American Journal of Clinical Hypnosis
48:2-3, October 2005/January 2006

Helping Children with Asthma by Repairing Maternal-infant Bonding Problems

Antonio Madrid
Monte Rio, CA

Studies about the psychology of childhood asthma have revealed that parenting difficulties are related to the development of asthma in some children. Disruptions in maternal-infant bonding are highly correlated with pediatric asthma and are presented as a cause for these parenting problems. Bonding problems are known to be caused most often by physical separation at birth or by some recent trauma in the mother's life. By using hypnosis to remove the pain of the separation or trauma in the mother, and by creating a new birth history in her imagination, some children's asthmatic symptoms have been shown to remit or greatly improve. The hypnotic method for this treatment is described.

Keywords: Asthma, hypnosis, maternal-infant bonding, parenting difficulties

French and Alexander (1941) proposed the theory that pediatric asthma was a psychosomatic condition, formulating that asthma is the result of a child's unresolved, excessive dependence upon a rejecting mother. Preoccupied with thoughts of maternal rejection, these children embody asthma as a suppressed cry for the mother. The fear of separation from her triggers asthma attacks.

Taking that lead, numerous authors over the next 60 years corroborated that pediatric asthma arises from a child's conflicted relationship with his mother. For example, Baron, Veilleux, and Lamarre (1992), Hargitai (2001), Kinsman, Dirks, Dahlem, and Hiller (1980), and Panides and Ziller (1981) all wrote that asthma is the result of a clinging dependency, which in turn is the effect of a strained relationship between mother and child.

Address correspondences and reprint requests to:
Antonio Madrid, Ph.D.
PO Box 519
Monte Rio, CA 95462
E-mail: madrid@sonic.net

Likewise, Bentley (1975), Benedito-Monleon & Lopez-Andreu (1994), Pinkerton (1967), and Purcell, Bernstein, and Bukantz (1961) linked asthma to maternal rejection and rigidity. Block, Harvey, Jennings, and Simpson (1966) introduced the concept of the "asthmatogenic mother," writing that the mother's relationship with her child had a direct impact on the severity and frequency of the child's asthma attacks.

For several years, the Children's Asthma Research Institute and Hospital (CARIH) in Denver worked with this hypothesis. Treating asthmatics from around the country, CARIH found that asthmatic children would improve almost immediately upon leaving their homes and remained in remission until they returned home, at which time their symptoms returned unless their parents were gone when they arrived (Mascia, 1985; Peshkin, 1959).

In a review of the literature, Pennington (1991) summarized that "rejection of the asthmatic child by the mother has been a dominant theme in the findings of a majority of investigators who have studied asthma as a psychosomatic disease" (p. 40).

Some authors focused specifically on the nature of the relationship between mother and child. Lilljeqvist and colleagues found a temperamental difference in asthmatic children and hypothesized that this may result due to a mismatch between a parent's and child's temperament (Lilljeqvist, Smorvik, & Faleide, 2002). Mantymaa and colleagues found that poor interaction between mother and child was associated with the child's chronic or recurrent health problems and increased the risk of these diseases more than threefold (Mantymaa, et al., 2003).

Klinnert and her colleagues at the National Jewish Medical and Research Center in Denver found three variables which proved to have a predictive relationship with asthma: Elevated total immunoglobulin E measured at age 6 months; a higher number of respiratory infections in the first year of life; and "parenting difficulties" witnessed at 3 weeks (Klinnert et al., 2001). "Parenting difficulties" was assessed from observations that included maternal affect, coping and relationship skills, her sensitivity and responsivity to her child, and her social support.

Klinnert's team also found that parenting problems were related to many other variables, including maternal depression, "internalizing" in the child, the child's overall psychological robustness, and respiratory infections in the infant. According to Klinnert, parenting problems are thought to bring about a special, developmentally salient stress, severe enough to alter the child's immune system:

> Characteristics of the early care giving environment...are associated with school-age asthma among children who are at a familiar risk...If parenting difficulties affect infants in the manner that environmental stress affects adults, then perhaps the quality of care giving has an effect on certain aspects of infants' immune systems (p. 6).

Mrazek, Klinnert, Mrazek, and Macey (1991), in an earlier article, using the same cohort, stated that there was a clear relationship between parenting difficulties and later airway reactivity, but it was not possible, at that time, to make any conclusions about the underlying mechanisms involved.

Bonding and Pediatric Asthma

A series of studies from the Erickson Institute in Santa Rosa appears to have identified one of the mechanisms that connect pediatric asthma with the parenting difficulties noted in

the Denver studies. The Erickson Institute in Santa Rosa's studies found a significant correlation between childhood asthma and disruptions in maternal-infant bonding.

Maternal-infant bonding, as used in these studies, is a construct developed by Klaus and Kennell (1976, 1981) that describes a physical, emotional, and biological attachment between a mother and her child. Klaus and Kennell perceived it as a complex interaction in which a strong emotional response pattern is mutually appreciated, anticipated, and reinforced.

Klaus and Kennell also identified events which can disrupt bonding. They presented two major impediments to the bonding process: (1) physical separation at birth and (2) emotional separation in the mother due to some traumatic event. When either of these types of events is present, the likelihood of bonding decreases.

(1) Physical separation may occur for a variety of reasons, including general anesthesia , C-section deliveries, intensive care nurseries, adoption, postnatal illnesses in the mother or child, or any other hospital procedure which keeps a mother from being with her child after birth (Klaus & Kennell, 1976; Kennell & Klaus, 1998).

(2) Emotional separation can occur when the mother is undergoing a trauma of such intensity that it distracts her from, or interferes with, bonding. These traumatic events may include a death in the family, marital problems, a move away from friends and family, a recent miscarriage, homelessness, or addiction. When the mother is going through a trauma of this nature, the likelihood of bonding to her new baby is greatly reduced (Klaus, Kennell, & Klaus, 1995; Madrid, Skolek, & Shapiro, 2004).

Klaus pointed out some that mothers are very resilient and often overcome such separations; but when they cannot, it creates a bonding problem (Klaus, 2004).

Events which interfere with bonding have been associated with a higher risk of developing childhood asthma. Xu and associates (Xu, Plekkanen, & Jarvelin, 2000) have shown that obstetrical complications and low Apgar scores are associated with a high risk of asthma. In the same vein, Annesi-Maesano and colleagues (Annesi-Maesano, Moreau, & Strachan, 2001) report that in utero and perinatal health issues in child and mother increase the risk of developing asthma. These findings fit with Klaus and Kennell's (1976) observations that bonding can be interrupted if a child is sick and that worrying about a child with a temporary disorder may have long-lasting consequences.

Using the concept of maternal-infant bonding, Feinberg (1988) compared the bonding of 30 pairs of mothers and their asthmatic children with 30 pairs of nonasthmatics. He found that bonding failures occurred three times as frequently in the asthma group (84%) as in the non-asthma group (24%).

Schwartz (1988) studied another set of 30 mother-child pairs, finding that 29% of nonasthmatics were judged as nonbonded compared to 86% of asthmatics. She also found that more than one critical event was endorsed by 70% of asthmatics, but by only 24% of nonasthmatics. The relationship was significant enough for her to conclude, "If a child has asthma, he most likely is not bonded" (p. 84).

Pennington (1991) found that four "nonbonding events" were most predictive of asthma: delay in holding the baby, family death in first year, emotional problems during pregnancy, and emotional problems in the first year. He theorized that a child's lack of connection with his mother "generates fear and its related behaviors, including endocrine and autonomic responses which lead to release of mediators responsible for bronchoconstriction" (p. 163).

It is possible that mother-child difficulties, noted for decades by those who have studied pediatric asthma, may be linked to disruptions in bonding. These bonding problems, in turn, have been shown to be caused by separation at birth or maternal emotional preoccupations.

If this is the case, then it is conceivable that asthmatic symptoms, which result from bonding problems, may be improved by repairing the impaired bond.

Repairing Bonding Problems to Improve Asthma

Two studies have tested the hypothesis that childhood asthma symptoms can improve through a treatment which repairs the bonding problem. In the first study (Madrid, Ames, Skolek, & Brown, 2000), 6 mothers of asthmatic children (ages 7 months to 12 years) with histories of disrupted bonding were treated with a therapy aimed at hypnotically repairing the bond with their child. Four of the children were then briefly treated to reinforce this repair, and 2 infants were not further treated. Eighteen variables were studied before treatment, after the mother's treatment, and after the child's treatment. There was improvement in all 18 variables. Five children experienced complete or nearly total improvement in their breathing, including 2 infants who had a complete remission of all symptoms.

In the second study (Madrid, Ames, Horner, Brown, & Navarrette, 2004), the mothers of 15 children (ages: 1½ to 14 years) were similarly treated. The children were not treated. Twelve children's symptoms improved. Of the 10 who were regularly taking medications, eight no longer needed them. There were 7 Mexican-American mother-child pairs treated; and all these children improved, using a bilingual bicultural counselor.

In these studies, the prenatal and perinatal histories that appeared to impair bonding included: marital problems, deaths in the family, recent miscarriages, illnesses in the child or mother, homelessness, C-section deliveries, emotional problems in the mother, and separation from the child after birth.

The remainder of this article will describe this type of therapy.

Hypnotic Repair of Disrupted Bonding

There are three parts to this therapy: (1) identifying the impediments to bonding; (2) using hypnosis to remove the impediments to bonding; and (3) using hypnosis to create a new, bonded birth.

As an example, if a baby were taken away from its mother immediately after birth and kept away for two days: (1) that event would be identified as the cause of the bonding problem; (2) the pain of that separation would need to be cleared from the mother; and (3) the mother would then be guided to experience a new birth in which her baby remained with her.

For another example, if a mother became pregnant soon after her father's death, (1) that event would be identified as the cause of the impaired bonding; (2) the grief would need to be removed; and (3) then the mother would be taken through a new birth, experiencing it joyfully.

Identifying the Impediment to Bonding

For this type of therapy to work, one needs to know if there is the possibility of a bonding problem and what specifically happened to create that bonding problem. Bonding problems are often identified by a mother's statements about her child. She might say that there was always something wrong with her child, that he or she was colicky, that he or she was difficult to please, or that he or she was always fussy. Mothers often say that there was something wrong with the baby from birth or note that her child seems over-demanding,

clingy, or sometimes cold. Some mothers might say that they don't feel the same about this child as they do their other children.

A therapist often can get a fast indication if bonding occurred by asking the mother how she felt when she first saw or held her child. If she says something that is filled with positive emotion, like "I was thrilled," or "this was the high point of my life," then bonding probably did occur. (However, it is still possible that something interfered later on.) If the mother says something noticeably devoid of emotion or full of negative emotion, like "I was frightened," or "I thought she was cute but I had no feelings," or "I was exhausted and could hardly wait to go to sleep," then probably bonding did not occur.

It is important to note that these feelings are not the result of a personality flaw in the mother or child. They are the usual and expected feelings and behaviors when mothers do not bond (Klaus & Kennell, 1976). The task, for the therapist, is to find out what happened to cause this problem.

Maternal-infant Bonding Impediments

The following checklist has been helpful in identifying events, both physical and emotional, which typically interfere with bonding. Most of these are taken from Klaus and Kennell's 1976 book, *Maternal-infant Bonding*.

Physical Separation	**Emotional Separation**
Mother was separated from child at or after birth	Mother had emotional problems during pregnancy
Mother had a very difficult delivery	Mother had emotional problems after birth
Child was sick at birth	Mother had a death in family within two years of birth
Child was twin or triplet	Mother and father were separated before or soon after birth
Child was removed to an Intensive Care Nursery or incubator	Mother was addicted to drugs or alcohol at birth
Mother was anesthesized at birth	Mother moved before or soon after birth
Mother was very sick after birth	Severe financial problems
Mother was separated from child in first month	Unwanted pregnancy
Child was adopted	Mother miscarried within two years of child's birth
Other separation occurred	New romance in mother's life

If one or more of these events is endorsed by the mother, then the therapist has pinpointed the cause of the bonding problem. Not all maternal-infant bonding problems lead to asthma, and not all asthmatics have histories compatible with bonding problems. However, when an asthmatic child has a history compatible with a bonding disruption, then there is a good likelihood that he or she can be helped with this type of therapy.

Using Hypnosis to Remove the Impediments[1] to Bonding

It is helpful for the therapist to discuss the concept of maternal-infant bonding with the mother. Often mothers have known that something has been wrong and have blamed themselves, or have been blamed by others, for the disturbance in their relationship with their child. When they hear that the trouble has been caused by circumstances outside of their control, they are often greatly relieved. Their participation in the therapy is enhanced by such discussions.

[1] From the Latin, impedimenta, baggage

When the bonding impediment is identified, the mother is hypnotized and asked to heal this interfering event (or events). Simple hypnotic suggestions seem to accomplish this task. We use a general purpose suggestion coupled with an ideomotor signal (Cheek & LeCron, 1968) in the following fashion:

> Resolve and heal the grief and pain that you were experiencing during the pregnancy (or during the birth, after the birth, etc.) and all memories of the feelings during that time. And when that is all gone, then your index finger will float...Is there any more grief in you from that time? (If so, then she is asked to clear out the remaining grief.)

Although it may seem inconceivable that a long-standing problem can be resolved in such a quick fashion, one must remember that the problem has often been resolved or partially resolved since the time it happened. It is the residual of the impediment, felt at the time of the pregnancy, that is the current concern. In the words of one mother who lost a child before she conceived a second child who later developed asthma, "I already am over the death of my first child." True, but she needed to feel what it was like to conceive her second child without the grief surrounding the death of her first child. The grief around the non-bonding event is usually quite circumscribed and can be resolved in short period of time.

Discovering the key bonding impediment is essential. The therapist may work through several "red herring" impediments before the real impediment is identified and resolved. For example, a 7-year-old child with asthma, on bronchodialators and rescue inhalers, was diagnosed when he was 1-year-old. His mother was left abandoned and destitute by her husband when he found out she was pregnant. She showed every sign that she nevertheless had bonded with her son at birth. This was evident when she stated that she was ecstatic when she first saw her son (and she was noticeably moved talking about it). In hypnosis, she also confirmed, through ideomotor signals (Cheek & LeCron, 1968) that being abandoned was not a problem. However, her son's first asthma attack occurred at one year of age, when the mother was physically assaulted on the street coming home from work. She suffered PTSD from the attack and was unable to stay emotionally connected to her son. It was clearly evident that this was the bonding inhibitor because her son went to the hospital suffering from asthma within a day of the attack. When this trauma was resolved and a new birth was created, the child's asthma symptoms remitted and he no longer needed his asthma medication.

Using Hypnosis to Create a New Bonded Birth

After the impediments to bonding are removed, resolved, or healed, a new birth needs to be created and felt by the mother. Under hypnosis, she is asked to imagine how the birth would have been had there been no impediment. If a mother was grieving the death of her father at the time of her son's birth she is asked to know what it would have been like to be pregnant and give birth in a joyful state. This is done after the grief is fully resolved.

The mother is asked to go through and confirm the three stages of pregnancy in this hypnotic protocol. She is asked to experience the first trimester of pregnancy in a healthy and joyful fashion with her unconscious mind signaling when that is accomplished. In a similar fashion, she is brought through the remaining two trimesters. Then she is brought through a quick and easy birth process. She is asked to indicate through ideomotor signals when her child takes his first breath. She is instructed to spend the first hour with her child

with all the sensations involved. Then she is brought through the first day, the first week, and the first month, with hypnosis quickening the speed. She is brought through anytime, which formerly had impediments, right up to the present time. Finally, her unconscious mind is asked if it can take this history as a new emotional history and keep it in her heart to remember and enjoy.

If at any time there seems to be a difficulty in getting an ideomotor response that a task has been accomplished it usually means that the mother still has an issue that has not been resolved. She will need to return to the issue and do more clearing or learning about it before she can experience the birth in this resolved fashion.

This work usually can be done in four to five sessions: One session is done to gather the history and to introduce the mother to hypnosis; one to three sessions to do the therapy; and one session for follow-up.

For cases involving older children, the children may need some hypnotic work themselves. Teenagers who are going through the developmentally appropriate separation and individuation process may have some issues that need to be explored. Furthermore, some children may have some conditioning or attitudes in place that need exploring and reconfiguring. Young children, however, seem to respond when the work is done entirely with their mothers; the younger the child, the more successful the therapy, with children under 9 having the most benefit from this treatment (Madrid et. al., 2004).

Case Examples

Example 1

A young mother got pregnant the first time she had sex, at the age of 14. The child's father broke up with her in the second trimester and left the state in which she lived. She had toxemia and was very sick throughout the pregnancy. Labor was induced in the eighth month. When she first saw her son, she remembered feeling overwhelmed and unready for the task.

After she was released from the hospital, she lived with various family members until she landed with her great aunt who was very judgmental and critical. At the time of treatment her baby was 9-months-old. She said that her child got seriously sick and was put on asthma medication when he was 4-months-old. She used a nebulizer for him twice daily and she stated that her son had not been a healthy child since he first got sick. She said that it seemed as if there was always something wrong with him.

She was seen four times. The first and second time was for 1 hour and the third and fourth time for 20 minutes. The first meeting was dedicated to gathering history and introducing her to hypnosis. At the second meeting, she was asked to clean out the old painful memories, and then, a new birth was imagined, in the following fashion:

> Clear out the pain and worry that you felt during your pregnancy, especially when your boyfriend left you. When you have done that, your index finger will float. . . (It floats.) Now clear out all of the illness and the memory of the worry that you felt during your pregnancy, and when you've done that, your index finger will float again. . . . (It floats.) Clear out the early birth, the fears associated with it, and the pain and suffering; and when you have done that, your index finger will again float. . . . (It floats.) Now, you can imagine that you have gotten pregnant, and you are joyful

> about this. When your unconscious mind knows how this feels, your index finger will float. . . .(It floats.) And now you are healthy through the first trimester, and when your unconscious mind knows how this feels, your index finger will float. . . . (It floats.) Now you got through the second trimester, healthy and happy; and when your unconscious mind knows this, your index finger will float. . . . (It floats.) When you go through the third trimester and healthy and ready for the baby to be born your index finger will again float. . . . (It floats.) The baby will soon be born, easily, and when he takes his first breath your index finger will float. . . . (It floats.) Now they place the baby on your chest and he sees you and hears you and you see and feel him. When your unconscious mind knows this your index finger will float. . . . (It floats.)

She remarked that she felt wonderful thinking about holding her son without being scared. She now knew what it felt like to have a happy pregnancy and birth. The child, however, did not improve after that session; in fact, he got worse with a cold. At the third session, she identified guilt as still impeding her connection and she cleared out the guilt about being pregnant at a young age:

> Now you don't need that guilt, which you have carried with you all this time; and it's time to clear it out. Go right ahead and do that, and when you've done that, your index finger will float. . . . (Finger floats.)

At the fourth meeting, 2 weeks later, she reported that her son was no longer wheezing and that she had discontinued the use of the nebulizer, and that he was no longer using any medication. For the first time since he was 4-months-old, he was acting and looking like a healthy baby. Her son continued to be symptom-free at a follow-up phone contact 10 months after treatment.

Example 2

A 10-year-old girl was severely asthmatic and she was kept stable with the use of several types of medications. The mother described her daughter as continually sickly and unable to be a normal child. Her mother conceived her 6 months after a first child had died in an automobile accident.

The treatment took one session. The mother was taken back in hypnosis to the time just before she conceived the 10-year-old and asked to remove all the grief that existed at that time. When she indicated that this was accomplished she was asked to see what it was like to be happily pregnant, experiencing her pregnancy, birth, and postnatal period. She was taken through these experiences step-by-step in a similar fashion as in the first example. Her unconscious mind was instructed to indicate, by ideomotor signals, when each of the tasks was achieved. Her unconscious mind was asked to keep these feelings and memories in her heart and to build on them. The mother phoned 3 days after that session saying that her daughter was playing soccer for the first time in her life and had been totally symptom-free. Four months after treatment, the mother reported that her daughter was still symptom free.

Example 3

A 7-year-old girl was diagnosed with asthma at one year of age and was on a full regimen of medications including several courses of steroids yearly. Her mother reported

that she had been in the emergency room at least once a month for the past year and that she was up almost every night coughing and have difficulties breathing.

Her mother reported that she did not have any feelings for her daughter, although she knew that she should, and that the daughter deserved it. She was quite sad about this.

The story of the girl's birth was filled with impediments to bonding. The husband left the family during the pregnancy, leaving the mother heart-broken. Her own mother was in the labor room berating her and the labor room nurse was mean. Her doctor could not be present for the delivery and she was given an unfamiliar doctor. When the baby was delivered she was jaundiced and taken away from the mother for many hours. When the mother was ready to leave the hospital the baby remained there because she was still jaundiced. When the mother returned to receive her baby, several days later, she remembered feeling that the baby seemed to belong more to the hospital nurses than to her.

The mother was hypnotized and the horrible birth history was cleared using a direct suggestion to do so in the following fashion:

> All of the pain, suffering and grief surrounding the birth of your child can be cleared in this state of hypnosis. Heal the pain that has been there for all these years—the pain about your husband leaving you, the pain about your mother berating you, the sadness and fear about not having your own doctor, the fear of your daughter being sick at birth and taken away from you, and the fear and sadness of not being with your daughter for a long time after she was born….all of this. And when this is all cleared, your index finger will float.

She accomplished this in 2 minutes, probably because she had resolved much of this in the interim. Then a new history was presented which included all the features that the mother wanted. Ideomotor signals indicated that everything was accomplished. When the unconscious mind was asked if it could accept this new history it said, "No."

The mother was brought out of hypnosis to discuss this. She said that she had put too many difficult years into this daughter and it was ludicrous to think that everything could be changed with a snap of the finger. She was returned to hypnosis and asked if she could keep the original history on one side of a divided highway and this new history on the other side, using whichever side she wanted at any time. The unconscious mind, through ideomotor signals, said, "Yes."

The mother reported that her daughter's asthma disappeared that evening. She no longer wheezed, even at night. She no longer needed any medication. She also mentioned that, much to her surprise, she now loved her daughter.

Conclusion

A type of therapy that focuses on disrupted bonding and on re-creating a new bonded birth history seems to have a direct bearing on improving the condition of children with asthma. Hypnosis is the vehicle demonstrated in this article, although it is thought that other therapies, including EMDR (Madrid, Skolek, & Shapiro, 2004), may be effective.

Why this happens is still unknown. Klinnert and her team think that the child's immune system, which is directly related to asthma, is weakened by the stress of the strained relationship between mother and child (Klinnert, et. al., 2001). Not all stress does this, but the stress which is developmentally salient, and a mother's lack of attachment to her child, is

certainly that. Pennington postulated that non-bonding leads to fear which weakens the immune system and leads to the release of mediators that affect broncho-constriction (Pennington, 1991).

It seems possible that bonding may be the mediating variable between pediatric asthma and many of the emotional and behavioral characteristics of mothers and children which have been described for decades by authors in the childhood asthma field (French & Alexander, 1941; Pennington, 1991; Schwartz, 1988).

From this viewpoint, it is clear that there is no such thing as an "asthmatogenic mother." It is my conclusion that it is not through a maternal personality flaw that a child gets asthma; rather, it is through accidental events around birth that some children become asthmatic.

Further, it is interesting to note that when mothers are treated with bonding therapy, their children improve without any work on parenting skills. It seems that parenting skills automatically improve as their connection with their child improves.

We do not know the incidence of asthma within the population of children who are not bonded. We do know that non-bonded children seem to comprise a large subset of all asthmatic children. From initial investigations, it appears that non-bonded asthmatic children can be helped, by repairing the bond between mother and child, especially in younger children. It would be good for those who work with pediatric asthma to check birth histories, looking for those events which are known to impede bonding.

References

Alcock, T. (1960). Some personality characteristics of asthmatic children. *British Journal of Medical Psychology, 33*, 133.

Ambrel, J. & Harris, B. (1963). Failure to thrive: A study of failure to grow in height and weight. *Ohio Medical Journal*, 997-1001.

Annesi-Maesano, Moreau, D., & Strachan, D. (2001). *In utero* and perinatal complications preceding asthma. *Allergy*, 56, 491-497.

Barnard, K. (1973). *A program of stimulation for infants born prematurely*. Seattle: University of Washington Press.

Baron, C., Veilleux, P., & Lamarre, A. (1992). The family of the asthmatic child. *Canadian Journal of Psychiatry, 37*, 12-16.

Benedito-Monleaon, C. & Lopez-Andrea, J. (1994). *Behavioral and Cognitive Psychototherapy, 22*, 153-161.

Bentley, J. (1975). Asthmatic children away from home: A comparative psychological study. *Journal of Asthma Research, 13*, 17-25.

Block, J., Harvey, E., Jennings, P., & Simpson, E. (1966). Clinician's conceptions of the *of asthmatogenic mother. Archives of General Psychiatry, 163*(2), 219-225.

Bostock, J. (1956). A synthesis involving primitive speech organism and insecurity. *Journal of Mental Science, 102*, 559-562.

Cheek, D., & LeCron, L. (1968). *Clinical hypnotherapy*. New York: Grune & Stratton.

DeChateau, P. (1976). *Neonatal care routines; influences on maternal and infant behavior and breast feeding.* Unpublished doctoral dissertation, Umea University, Umea, Sweden.

Dunbar, F. (1938). Psychoanalytic notes relating to syndromes of asthma and hay fever. *Psychoanalytic Quarterly, 7*, 25-68.

Elmer, E., & Gregg, G.S. (1967). Developmental characteristics of abused children. *Pediatrics, 40*, 596-602.

Evans, S., Reinhart, J., & Succop, P. (1972). A study of 45 children and their families. *Journal of the American Academy of Child Psychiatry, 11*, 440-445.

Feinberg, S. (1988). *Degree of maternal infant bonding and its relationship to pediatric asthma and family environments*. Unpublished doctoral dissertation. The Professional School of Psychology, San Francisco.

Fenichel, O. (1953). Respiratory Introjection, in *Collected Papers of Otto Fenichel*. London: Macmillan, 221.

French, T. M., & Alexander, F. (1941). Psychogenic factors in bronchial asthma. *Psychosomatic Medicine Monographs IV*: Parts 1 and 2. Washington, DC: National Research Council.

Garner, A., & Wenar, D. (1959). *The mother child interaction in psychosomatic disorders*. Chicago: University of Illinois Press.

Gerard, M. (1953). Genesis of psychosomatic symptoms in infancy. The influence of infantile trauma upon symptom choice. In F. Deutzch (Ed.), *The psychosomatic concept in psychoanalysis* (pp. 124-130). New York: International Universities Press.

Hallowtiz, K. (1953). Residential treatment of chronic asthmatic children. *American Journal of Orthopsychiatry, 24*, 575-587.

Hargitai, R. (2001). Fate-analysis and psychosomatics: Personality of 5-6 yrs old asthmatic children reflected by Szondi test. *Magyar Pszichologiai Szemde* [Hungarian Psychology Journal], *56*, 35-52.

Jones, N.F., Kinsman, R.A., Shum, R., & Resnikoff., P. (1976). Personality profiles in asthma. *Journal of Clinical Psychology, 32*, 285-296.

Kennell, J., & Klaus, M. (1998). Bonding: resent observations that alter perinatal care. *Pediatrics in Review, 19*, 14-12..

Kinsman, R., Dirks, J., Dahlem, N. & Hiller, A. (1980). Anxiety in asthma: Panic-fear symptomatology and personality in relationhip to manifest anxiety. *Psychological Report, 46*, 196-198.

Klaus, M., & Kennell, J. (1976). *Maternal-infant bonding*. St. Louis, MO: The M. V. Mosby Company.

Klaus, M., & Kennell, J. (1981). *Parent-infant bonding*. St. Louis, MO: The M. V. Mosby Company.

Klaus, M., Kennell, J., & Klaus, P. (1995) *Bonding*. Reading, PA: Addison-Wesley Publishing Co., Inc.

Klein, M., & Stern, L. (1971). Low birth weight and the battered child syndrome. *American Journal of Diseases in the Child, 122*, 15-18.

Klinnert, M., Nelson, H., Price, M., Adinoff, A., Leung, D., & Mrazek, K. (2001). Onset and persistence of childhood asthma: Predictors from infancy. *Pediatrics*, 108, e69-e76.

Lilljeqvist, A., Smorvik, D., & Faleide, A. (2002). Temperamental differences between healthy, asthmatic, and allergic children before onset of illness: A longitudinal prospective study of asthma development. *The Journal of Genetic Psychology*, *163*(2) 219-225.

Lindt, H., & Goldman, A. (1961). A study of "special pressures" and their impact on the relationship between mothers and their asthmatic children. *British Journal of Medical Psychology, 33*, 133.

Madrid, A., Ames, R., Horner, D., Brown, G., & Navarette, L. (2004). Improving asthma symptoms in children by repairing the maternal-infant bond. *Journal of Prenatal and Perinatal Psychology and Health, 18*, 221-231.

Madrid, A., Ames, R., Skolek, S., & Brown, G. (2000). Does maternal-infant bonding therapy improve breathing in asthmatic children? *Journal of Prenatal and Perinatal Psychology and Health, 15*(2), 90-112.

Madrid, A., Skolek, S., & Shapiro, F. (2004). Repairing failures in bonding through EMDR. *Clinical Case Studies, 2*, 1-16.

Mansman, H. C. (1974). Allergy in childhood. *Pediatric Clinics of North America, 21*, 23

Mascia, M. (1985). A plea for the malignant asthmatic: A look at the need for residential centers for a subgroup of severe asthmatic children. *Journal of Asthma, 22*, 247-283.

Mantymaa, M., Puma, J., Luoma, I., Salmelin, R., Davis, H., Tsiantis, J, Ispanovic-Rodojkovic, V., Paradisiotou, A., & Tamminen, T. (2003). Infant-mother interaction as a predictor of child's chronic health problems. *Child: Care, Health, and Development, 29*, 181-191.

Miller, H., & Baruch, D. (1950) The emotional problems of childhood and their relation to asthma. *AMA Journal of the Diseases of Children, 93*, 242-245.

Miller, H., & Baruch, D. (1957). Psychosomatic studies of children with allergic manifestations. I. Maternal Rejection. *Psychosomatic Medicine, 10*, 275-278.

Mohr, G., & Richmond, J. (1954). A program for the study of children with psychosomatic disorders. In G. Caplan (Ed.). *Emotional problems of early childhood.* New York: Basic Books.

Mohr, G., Tansent, H., Selenol, S., & Augerbraun, B. (1963). Studies of eczema and asthma in the preschool child. *Journal of the American Academy of Child Psychiatry, 2*, 271-291.

Mrazek, D., Klinnert, M., Mrazek, P., & Macey, T. (1991). Early asthma onset: Consideration of parenting issues. *Journal of American Academy of Child and Adolescent Psychiatry, 30*, 277-282.

Neuhaus, R. C. (1958). A personality study of asthmatic and cardiac children. *Psychosomatic Medicine, 20*, 181-186.

Oliver, J. E., Cox, J., Taylor, A., & Baldwin, J. (1974). *Severely ill-treated young children in North-East Wiltshire.* Oxford: Oxford University Unit of Clinical Epidemiology.

Panides, W., & Ziller, R. (1981). The self-perceptions of children with asthma and asthma/ enuresis. *Journal of Psychosomatic Research, 22*, 51-56.

Peshkin, M. (1959). Intractable asthma of childhood: Rehabilitation at the institutional level with a follow-up of 150 cases. *International Archives of Allergy, 15*, 91-105.

Pennington, R. (1991). *Events associated with maternal-infant bonding deficits and severity of pediatric asthma*. Unpublished doctoral dissertation, The Professional School of Psychology, San Francisco.

Pinkerton, P. (1967). Correlating physiologic with psychodynamic data in the study and management of childhood asthma. *Journal of Psychosomatic Research, 11*, 11-25.

Purcell, K., Bernstein, L., & Bukantz, S. (1961). A preliminary comparison of rapidly remitting and persistently "steroid dependent" asthmatic children. *Psychosomatic Medicine, 23*, 305-310.

Rogerson, C.H., Hardcastle, D., & Dugiud, K. (1935). A psychological approach to the problem of asthma and asthma-eczema-prurigo syndrome. *Guy's Hospital Report, 85*, 289-308.

Scarr-Salapatek, S., & Williams, M.L. (1973) The effects of early stimulation on low birth-weight infants. *Child Development, 44*, 94-101.

Schwartz, M. (1988). *Incidence of events associated with maternal-infant bonding disturbances in a pediatric asthma population.* Unpublished doctoral dissertation, Rosebridge Graduate School, Walnut Creek, CA.

Shaheen, E., Alexander, D., Truskowsky, M., & Barbero, G. (1968). Failure to thrive—A retrospective profile. *Clinical Pediatrics, 7*, 255-261.

Skinner, A., & Castle, R. (1969). *Seventy-eight battered children: A retrospective study.* London: National Society for the Prevention of Cruelty to Children.

Sousa, P.L.R., Barros, F.C., Gazalle, R.V., Begeres, R.M., Pinheiro, G.N., Menezes, S.T., & Arruda, L.A. (1974). *Attachment and lactation*. Paper presented at the 15th International Congress of Pediatrics, Buenos Aires.

Turnbull, J. (1962) Asthma conceived as a learned response. *Journal of Psychosomatic Research*, 6, 59.

Xu, B., Pekkanen, J., & Jarvelin, M.R. (2000). Obstetric complications and asthma in childhood. *Journal of Asthma, 37*, (7), 589-594.