

B. The Effects of Maltreatment on Infants and Toddlers

Conceptual Framework

Infants and toddlers are particularly vulnerable to maltreatment by their caregivers, and they are very likely to suffer permanent and serious developmental problems as a result of maltreatment. The signs of developmental problems are often observable within the first weeks and months after birth; however, these are typically not recognized until much later, sometimes not until the child first attends school. This is very unfortunate, since early intervention is the single most important variable in minimizing the long-term negative consequences of early developmental insults.

A child welfare caseworker with training and skill in child development will routinely assess the developmental status of all children, but will be particularly concerned about recognizing signs of developmental problems in infants and toddlers. By doing so, the worker can make a profound impact on the long-term prognosis for these children, and can potentially prevent later maltreatment.

The detailed information in this chapter is presented to enable caseworkers to do brief developmental assessments of children on their caseloads, and to refer children suspected of having developmental problems for formal assessment and, where appropriate, intensive developmental services.

Developmental Milestones, Birth to Three Years*The Newborn*

The newborn appears thin, with scrawny arms and legs, and a large, rounded belly. The skinny extremities result from limited muscle development, and is

apparent even in a heavier newborn. Feet and legs may be bowed and turned inward, knees are often bent up toward the chest, and arms are kept close to the body.

The infant's head represents about one fourth of its total body length. In adults, the head is approximately one seventh of the body. The large head size of the newborn results from rapid prenatal development of the brain relative to the rest of the body. This illustrates an important developmental concept: development progresses from the head down (cephalocaudal, which literally means from "head to tail"), and from the inside out (proxidistmal.) The brain and central nervous system are the first systems to begin development after conception. The upper body develops before the legs and feet; and, the internal organs develop before the extremities.

Newborn infants can see, but their eyes cannot focus well at all distances. They focus best at objects that are eight to ten inches from them.

The newborn infant displays numerous reflexes, many of which disappear within a few months. One of these, the asymmetric tonic neck reflex (ATNR), is sometimes called the "fencing posture." When the infant's head turns to one side, the arm on that side of the body extends, and the arm on the opposite side bends up toward the ear. This is normal for a newborn. Persistence of this reflex beyond a few months may indicate developmental problems, such as cerebral palsy.

Other reflexes are the grasping reflex (the child will reflexively close his hand around an object placed in his palm); the sucking reflex (the child will turn his head toward an object brushing his cheek and will make sucking movements with his mouth); the startle reflex (in which the child jerks in response to loud noises or sudden movement); and the Babinski reflex (an reflexive extension of the foot when the bottom is stroked).

A newborn's general health is rated in the delivery room using the Apgar scale, named after Virginia Apgar, the physician who developed it. The Apgar score is determined twice; once within a minute of birth, and again at three to five minutes. Up to two points are given for each of five criteria; heart rate, respiration, muscle tone, color, and reflexes. An Apgar rating of seven to ten points generally indicates a healthy infant; an Apgar under five often indicates that the child is in distress. A low Apgar at the five-minute reading may indicate the infant is ill, injured, or otherwise at risk. Infants with developmental disabilities often have low Apgar ratings at birth.

Healthy newborns exhibit a lot of gross motor activity, with particularly active movement of arms and legs. Most of these movements are rough, random, and unrefined. Large muscle activity is often jerky and very uncoordinated. There is very little fine motor coordination.

The newborn's head control is also limited, due to immature muscle development. The back and neck muscles are not strong enough to support the head, and it will wobble if not supported. However, all newborns should be able to lift and turn their faces to the side when placed face down. This prevents suffocation. Hypotonic infants (with very poor muscle tone) are often not able to do this.

The newborn's legs will not support any weight. Instead, when the foot touches the ground you can see the "stepping reflex," a reflexive withdrawal of one leg and an extension of the other leg. The baby looks like she is "walking in air."

Some early developmental theorists thought that infants were born as "blank slates." Recent research has demonstrated that infants are born with many abilities.

They can see. They like to look at things with high stimulus value, such as contrasting colors, and interesting patterns. They delight in looking at human

faces. They see best at a distance of eight to ten inches, which is the approximate distance between a nursing infant and the mother's face.

Infants hear well, even in utero. They orient to sounds by turning in the direction of the sound. They recognize the voices of their significant caretakers within a few days of birth.

Their senses of touch, smell, and taste are also developed. When they are fed sour or salty foods, they will grimace and make faces. They like to be touched. Newborns are often more comfortable when their skin is covered, and will often settle better when wrapped tightly in a blanket.

Several states of alertness and awareness have been observed in infants. In the *active alert* state the infant looks around, listens, and responds vigorously to stimuli. In the *quiet alert* state, the infant is quieter and less physically active, but seems to be "taking things in" by looking and listening. A *drowsy* state occurs just before the infant is ready to fall asleep. The child is physically very quiet, and will not normally respond to stimuli.

Parents and caseworkers should be able to recognize the various states for several reasons.

An assessment of the infant's development should be conducted during the active alert state. An assessment during the drowsy state may lead to misjudgements about the child's development.

Parents should try to interact with their infants during the active alert state, when the child is naturally involved with the environment. An infant is not likely to respond to a parent's attention when quiet or drowsy. The worker may have to teach the parent that this doesn't mean the infant is not interested in the parent.

Infants in the quiet alert state who become cranky can often be soothed by simply turning them to a different view, changing rooms, or providing new stimuli.

Even a very young infant will show considerable awareness and interest in people and the environment, will explore visually, and will initiate visual contact. It is easy to observe such evidence of early cognitive development in all healthy newborns.

By about five or six weeks, the infant displays improved gross motor ability. The first muscles to develop strength and control are those of the head, neck and shoulders, following the cephalocaudal, or head-to-toe pattern. By five weeks, when lying face down, the infant should be able to raise his head and shoulders.

Fine motor control develops later. The infant's hands will generally be fisted when at rest during the first three to four months of life.

By five weeks the infant's eyes are well focused, and she can keep an object in view as it moves from the periphery (edges) of her visual field to the "midline," which is an imaginary line that transects the center of the body from head to toe. Following an object with the eyes is called tracking. At five weeks, healthy infants can track to the midline, but cannot track through the midline to the other side of the visual field.

Attachment between a parent and the infant is visible in the way the parent holds, cuddles, and responds to the infant's needs. The attachment process is satisfying to both the parent and the infant. The infant's needs for security and comfort are met; the parent's feelings of love and competence are increased when the infant conforms comfortably into their arms and quiets. The infant's first smile strengthens the attachment.

Attachment responses are instinctive between most parents and their infants. They should not, however, be taken for granted. Some parents who, as children, never developed strong attachments may not recognize these cues, but they can often be trained to do so.

One of the signs of healthy attachment is when the parent engages the infant in the "en face" position. In this position, the infant can easily gaze at the parent's face and maintain direct eye contact. Brothers and sisters also form strong attachments to the infant.

Three to Five Months

By three months we see advances in muscle strength and control. The infant has adequate head and neck control to hold her head at a 90-degree angle from the floor. To determine the angle, you draw an imaginary line from the top of the infant's head through her ear to the floor. The newborn could barely raise her head. A two-month-old infant should be able to raise her head to a 45-degree angle. The three-month-old infant can also use her arms and shoulders to support her upper body. Recall the principle of cephalocaudal (head to toe) development. The muscles of the arms, chest, and shoulders are next to develop after those of the head and neck.

The infant's head control is not as well developed, however, when pulled up by the arms from a position lying on the back. The head will drop backwards in what is referred to as a head lag. This head lag is normal for an infant of three months. It will disappear at about five months, when the muscles in the neck and back are stronger.

Three-month-old infants experiment with their bodies. They are beginning to use the large muscle groups in their abdomens and legs, and they strengthen them by trying out new physical activities. A three month old can bear some weight on the legs, but is very unsteady.

Alertness, intense interest, and curiosity about people and the environment continue to be early signs of cognitive development. These signs are often absent in abused or neglected infants.

At three months the infant can visually track an object all the way through the midline. The infant focuses on an object at the midline, and will follow it visually as it moves toward the edge of the visual field. The infant often will turn his head far to the side in order to keep the object in view.

One visual problem that can often be identified in infancy is called strabismus. The eyes appear crossed or otherwise out of line. Strabismus is the result of a muscle weakness in the eyes. It usually corrects itself as the child develops. Untreated strabismus can, however, lead to serious vision defects. Infants with abnormal eye positioning should be evaluated by an ophthalmologist as soon as the problem is noted. Surgery can correct the condition if performed before the child is age two. Surgery after this time may not fully restore normal vision.

A three-month-old infant is not strong enough to sit unassisted. When the infant's body is propped, head and neck control are good. However, the infant cannot maintain balance, and will slump forward or fall over, if not held.

By four months the infant is very interested in handling objects. While she won't yet reach for objects, she will close her hand around an object that is placed in her palm. Fine motor control is still pretty primitive, and the grasp is awkward. At four months it's hard to know if an infant's grasp is reflexive or purposeful. The early grasping reflex is replaced by purposeful, goal-directed activity by four to five months. It is also common for infants this age to put objects into their mouths. This is a way for the infant to explore objects, as well as to suck.

Attending to and responding to objects is also an indication of early cognitive development. The infant will focus intently on objects and often responds by

excitedly flailing arms and hands, or by squealing or laughing. By this age, infants are beginning to anticipate events, and may become visibly excited when they see a familiar object.

By the end of five months, the infant will have made significant gains in motor development. The head is now routinely held at a full 90 degree (right) angle, and the infant will prop on her hands and push her shoulders and chest up off the floor. Upper body control is much improved, and the infant will turn her head and body around to see what is going on.

The five-month-old baby is developing improved coordination in the lower body, and much of his physical activity now involves the legs and feet. The baby will play by stretching his legs and touching his feet, and by pulling the knees up to the chest deliberately; this is no longer reflexive.

Babies learn new skills while playing and experimenting. For example, quite by accident the baby may swing her legs far to the side, and her shoulders will automatically follow. She has discovered how to roll over onto her stomach from her back. Once a new motor skill is learned, the baby will repeat it many times until she becomes proficient. Then she integrates it into her regular activities and uses it, as in learning to roll to the opposite corner of the room and back again.

By five months the baby can also support weight on her legs, and appears strong and steady, with excellent head control. The head lag referred to earlier should have also disappeared by five months, since the head and neck are now supported by much stronger muscles.

A five-month-old baby's hands are rarely fisted, unless they are purposefully closed for grasping objects. Hands that remain tightly fisted in older infants may be an early warning sign of cerebral palsy.

The five-month-old baby will reach for objects, practicing and perfecting both fine motor control and eye-hand coordination. The baby will reach directly for and grasp an object such as a rattle, and will manipulate it in front of her face, while continuing to keep it in view. This is no longer reflexive behavior; it is purposeful and goal directed.

By five months, babies can transfer objects from one hand to the other across the midline. Babies use both hands interchangeably with no clear hand preference for the first year to 18 months. They will usually reach for an object with the hand that is closest to it, and will rarely reach across their bodies. A clear hand preference before 12 to 18 months, or failure to transfer objects from hand to hand across the midline, may be symptoms of cerebral palsy. The smaller muscles of the hand and fingers are also developing, resulting in improved fine motor coordination. This illustrates the developmental principle of proximodistal development, as the muscles of the hands and fingers develop later than do muscles closer to the center of the body.

The five month old is very responsive to social stimuli. When something interesting happens, she responds with vigorous physical activity, direct eye contact, big smiles, and loud vocalizations. Other people can easily recognize the baby's emotional states, including pleasure, anger, fear, pain, and protest. The baby is more animated and interactive, and most parents feel they can communicate better with their baby. The baby's responsiveness can be very pleasurable and reinforcing for the parent.

Six to Eight Months

By seven months many babies will have progressed to sitting without assistance. Some still cannot "get to sitting" by themselves, and must be placed in the sitting position. At first, the baby can maintain balance only as long as he sits in a "tripod" position, with knees bent and feet placed together in front of him. If the

baby moves, he will lose his balance and topple over. Sitting without propping does free the baby's hands, enabling him to manipulate objects.

By seven months, the baby has developed considerable upper body strength, and can prop on hands and arms and push the chest and abdomen up off the floor. Add leg movements, which were learned and perfected during earlier periods of lower body play, and the baby is now in a position to begin the next major gross motor task of crawling. At seven to eight months the baby can support weight on his legs with ease, but may not be able to balance in a standing position without being held.

The baby's fine motor coordination has also improved, but finger-thumb opposition has not yet developed. A typical hand position for babies between six to eight months is sometimes called "raking." The baby drags the whole hand across an object, like one would use a rake, and then closes all five fingers around the object and grasps it in the palm.

Babies this age are attracted to objects because of their shapes, colors, and textures. The baby has a primitive understanding of objects. He will have discovered how to remove sticks from holes, but he doesn't yet understand that they can be put back in. The baby will amuse himself for several minutes by repeating the same activity many times in succession, apparently receiving pleasure from repetition and mastery. We begin to see the development of an extended attention span.

Nine to Ten Months

The nine month old should be able to sit comfortably without having to prop himself with his hands. The baby can also get to and from a sitting position by himself, or lean over to reach for an object and return to sitting without losing balance or falling.

By nine months the baby should also be crawling. Not all children crawl in the typical manner – that is, on hands and knees – but they do develop some way of getting from place to place before they learn to walk. Some scoot like a snake, or roll across the floor, or pull with their arms (the G.I. Joe Crawl). Some "early walkers" progress quickly to standing and walking without a long period of coordinated crawling.

A nine-month-old baby can usually crawl to furniture and pull up to a standing position, and can stand for long periods, as long as he holds onto something. The baby has increased strength, but as yet lacks balance. The baby may be able to stand alone, but often for only a few seconds. Arms may be held in an outstretched position to retain balance, and when first standing, the child's legs may be bowed; they are not quite ready to fully support his weight.

The nine month old has well-developed eye-hand coordination. The child still uses both hands equally; it is still too early to have developed a clear hand preference.

Fine motor development will have improved. By this age, the child will have developed finger-thumb opposition, sometimes called the "pincer grasp," and he can hold objects with the fingertips of one hand. With the development of finger-thumb opposition, the baby graduates from "raking" to "finger feeding," and easily self-feeds foods like Cheerios, one at a time, closing thumb and forefinger around each one.

The nine month old demonstrates rudimentary problem solving and goal-directed behaviors. The baby does things with an end in mind. He also has a beginning understanding of how activities may be sequenced to reach a desired end. This is evidence of increased cognitive development.

At this age, the baby is very social and interactive. He is playful, affectionate, and responsive to people to whom he is closely attached. He will not play with or easily relate to people he does not know well. The baby's ability to discriminate between people, and to relate differently to them, is both an advance in cognitive development, and a sign of healthy and strong attachment.

The ability to differentiate between people often results in "stranger anxiety." Between nine and ten months old, many children display an initial suspiciousness and fear of people they do not know. They withdraw and observe from a distance. If a stranger moves closer, they will react by withdrawing further or crying. When permitted to go at their own pace, most children will eventually warm to the stranger and go about their activities. Stranger anxiety may develop in children who previously were happy interacting with almost anyone. Stranger anxiety results from the baby's cognitive ability to discriminate between people, plus the development of stronger attachments to important people.

Separation anxiety may also develop around this same time. Children may cry any time they are separated from their parent or primary caregiver, even if the caregiver is only in the next room. They are usually most comfortable if their parent is clearly in view.

Cultural variables may affect children's responses to separation and to strangers. A child who is rarely left in the care of others may show greater anxiety or distress when separated from the parent. A child who is cared for by multiple caregivers, and is often with large groups of people may show little or no distress when separated from the parent, or when in the presence of strangers. Some children will warm quickly to new people after an initial period of shyness or hesitation. Constitutional factors and temperament also influence the degree of a child's distress in strange situations.

One Year

Most children begin to walk, on average, at about a year. It takes many months to perfect the skill of walking. Walking involves balance, coordination, and excellent motor control. When children are first learning to walk, we can see their intense concentration. They will often walk with arms outstretched to help balance them. Children often revert to earlier methods of getting around, such as crawling or standing holding on, especially when they are tired.

Walking ushers in a new sense of freedom and independence for the child, and the child enters the developmental stage of autonomy. Children will voluntarily separate from the parent for short periods of time to explore the environment, but will return to the parent periodically for reassurance or comfort, or when distressed.

Insecure or poorly attached children cannot find comfort from their parent when under stress, nor can they resume exploration after a reunion with the parent. This inhibits their willingness to explore their environments.

Physical independence has its parallel in emotional development. This developmental period is often referred to as "the terrible twos," even though it may begin as early as 12-18 months. The age of onset of this stage, and the degree to which the child will express autonomy, varies. In general, however, the placid, friendly, responsive and cooperative child of last year suddenly becomes willful, uncooperative, and stubborn. Nonverbal children often express their autonomy through tantrums. Verbal children may also exhibit autonomy through language. (The two year old's favorite words are NO!, ME DO IT!, and MINE!)

Early in the second year, children begin to develop symbolic thinking. This is a major step in cognitive development. Children begin to look at books or

magazines, and will look for familiar objects. They will point to objects and figures of interest, often in response to a verbal cue. Attaching names to familiar objects is the beginning of language development.

There is a wide age range within which children develop language. Some children can produce meaningful words at a year; and some don't begin to talk until they are age two or older. Most children develop receptive language many months before expressive language; that is, they can understand language earlier than they can speak it.

A primary cognitive milestone of the first year is the development of object permanence. Object permanence is the concept that objects do not vanish or cease to exist when they are removed from view. Infants under a year of age quickly forget objects that are not in view, and they don't search for them, even if they have watched the object being hidden. However, once children have developed object permanence, they will search for the object because they know it still exists. They will look for it in the place they had last seen it. They are aware that the object has a permanent existence, independent of their immediate perception of it.

One and a Half Years

By this time, most children will have been walking for several months and will demonstrate good balance and stability. They need no longer think about each step; the skill has been mastered and integrated. They are developing more complex motor skills such as climbing, which they use to get up and down the stairs, or up into a chair. They can also "stoop and recover," bending or squatting to reach an object and returning to standing without having to use arms and hands for balance.

Fine motor skills, including finger-thumb opposition, are more refined and coordinated. Children will routinely finger-feed themselves, and can drink from

a cup unassisted. They will hold most objects using their fingertips, rather than grasping with their whole hand.

Cognitive development is reflected in their more complex use of objects. For example, play with plastic beads includes removing them from, and returning them to, a container. Children this age also understand that certain objects are to be used for particular purposes. They know, for example, that a toy lawn mower should be pushed, that a ball is to be thrown, a comb is used to comb hair, and keys unlock doors.

The imitation of complex behaviors begins at this time. This can affect the rate with which children acquire new skills, as children may learn more quickly when they have opportunities to observe and model the actions of other children and of adults.

The 15 to 18 month old is very social. He learns and repeats simple games, such as "patty cake," "peek-a-boo," or "gimme five," and will play them upon verbal request. The child's responsiveness to verbal cues also illustrates his comprehension of spoken language.

Two Years

The primary cognitive milestone for the two year old is the development of language.

Infants produce their first purposeful sounds at around three months, when they appear to discover they have a voice that is under their control. They babble and imitate sounds at around six months. This must be considered vocalization rather than language, because the sounds are random, and have no symbolic meaning.

Most children begin to consistently produce spoken language between 18 months and two years. The development of language is dependent upon a cognitive leap that occurs during the second year, the emergence of symbolic thought.

Sounds that were originally unattached vocalizations and spontaneous expressions become associated with specific objects, people, or activities. At some point, the child realizes that a particular pattern of sounds can represent the object or an action. The sounds take on meaning for the child. This ability characterizes basic symbolic thought. Once the child achieves this understanding, language develops rapidly. The typical pattern of language development makes sense, when it is viewed within the context of the child's world view.

The child's development during the first year is centered around two primary areas; mastery of his own body, and an understanding of objects. At the end of the first year, the child has mastered many gross and fine motor tasks. The child has also learned that objects exist, and then that they have permanent identities and characteristics.

It is, therefore, not surprising that the first words the child understands, and speaks, are the names of things he knows and understands. This includes the objects and people that are important to him (mama, dada, bottle, juice, baby, Teddy, apple, ball, kitty, chair); and, his activities (sit, eat, play, sleep, go bye-bye).

The next milestone occurs when the child combines two words into a duo, a phrase that usually combines the object and the action, or the object and a place. The duo is shorthand language. The meaning of the duo greatly exceeds that which is reflected by the two words. For example, "ball chair" might mean the ball is in the chair, the ball is under the chair, or the ball was thrown at the chair. The child at this age typically understands more than he can verbally

communicate; again, receptive language is more highly developed than expressive language.

Imitation continues to be a primary means of play and learning for the two year old. The determination to imitate another child is often an incentive for the child to try new activities. We must consider the importance of growing up in an environment that stimulates and supports this type of learning.

Two year olds like to be helpful. They will attempt to imitate even difficult activities. Mastery and autonomy are important, and despite the evident difficulty of the task, they will often insist, "Me do it."

The complexity of a child's toys and the way she uses them provide additional clues to the child's level of cognitive development. In play, the child demonstrates both imitative learning, and trial and error problem solving. The child may choose to play with more complex toys that require pieces to be placed in a particular order, or uniquely shaped objects be placed into their appropriate holes. Fine motor skills and eye-hand coordination have also improved. Two-year-old children can easily build a tower of four blocks without toppling it.

The child's ability to symbolize thought is expressed through play. The child recreates with toys many things he has seen in the world, such as constructing a fence or pushing a toy truck. Toddlers begin imaginative play as well, as in putting a stick between their legs and riding it like a horse, or racing through the house with arms extended, pretending to be an airplane.

The primary task in emotional development of the two year old is autonomy. Autonomy is a state of mind, and it is reflected in all the child's activities. If secure, the two year old will trot off – out the door, down the street, through the supermarket, or into the woods, confidently striking out ahead. Healthy toddlers are alert to their surroundings, and eager to find out what's around the next corner. We talk about this child being "into everything," and naturally

curious. Explorations provide the impetus for learning, and the mastery of important skills.

There are differences in how children express their autonomy. Some children are more outgoing and self-directed, others more quiet and receptive. Cultural factors can affect the way in which the child expresses autonomy. However, the emergence of autonomy and the mastery of situations characterize activities of all normally developing children at this age.

At age two, children are still very self-centered, and their interactive play skills are poorly developed. They do not cooperate, and they don't usually share. They lack the cognitive ability to understand another child's perspective. This is an aspect of egocentric thinking which will be more fully discussed later. Two year olds will often be totally engrossed in playing with a toy, and oblivious to other children. Playing in the presence of other children is called parallel play. Children will watch each other play, or may even play side by side with the same toys, but they cooperate in only the most rudimentary fashion.

Two and a Half Years

At two and a half, most children talk in phrases or in complete sentences. They understand the concepts that support words like "in," "out," "under," and "over." They also use connecting words such as "and" to string phrases together into often complicated communications, albeit not always grammatically correct. Assessing a child's language at this age means determining whether the content of the child's communication can be understood, not whether the child is skilled at pronunciation or grammar.

The child's gross motor skills have developed to permit skillful running, tumbling, and climbing. Most children this age can master a tricycle or other wheeled toys. Their fine motor coordination has also greatly improved. If children are given the opportunity to use pencils or crayons, they can draw. A

two and a half year old can identify shapes, including a circle and an X, both of which he can draw on paper.

Autonomy means wanting to do things independently. If allowed, the child will try to dress, wash, and feed himself, even though he may have difficulty in completing the task. While not very efficient, letting children practice these skills allows them to perfect them, and gives them a feeling of pride and accomplishment.

Between age two and three, children's play patterns begin to change, and we begin to see interactive play. The emergence of interactive play is stimulated by children's ability to communicate with each other. However, early social interactions don't always go smoothly, and things are not always peaceful and pleasant. The two to three year old wants his own way, and often responds to frustration with aggression, including hitting, biting, and temper tantrums. The autonomous child is emotionally impulsive and has not yet developed internal controls. Adults have to step in to resolve the battles and prevent children from hurting each other. By the age of three, children will often prefer, and will be more adept at, interactive play.

Children in different cultures may display different amounts of aggression, depending upon whether aggressive behavior is permitted. Aggression may be valued as being "tough," and "standing up for yourself;" or, it may be viewed as a negative attribute that should be suppressed in the interests of group cohesion and cooperativeness. Some cultures are more tolerant of aggression in boys than in girls. Therefore, children may show different amounts of aggression depending upon each child's temperament and culture.

Three Years

By age three, children have truly mastered basic gross motor skills such as walking, running, and climbing, and can perform them easily without much concentration. These skills are developed by children in a wide variety of physical play activities, such as maintaining balance on a jungle gym, throwing and catching a ball, climbing a ladder, hopping on one foot, or sliding down the slide.

Three year olds love playground equipment and active physical play. They will repeat new motor skills continuously, even though they may have mastered the task; they appear to enjoy performing for its own sake, as when they slide down the slide for the 30th time in as many minutes.

The increasing complexity of the three year old's toys is evidence of advancing cognitive skills. Three-year-old children are adept at putting together puzzles, which require that the child recognize shapes and colors, and see the relationships between the puzzle pieces. They must also understand that the parts together comprise a whole. While younger children work puzzles by trial and error, or imitation, the three year old can discriminate each piece, and knows where it fits in the picture.

Three year olds are also adept at imaginative play with toys; they are often creative, and play with objects in a symbolic manner. For example, a child may stack up boxes or blocks and announce he has, "built a wall so my horses can't get out," demonstrating his understanding of the concepts of open and closed, the nature of horses and their tendency to escape, and the purpose of fences in keeping them from doing so.

The three year old recognizes colors, and can sort objects into groups by color, as well as by size and similarity of type. This is early evidence of a cognitive ability

that becomes important during the school years – the ability to classify objects with similar characteristics into groups.

Improved eye-hand coordination permits the child to build complex structures that require the balanced placement of objects, such as a tower of many blocks. Eye-hand coordination also permits the development of self-help skills. At three years children can put on their shoes, even though tying them is a complicated fine motor skill that will not normally be mastered until age four or five. Children will put toothpaste on a toothbrush and brush their own teeth, will wash their hands, and will try to meet most of their own toileting needs.

Application

Toilet Training

Toilet training is one of the most challenging parenting tasks during the second and third years. It warrants more extensive discussion, because toileting accidents, and other problems in toilet training, are a common precipitant in the abuse of toddlers.

Toilet training problems may occur for several reasons:

- The parent begins toilet training before the child is ready, and the child, therefore, does not comply.
- The toilet training process becomes a battle for control between the parent and the child.
- The parent may have unrealistic developmental expectations for the child, and may misinterpret the child's lack of bladder or bowel control as deliberate defiance.

- Some children have problems with constipation. Painful bowel movements may result in children holding off the movement as long as possible. This results in more pain, which leads to further withholding. This can be misinterpreted by parents and other persons as uncooperativeness.

By waiting until the child demonstrates readiness to be trained, the toilet training process will be of shorter duration and will be less of a struggle for the parent. In general, girls are ready to be trained somewhat earlier than boys. However, each child must be evaluated individually. Very few children are ready to begin before the age of two. Most children are ready to begin by age two and a half, unless the child is developmentally delayed, or there are complicating physical problems. Some children will have occasional accidents as late as age five or six. It is usually because they are busy doing something they like, and don't want to stop to go to the toilet, until it's too late.

Several factors contribute to a child's readiness to be trained:

- The child has developed sufficient language to understand words that describe toileting activities, such as "potty," "poop," "BM," "pee pee," "toilet," and "diaper."
- The child has communication skills to let the parent know when she is about to wet or soil, or has already done so. These may be gestures or single words.
- The child knows the difference between a wet diaper and a dry diaper, and shows discomfort when wet or soiled, either verbally or by pulling at her clothes, crying, etc.

- The child has developed adequate urinary control, and remains dry for periods of at least two hours at a time during the day. Bowel movements should be regular.
- The child demonstrates interest and willingness to try out the toilet or potty chair.
- There are no complicating physical or medical problems.

The caseworker can help a parent develop realistic expectations for toilet training, and help the parent approach it with a patient and positive attitude.

The worker should communicate that early in toilet training, frequent accidents are normal. The parent must not feel pressured that toilet training has to occur within a designated period of time.

The parent should be reassured that accidents are not deliberate and do not automatically represent defiance, even from a very autonomous child. The parent must be able to accept accidents matter-of-factly, without scolding or punishing the child.

The more consistent the parent is in making toileting part of a daily routine, the easier it will be. Knowing at what times of day the child normally wets or soils helps.

The parent will probably want the child to be out of diapers before the child is ready. This will probably be frustrating for the parent. However, if the child isn't interested, it's easier to change diapers for a while longer than to battle daily with the child.

The parent must be willing to provide the child with tangible rewards for successes. Some parents may resist giving rewards, believing them to be a type

of bribery, and expect that the child should want to comply on her own. The worker should explain that the parent's expectation for social cooperation is unrealistic for a two year old, whose primary developmental concern is autonomy. Rewards serve as an incentive for the two year old to choose to use the toilet. Providing rewards for success will not be necessary when the child is a little older and better motivated, and when toileting becomes a less important focus of emotional energy for the child.

There are several parenting techniques that promote toilet training in a child who demonstrates readiness. Parents can do the following:

- Point out to the child when she is wetting or soiling, or has done so. "David went peepee in the diaper." "Susie pooped. Let's put on a clean diaper."
- Introduce the potty chair, and let the child become accustomed to it before she is expected to use it.
- Take the child to the potty each time she demonstrates she needs to use it, without expectation that she will. If she does, reward her. If she doesn't, don't make a fuss. Don't leave her there for more than a few minutes, and don't give her toys and let her play.
- Always reward for success. The reward should be something that the child likes.
- Ignore accidents, and clean up in a matter-of-fact manner. Never punish the child for wetting or soiling.
- Allow the child to watch and model children who are a few years older. Being "a big girl like Molly" is a good incentive for younger children to imitate siblings, and help to train themselves.

- If a battle begins, and the parent finds herself feeling angry and frustrated, stop for a while, and try again later, when the child may be more ready or willing. Don't push.

The norms for toilet training in some cultures may be different from those of most Americans. For instance, parents in some cultures do not formally "train" their children, but the children are allowed to model and learn to use the toilet by watching others, including their parents. They become "trained" at their own rate. The caseworker should understand the sanctioned parenting practices of these cultures, particularly if a family has recently emigrated from another country.

The Effects of Abuse and Neglect on Infants and Toddlers

Infants and toddlers are at especially high risk of maltreatment from parents who are predisposed to maltreat them. Several characteristics typical of very young children place them at higher risk of maltreatment:

- Infants are demanding. They require constant attention and a great commitment of time, and rarely do they respect the parent's needs or schedule. Sleep is frequently interrupted, and new parents are chronically tired. This is inherently stressful to even the most competent parent.
- Infants cry at times for no apparent reason, and at times they cannot be comforted. A crying or screaming infant can be extremely distressing and frustrating to a parent, particularly if the parent is unable to quiet the infant, despite considerable effort.
- Newborns may be perceived as unattractive and strange looking. They tend to be red, spotty, wrinkled, and bent into awkward positions, and they may appear deformed to an uneducated parent. Their appearance

may frighten a parent, or may stimulate a parent's feelings of poor self-esteem.

- Newborns are not very social for the first three or four months. They demand a lot and give little in return. The parent must derive any pleasure from providing care, rather than expecting expressions of gratitude or recognition from the infant.
- Infants who are premature, sickly, irritable, colicky, have medical conditions, or otherwise require special care, are most susceptible to abuse. Sickly or premature infants are more demanding in their care needs than healthy infants. Separations as a result of hospitalization or illness of the infant may also interfere with the early attachment process.
- The toddler's principal developmental task is autonomy, and typical behaviors of this stage often include stubbornness, rebelliousness, tantrums, angry outbursts, aggressiveness, obstinacy, and oppositional behavior. Struggles for power and control may develop between toddlers and parents. Oppositional behaviors can try the patience of even the most knowledgeable and understanding parent.
- Toilet training can be one of the most stressful developmental tasks for both children and parents. Trying to toilet train a child before he is ready can lead to extreme frustration and feelings of failure on the parent's part. The child experiences criticism and punishment for reasons he does not understand. Toilet training can become a battleground between a parent who wants social compliance, and a child whose major developmental task is to remain in control of his own body, and his environment.

Infants and toddlers are especially susceptible to serious trauma and negative developmental outcomes from maltreatment:

- Infants and toddlers cannot protect themselves. They can't run, scream, or go for help. They are dependent and vulnerable. They will die if they are not properly cared for.
- Very rapid brain and body growth during the first three years makes the infant extremely susceptible to the effects of malnutrition. Mental retardation and growth deficiencies can result.
- The infant's soft skull and unprotected body are very susceptible to injury. Head injuries easily lead to severe brain damage. The soft bones of the skull are more likely to fracture from a blow.
- Muscles are not developed adequately to protect the trunk and abdomen, and blows to this part of the body will cause serious internal injuries.
- Head and neck muscles are not strong enough to withstand even a mild shaking without potential brain and spinal cord injury.
- Infants are more susceptible to infection; they have not yet developed immunity to many environmental agents.
- Infants and toddlers use their bodies to explore their environments, to manipulate objects, to solve problems, and to master many tasks. Physical injury, therefore, can have serious implications for cognitive, as well as physical, development.
- Infants and toddlers are particularly vulnerable to the emotional effects of abuse and neglect. They are likely to experience abuse and neglect as raw, diffuse, pervasive, and incomprehensible pain. Abuse and neglect create barriers to attachment and the subsequent development of trust. This can permanently impair the child's relationship ability, and lead to the development of serious personality problems.

Consequences of Abuse and Neglect on Physical Development

There are several potential negative consequences of abuse or neglect on the physical development of infants or toddlers. These include:

- Chronic malnutrition of infants and toddlers results in growth retardation, brain damage, and potentially, mental retardation. This is prevalent in situations of serious neglect and failure to thrive.
- Head injury can result in severe brain damage or death. Direct blows to the head can create swelling of brain tissue and subdural hematomas (pools of blood in the brain), that destroy brain tissue and can result in brain stem compression and herniation, blindness, deafness, mental retardation, epilepsy, cerebral palsy, skull fracture, paralysis, and coma.
- Less severe but repeated blows to the head can also result in equally serious brain damage. When injured, the infant's soft brain tissue swells. Pressure inside the skull leads to a decrease in oxygen supply to the brain, and involved nerve cells die. This type of injury may be impossible to detect, or may be detectable only by sophisticated imaging technologies such as MRI (Magnetic Resonance Imaging) or CT Scans (Computerized Tomography). In the absence of obvious signs of external trauma, these injuries may go unidentified.
- Injury to the hypothalamus and pituitary glands in the brain can result in growth impairment and inadequate sexual development.
- Blows or slaps to the side of the head over the ear can injure the inner ear mechanism and cause partial or complete hearing loss.

- Shaking can result in brain injury equal to that caused by a direct blow to the head. Additionally, bones in the neck and spine can be injured, resulting in a break or collapse of the vertebrae. Spinal cord injury can result in paralysis, or various degrees of other sensory, motor, or autonomic dysfunction. Known as abusive head trauma, these injuries can cause very serious disability and death.
- Internal injuries from blows to the abdomen and soft body parts can lead to permanent physical disability or death.
- Medical neglect, such as withholding treatment for treatable conditions, can lead to permanent physical disability, such as hearing loss from untreated ear infections, vision problems from untreated strabismus (crossing of the eyes), respiratory damage from pneumonia chronic bronchitis, or other medical conditions that can lead to significant injury or death if left untreated.
- Neglected infants and toddlers have poor muscle tone and poor motor control, exhibit delays in gross and fine motor development and coordination, and often fail to develop basic motor skills. Since most of an infant's cognitive development is facilitated by motor and sensory interaction with the environment, physical delays contribute to cognitive delays as well.

Consequences of Abuse and Neglect on Cognitive Development

Abuse or neglect can have serious negative consequences on the cognitive development of infants or toddlers.

- An absence of stimulation interferes with the growth and development of the brain, and generalized cognitive delay can result. In situations of serious neglect, a significant lack of stimulation for a long period of time

can lead to mental retardation. Brain damage from injury or malnutrition can also lead to mental retardation.

- Abused and neglected toddlers typically exhibit language and speech delays. They fail to use language to communicate with others, and some do not talk at all, even though they may have the motor ability to speak. This represents a cognitive delay that can also affect social development, including the development of peer relationships.
- Maltreated infants are often apathetic, listless, placid, or immobile. They often do not manipulate objects, or do so in repetitive, primitive ways. They are often inactive, lack curiosity, and do not explore their environments. This lack of interactive experience often restricts opportunities for learning. Maltreated infants may not master even basic concepts such as object permanence, and may not develop basic problem-solving skills.

Consequences of Abuse and Neglect on Social Development

The negative consequences of abuse or neglect on the social development of infants or toddlers include the following:

- Abuse teaches a child that interpersonal encounters are typically painful and unpredictable. Neglected infants are deprived of opportunities for meaningful or pleasurable interpersonal encounters. Both experiences interfere with the basic attachment process and the development of trust. Maltreated infants often fail to form attachments to primary caregivers, or may demonstrate insecure attachment, characterized by anxiety, forlorn clinging, and an inability to be comforted when distressed.
- Maltreated infants often do not react to separation from the parent, and may not develop separation or stranger anxiety. Maltreated infants and

toddlers may willingly "go to anyone." This failure to discriminate significant people, and the resulting disruption in the attachment process is one of the most striking characteristics of abused and neglected children.

- Maltreated infants are often passive, apathetic, and unresponsive to others. They may not maintain eye contact, may not become excited when talked to or approached, and often cannot be engaged into vocalizing (cooing or babbling) with an adult. These infants may not develop nonverbal communications that attract and hold an adult's attention.
- Abused or neglected toddlers may not develop play skills, and often cannot be engaged into reciprocal, interactive play. Their play skills may be very immature and primitive. This can affect their relationships with other children.

Consequences of Abuse and Neglect on Emotional Development

The effects of maltreatment on the emotional development of infants and toddlers can have consequences that interfere with personal and interpersonal development throughout life. The most devastating effect of maltreatment is the failure to develop basic trust during the first year of life. This has the potential to impair the development of healthy personality, including the ability to engage in trusting, intimate relationships. The absence of trust also deprives the child of the building blocks necessary for the achievement of subsequent developmental tasks, including autonomy, initiative, industry, and eventually, identity.

Maltreated infants show many signs of emotional distress and disturbance. They are often withdrawn, listless, apathetic, depressed, and unresponsive to the environment. They may also display rocking, head-banging, or other self-stimulatory behaviors. They may cry excessively, or not at all. Abused and

neglected toddlers may be fearful and anxious, or depressed and withdrawn. They may also become aggressive and hurt others.

Abused infants often exhibit a state of "frozen watchfulness," that is, remaining passive and immobile, but intently observant of the environment. This appears to be a protective strategy in response to a fear of attack. It is as if the child were "on guard."

Abused toddlers may believe themselves to be "bad children." Excessive punishment for self-directed and autonomous tasks, combined with verbal criticism, can have a pervasive negative effect on the child's development of self-esteem. Punishment (abuse) in response to normal exploratory or autonomous behavior can interfere with the development of a healthy personality. Erikson defines shame and doubt as the negative outcomes of failure to develop autonomy. Such children may become chronically dependent and depressed, subversive, or openly rebellious and aggressive.

Special Developmental Problems of Infants

Several developmental conditions may result from abuse or neglect. We will describe two of them here. Additional information on other conditions that affect infants and young children, including mental retardation, cerebral palsy, autism, epilepsy, spina bifida, learning disabilities, fetal alcohol syndrome, and prenatal exposure to cocaine and other drugs can be found in Chapter VI, Child Welfare Services for Children with Developmental Disabilities.

Malnutrition and Growth Retardation ("Failure to Thrive")

The term "failure to thrive" has been used to describe a wide variety of conditions in which infants fail to achieve age appropriate weight and height levels. Kempe & Goldbloom [1987] suggest that the term "failure to thrive" does not adequately describe the serious deficits in nutrition and growth, and the other developmental characteristics that are associated with this syndrome.

The common variable in all situations of failure-to-thrive is insufficient nutritional intake. In some infants, feeding problems and abnormally low weight are the result of an underlying physical or medical condition, not the result of neglect. However, treatment approaches for failure-to-thrive must include both medical and environmental management, regardless of the underlying cause.

Children with malnutrition associated with deprivation have the following physical characteristics:

- Most appear emaciated, pale, and weak; they have little subcutaneous fat and decreased muscle mass.
- The infants are often below their birth weight, indicating weight loss; or their weight is well below the normal range for their age.
- Most are listless, apathetic, and motionless, and at times, irritable.
- Some infants are unresponsive or resistant to social involvement. Others become actively distressed when approached. Many show a preference for inanimate objects.
- Infants may sleep for longer periods of time than is appropriate for their age.

- Infants may display physical posturing that is more appropriate for newborn or very young infants, including lying with hands held near or behind the head; legs flexed in a "frog" position; thumbs closed inside fists.
- Some children display self-stimulatory rocking, head banging, or rumination (vomiting and swallowing).
- Developmental assessment will likely reveal noticeable delays in gross motor and social domains.

Kempe and Goldbloom [1987] cite several studies that delineate common characteristics of parents whose infants are diagnosed with failure-to-thrive. Research has specifically described mothers of underfed children as depressed, socially isolated, withdrawn, and anxious, and, not surprisingly, abused, neglected, or deprived of positive attachments in their own early childhoods. They subsequently failed to interact in a nurturing and empathetic manner with their infants. Parents of failure-to-thrive infants also demonstrated little ability to empathize with their infants, and often misunderstood or ignored their infant's cues.

While many parents expressed sincere concern about their infants, they appeared to not know how to involve their babies in meaningful activity. There was little interpersonal activity between the parents and their infants. Many parents were overwhelmed by chronic stress, which was exacerbated by the demands of caring for their infant. They often behaved in ways that met their own needs rather than the needs of their infants. Some parents played with their infants in a competitive, rather than nurturant, manner [Kempe & Goldbloom 1987].

Difficulties in caregiving became most evident when the infants were fed. Some parents created an unpleasant or painful feeding situation for the infant; as a

result, the infant did not cooperate and rejected food. The parents were often impatient, force-fed the infant, or removed food abruptly. When the infant resisted, or failed to eat, the parent often assumed the infant was not hungry, and discontinued the feeding.

There are several reasons that parents may not acknowledge the feeding problems. The parent often does not realize the infant is failing to grow, nor recognize the low weight and emaciation. In some cases, the infant's feeding problems may have been noticed, but were thought to be the result of vomiting, diarrhea, or other physical illness, rather than problems in the feeding situation itself. The parent may believe the infant is being adequately fed.

The parent may not be able to accurately report feeding times, schedules, or the quantity of formula the infant has taken. The parent may not be assuring adequate caloric intake. The parent may also allow long periods of time to elapse between feedings because "the baby doesn't appear to be hungry." Apathy and listlessness that result from low caloric intake are mistaken for the absence of hunger.

Breast-fed infants can be undernourished if the mother does not produce adequate milk or does not know how to nurse her infant. Breast-fed infants over the age of five months may not be able to get adequate nutrition from breast milk alone.

Treatment strategies for malnourished infants and their families must involve the entire family. Initially, immediate hospitalization of the infant is necessary, with a treatment program that provides caloric intake far in excess of that needed for maintenance under normal conditions. This typically leads to rapid weight gain, called "catch-up growth," in infants who are undernourished from underfeeding. Some infants achieve age-appropriate weight within a couple of weeks. Rapid "catch-up growth" during hospitalization is diagnostically significant for this syndrome, particularly when the infant is fed in the hospital with the same

formula used at home. Some secondary physical conditions affecting the infant, as well as apathy and depression, appear to be resolved as a result of intensive feeding programs.

Parents should be directly involved in all aspects of the treatment program. Supportive counseling and education by a caring, nurturing professional can help parents feel less guilty, anxious, and depressed, can teach and reinforce proper feeding methods, and can improve parent-infant interactions. This treatment program should begin in the hospital. If the parents are not involved in treatment, the infant's condition can be expected to quickly deteriorate when returned home. Kempe & Goldbloom [1987] stress that the parents' problems are not simply the result of a lack of knowledge of proper parenting methods, and they warn that most parents of failure-to-thrive infants cannot be "treated" with a few educational sessions on proper feeding techniques. They state:

"The immaturity, neediness, and feelings of helplessness of the neglectful mother are not transformed into empathic nurturing by one or two lectures. She herself must experience from someone the empathy and nurturing she is expected to give her baby, and she must be able to depend on this support while she learns how to be a more sensitive parent for the infant's benefit."
[Kempe & Goldbloom 1987]

If the parents appear unable to improve their care of the infant under controlled hospital conditions, foster placement should be considered. Koel [Kempe & Goldbloom 1987] reported that a number of infants who had been hospitalized for malnutrition and returned home were later found to be seriously, even fatally, abused.

Failure-to-thrive is common in infants with fragile-X syndrome, a genetically caused syndrome of mental retardation and autistic-like behavior that occurs in approximately 1-1000 live births [Goldson & Hagerman 1993; Wiebe & Wiebe 1994]. The syndrome is caused by an abnormal X chromosome in the

chromosome pair that determines gender. The effects of fragile-X syndrome are considerably more serious in males than in females. These infants often have feeding problems that include vomiting, diarrhea, gastroesophageal reflux, tactile defensiveness around the mouth, food refusal, and frequent gagging. These feeding problems are thought to result from the laxity in connective tissue and poor muscle tone that are typical symptoms of fragile-X syndrome [Goldson & Hagerman 1993]. The resulting malnutrition results in failure to gain weight. Genetic screening is recommended if fragile-X syndrome is suspected. (See Section VI-C, "The Primary Developmental Disabilities: Identification and Early Intervention," for a more extensive discussion on fragile-X syndrome.)

Special Care for Severely Abused Infants

Infants who have been abused severely at an early age demonstrate predictable developmental patterns and delays. The clinical picture of these infants has been described by Dr. H. Otto Kaak [1977], who refers to them as "clams" who have "closed up in their shells," and refuse to interact with the outside world. Dr. Kaak suggests that this is the children's reaction to extremely painful early experiences. This pattern is consistent with the condition of "frozen watchfulness," as described and discussed by others. Dr. Kaak's description of these babies includes these characteristics:

- They are withdrawn, unresponsive, and apathetic, and look weak and sickly.
- They permit others to manipulate their bodies without display of protest. They exhibit a generalized passive compliance.
- They do not often cry. They may occasionally whimper, or wail. They do not vocalize in response to other people.

- They do not appear to enjoy being touched or held, and are not responsive to affectionate handling. They do not conform to the adult's body when held. They do not cling to parents or other adults in threatening situations.
- They appear to enjoy nothing. They do not laugh or smile, they show no interest in objects or people. They do not take pleasure in feeding, bathing, play, or other normal activities.
- They do not risk contact with people. They appear to feel best when they are left alone.
- Their movements are slow and cautious; they display limited mobility. They may stay in one place for long periods of time.

Specialized treatment methods are necessary if we are to help these babies. Simply eliminating the abuse is not enough. Parents and foster caregivers must be trained to nurture such a child in a predictable, measured fashion. "Too much too soon" can overwhelm the child and have the effect of further closing him off. As a result, treatment may take many months. Dr. Kaak suggests the following general treatment strategies:

- Move SLOWLY! Take care to approach the child slowly at all times, and do not institute too many changes at once.
- Create a calm, comfortable environment. The environment should not, however, be sterile and devoid of stimulation. Stimulation must be given in measured doses. A foster home with five noisy and active children may not be the best environment for this child.
- Read the child's cues regarding her needs. When the child withdraws from an approach, back off, and approach again more slowly or

tentatively. The child will have to become acclimated. There is a fine line between providing nurturance and overwhelming the child.

- Kaak suggests "selective attention and inattention." Choose times in which to interact with the infant, and keep these times short at first.
- Talk to the child using a soft, affectionate tone of voice. Quiet and comforting is the rule.
- Introduce pleasure into caregiving. Any interaction with the child, including feeding, bathing, and changing clothes should be performed gently, allowing the child to experience normal pleasures. Adequate time should be taken; these activities should not be rushed.
- The child should not be harshly or firmly disciplined. If the child approaches a dangerous situation, she should be gently redirected or removed.
- The parent or caregiver must allow latitude in permitting the child to behave in ways that are developmentally more appropriate for a young infant. For example, messing with food, spitting, splashing in the bath, and otherwise "making a mess" are preferable to withdrawal and immobility. After several months, gentle limits may be set.
- Do not force physical affection. Begin with gentle touching, patting, and stroking. When holding the child, hold lightly. Cuddling is fine when the child appears to respond positively by conforming to the adult's body, or "settling in." Follow the child's cues about physical affection.
- After a period of time the child may exhibit such behaviors as thumb sucking, clinging, other dependent behaviors, frequent crying, stranger

anxiety, separation anxiety, and other signs of social need. These must be viewed as progress rather than as problem behaviors.

Kaak suggests that beyond the age of three and a half to four, there is a point of closure after which the child appears unable to "recapture infantile pleasures," and the child's long-term emotional development is threatened.

Case Example

Betsy: General Developmental Delay from Serious Neglect

Betsy was eight months old when the child welfare worker first saw her. The Walker family had been referred to the agency by the school nurse, who was concerned about the Walkers' six-year-old daughter, Sherry. Sherry appeared to be undernourished, dirty, and listless. She also missed school regularly.

During the initial home visit, the worker confirmed that the mother's care of Sherry was marginal at best. The eight month old, however, concerned her greatly. Betsy was lying in her crib on dirty sheets when the worker first saw her. She lay quietly on her back, elbows bent and hands beside her head on the mattress, legs thin and bowed. She appeared to be staring into space and did not respond when the worker entered the room and began to talk to her. The worker picked Betsy up and noticed that she felt heavy, like a sack of potatoes. The worker attributed this to Betsy's limp and listless physical posture and absence of muscle tone. Betsy was small for eight months, and thin, but she did not have the emaciated look of a failure-to-thrive infant. Betsy allowed herself to be picked up, put on the worker's shoulder, and eventually in her lap, without protest and without acknowledgement of the worker's presence. The worker noticed that the back of Betsy's head was flattened and the hair was thin, suggesting that Betsy had spent a lot of time lying on her back.

Betsy had good head control, but when placed on the floor on her stomach, she raised her head only to a 45 degree angle. She did not use her arms and hands to prop, and she stayed where she was placed on the floor. She was unable to support weight on her legs, and she would collapse when held standing in the worker's lap. She would close her hand around an object placed in her palm but would soon drop it. She would not reach for objects. She did not vocalize; occasionally she would wail pathetically, but would soon stop. She made eye contact only when the worker placed herself in Betsy's direct line of view. The worker could not get Betsy to babble, coo, or smile at her. She was listless, apathetic, and withdrawn. During the visit, six- year-old Sherry appeared with a bottle of milk, and informed the worker that it was time to give the baby her dinner. Mrs. Walker was willing to let Sherry care for Betsy and told the worker Sherry was considerable help to her.

After a lengthy interview, the worker learned that the children's father had deserted Mrs. Walker when she was six months pregnant with Betsy. She had serious financial problems and considerable health problems after a difficult, caesarian delivery. Mrs. Walker described herself as always tired and moody, that she slept a lot, and didn't feel like doing much. She also cried a lot. Her doctor attributed it to postpartum depression, and told her it would eventually go away. She said she hadn't always been that way, and that taking care of Sherry had been easy compared to caring for Betsy. The worker concluded that the mother was probably depressed, most likely precipitated by the loss of her husband, and her care of both children was extremely neglectful as a result.

The worker's gross assessment of Betsy's developmental age was no more than two or three months, and she determined that Betsy was in need of immediate intervention, if long-term developmental problems were to be prevented. The worker was particularly concerned about mental retardation resulting from the lack of stimulation and probable malnutrition.

Betsy was hospitalized for a short period, and a medical team evaluated her. Her height and weight were at the extreme low end of normal, but she showed no obvious signs of physical disability. She ate well and quickly gained weight from a high nutrition diet. Mrs. Walker was seen immediately at the mental health clinic, and was treated with antidepressant medication and weekly counseling sessions. She was also referred to a parents-of-infants support group run by the hospital. She was to bring Betsy each afternoon for two hours, during which time the nurses would teach her how to feed, care for, and stimulate Betsy. The program trained the mothers to talk to, play with, and handle their babies, and to involve them in activities. The nurses engaged the babies in exercises and activities to promote physical development, and encouraged the mothers to model their behavior. As Mrs. Walker's depression was alleviated, she showed more interest in both Betsy and Sherry, even though her parenting skills appeared to be very limited. The child welfare agency provided a homemaker, who worked with Mrs. Walker in the home and modeled appropriate child care practices. Betsy's health and progress were monitored at weekly visits to the hospital clinic.

Betsy's development, while slow, progressed along relatively normal lines. Within a month she was within the normal weight range for her age. She had begun to respond to interpersonal contact and would maintain eye contact with people who talked to her. It took several more months of intensive stimulation before she demonstrated interest and excitement in response to people or toys. Her physical development was also slow, but by one year she was sitting, and by 16 months she was walking holding on to objects. It was not clear whether her cognitive development would ultimately be within normal limits. There was the potential for mild mental retardation, but the hospital agreed to "graduate" Betsy to their preschool program when she was ready. This program offered intensive stimulation and individualized programming for children with disabilities. They indicated they had had considerable success with children like Betsy, whose developmental delays were the result of neglect, rather than from brain injury or other disabling conditions.