THE EFFECT OF MATERNAL DEPRESSION ON INFANT SOCIAL-EMOTIONAL DEVELOPMENT

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THE EFFECT OF MATERNAL DEPRESSION ON INFANT SOCIAL-EMOTIONAL DEVELOPMENT

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Jennifer Dahlgren

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Abstract

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Jennifer Dahlgren

Under the Supervision of Javon Al Yasiri

The purpose of this paper is to discuss the impact maternal depression has on an infant’s social-emotional development. The ability of the mother to teach her child basic social skills, from facial recognition to attachment and synchrony, is essential for successful future social interaction and emotional expression. This paper summarizes brain development, theories of development from Piaget and Erikson as well as a discussion of social-emotional development. Maternal depression and the immediate effect on the developing child were also addressed. Finally, suggestions for screening, treatment and minimization of the effects of depression on the infant are discussed. Maternal mental illness, if left untreated, can have a profound negative effect on her infant. Fortunately, there are a number of treatment options that can help the mother and her infant bond and create a supportive environment to foster social-emotional development.
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CHAPTER 1
INTRODUCTION

The foundation for positive social-emotional development starts in infancy. This is when the building blocks for future learning and behavior are established. If an infant is unable to learn how to interact with others or to depend on others to get their needs met, they likely will face problems later in life. Infant social-emotional development initiates as soon as the mother interacts with her child for the first time. Infants are totally dependent on the mother for all of her basic needs. Mothers play a pivotal role in the social-emotional development of their infant, just based on the sheer amount of time they spend together. The quality of the relationship between an infant and her mother is a significant determinant of an infant’s ability to attach and future developmental outcomes (Foss, Hirose & Barnard, 1999). It is important for the mother to feel positive about her role as a parent. The quality of her parenting style and her ability to adapt to her infant’s temperament is affected by negative thoughts, feelings of inadequacy, enjoyment in her maternal role and her perceptions of her infant (Cornish, McMahon, Ungerer, Barnett, Kowalenko & Tennant, 2006).

There are many variables, such as socio-economic status, desire for the pregnancy, family characteristics and parent stressors, which can have an impact, positively or negatively, on this period of development. Often times, these effects are not seen immediately, but manifest in later stages of the child’s development. One of the most important factors in the development of a child is the attachment she has with the primary caregiver, especially the mother. As a result, the mental health of the mother can affect the development of a child tremendously.

Infants intuitively seek out ways to learn to communicate, to interact with other trusted humans and to interpret their surroundings. Newborns are psychologically coherent, and the
learning that occurs from the interactions and exploration of the environment the infant is exposed to help organize their brain for future learning (Trevarthen, 2001). In order to prepare for future learning, infants need face to face contact with the mother. Infants must learn to rely on trusted caregivers in their environment to respond and provide for their needs. Infants need visual, tactile and other sensory stimulation. Lack of response from a caregiver to an infant’s behaviors can effect the child’s psychological development (Trevarthen, 2001). The mother plays a major role in responding to an infant’s cues and helping them learn what effect they have upon their environment. Attachment to the mother helps the infant learn that her basic needs will be met by a trusted caregiver. With basic needs provided for, they can focus on absorbing the cues from the environment while learning how to explore and respond to stimuli. Armstrong, Fraser, Dadds and Morris (2000) noted that the quality of early-parent child attachment is an indicator of long-term success of the child.

Mothers possess a biological tendency and sensitivity to meet the needs of their newborn (Mantymaa, Tamminen, Puura, Luoma, Koivisto & Salmelin, 2006). Not all mothers interact with their infants the same way, and some are ill equipped to promote the social and emotional well being of their babies. Maternal psychopathology, depression in particular, has been shown to affect the quality of the mother’s relationship with her infant. The factors affecting infant social emotional development are bidirectional. Infant characteristics influence the nature of their relationships with those around them, just as the mother’s characteristics affect the child. An important infant characteristic is temperament, or the inborn natural ability of a child is not easily altered. Temperament, along with maternal depression, is a major factor to consider in the social-emotional development of a child.
Statement of the Problem

The mother is the most important person in an infant’s life. She creates the environment in which the child learns to interact with the world. Her mental health has an impact on the development of her child. What is social-emotional development? What fosters or detracts from positive social-emotional development? What effect does maternal mental health have on short-term infant social-emotional development? What can be done to help?

Definition of Terms

**Bidirectional**-two way exchange between the mother and her infant.

**Dyad**-a group of two, particularly the mother and the infant.

**Neuron**-the mechanism by which an impulse is transmitted throughout the nervous system. It looks similar to a tree. It consists of a cell body, an axon (the trunk) and dendrites (the branches).

**Neurotransmitter**-the chemical that is transmitted across the space from neuron to neuron.

**Pre-and post-synaptic surfaces**-the ends of the neuron. Neurotransmitters are released from the pre-synaptic surface across the synaptic space to the next neuron, the post-synaptic surface. The post synaptic surface has receptor sites in which specific neurotransmitters act upon.

**Primary caregiver**-for the purpose of this paper, the biological mother is considered the primary caregiver.

**Protoconversation**-the pre-speech reciprocal exchanges between an infant and her caregiver involving facial expressions, coos, groans, imitation and utterances.

Delimitations of Research

Method of Approach

A review of literature related to research and correlational studies of the effect of maternal mental health on social-emotional outcomes of children was conducted. The research was conducted through the Karmann Library at the University of Wisconsin-Platteville and the
Rockford Public Library over a period of 70 days. Primary searches were conducted via Internet through Academic Search Elite. The findings are summarized and recommendations made. Key search topics include “maternal mental health”, “infant social emotional development,” “infant temperament,” “post partum depression” and “infant mental health.”
CHAPTER 2
REVIEW OF RELATED LITERATURE

Development

Brain development

The brain consists primarily of four different regions, the brain stem, the diencephalon, the mid brain or limbic system and the cortical area (Landy, 2009). The lower areas of the brain, the brain stem and diencephalon, are responsible for regulating basic and primitive functions, such as breathing, heartbeat, sleeping and hunger. The higher areas of the brain, the limbic and cortical areas, regulate emotional responses, reasoning and thought. The limbic system is located between the cortex and the brainstem. It serves as a buffer between the lower, primal functions from the brainstem, including a racing heart, fear, joy or emotional facial expressions, and the higher functions from the cortex, such as conscious feelings like love (Eliot, 1999). The amygdala, which controls the fight/flight/freeze response and other emotions, is located in the limbic system and is almost fully functional at birth. The amygdala plays an important role in emotional regulation. It interprets incoming stimuli from the environment and prompts a response based on the perceived threat, or lack of threat, from the stimuli. While the amygdala creates the emotion, the cortex causes the feeling of the emotions, such as happiness or sadness. However, the upper regions of the brain are not yet mature enough at birth to control the emotions from the amygdala. As a result, the infant’s brain is unbalanced. The infant is unable to control automatic emotional responses to perceived threats in the environment (Davies, 2002). As the cortical regions of the upper brain develop and the infant interacts socially with the mother, the infant learns to control the emotions from the amygdala.
The brain starts to develop shortly after conception. The brain takes longer to develop than all other body systems because it is so complex. The neural plate, which is the structure that eventually differentiates into the nervous system, appears within the first two weeks after conception (Eliot, 1999). The neural plate develops into a tube that fuses closed at both ends. This closed tube eventually gives rise to the brain at the large end and the spinal cord at the opposite, thinner end. Over the next several weeks, the large end of the neural tube begins to thicken and expand in the head of the baby. The rudimentary hindbrain and midbrain develop earlier than the complex cortex. The hind- and midbrain are responsible for breathing, feeding and other involuntary or innate functions that the infant must possess in order to survive after birth (Eliot, 1999). As the fetal brain develops, the cortex begins to fold in on itself, which gives the brain its characteristic wrinkled appearance. This is the area where the human functions such as thinking and reasoning will eventually take place.

After birth, the brain develops in a vertical-integrative manner: the lower brain matures before the higher brain areas. The maturational theory of brain development states that as the brain matures, new social, cognitive and emotional functions can appear as the brain is now ready to support learning in these areas (Johnson, 2000). The lower brain functions provide the foundation for the development of the higher, more complex functions of the cortical area (Geva & Feldman, 2008). Vertical-integration is fostered through maternal stimulation and interaction (Geva & Feldman, 2008). Maternal contact through touch, smell, body heat and co-regulation fosters development of the brainstem and helps the infant regulate feeding, temperature and stress systems, which is a precursor to social-emotional regulation (Geva & Feldman, 2008).

The brain is made up of billions of neurons. An infant is born with many more neurons than they will ever need (Eliot, 1999), and this number increases twenty times during the first
year of life (Landy, 2009). The brain also increases to three times its original weight during this same period. Neurons are responsible for taking the impulses from the brain and transmitting them throughout the entire body. The neurons are important for vision, movement, hearing, language, emotion and all senses. A neuron is comprised of an axon, dendrites and the cell body and looks similar to a tree. The cell body holds the information that determines what function the neuron will have, such as language or touch. Each neuron has a specific function that does not change once established in the womb. The axon is the body of the neuron along which the impulse travels. The dendrites are the end of the neuron and connect to the next neuron along the impulse. The miniscule space between the dendrite and the next neuron is called the synapse.

The dendrite is the site of neurotransmitters, which are chemicals that enhance or inhibit metabolic reactions in the body. Neurotransmitters are characterized as inhibitory or excitatory. Common neurotransmitters are acetylcholine, an excitatory neurotransmitter that helps control motor function and memory; GABA and glutamate, both excitatory and prevalent in the brain; glycine, an inhibitory neurotransmitter located in the spinal cord; inhibitory dopamine, located in the brain and produces a feeling of pleasure; norepinephrine is a neurotransmitter and hormone that acts in the brain to regulate normal brain function. It also acts in the nervous system as part of the fight/flight/freeze response system. It can be excitatory or inhibitory; serotonin is involved in mood, appetite and the senses. It is typically inhibitory (CNS Forum, Lundbeck Institute).

Although not a neurotransmitter, cortisol also has an effect on brain development and behavior. Cortisol is a stress hormone that has been found in urine assays of infants with mothers who have depression (Brennan, Pargas, Walker, Green & Newport, 2008). Cortisol contributes to the fight/flight/freeze reaction, and the more cortisol present, the lower the threshold for a startle response. Stress causes an increase in cortisol in the body. As an impulse passes along the neuron
and reaches the dendrite, it stimulates the release of a specific neurotransmitter from the presynaptic surface to the post-synaptic surface on the next neuron over the synaptic space. The post-synaptic neuron has a finite number of receptor sites that only a specific neurotransmitter will act upon. Once the specific neurotransmitter fits into the receptor sites, the impulse continues along the neuron and moves along the pathway to, or from, the brain, to illicit a specific response. As the pathways are used, the dendrites grow and branch out. At birth, the neurons are relatively small and simple. As the infant is exposed to new stimuli and experiences, the neurons grow and become more efficient. The synaptic connections are experience-dependent and experience-expectant. Experience-dependent describes neurons with specific functions, such as vision, speech or hearing, in which learning has to occur during specific developmental time frames for normal development to occur. The infant needs another person to interact with for development of the brain to occur (Davies, 2002). Experience-expectant refers to the brain’s response to specific stimuli from the environment. Social-emotional development is experience-expectant (Landy, 2009). As the child learns, there are many neurons that overlap and perform the same function. Because the infant has more neurons than they need, the experiences and stimuli she has in the first year of life help her brain create stronger pathways for tasks and skills that are repeated. Connections that are not used are pruned. It is important for the creation and strengthening of neural pathways for the infant to have consistent, supportive, nurturing connections with her caregivers as well as the freedom to explore her environment. The interactions an infant has with her mother and her environment are important for creating bigger neurons and more efficient connections. These connections will differentiate and eventually support functions of perception, memory and emotion regulation (Davies, 2002). The neurons are plastic and able to change based on new experiences and stimuli. Every interaction
with the mother sparks a neural connection, whether it is a new connection or a strengthening of an existing one. In this way, the mother is a model of social behavior and emotional regulation for her infant. The mother’s display of emotions is how the infant learns to interact with the world (Landy, 2009).

Social-Emotional Development

Social-emotional development refers to the process in infancy of learning to interact and respond to the environment. Emotions help an infant obtain comfort, support and attention or to otherwise meet their own needs, to humor themselves or to influence others, either positively or negatively (Warren, Denham & Bassett, 2008). Social-emotional development encompasses emotions and emotion regulation. According to Campos, Frankel & Camras (2004), “emotion is the process of registering the significance of a physical or mental event, as the individual construes the significance” (pg 379). The significance of an event is determined by the strength of the emotional response and the urgency. Emotion regulation is the ability to regulate emotions in response to stimuli. Emotion regulation is learned through social signals, which are facial, vocal or gestural cues of emotions from others. These signals are important because they generate an emotion in others, either directly or indirectly. They also regulate the strength of emotions in others. Lastly, social signals allow one to integrate into the family, dyadic or social context in which they exist by exposing them to social rules and norms and how to behave in society (Campos, Frankel & Camras, 2004). Infants initially focus on their own needs and feelings and generally learn to recognize that others have needs and emotions as they develop and mature. The first eight to nine months of life are marked by the development of basic, or primary, emotions. Newborns can express distress quite readily when they cry to be fed, changed or held. This is the first glimpse an infant has that the actions they take can lead to a specific
response. By three months old, an infant can express joy, sadness and disgust. A four to six month old can exhibit anger and surprise. By nine months, a child can show feelings of fearfulness (Warren, Denham & Bassett, 2008).

Infants begin their social-emotional education the moment they are born. They are bombarded with social information from their very first breath. An infant’s ability to use this information and organize it effectively creates the framework on which a child can develop and survive. Humans are social beings by nature and are born with the mechanisms that allow even newborns, who are essentially helpless, to intuitively organize stimuli and cues from the environment to direct future learning (Trevarthen, 2001). There is no other period in a lifetime that signifies such rapid growth as infancy.

Social-emotional expression is regulated by the limbic system. The limbic system is located between the cortex and the brainstem. It serves as a buffer between the lower, primal functions from the brainstem, including a racing heart, fear, joy or emotional facial expressions, and the higher functions from the cortex, such as conscious feelings like love (Eliot, 1999). The amygdala plays an important role in emotional regulation. As the cortical regions of the upper brain develop and the infant interacts socially with the mother, the child learns to control the emotions from the amygdala. It interprets incoming stimuli and prompts a response based on the perceived threat, or lack of threat, from the stimuli. While the amygdala creates the emotion, the cortex causes the feeling of the emotions, such as happiness or sadness. Development of the limbic system, like all brain structures, is heavily influenced by nature and nurture (Eliot, 1999). Nature consists of genetics and innate temperament. Nurture describes the experiences and interactions the infant has with her mother or other caregivers and her environment. The infant
and her limbic system need social and physical stimulation, including “sensitive maternal contact” (Joseph, 1998, pg 193).

At birth, the limbic system is capable of generating basic emotions, like anger, surprise, fear and joy. The basis for social learning and brain function is the recognition of faces in infancy (Johnson, 2006). Babies are primed to recognize faces from birth (Eliot, 1999). The infant’s ability to hone in on faces or face-like patterns so early in life may be an effort to bond with the mother and form a secure attachment. Infants are also accustomed to her mother’s scent and sound as this also fosters attachment. An infant’s emotional learning begins shortly after birth in the form of crying to get her needs met and imitation of facial expressions (Eliot, 1999). At six weeks of age, an infant is able to smile in response to pleasurable stimuli. This act further endears her to her mother and others in the environment. Once she has learned to respond by smiling, she quickly develops the ability to hold rudimentary “protoconversation” with her mother (Eliot, 1999). Because it involves at least two people to hold a conversation, the infant is learning how to participate in a back and forth emotional and pre-verbal exchange with her mother. Protoconversation is the basic framework for more mature social interaction and relationships later on in the child’s life (Eliot, 1999)

The mother is an important person in the infant’s first few months of life. According to attachment theorist John Bowlby (1958), very early in life the infant instinctively responds to the mother, and “only his own mother will do” (pg 370). Good mothering is an important, two-part concept that describes an ideal state for the mother that leads to positive interactions with her infant. The first component of good mothering describes adequate care of the infant’s basic needs. This includes feeding, bathing and dressing. The second part is the cognitive and emotional state the mother undergoes during pregnancy. It is the shift in her thinking from the
outside world inwards towards herself and her baby. Ideally, the mother enjoys being pregnant and looks forward to motherhood (Bohlin & Hagekull, 1987).

Mother-infant relationships that are bidirectional, and one in which the mother is responsive to her child will help foster the infant’s development. Because of the immaturity of the infant, the mother must assume the larger responsibility in the dyadic relationship for social interaction until the infant develops and learns to interact in a more sophisticated manner. The synchrony between a mother and her child is important in fostering attachment and bonding (Feldman, 2007). Synchrony is the process by which the sensory exchanges between the mother and infant are coordinated and matched during social interactions, from the time of early gestation until natural weaning (Feldman, 2007). Synchrony at three and nine months predicted children’s compliance with maternal requests at two, four and six years. These children were also able to delay gratification and were able to state their feelings with words (i.e I feel happy) at two years of age. Maternal responsiveness includes contingent responding, emotional-affective support, support for infant loci of attention and developmentally appropriate language input (Landry, Smith & Swank, 2006). Contingent responding is the mother’s ability to react to her infant based on its cues. This is a three step chain of behavior in which the infant signals or cues the mother, the mother responds in a prompt and sensitive manner and the infant learns her needs will be met in a predictable way (Landry, Smith & Swank, 2006). The predictability in which a response is elicited encourages the child to learn other ways they can stimulate their environment and the people in it. Emotional-affective support refers to the manner in which a mother responds to her child. Ideally, the mother interacts in a warm, tender manner with gentle contact and positive facial expressions. This positive tone assures the child that they are loved and important to the mother and further strengthens the attachment bond. This behavior is present in the mother
as soon as the child is born in the form of gazing at the infant’s face, gentle stroking, positive expressions and high-pitched vocalizations called “motherese” (Feldman, 2007b). A mother supports infant loci of attention by engaging in two way communications with the infant utilizing vocalizations and focusing on what the infant is interested in, rather than redirecting the infant’s attention towards the object of the mother’s interest. Rich language input provides a foundation for future language development with the use of labeling and descriptions of actions and objects in the infant’s environment. An infant with a secure attachment and a good bidirectional relationship with its mother signals, or cues, when she has a need, shows an interest in exploring her environment, mimics the mother’s expressions and seeks out opportunities to interact with other people. Optimal maternal behavior includes responsiveness, stimulation and good mothering (Bohlin & Hagekull, 1987). A mother with good mental health and confidence in her ability to provide care and support to her infant helps her child build the social-emotional foundation and secure attachment that is needed for the child’s future.

Theories of Development

There are many theories of human development and no single theory is adequate enough to explain all facets of development. When theories are integrated, a clearer picture develops. Two of the major theorists are Jean Piaget and Erik Erikson. Piaget’s theory is concerned with cognitive development, such as perceiving, believing and reasoning. He believed that the cognitive ability at each stage of development determines the capacity for certain emotional behaviors. Erikson’s theory focuses on the effect experiences have on the development of ego. Identity development is important in Erikson’s theory.

Piaget’s theory is separated into stages: sensory-motor, preoperational, concrete operations and formal operations (Singer & Revenson, 1996). The sensory motor stage occurs
from birth until approximately age two. A newborn possesses reflexive actions, such as sucking, grasping and unrefined movement of the arms and legs. Infants are reactive and do not think before they act. Intelligence begins to develop as the infant learns to control their movement. The end of this stage is characterized by a grasp of object permanence. This describes the ability of the child to understand that an object still exists even if it is hidden from view. The preoperational stage describes children from ages two until seven. The child in this stage is egocentric. They interpret the world around them through their own point of view without consideration that there are differing viewpoints. Children acquire language in this stage and take greater interest in the environment around them. They are curious and ask many questions. Children make up explanations for things they do not understand. The stage of concrete operations characterizes children from ages seven through eleven. Children in this stage start to perform cognitive operations. They can apply the facts they know to the unfamiliar in their environment. They can mentally arrange objects according to size, color or shape. Children are also able to serialize objects into a specified order by mentally arranging them. Children also learn that quantities can remain the same even if the shape changes, called conservation (Singer & Revenson, 1996). This stage is characterized primarily by the reversibility of thought. Children start to understand that operations that are done a certain way can be done the opposite way as well. For example, a child walking to school along a specific route can also take that route the other way to get back home. Operations in this stage are concrete, that is, only what the child can see. The last stage of formal operations occurs from ages eleven through sixteen. Children start to think abstractly. They can understand hypothetical situations and that a future exists. They are able to think about a situation from different points of view. The development of morals and a value system occurs in this stage (Singer & Revenson, 1996).
The sensory-motor stage, the first stage in Piaget’s theory of development, occurs during a time of rapid growth for a child. This stage can be broken down into six smaller substages: random and reflex actions (0-1 month), primary circular reactions (1-4 months), secondary circular reactions (4-8 months), coordination of secondary schemata (8-12 months), tertiary circular reactions (1-18 months) and invention of new means through mental combinations (18 months to 2 years) (Singer & Revenson, 1996). The newborn enters the world with no prior experiences. All she knows about the world is that exists in her immediate environment. For the first month of life, the newborn gains knowledge from this environment, usually through accidental movement of their immature reflexes, such as finding their fist to suck (Spencer Pulaski, 1980). Newborns, in this stage, react by using inherent biological reflexes, such as sucking and grasping. As the infant transitions to the second, primary circular reaction substage, she has learned to put movements together to form new behaviors. The infant is alert and curious to learn how to perform more behaviors. She smiles and gazes at certain objects that are interesting. Consistent images, such as a mobile over her crib and her mother’s face, become a part of the infant’s environment and she expresses satisfaction when they appear. Infants may pause during feeding to stare up at her mother and smile. At this age, if the infant does not see an object, it does not exist (Singer & Revenson, 1996). By the time the infant is four to eight months old, she is familiar with her body. The infant now focuses on its environment. The infant will try to repeat actions to elicit a response. For example, if her hand brushes against a soft toy, she will try repeat this action if she likes the feel of the toy. This is a circular reaction (Spencer Pulaski, 1980) and is important in the process for the infant to learn how she interacts with the environment. The fourth substage involves the emergence of intentional behavior. An infant will actively pursue or gesture for an object they desire. Object permanence occurs in this stage as
well. The child learns to look for objects that are not immediately within their sight (Spencer Pulaski, 1980). The infant also learns to associate stimuli in her environment with certain actions that she has retained in her memory. For example, the sound of the front door unlocking may elicit an excited response because she knows that her mother is home. In the fifth stage, tertiary circular reactions, the child begins to experiment to see what will happen. The child varies their behavior to see what the outcome will be. This means that the child will start to apply familiar information to new situations (Singer & Revenson, 1996). This is also a stage of great exploration of the environment in an effort to learn how things work and fit together. The last stage is characterized by the child being able to think about an action before doing it. Piaget describes this as interiorizing of behavior. A child mentally pictures how to accomplish a task, and then tries to imitate that behavior. There is less trial and error and more initial success. These six stages describe the progression of an infant from a biological and evolutionary being to one that is more social (Spencer Pulaski, 1980).

Erik Erikson, like Piaget, created a theory of development that specifies stages people must progress through in order to achieve the skills needed for subsequent stages. Erikson created a framework that describes the physical, social, emotional and intellectual capacities throughout the entire lifespan (Hamachek, 1988). Erikson’s Eight Stages of Man includes: trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt, industry vs. inferiority, identify vs. role diffusion, intimacy vs. isolation, generativity vs. stagnation and ego integrity vs. despair (Erikson, 1950). The first five stages are those associated primarily with childhood.

The first stage, trust vs. mistrust, typically occurs from birth until eighteen months. The infant begins to learn to trust when her needs for feeding, changing and basic care are fulfilled by her mother. Trust is strengthened when the mother is available to the infant and provides for her
needs on a consistent basis. The infant learns to balance her immaturity with an inner sense that her needs are taken care of and she can depend on her mother to meet her needs (Erikson, 1950). The infant becomes familiar with her body and her environment. Her first social accomplishment is allowing her mother to leave her sight. She has developed a sense of attachment with her mother and knows that she has not left forever. Infants who have developed a sense of trust are able to seek out others for help when they need it, believe that others will help them and follow through with their promises, believe that others are generally good, are optimistic, behave in an open manner with others, can give to and receive from others, can share and believe that others know themselves best (Hamachek, 1988). Those who develop mistrust have trouble asking others for help, believe others are not helpful and are bad or evil, are pessimistic, would rather receive than give to others, have trouble sharing and prefer to tell others what to do (Hamachek, 1988). This stage sets the building blocks for future social behavior.

Autonomy vs. shame and doubt is the second stage of Erikson’s theory. This stage typically occurs from age eighteen months to three years old. During this time, children learn to potty train, and the underlying theme of this stage is holding on and letting go (Erikson, 1950). The child wants to be independent and make choices for herself. The role of the mother is to allow the child to make her own decisions while providing support in the event of failure. The child must be allowed to think they can accomplish their goals, otherwise, they learn to become self-conscious, which is the root of shame. A child who is worried about how they appear to others will be reluctant to try anything new. Children possessing autonomy like to make their own decisions, cannot say no without feeling guilty, do not like to be controlled, can work well alone or in groups, are goal oriented, listen to their inner feelings when figuring out what is right or wrong, feel at ease in group situations and prefer order in their lives because this is an outward
expression of personal control (Hamachek, 1988). Conversely, children who are shameful or doubtful prefer to be told what to do, do not like to work by themselves because of fear of judgment, have trouble initiating tasks, require more instruction and direction when given a task to complete, feel uneasy or self-conscious and like order because of fear of criticism if there is disorder (Hamachek, 1988).

Initiative vs. guilt refers to the feeling of attack and conquest. Children ages three to six years old are typically characterized by this stage. Most children in this stage are able to walk and move around within their environment. A balance must be struck between the overwhelming desire to be on the move and the immaturity of the mind to complete all tasks attempted, even if the child is not developmentally ready. Children are imaginative and interested in their environment and want to take part in new challenges (Erikson, 1950). The conscience becomes deeply rooted in this stage, leading to feelings of guilt when tasks cannot be accomplished. Children with a sense of initiative prefer to finish what they start, will accept new challenges, are self-starters and leaders, set goals and strive to meet them, are energetic, enjoy action, believe in themselves and have a sense of right and wrong without being too rigid (Hamachek, 1988). Children with a sense of guilt have a hard time starting activities, do not like new challenges, have low energy, feel inadequate, prefer to remain in the background and focus on things in life that are wrong (Hamachek, 1988).

The fourth stage of Erikson’s theory, industry vs. inferiority, is typical of children aged six to twelve. The emphasis of this stage is learning work skills that will allow the child to become a productive member of society. They learn to feel good about themselves by making or producing things. Children who do not have confidence in themselves feel inferior, worry that they do not measure up to others and will not be able to provide for themselves, or a family, in
the future (Erikson, 1950). Industrious children like to learn new things, balance wants with needs, develop a good work ethic, take pride in a job well done, incorporate constructive criticism and persist in the tasks they undertake (Hamachek, 1988). Children who feel inferior do not seek to learn new things, focus on what they have to do rather than finding a balance with the things they like to do, procrastinate, believe they are not worth it, do not accept criticism and give up easily (Hamachek, 1998).

The fifth and final stage in childhood is identity vs. role diffusion or identity confusion. This stage typically occurs from ages twelve to twenty. During this stage, puberty occurs and causes an upheaval in the sense of familiarity and consistency the child has developed in earlier stages (Erikson, 1950). Children start to worry about how they are perceived by others. They learn to connect the skills they learned earlier in life with the future and what they hope to be as an adult. They develop a sense of what is important and understand that others may not agree. Children who are unable to develop a sense of identity, tend to become what they believe others want them to be. Children with a sense of identity remain true to their values and are able to be close to others without losing their sense of self. They seek acceptance based on who they are rather than what others want them to be. They take responsibility for their actions and are generally optimistic (Hamachek, 1988). Children without a unified sense of self are unstable and have trouble creating long term goals and plans. They have low self-esteem and change their behavior based on the wishes of others. They are cynical and have trouble making decisions (Hamachek, 1988).

Attachment

Infants are essentially helpless in that they need to rely on their mother to provide for their every need for survival. It is this interaction with the mother that helps the infant develop
the social-emotional skills they will need throughout their life. Infants are able, from birth, to participate in proto-conversation, or wordless back and forth communication, with their mother (Trevarthen, 2001). Long before children learn to verbalize their feelings, they are able to imitate facial expressions and participate in bidirectional vocal exchanges with the mother (Vaish, Grossmann & Woodward, 2008). Because the child relies so heavily on the mother as the primary caregiver, it is crucial for positive attachment to occur. In order to survive, the infant requires protection, which comes in the form of a bond with the mother (Ainsworth & Salter, 1970). A secure attachment balances the infant’s need to feel safe with the desire to explore and learn from the environment, knowing that the mother is there for support should they need her (Stansfeld, Head, Bartley & Fonagy, 2008). An infant’s world is largely non-verbal; therefore, the mother’s facial expressions, cues and behaviors with the infant greatly influence their ability to learn about their environment. A positive attachment figure is essential in promoting positive social-emotional development in an infant. They accomplish this by responding to cues, interpreting the behavior of the infant and reacting accordingly, and establishing a reciprocal social relationship (Bagdi & Vacca, 2006). A balance must be struck between attachment and protection and exploration and acquisition of knowledge because a child learns by exploring her environment (Ainsworth & Salter, 1970). Intuitive behaviors that a mother and her infant both possess facilitate communication and when there is problem with either one, the infant does not benefit from the mother’s care and her whole psychological development will be affected (Trevarthen, 2001).

Secure emotional attachment is characterized by a bidirectional relationship between the mother and infant in which the mother consistently responds to her child’s needs and engages the baby in pre-verbal communication. Bowlby (1958) summarized four needs an infant has which
tie her to the mother. Secondary Drives are the basic needs for food and warmth, excluding social needs. Primary Object Sucking refers to the infant’s need to relate to and possess the breast. Primary Object Clinging describes the infant’s need to be close to and to cling to her mother. Finally, Primary Return-to Womb Craving describes the desire for the infant to return to the womb. He felt that these needs bound the infant to the mother and vice versa. Bowlby (1958) also felt that the infant’s innate crying behavior was so designed by evolution because the child is usually only soothed in the presence of the mother, whether she is present to provide food or comfort. It is also signified by the child wanting to be in the presence of the mother and learning to understand that the mother will be present to take care of her needs. Bowlby (1958) theorized that attachment was most important from the time the child is 18-30 months old, as this is the period of time when the child is asserting her independence, but still needs to rely on the mother to help her with situations she is not yet mature enough to handle herself. Insecure attachment is the opposite. An insecurely attached child can not rely on her mother to respond in a consistent manner to emotional cues. The child does not feel safe and is not able to explore their environment to further develop their social-emotional skills. Children insecurely attached have difficulty learning to expect consistency from others nor are they able to rely on others to get their own social-emotional needs met.

There are four types of attachment. Type A is insecure/avoidant attachment style. If the mother leaves the room, most children will act in a way that shows they miss her. The child may cry or look for the mother. A child who has an insecure/avoidant attachment style will avoid their mother when she returns to the child. This child does not trust relationships and is not comfortable with intimacy or dependency. Type B attachment signifies secure attachment. After a temporary separation, the child is happy to be reunited with the mother, and acts accordingly.
Type C is insecure/ambivalent/resistant attachment. This is signified by inconsistent seeking of closeness and resisting contact with the mother. The child does not exhibit a consistent pattern of interaction. These children have an intense desire for intimacy, but are anxious about rejection.

Type D attachment is disorganized/disoriented in which the infant alternatively or simultaneously approaches and avoids or freezes and exhibits stereotyped actions in the presence of the mother (Martins & Gaffan, 2000; Cunningham, Harris, Vostanis, Oyeboke & Blissett, 2004; Stansfeld, Head, Bartley & Fonagy, 2008).

In a classic study by Mary Ainsworth and Silvia Bell (1970), a “Strange Situation” was used to expose children to situations with and without the mother and with or without a stranger present. They attempted to observe how the children used the mother as a secure base from which to explore a strange environment. The study found that children had a lower incidence of exploratory behavior in the absence of their mother, especially when left alone with a stranger. They also found that crying increased after the mother left, but did not increase with the introduction of a stranger. It was the absence of the mother that caused the distress and subsequent crying (Ainsworth & Bell, 1970). The children in the study attempted to stay close and cling to their mother the most after she departed and the child was either left alone or left alone with the stranger. This type of proximity seeking or contact behavior was greatest after the mother returned to the child who was securely attached. The few children who resisted and avoided their mother upon her return are those typically defined as ambivalently attached (Ainsworth & Salter, 1970). The study is important in that it found that children who were securely attached are able to explore and learn from unfamiliar situations because they know their mother is close and able to assist should she be needed. Ainsworth and Salter also found
that short, time-limited separations from the mother do not cause long term, irreparable damage to the child, if they were securely attached to the mother.

Temperament

Child temperament plays a role in the bond the infant has with the mother. Temperament is the innate characteristics an infant exhibits shortly after birth that describes their behavior in social situations. Temperament continues unchanged throughout the lifespan to a certain degree, but is very significant during infancy and childhood. There are nine dimensions of temperament: activity level or the amount of movement that occurs with a behavior; rhythmicity, the regularity in repetitive functions; approach/withdrawal is the initial response to new people; adaptability to new situations or environments; intensity of positive or negative reaction; threshold of stimulation needed to provoke a response; quality of mood; distractibility; and attention span/persistence in the face of obstacles (Weber, Levitt & Clark, 1996). There are three distinct types of children, based on temperament; difficult, easy and slow to warm up. Difficult children are irregular and unpredictable. They approach new situations slowly and are slow to adapt. They have intense reactions and tend to exhibit negative mood. Easy children are regular and predictable. They approach new situations and are sociable. They adapt to changes, are modulated in their reactions and display a positive mood. Slow to warm up or shy children are withdrawn in new situations. These children do not adapt quickly. They display low mood and activity and negative mood (Landy, 2009).

It is important to be aware of infant and parent temperament as factors in child development. This accounts for goodness of fit. Goodness of fit describes the compatibility between the child’s temperament and the mother’s parenting style and own temperament (Carter,
Briggs-Gowan & Davis, 2004). A child’s developmental course will be affected if the mother is unable or unwilling to adapt to the child’s temperament.

**Maternal Depression**

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM IV-TR) (2000), Major Depressive Episode is characterized by “a period of at least 2 weeks during which there is either depressed mood or the loss of interest or pleasure in nearly all activities” (American Psychiatric Association (APA), pg 349). This behavior signifies a change from previous functioning. An individual must also exhibit four of the following nearly every day: significant weight loss or gain (5% of body weight in one month) that is not the result of diet changes or change in appetite; inability to sleep or sleeping too much; psychomotor restlessness of retardation as observed by others; loss of energy; feelings of guilt or worthlessness; inability to focus or think, either by self-report or observation; thoughts of death and suicidal ideation with or without a specific plan. These symptoms must cause impairment in the individual’s social, occupational and other areas of functioning. The symptoms are also not the result of a substance or medication, nor are they the result of a medical condition. Those suffering from major depressive episode may also exhibit tearfulness, irritability, brooding, anxiety, phobias, excessive worry and complaints of pain. There may be difficulties in sexual functioning and marital relationships. Neurologically, depression may involve dysregulation in the neurotransmitter systems, including serotonin, norepinephrine and dopamine. Psychosocial stressors, such as death of a loved one, divorce and childbirth may invoke a depressive episode. For a bout of depression to qualify as an episode and not Major Depressive Disorder, the individual must no longer meet the diagnostic criteria or have a cessation of symptoms for two consecutive months.
Major Depressive Disorder is characterized by a single episode or recurrent Major Depressive episodes without a history of a Manic, Mixed or Hypomanic episode. Major Depressive Disorder can begin at any age, but the average age of onset is the mid 20’s (APA, 2000). Approximately 60% of people with Major Depressive Episode have a second episode. It is also 1.5-3 times more likely to occur among close relatives with the disorder when compared to the general population (APA, 2000).

Major Depressive Episode or Disorder can include a Postpartum Onset Specifier. Depression is considered Postpartum Depression (PPD) when the mother experiences all of the symptoms for a Major Depressive Episode or Major Depressive Disorder within four weeks after giving birth (APA, 2000). Common symptoms include mood swings, preoccupation with infant well-being ranging from over-concern to delusional thoughts about the baby. Severe obsessions or delusions about infant care can lead to harm of the infant (APA, 2000). Postpartum depression can include psychotic features, which are typically delusions about the baby’s safety or that the baby is possessed. Once a woman has had PPD with psychotic features, she is 30-50% more likely to have a second occurrence during subsequent pregnancies. Mothers suffering from PPD can exhibit disinterest in their child, anxiety about being left alone with the infant and preoccupation with the infant that disrupts her sleep. PPD is not the same as “the baby blues”, which is transient, based on hormonal changes following childbirth and usually disappear within ten days after birth (APA, 2000).

It is estimated that 11% of pregnant or postpartum women suffer from minor or major depression (Chaudron, 2007). “Depression related to childbearing can occur during pregnancy (antenatal depression), after pregnancy (postnatal depression) or both” (Leigh & Milgrom, 2008, pg 2). The signs of depression are easily overlapped by the symptoms of pregnancy, such as
fatigue, mood changes, anxiety and irritability; therefore, depression is easy to misdiagnose or miss all together. The diagnosis of antenatal depression is difficult. PPD can cause poor self care, such as lack of adequate nutrition, drug or alcohol use and poor follow through for psychiatric care. The impact of PPD on infant development is worse if the depression is chronic and severe (Leigh & Milgrom, 2008). Difficulty in regulating and expressing emotions is characteristic of mental illness, including depression. The effects of PPD may last longer than 3-4 months after delivery. In a study by Cox, half of the mothers they surveyed still had symptoms a year later (Righetti-Veltema, Bousquet & Manzano, 2003).

The exact cause of PPD is unknown, but there are risk factors that can be attributed to a greater probability of a women developing PPD. Social and economic risk factors, such as lack of family and social support, lack of significant other to share in caretaking activities or rely on for support, prior episodes of depression (Likierman, 2003). Stressful life events, low self esteem, young age, history of miscarriage and childhood sexual abuse are also risk factors for PPD (Leigh & Milgrom, 2008). The mother must be strong enough to respond to her infant’s demands while suffering from the emotions caused by childbirth. When the mother is overwhelmed by trying to balance her maternal responsibility with her own well-being, those of her partner and possibly other children, this can also trigger depression (Likierman, 2003).

Biological factors, such as hormonal changes, weaning, a history of depression and even sleep deprivation can all be catalysts for PPD.

Mothers suffering from severe and persistent depression prior to pregnancy and childbirth were concerned with meeting the characteristics of the ideal mother, even though this is an unrealistic expectation for any mother (Montgomery, Tompkins, Forchuk & French, 2006). These mothers also wanted to create security for themselves. If they perceived their children as
successful, then they were also successful as mothers. This was harder to accomplish as symptoms became harder to control. Mothers with depression also wanted to appear responsible for day-to-day needs. This validated their worth as a mother, but it became harder to assume responsibility when hospitalized or when symptomatology increased (Montgomery et al, 2006).

Effects of Maternal Depression in the Infant

There has been a shift in society from many adults sharing responsibility for the care of an infant to the mother providing the majority of the care on her own (Fonagy & Target, 2005). If the mother suffers from depression, the infant may not have additional caregivers she can use as a model for healthy social-emotional development. This puts a strain on the mother-infant dyad, in addition to the stress the mother is already under from trying to cope with parenting and depression simultaneously. Mothers with depression are typically alone for the first two to three months after birth, with very little support for the majority of the time. This implies that the first three months of an infant’s development are extremely vulnerable to maternal depression (Rhigetti-Veltema, Bousquet & Manzano, 2003). It is not what the mother does that causes problems with an infant’s social-emotional development, it is what she neglects to do as a result of her depression.

Maternal depression can affect the perception the mother may have about her role as a parent and the expectations she has of her child. Mothers with depression tend to overemphasize their infant’s difficulties because of their tendency to focus on the negative (Stansfeld, Head, Bartley & Fonagy, 2008). Mothers with depression have a difficult time coping with her feelings and sadness; therefore, she is not able to focus on her child as optimally as she should. She does not respond to her child responsively or consistently. She is unable to provide the warmth and support her infant needs in order to attach securely or to provide the foundation the child needs
for healthy social-emotional development (Albertsson-Karlsgren, Hagekull, Bohlin & Nettelbladt, 1999). Child development is impacted by the interactions between a mother and her infant. The mother is the driving factor behind the creation of the learning environment for her child. It is impossible to separate her mental illness from this environment. The first experiences an infant has regarding interaction, communication, security and learning are impossible to separate from the environment that is also impacted by the mother’s mental illness. PPD is associated with delayed cognitive development and insecure attachment in later infancy (Martins & Gaffan, 2000). Symptoms of depression prevent the mother from being available or interacting sensitively to her infant, leading to insecure attachment (Martins & Gaffan, 2000) PPD is a concern in that the mother may interact with her infant in ways that disrupt the child’s development. Secure attachment not only creates the building blocks for social-emotional development, it is also the most important factor in the organization of the infant’s internal regulatory systems for sleep, feeding and other physiological functions (Beatson & Taryan, 2002). Insecure attachment can cause infants to have disorganized sleep and feeding patterns. Mothers with depression exhibit less imitative behavior, less responsiveness to their child’s cues and less game playing behavior with their infants. A mother’s feelings of worthlessness and sadness can result in withdrawal or intrusiveness which leads to the child not being able to rely on their mother for fulfillment of their emotional needs (Foss, Hirose & Barnard, 1999). The child adapts to the mother’s mental illness. If the mother is cold and withdrawn, the child will also be cold and withdrawn (Albertsson-Karlsgren, Hagekull, Bohlin & Nettelbladt, 1999).

Maternal depression has a profound effect on optimal maternal behavior, which in turn, negatively impacts the infant’s social-emotional development. Two different dimensions of maternal depression exist; dull/slow and stressed/irritable. Children of mothers with dull/slow
depression tend to exhibit insecure/avoidant attachment. Infants of stressed/irritable mothers are more inclined to develop insecure/ambivalent attachment (Rosenblum, Mazet & Benony, 1997). Depression does not affect the caretaking functions or actual physical needs of the infant. The effect is on the engagement and vocalizations during the process of basic infant care (Hoffman & Drotar, 1991). Depression interferes with the mother’s happiness, which dampens her ability to provide positive social-emotional support, such as warm facial expressions and vocalizations. The mother’s depressed mood makes it difficult to stimulate her child and can lead to a reduction in infant activity. Still other mothers with depression are intrusive, controlling or over-stimulating alternating with disengagement when interacting with their infants (Hoffman & Drotar, 1991). Infants respond best to consistent, predictable reactions to their cues. Mothers with depression are not consistent with their interactions leaving the child unsettled and unsupported in their efforts to explore their environment. These mothers dominate any communication that occurs and shifts attention away from the infant foci of interest, effectively stifling the child’s opportunity to explore the environment and acquire new skills. Healthy mothers can fix mismatches in synchrony by either increasing or decreasing stimulation based on the infant’s cues. Because the mother fails to create opportunities for imitation through facial expressions and imitation, the infant brain is not able to develop in a healthy manner. This type of interaction with the mother is necessary for higher brain development as it provides a foundation for thinking, reasoning, and emotion regulation. Likewise, the neurons are unable to create new connections or consistently strengthen already existing, healthy connections in the brain. An infant cannot learn and develop unless the mother is an active participant, and mothers with depression are unable or unwilling to participate. This creates a vicious cycle in which the child feels insecure and does not signal or cue the mother, leading to less maternal preoccupation.
and therefore, less positive interaction with the child. Children of depressed mothers are fussier, squirm more and are more negative in their behaviors (Cornish et al, 2006). They also exhibit fewer contented expressions, poorer motor skills, activity coordination and resilience (Newport, Wilcox & Stowe, 2002). Also, infants exhibit more withdrawn-sad or flat affect, disinterest, motor retardation and restricted speech which can all lead to childhood depression (Feldman, 2007b).

Mothers with depression react in a less positive way and felt less confident in their maternal role. These mothers tend to keep their children close by using three mechanisms to hide her mental illness. The mother tries to mask her mental illness by focusing on the task of mothering, for the sake of her children. She censors her speech and hides her authentic expressions for fear that they will be overshadowed and mistaken as just a part of her depression. She tends to mimic what others say rather than express her independent thoughts. Lastly, she participates in “motherwork” which is the automatic, rote-like behaviors that ensure the infant’s basic, physical needs are taken care of. The mother is merely present to complete these tasks and does not do more than is absolutely necessary (Montgomery et al, 2006). Infants of a mother actively masking her depression do not benefit from warm, caring, spontaneous interactions because the mother is too busy hiding her illness to behave in an affectionate manner.

Mothers with severe, chronic depression may require hospitalization to effectively manage their illness. This has a detrimental effect on the child as they are completely separated at a critical time for attachment. The infant is not able to receive comfort from her mother’s smell, sight, sound or presence. Although other caregivers may be available, as Bowlby (1958) states, “only his own mother will do” (pg 370). The mother also suffers by being separated from her child. She may not feel the bond with her baby as strongly as she would have had she been
present. She may feel like a failure as a mother because she had to leave her baby. This feeling of failure may exacerbate the depressive symptoms she already has. She may feel as though she isn’t a good mother because she is not able to nurse or take care of the most basic needs of her child. The physical absence of the mother prevents the creation of synchrony between the mother and her child. When reunification does happen, the child may feel that the mother is a stranger.

Many mothers with depression need to take medication to control their symptoms. Most anti-depressants are safe to take during pregnancy and while breastfeeding. The use of psychotropic medication, including anti-depressants, “is not recommended unless the potential benefits justify the potential risks to the fetus” (Gold, 1999, pg 602). Many doctors and patients misinterpret this to mean that all psychotropic medications will cause serious birth defects, and this is not true. However, passage across the placenta does occur. Perinatal withdrawal/toxicity syndrome describes a condition in which the infant suffers adverse effects from the abrupt end to anti-depressants after birth. The side effects include difficulty soothing, excessive crying, jitteriness, exaggerated reflexes and rarely, convulsions (Godfrey, 2005). These symptoms seem to resolve over a short time, but pre-term children may need to be monitored more closely. The risk of taking medication must be weighed against the risk of not treating the mother’s depression. Risks to the fetus include possible congenital malformation, long term neurobehavioral changes and direct exposure through the placenta. If the mother chooses not to utilize medication to treat her depression, the risks include poor self-care, difficulty with obtaining prenatal care and suicidal ideations (Gold, 1999).

The effects of maternal depression do not only occur after the birth of the child. The mother’s biochemistry and psychological state, including depression, affects her developing fetus as well. Pregnancy can be a difficult, stressful time for the mother and this anxiety can
exacerbate the symptoms of depression. Women who had depressive symptoms during pregnancy had infants with elevated levels of cortisol, the stress hormone, in their urine (Bergner, Monk & Werner, 2008). If the mother experiences constant elevated levels of stress, her sympathetic nervous system releases stress hormones, such as cortisol. These stress hormones cross the placenta where they decrease the oxygen and calorie intake of the fetus. This fetal exposure can influence brain development, lead to fussier infants and smaller birth weight infants (Bergner, Monk & Werner, 2008).

Interventions

There are a number of interventions that can be utilized to help screen, treat and minimize the effect of maternal depression on both the mother and her infant, during or after pregnancy. Treatment options for maternal depression are typically similar to the options utilized for clinical depression and include counseling, medication, hospitalization and community supports (Pfost, Stevens & Matejcak, Jr., 1990). An analysis by Brockington (2004) found that counseling visits by health visitors, companionship during labor, cognitive-behavioral therapy, psychoeducational groups, telephone peer support and debriefing by a midwife all lessoned the effect and severity of post partum depression. The side effects of depression frequently overlap with the symptoms of pregnancy. Sadness, lethargy and weight gain are common to both. Following the birth of her child, the mother is overwhelmed by emotions, hormonal changes and even anxiety that can mask underlying psychopathology (Misri, 2007). Women may refuse to accept help or treatment for her depression. She may feel overwhelmed, threatened by the stigma associated with mental illness or that she just has the “baby blues” and will get better on her own. Treatment may be refused because the mother lacks support or for fear that she may lose her children. She may even equate her suffering as a normal part of motherhood (Montgomery et al, 2006). It is
important for any intervention that the mother is treated as holistically as possible. She is first and foremost a mother, and treatment needs to focus on minimizing symptoms while supporting the mother so she can be present for her child. Treatment also needs to focus on the relationship between the mother and the infant since developmental outcomes for the child can be adversely affected by a mother who does not have positive mental health.

Pregnancy is a unique period in a woman’s life where she is more likely to have routine medical care. This offers an opportunity for health providers to discuss mental health issues and possibly discover any issues before they become too overwhelming for the mother (Godfrey, 2005). Treatment providers need to recognize symptoms for depression during pregnancy and after the birth of the child. Because symptoms often overlap, for women who do seek treatment, up to 50% are misdiagnosed (Godfrey, 2005). Therefore, it is important that screeners are able to identify depressive symptoms and can separate them from the normal characteristics of pregnancy. Health care professionals should be aware of the mother’s mental health history, especially if she has had previous episodes of depression. Interventionists need to treat the mother compassionately, in a non-judgmental manner and truly value her as a partner in the treatment plan (Misri, 2007).

Medication

Women suffering from mild or moderate depression may be able to effectively manage their symptoms with therapy and social or community support. Those with severe depression almost always need medication to manage symptoms (Godfrey, 2005). Many women avoid the use of medication for fear that it will harm the fetus or interfere with breastfeeding (Buultjens, Robinson & Liamputtong, 2008), even though antidepressants have been found to be relatively safe in either instance. 50-65% of pregnancies in the United States are unplanned; therefore, the
chance that a fetus will inadvertently be exposed to psychotropic medication before the woman is aware she is pregnant is pretty high. As many as 80% of women take medication at any given time, and 35% of these are psychotropic medications (Gold, 1999). The use of medication is a joint decision that is made between the mother and her health care provider. Before medication is administered, a risk-benefit analysis needs to be discussed. The mother and her care provider need to determine whether her depression requires medication, if the medication is medically necessary and whether the benefits of taking medication outweigh the risks. Only after both are satisfied that medication is appropriate should it be prescribed (Chaudron, 2007). For women already taking medication upon conception, it is generally an accepted practice to continue administering antidepressants and monitor the child for toxicity after birth (Godfrey, 2005).

Therapy/Counseling

The goal of therapy should not be to treat every single stressor that contributes to maternal depression, but rather to prioritize and focus on the most significant issues (Profst, Stevens & Matejcak, Jr., 1990). It is also important to focus on the relationship the mother has with her infant because this relationship is repeatedly compromised by the mother’s depression (Likierman, 2003). Therapy is also important to help increase the mother’s self-esteem and confidence (Tiet, Bird, Hoven, Wu, Moore & Davies, 2001).

Cognitive-behavioral therapy helps the mother identify and deal with the negative expectations she may have about her pregnancy. This includes her preconceived notions about pregnancy, delivery and infant care. This type of therapy is helpful in mothers who have past episodes of depression (Profst, Stevens & Matejcak, Jr., 1990).

Psychoanalytic therapy can be used to help the mother deal with her unconscious feelings about becoming a mother. This type of therapy can help her unearth unconscious fears and
thoughts she may have about her ability to parent and well as resolve any issues she may have with her parents (Likierman, 2003). Psychotherapy can also address feelings of dependency, a loss of the mother’s own childhood and integration of her new identity as a mother (Albright, 1993).

Education

Education is important, especially if the mother is pregnant or parenting her first child. Helping her become aware of pregnancy expectations, how to recognize stress and respond appropriately, how to manage her time and increasing her awareness of basic infant care can help her feel more confident in her abilities. Education can be delivered in a variety of settings by home visitors or nurses. EPIC is one example of an educational, group based program, offers mothers a holistic, non-obtrusive way of obtaining information about communication, positive experiences, face to face contact and responsiveness toward her infant (Buultjens, Robinson & Liamputtong, 2008). The program includes education, hands on activities and creative ideas to promote the social-emotional development of the infant. The program is easy to administer across a variety of settings and can be delivered by a variety of professionals. Research has found that this program encourages positive mother-infant interactions and helps mothers recover from postnatal depression (Buultjens, Robinson & Liamputtong, 2008).

It is not only important for the mother to become more educated in order to recognize depressive symptoms and to learn to interact with her infant in a warm, responsive manner. Health care providers, doctors and nurses also have to learn to identify depression in their patients and make appropriate referrals for care.
Screening

It is important to identify women with depression as early as possible so interventions can be introduced to minimize symptoms and the effect on the fetus or infant. The United States Preventative Services Task Force has recommended that health care providers ask two simple questions that indicate sensitivity for depression: “In the past two weeks: have you felt down, depressed or helpless or have you felt little interest or pleasure in doing things?” (Godfrey, 2005). Obstetricians and even pediatricians should routinely ask these questions of new mothers if they suspect a problem, in an effort to identify possible depression as early as possible.

An inexpensive and quick screening tool used to detect depression is the Edinburgh Postnatal Depression Scale (EPDS). This is a 10-item self report questionnaire that takes no more than ten minutes to complete (Mosack & Shore, 2006). The test is administered between 28-32 weeks prenatal and 6-8 weeks postpartum. A score above 9 indicates possible depression. Scores above 12 indicate probable depression (Leigh & Milgrom, 2008).

Tests can be administered in a variety of settings. It is very helpful if home visitors or public health nurses are aware of the available screening measures, as well as the symptoms of maternal depression so referrals and other support can be provided.

Other options

One of the most important factors that determine whether a mother with depression will seek treatment is support from a significant other. Marital counseling may be helpful to work through issues with communication, negotiating parenting and other household tasks and preparing for further, possible, bouts of depression (Profst, Stevens & Matejcak, Jr., 1990).

Social support is extremely important for the mother suffering from depression. Because PPD occurs shortly after the birth of a child when the mother is primarily alone with her child,
simply having another person to talk to may help lessen symptoms, if they are mild, or lead to increased support to seek medical or therapeutic interventions. Peer groups can assist the mother with depression by modeling appropriate mother-infant interaction or by offering an alternative if the mother needs a break from her child. To improve outcomes for the child, it is important to have a variety of caregivers, other than the mother, in an effort to increase the chances for attachment with someone to foster development. In fact, it is important for the mother and the infant to develop strong ties to other family members or people outside of the immediate family (Tiet et al, 2001).
CHAPTER 3

CONCLUSION

Infancy is an important time of growth and development. The foundation for all future learning, interpersonal skills and relationships is created during infancy. This framework is fostered through positive attachment and bonding with primary, trusted caregivers, especially the mother. Good parenting and attachment results in well-adjusted children. Infants have little protection against a mother with depression because all interactions are influenced by the mother’s negative mental health. Depression affects the mother’s ability to respond to her child in a warm, caring and nurturing manner. Depression makes it difficult for the mother to be a role model for social behavior for her infant. It also makes it difficult for the mother to provide a safe, stimulating environment in which her child can learn. Without a warm, nurturing relationship with the mother, the child has difficulty learning how to interpret cues from the environment.

Restoration of maternal mental health should be considered primary preventative care for the child (Newport, Wilcox & Stowe, 2002). Even though it is important for the mother to receive treatment for her depression, the infant is the primary concern in that the child suffers long-lasting detrimental effects from the poor quality of interaction. Children of mothers with depression are two to five times more likely to develop behavior problems (Rosenblum, Mazet & Benony, 1997). These children are prone to future mental instability, emotional problems, suicidal behavior and conduct problems. They experience lower self-esteem, more anxiety and increased aggressive behavior. Early attachment influences future relationships (Stansfeld, Head, Bartley & Fonagy, 2008). Children of depressed mothers have difficulty developing secure attachments. As they grow older, they have trouble creating and maintaining relationships with
peers. They may have attention difficulties, trouble taking turns and following rules or feeling empathy towards others. Still others may withdraw and avoid social contact completely.

Fortunately, there are a number of treatment options to help the mother improve her mental health before it causes long-lasting damage to her infant. It is important to recognize the signs of depression as early as possible, including symptoms that manifest during pregnancy. This is important because the fetus can be adversely affected by maternal depression. The mother needs support, whether from her doctor, her family or a significant other in order to pursue treatment, focus on her role as a mother and her relationship with her infant. She must weigh the benefits and risks of initiating or continuing treatment, not only for herself, but for her baby. With treatment, infant outcomes and the mental health of the mother can be greatly improved.


