eliminate many behavior problems. If the target child has difficulties with congestion in the work area, assign him an area away from the greatest activity. Allow the child to work alone or assign a compatible partner. In more extreme cases, it may be best to send the child from the room on an errand. A small cleanup job can be saved until his return.

- Some centers take longer to clean than others. It is generally best to end play time in all areas simultaneously to avoid frustrating children. Teachers can always lend a hand in the areas that take a little longer.

- Allow the children to remove themselves from the work area when their job is completed. Have children move to the library corner or the location of the next activity.

- It is sometimes best to begin the next activity even though a few children have not completed their cleanup tasks. This may help some children see that interesting things follow cleanup, and they will benefit if they complete their jobs in a timely manner.

2) Moving through the hallways and from one activity to another are other unstructured times. Many difficulties can be prevented by moving in an orderly fashion.

- Although many schools do not require children to walk in a line, it can be a good method for these target children. When children walk in line singly or with partners, a great deal of touching, running and noise can be eliminated.

- Avoid mass trips to the water fountain or bathroom. Either allow the children to go one at a time or send small groups under the supervision of the assistant.

- Play learning games to cut down on congestion and incidentally reinforce skills. (Example: "If your name starts with a "K" you may go to the snack table.")

3) Follow a regular schedule in the classroom. This is especially important for children who have difficulties dealing with change. Anxiety is reduced when the child is able to determine what will occur next.

- During circle time review the schedule and explain new or special activities.

- Throughout the day remind children of activities to follow.

- Design the daily schedule with as few transitions as possible.

- Post the daily schedule. Clock faces and pictures can help younger children use the schedule.

Behavior 3: The child is disorganized or lacks self-organization. (Howard and Beckwith, 1989, pp. 8-12) (Van Dyke and Fox, 1990, pp. 160-163)

The child is overwhelmed by information coming in. (Rist, 1990, p. 75)

Description: "The child appears unable to carry out a task or to pay attention to the material at hand in an orderly fashion. Responses appear to be random and meaningless." (Van Witsen, 1979, p. 3)

Management Techniques: "The 'at risk' child needs assistance in self organization which can be facilitated by interacting within an orderly, child appropriate environment." Delapenh, a Florida school psychologist, goes on to say that an at risk child "requires more structure and clarification than other children, but all children are more successful, particularly at the beginning of the year, if their environment is constant and clear." The child's ability to follow directions will be affected by auditory memory and the ability to sequence information. These issues are discussed in other sections of this handbook.

1) Highly structured routines help by providing the structure the child is not able to provide for himself.

- Post schedules with activities clearly printed and faces similar to the classroom clock so children can follow the daily schedule.

- Follow class schedules. If the schedule must change explain to the children in advance.

2) An organized environment is helpful in teaching organizational skills as well as reducing confusion.

- All equipment should have a specific place and be returned to that place when not in use.

- Label bins and shelves. Children can then easily learn to return equipment to the proper place. Use large, easy to read print and contrasting marker and paper. Be consistent in labeling style. Pictures may be added to labels for younger students.

- Each child should have a place of his own. A cubby is helpful to teach children to organize their own supplies. Cubbies should be labeled with the children's names.
 - It may be helpful to have children keep equipment in the appropriate learning center.
 - Label each center with the number of children allowed there simultaneously. This is especially helpful for children needing reduced auditory and tactile stimulation.
 - Introduce and explain uses for new toys during circle time. Review rules for other toys as necessary.
 - Centers should be set with clearly defined areas. Unclear boundaries can create confusion and disorder.
- 3) Decreasing peripheral stimulation can reduce outside distractions and give the child the opportunity to better organize himself.
- Individual work areas with screens may be helpful. In the preschool classroom, learning centers with screens or dividers reduce peripheral stimulation.
 - Store equipment in closed shelves or make screens or curtains to hide equipment not in use.
- 4) Allow students to work on a task for short periods of time. Timers may be used to help children understand when to stop work.
- 5) Use short tasks with a definite end in sight. Consider each child's attention span when making assignments.
- 6) Reward children for completed projects or specified sections of a task.

Behavior 4: The child has difficulty following directions. (Lumsden, 1990, pp. 3-4)

Description: The child is unable to follow through on requests made by others. In the preschool classroom, requests are almost always verbal. In some cases, following directions can involve memory. Memory problems are characteristic of drug and alcohol-exposed children.

Management Techniques: When helping children follow directions, it is especially important to consider the child's developmental level. In a preschool classroom some children may need assistance in following one-step directions. Other children may be capable of three commands.

1) The teacher must be aware of her presentation of material and the child's abilities.

- Speak in short sentences or phrases. Use as few words as possible. Emphasize key words.
- Move as close as possible to the child when giving directions.
- Make eye contact when giving instructions.
- Break instructions into steps. Be aware of how many steps the child can follow.
- Consider the lapse in time between the giving of instructions and performance of the task.
- Repeat instructions.
- Give lots of positive reinforcement.
- Use natural consequences. It is ultimately the child's responsibility to complete assigned tasks.

2) Assist the child in developing techniques for remembering and completing directions.

- Help children learn to make lists. Drawing a line through completed items can be very satisfying.
- Help children remember items by visualizing.

3) Plan games and activities that require the child to follow directions in a fun and interesting way. Activities that help the child develop listening skills are also useful for the child who has difficulties following directions.

- Ask the young child to run errands. Give specific and clear directions.
- Encourage the child to pay attention to the sounds made by toys and animals.
- Have children draw pictures as described.
- Play games in which the child gives direction.
- Play "Simon Says."
- When having egg hunts give specific directions. This can cut down on confusion and, with some planning, make the hunt equitable. Instruct individual children to look for specific colors or sizes.
- Play "Tornado." One child takes the role of weatherman. He gives weather reports indicating which way the wind is blowing. When the report is given children move left, right, forward, or backward. When he calls "Tornado" everyone spins around. (Van Witsen, 1979, p. 41)
- Play "Fruit Salad." Have each child choose the name of a fruit. Name two fruits. Those children change places. Continue with different combinations. When "Fruit Salad" is called everyone changes places. (Van Witsen, 1979, p. 40)
- Work puzzles together. For older preschoolers 25-60 piece puzzles are good lessons in cooperation. Provide needed assistance in the form of directions. (Ex. "Put the shoes at the bottom.")
- Play bean bag games in which the child with the bean bag must call the name of the child to whom he will throw the bean bag.
- When starting rhythm band activities have children follow verbal directions. (Ex. "Carol, ring the bell.")
- Sing and learn songs together.
- Read books together.

- Most art projects, craft activities, cooking projects and many special activities can easily be used to reinforce skills in following directions.

- See activities under auditory memory and auditory perception for additional ideas.

Behavior 5: The child is easily distracted or has difficulties in concentration. (Lumsden, 1990, pp. 3-4) (Cole, Jones, and Sadofsky, 1990, pp. 28-30)

The child is unable to focus on classroom tasks. (Cole, Jones, and Sadofsky, 1990, pp. 28-30)

The child has a poor attention span. (Gold and Sherry, 1984, pp. 3-6) (Lumsden, 1990, pp. 3-4) (Van Dyke and Fox, 1990, pp. 160-163)

The child may have difficulty seeing a task or activity through to completion. (Bauer, 1990, pp. 1-73)

Description: The child attends to activities for shorter periods of time than expected. He may not stay on task to complete activities, or he may hurry to get the activity finished.

Management Techniques: Consider why the child does not stay on task. Is the classroom too distracting? Does he complete activities haphazardly and quickly? Are activities too easy or too difficult to hold attention?

1) Provide a curriculum appropriate for the child.

- The preschool child learns best through concrete activities. Classroom activities should be primarily play-based with teacher facilitation. Some class projects such as cooking and crafts may be more structured.
- Work with the child to establish goals that can be met.
- Make sure the curriculum is stimulating enough.
- Activities need to be of appropriate length and difficulty.
- When necessary, break projects into a series of shorter activities.
- When possible, give choices rather than assigning the child a specific learning center or task.
- Give the child a choice of methods for completing a project.

- Praise the child when he is on task.
- 2) Review your room arrangement.
- During circle and snack times, seat the easily distracted child away from similar children and near children who stay on task, are quiet, and don't fidget.
 - Establish routes or pathways to the wastebasket and door and from one center to another.
 - Provide quiet areas. For older children this may be private study areas. For preschoolers use one-child centers and centers limited to a few children.
 - Limit distractions. Keep extra equipment out of sight, use shelves as room dividers and cut down on noise with carpet and wall hangings.
- 3) Help the child develop his ability to stay on task.
- Help the child monitor his own behavior.
 - Teach the child to verbally express his needs.
 - Reinforce on-task behavior.

Behavior 6: The child has poor auditory memory. (Bauer, 1990, p. 15)

Description: Memory refers to the ability to retain information. Sequential memory involves remembering things presented in a specific order. Memory also refers to the ability to retrieve information from storage when needed. Auditory memory involves the ability to retain and recall material presented auditorily. When material is meaningful or brief it is more likely to be retained. "The child with an auditory memory problem cannot remember names of people or objects in the class or home environment with which he should be quite familiar. He often does not know rote sequences, i.e., his alphabet, counting sequence, multiplication tables, his address, or phone number. He is unable to remember several directions, or cannot supply a word to a well known poem, greeting, story, or rhyme." (Gillet, 1974)

Management Techniques: The child with auditory memory difficulties can be given attention clues so that he can "be ready to listen"; organizational skills so that he can organize what he must remember in a meaningful way; and the opportunity to orally repeat the instructions. To make memory activities more difficult, increase the number of items to recall, increase the similarity of items, or introduce a delay before the child responds. "Visual cues can be used to make the task easier." (Gillet, 1974, p. 27)

- 1) Play games such as "Suitcase." In this game the first child names one object he would take to the moon, school, beach, etc. The second child repeats the item then adds one of his own.
- 2) Rhythm patterns can be used to aid auditory memory. Chants or rhythmic patterns can be used as a remedial approach. (Gillet, 1974)
- 3) Read books such as "Brown Bear, Brown Bear." Have children use flannel board characters to retell the story.
- 4) Give each child a basket and a verbal list of items to collect. This exercise can easily be adapted to meet the developmental needs of each child involved.
- 5) Have the child find items needed to complete a project. "Can you find the horse and cow for our farm?"
- 6) When preparing snack give directions for the child to follow.
 - fill the pitcher with water
 - add the kool-aid

-stir with the big spoon

- 7) Give directions throughout the day. "Take off your paint smock and wash your hands for snack."
- 8) Use rhythm sticks to tap out a "secret code." Have the child repeat the code.
- 9) Have the child count the chimes on a clock to tell the time. (Gillet, 1974, p. 28)
- 10) Have the child listen and count beads as you drop them into a can. The child then drops the same number in his can. (Gillet, 1974, p. 28)
- 11) Help the child write notes to parents reviewing what happened during the day.
- 12) Play restaurant in the dramatic play area. Give the child an order and have him act as a waiter and bring the food.
- 13) When rereading books have children fill in by telling what happens next.
- 14) Play games such as "Simon Says." Increase the number of commands to make the game more difficult.
- 15) Have child repeat silly phrases or sentences. Tongue twisters are fun for older children.
- 16) Verbally give the child a shopping list. Have the child obtain the items from the dramatic play area and bag them.
- 17) Give the child a special sack (laundry bags work well) and let him be Santa. Other children can give Santa a wish list of items in the room. Santa's job is to remember the list and gather the items in his sack. You may need to limit the number of items on wish lists.
- 18) Play silly dress up. Send the child to the dramatic play area with a specific verbal list of items to make a costume.
- 19) Send the child to other classrooms or the office to obtain needed supplies.
- 20) Practice the sort of commands that the child will have to follow at home, nursery school, or kindergarten.
- 21) Set up an obstacle course. Give verbal directions.

- 22) When using a flannel board, let the children help recall and choose needed pieces.
- 23) Leave out a few words when doing rhymes and finger plays. Let the child supply the missing words.
- 24) Read well-known stories over and over again. Pause for the child to join in at key moments. Stories with repetitive lines, "the gingerbread man" and "the three little pigs" are great stories for this. (Cooke and Williams, 1985, p. 40)
- 25) Following a "listening walk" have children dictate the sounds they heard.

Behavior 7: The child has poor visual memory skills. (Minnesota Univ., 1990, Number 4, Section 4) (Bauer, 1990, pp. 1-73)

The child may have memory deficits that complicate learning. (Jones, 1991, pp. 1-9)

Definition: Visual memory is the ability to remember what has been seen.

Management Techniques: The child should be familiar with both the objects and the vocabulary used in visual memory exercises. To make memory activities more difficult, increase the number of items to recall, increase the similarity of items, or introduce a delay before the child responds. Visual cues can be used to make the task easier. (Cooke and Williams, 1985, p. 149)

- 1) Play a game of "What's Missing." Place four objects on a table. Have the child close his eyes while you remove one object. Then ask him to look and tell what is missing. Sometimes naming the objects, or having the child name them before the game begins, helps him to remember them. Increase the number of objects. When the number is more than six, select objects that can be associated in pairs (big and little shells, knife and fork, pencil and chalk, etc.) Teach the child to associate them, so that he has a clue as to what to look for. (Van Witsen, 1979, p. 17)
- 2) "Place several familiar toys or objects on a table behind the child, or have him sit with his back to his desk. Tell him to look at the objects for a few seconds, then turn away and name as many objects as he can remember. Start with three objects and gradually increase the number." (Van Witsen, 1979, p. 17)
- 3) Play "Concentration." Use cards with pictures, letters, colors, shapes or numbers.
- 4) Have one child close his eyes. Pick a second child to leave the room. The first child then opens his eyes and guesses who is missing. To make the game more difficult have the children remaining change seats.
- 5) Look at a page in a favorite book. Ask the child to memorize all the items on the page. Close the book and ask the child to remember the contents of the picture. Children especially enjoy this activity with the toy section in a catalog.
- 6) Make designs with beads, blocks, legos, etc. Hide the design and ask the child to duplicate it.

7) Hide a small toy in one of your hands. See if the child can remember which hand it is in. When he can do this, put your hands behind your back for a moment and see if he can still remember where it is. (Cooke and Williams, 1985 p. 150)

8) Play the shell game. Use small pieces of candy to make the game more interesting.

9) Play "Hide-and-Seek." Let the child see where you hide. After a moment let him come and find you. Gradually make him wait longer before he comes to find you. (Cooke and Williams, 1985, p. 150)

10) Show the child three objects in a row. Have him turn his back. Shuffle the objects. Ask the child to turn around and put them into the correct order. It is best to have a model available so the child can compare. (Cooke and Williams, 1985, p. 150)

11) Hide Easter eggs or special toys while the child watches. Then let the child find them.

12) Play a game of "What's Missing." Before class remove several items from the classroom. During circle ask the children to guess what's missing.

13) When changing material or decorations in the classroom play a game of "What's New." Ask the children to look around the room and find the new items.

14) Talk about yesterday. Have children try to remember what each child wore yesterday.

15) If the above is too difficult try questions about today. Ask children to close their eyes and remember what they have on today.

Behavior 8: The child may have difficulties engaging in representational and fantasy play. (Howard and Beckwith, 1989, pp. 8-12)

The child is unable to engage in free play. (Rist, 1990, pp. 19-24)

The child may have limited play skills. (Shores, 1991, p. 15)

Description: Research notes that "crack babies typically lack the skills and characteristics necessary for free play--self-organization, initiative, and follow-through without adult guidance." (Howard and Beckwith, 1989, pp. 3-12) (Rist, 1990, pp. 19-24) Howard and Beckwith go on to say that the play of drug-exposed children was characterized by scattering, batting, and picking up and putting down toys. The children may wander aimlessly around the room or pick up and discard toys without purpose.

Incidental play in the preschool classroom generally involves learning through free play, classroom jobs and cleanup time. More structured learning generally takes place at circle time. Although all of these may be difficult for the drug-exposed child, free play is likely to be the most difficult.

Management Techniques: If the child is to develop the needed play skills, he will need "a lot of structure and individual attention." The typical classroom environment is not the best learning environment for these children. (Rist, 1990, pp. 19-24)

- 1) Model appropriate practice in play. Take time to play with the children in housekeeping and with blocks and manipulatives.
- 2) Follow the child's lead in activities.
- 3) Allow for spaces where a child can play alone if he chooses.
- 4) Demonstrate uses for toys. Encourage creative use of toys.
- 5) Encourage the child's efforts in play. Assist him in developing more complex and extended play.
- 6) Provide a secure environment where children feel comfortable experimenting and trying new things.
- 7) Encourage children to observe and imitate appropriate play behaviors from peers.
- 8) Provide developmentally appropriate toys for the children.

- 9) Add or remove toys as needed to facilitate play.
- 10) Adult involvement in play helps children see it as an important and valid activity.
- 11) Structure during playtime helps some children settle and actively engage in play.
- 12) Children do not need to participate in every activity. A specific skill can be learned through a variety of activities. For example, children can engage in dramatic play in housekeeping or play with blocks, manipulatives, playdough, etc.
- 13) Change equipment periodically to keep interest high.
- 14) Plan playtime for a minimum of forty-five minutes to allow time for children to carry through on ideas.
- 15) Invite the child to play with you in an area. Stay several minutes talking about what his peers are doing. Join them in play, making sure to include the child having difficulty.
- 16) Limit the number of interruptions. Many children will cease play activities or become overstimulated when interrupted.

Behavior 9: The child demonstrates delayed visual motor skills. (Shores, 1991, p. 15)

The child shows poor eye-hand coordination. (Gold and Sherry, 1984, 3-6)

Description: The child may have difficulty with manipulative toys.

Management Techniques: Provide a variety of activities to help children develop visual-motor skills.

- 1) Draw shapes in finger paint, sand, shaving cream, etc. Have the child imitate the shapes you draw. Switch roles. Imitate what the child draws and let him check for accuracy.
- 2) Have the child trace around stencils. For beginners use large stencil pictures of thick plastic, heavyweight cardboard or plyboard.
- 3) Allow children to draw in a variety of mediums. Make chalk, paint, markers, crayons, glue, glitter markers, magic slates, etc., available.
- 4) Create with playdough. Encourage children to mold dough, roll playdough with rolling pins, cut dough with plastic knives and make shapes with cookie cutters. (Specialty molds can be purchased to make farm animals and food items.)
- 5) Provide a variety of manipulatives. Legos, combo blocks, nut and bolt type toys, bristle blocks etc. are especially versatile and encourage creativity.
- 6) Provide scissors during playtime as well as during structured art activities. Children just starting to cut enjoy snipping paper. As their skills increase they become more creative.
- 9) Provide a variety of puzzles.
- 8) Make or purchase sewing cards.
- 9) Paper folding art projects are good for visual motor development and working on following directions.
- 10) Bubbles and balloons are fun for all ages. Encourage younger children to catch them. More mature children may like hitting them with paper tubes or squirting them with a water gun.

13) Trace over simple pictures on plexiglass. Use simple dot-to-dots and simple numbered dot-to-dots.

Behavior 10: The child demonstrates visual perception skills problems. (Bauer, 1991, p. 75)

Description: Visual perception disabilities may cause the child to confuse visual input. It may involve visual figure ground problems, visual motor skills, or depth perception difficulties.

Management Techniques: Provide a variety of concrete activities.

1) When taking a walk, look for specific things. Choose one or more items to identify each walk. Children enjoy looking for animals, flowers, birds nests, pretty rocks, etc.

2) Look for familiar signs, farm animals, interesting mailboxes, etc., when traveling by car.

3) Help children learn to recognize names of classmates. Sing a song to the tune of "Where is Thumpkin." Replace Thumpkin with each child's name.
Example:

Where is Carol, where is Carol (teacher)
Here I am, here I am (child)
Come and get your name tag, come and get your
name tag (teacher)
Thank you Carol, thank you Carol (teacher)

Keep a duplicate set of name tags on hand for children to match.

4) Talk about the beginning letters in children's names. Look for the same letters in books, labels, signs etc.

5) Match cards of animals, people, objects, etc. Play a game of "Concentration" with the cards face up.

6) Match identical concrete objects. Make a matching game with two one-inch blue blocks, two identical unsharpened pencils, two identical cups, etc.

7) Match similar objects. Use two blocks, one blue and one red; two pencils, one large and one small; two cups, one with a handle and one without, etc.

8) Match identical pictures of common objects. Using photographs of classroom toys, have the children match pictures. Children also enjoy matching pictures to the object. Duplicate school supply books can be used to make identical picture cards.

9) Match pictures of similar objects. The teacher can make cards using school supply catalogues.

- 10) For a new twist, make cards of identical objects from different views.
- 11) Outlining the visual figure presented is sometimes helps the child perceive and focus on a particular image. (Van Witsen, 1979)
- 2) "Show the child a small object (a miniature farm animal); he must find its duplicate among a large box of similar objects. To make it slightly easier he can tip them out, first onto a plain surface, later a patterned one." (Cooke and Williams, 1985)
- 3) Show the child a duplicate of the toy you are asking him to find. Make this more difficult by hiding a red toy against a red background, etc. (Cooke and Williams, 1985)
- 14) Have the child find specific items in mural type pictures.
- 15) Show the child how to look at the picture on the puzzle box then find a specific puzzle piece.

Behavior 11: The child has difficulties with auditory perception. (Bauer, 1991, p. 75)

Description: "Auditory perception is the ability to receive and understand sounds and words. The child has difficulty in attaching meaning to words, understanding directions, or fully comprehending questions asked of him. His receptive vocabulary is poor. He frequently asks for repetition when oral instructions are given. He probably enjoys television rather than the radio or listening to stories read aloud to him. He may be able to repeat what he hears, but understands little of what he said. The child often uses gestures instead of words to convey the complete thought." (Gillet, 1974, p. 38)

Management Techniques: "A child can be helped to attach meaning to auditory symbols of increasing difficulty by such means as: presenting the same words over and over until internalized, but using the words in a variety of settings rather than straight drill; programing material so that new items build on previously learned material; making the vocabulary meaningful by planned repetition of those words the child is to learn. The teacher must consider the length of the verbal stimuli, the conceptual level of the words used, and the complexity of the sentence structure when remediating the auditory perception area." (Gillet, 1974, p. 39)

- 1) Take a "listening" walk. Listen for different things in different seasons. Listen for the sound of snow falling from the branches of trees, the crunch of snow underfoot, the wind blowing through the trees, birds singing, bees buzzing, the sound of lawn mowers, and the crunch of dry leaves.
- 2) Learn nursery rhymes such as "Jack and Jill" and "Jack Be Nimble." Have the children act out the nursery rhymes. A few props can encourage young actors.
- 3) Discuss stories and video tapes. Talk about what happened, who did it, why he did it, etc.
- 4) Read books of riddles. Work on answering in the proper form. Make up simple riddles. Then encourage children to make up their own.
- 5) Go on field trips. Learn about new concepts in the concrete.
- 6) Hide a clock or music box. Let the children take turns finding it.
- 7) Play games such as "Musical Chairs" or "Musical Statues."

- 8) Make sound canisters using film containers. Fill two with uncooked rice, two with popcorn, two with cotton balls, etc. Let children shake and match.
- 9) Use windup toys. Play with each a short period of time. Hide the toys behind a screen. Wind one at a time and guess which it is.

Behavior 12: The child has difficulties in sequencing information.

The child has difficulties structuring information. (Rist, 1990, p. 24.)

The child had problems with spatial memory. (Bauer, 1991, p. 75.)

Definition: "Sequencing is the ability to perceive or predict an order, either spatially or temporally. Spatial sequencing refers to the ordering of objects according to their position in space (for example, beads threaded in a red-blue-red-blue sequence).

Temporal sequencing refers to the order in which things occur in time. Auditory stimuli are almost always perceived temporally. Visual stimuli may be perceived either temporally or spatially, although the latter tends to be dominant. (Cooke and Williams, 1985, p. 135) "Auditory sequencing involves the number of patterns that can be recalled from oral stimulation. This includes immediate and delayed recall of digits, words, sentences, events in a story, etc. The child with an auditory sequencing problem often has difficulty in mispronunciations of words (emeny), of compound words (millwind), or phrases (Where they are?). Auditory sequencing problems may be reflected in an inability to learn the days of the week, months of the year, etc." (Gillet, 1974, p. 27)

Management Techniques: "Activities used to develop auditory sequencing involve recalling a sequence or pattern of gross sounds, the sequenced events in stories, letters of words, the order of compound words or words in sentences, patterns of loudness and rhythm, speech sounds or a sequence of words by verbal or manual reproduction of the initiated pattern." (Gillet, 1974. p. 27)

- 1) See activities under auditory and visual memory, retrieving information and following directions
- 2) Most sequencing activities require the prerequisite ability to match and sort. Evaluate the child's abilities and plan accordingly.
 - Have the child match concrete objects such as beads, blocks, and other toys. Clean-up time offers many good opportunities for sorting and matching toys.
 - Match identical animals. When the child can do this, have him match animal families.

- Once the child can match concrete objects, play simple lotto games. Start with single colored pictures. Move on to black and white pictures and then line drawings as the child gains skill.
- Play shape and color bingo. Show the shape or color to be matched on their card.
- Match small pictures to a large composite picture.

3) Provide numerous activities that provide hands-on, concrete experience with sequencing.

- nesting barrels
- unit blocks
- sequencing cards for beads and one-inch blocks
- plastic jars with lids in various sizes
- like toys in various sizes
- nesting containers of various shapes
- sequencing puzzles
- recorded stories on tape player
- flannel board stories

4) For the more mature child, games and classroom activities involving sequencing can help teach this skill.

- Play games involving sequencing of rules.
- Place cards containing interesting characters in order by size or by color sequence.
- Post the daily schedule.
- Review the day's activities. Have children dictate notes about what they did at school.
- Review the class photo album. Discuss pictures, stressing when the events occurred.
- During circle time preview and review activities.
- Let children help retell stories.

- Use step-by-step recipes with pictures when cooking in the classroom.

- Line up to move through hallways--discuss ordinal positions.

- Older children enjoy drawing scenes from stories. Put them in order on the bulletin board.

6) "Help the child carry out self-care and household tasks by himself, thinking about each stage of the procedure. This will make him aware of sequences in real life. You can also make pictures of each stage of a routine for the older child to put into correct order, to emphasize how one action follows from another." (Cooke and Williams, 1985)

7) Daily and weekly routines help children feel secure. They also help them become aware of, and predict, order in life.

9) Buy two copies of an inexpensive book. Mix up the pages and have children put them order.

10) Pick a familiar story. Start telling the story. Stop and let a child take over. After a few sentences let another child continue.

11) "Give the first and last words with which a well-known jingle begins and ends. Let the children think of the words between: e.g., "Jack...nimble," "Old...Hubbard," "Mary....lamb." (Van Witsen, 1979)

12) Using two primary colors, place large blocks in a simple red-yellow, red-yellow, red-yellow sequence. Have the child continue the sequence.

13) Have the child thread beads in various sequences.

Behavior 13: The child may have difficulties in learning problem-solving strategies. (Bauer, 1990, pp. 1-73)

Description: Problem-solving is the ability to find an acceptable answer to a problem by analyzing and processing available information. Problem-solving skills are needed to respond to and effectively cope with new situations.

Management Techniques: Children can be taught skills and strategies to help them solve problems more effectively.

- 1) Plan activities which allow the children to use all senses.
- 2) Provide the child with many sequencing activities. (See section on sequencing.)
- 3) Allow children to make choices in the classroom setting to encourage a sense of responsibility and build problem-solving skills.
- 4) Provide activities in which children match by color, shape and size, as well as more abstract criteria.
- 5) Help children learn problem-solving skills by walking through the process with them.
- 6) Have the child solving problems teach his method to another child.
- 7) Talk about "what will happen if.." when building with blocks, painting, etc.
- 8) Help children determine the actual problem when conflicts arise.
- 9) Encourage children to think of possible solutions to problems in the classroom.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Fetal drug and alcohol exposure is not a new problem. However, the deleterious effects of alcohol have been only documented in recent years. Research is just beginning on the long term effects of prenatal drug exposure, especially crack cocaine. Since studies have documented the characteristics of children affected by alcohol, these children are often receiving needed services. With a greater knowledge of the effects of various drugs more and better services may be provided for these children, too.

Coordination of services by various providers will be of great importance. It is not unusual to find special early intervention programs, public health nurses, children's services, Head Start programs and day care programs all serving one child. Whenever possible team meetings should take place to better organize services.

A few public school districts have started special training programs for teachers of children affected by drug and alcohol. Such training programs are important as the first of crack-exposed children have now reached school age. Perhaps of even greater importance is training for

regular preschool teachers and daycare staff. These professionals will often be the first to work with affected children but have the least training for the job.

Teachers need to be aware that they cannot "fix" affected children. They can teach problem-solving skills and methods of coping with various environments, remediate skills in specific areas and provide a safe haven in their world. However, when appropriate early intervention services are provided, the prognosis is definitely more positive.

CHAPTER V

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