

Pediatric Asthma and Bonding

Antonio Madrid, Nicholas Bennett, Peter Kingsford Petley

Abstract: Since the 1940s, researchers have found many links between pediatric asthma and birth issues, such as time spent in NICUs or maternal grief. A therapy that focuses on establishing a new birth in the mother's mind appears to relieve asthmatic symptoms in her child and warrants further investigation. Multiple studies have linked pediatric asthma to disrupted bonding between a mother and her child. Recent studies have shown that repairing the interrupted bond can improve the child's condition.

Keywords: pediatric asthma, bonding

Introduction

According to the World Health Organization (2021), asthma is the most common chronic disease among children worldwide. The estimated financial cost in America is \$56 billion in health costs, lost school/workdays, and early deaths (Barnett et al., 2011). An additional impact on children is the loss of precious educational time. Asthma is responsible for 7 million missed school days annually, more than any other chronic illness (Barnett et al., 2011). This study briefly introduces risk factors of asthma, bonding disruptions, and bonding therapy.

Risk Factors

Researchers have long attempted to identify risk factors for asthma. In the past thirty years, a significant focus of attention has revolved around the link between maternal distress and the development of asthma in children. Mrazek et al. (1991) at the National Jewish Center

Antonio Madrid, Ph.D., is the Clinical Director of Redwood Psychology Center in California. **Nicholas Bennett, Psy.D.**, is a Clinical Psychologist in private practice in Southern California, who, as an Army Veteran, has worked extensively with military families and military victims of sexual assault. **Peter Kingsford Petley, M.A.**, is a senior clinical hypnotherapist based in the UK who addresses a broad spectrum of issues including those related to maternal-infant bonding.

for Immunology and Respiratory Medicine in Denver found a link between early problems in coping/parenting and the subsequent expression of asthma. Klinnert et al. (2001) noted that this link between maternal stress in caregiving and the subsequent development of asthma could be identified before the child was three months old.

Many factors can cause maternal stress, such as systemic inequality, systemic sexism, maternal health issues, Cesarean section deliveries, and clinical issues. A Finnish study from thirty years ago of nearly 60,000 births found that mothers who delivered by Cesarean sections were significantly more likely to have a child who later developed asthma (Kero et al., 2002). This finding was replicated by Roudit et al. in a more recent study (2009).

Annesi-Maesano et al. (2002) investigated if perinatal influences contributed to the development and severity of asthma in childhood with a British cohort of 2,583 mothers.

Mothers reported childhood asthma more frequently when there had been health complications during pregnancy, labor, or delivery or when the child was ill during the first week of life. Similarly, a Norwegian study of over 1.5 million mothers and 5,938 asthmatic children found that many types of pregnancy complications represented a risk factor for the development of asthma in the offspring (Nafstad et al., 2003).

Kozyrskyj et al. (2008) studied healthcare records of 13,907 children and their mothers from Manitoba databases. Prescription medication for depression or anxiety was used to identify maternal distress. They found that childhood asthma risk increased among children exposed to continued maternal distress from birth until age seven. Similarly, a Puerto Rican study concluded that maternal depressive symptoms were associated with an increased risk of asthma hospitalizations at one year (Lange et al., 2011).

The level of stress in mother-child interactions can arguably predict the development of asthma in the child by school age. Mäntymaa et al. (2003) showed that maternal stress is associated with physical illnesses like asthma or infection. In that same vein, Wright et al. (1998) found that greater levels of caregiver-perceived stress at 2 to 3 months postpartum were associated with an increased risk of recurrent wheezing among children during the first 14 months of life. They found that prenatal stress was associated with altered innate and adaptive immune responses, concluding that stress-induced perinatal immunomodulation may impact the expression of allergic disease in these children (Wright et al., 1998). Cassibba et al. (2004) found that children affected by asthmatic bronchitis were less securely attached than healthy comparisons. These children showed less harmonious and comfort-seeking behaviors than healthy children, indicating insecure attachment.

Bonding Disruptions and Asthma

In a review of the history of maternal bonding's relationship to childhood asthma, Yatsenko et al. (2016) found that many studies have shown a conclusive correlation between poor maternal-infant bonding and the manifestation of respiratory disorders in children. Yatsenko posits that while it has not been demonstrated causally, it should be viewed as an important cofactor acting synergistically with other environmental and genetic factors to manifest asthma. This review also noted that using reparative techniques to heal the parent-child relational problems would present an inexpensive and effective way to reduce asthma attacks and respiratory distress.

Yatsenko et al. (2016) cited three studies that investigated the relationship between pediatric asthma and the difficulties that a mother experiences in bonding with her baby. Using the "maternal-infant bonding" paradigm of Klaus and Kennell (1976), these studies looked at the incidence of bonding disruptions within pediatric asthma populations compared to well-baby groups. Klaus and Kennell postulated that a mother's bond with her infant could be disrupted if the mother and infant were separated at birth or if the mother was experiencing great stress or trauma in her life during the perinatal period.

In the first of these studies, at the Redwood Psychology Center in Santa Rosa, CA, Feinberg (1988) showed that bonding disruptions occurred three times more frequently in mothers of asthmatics than in mothers of well-babies (84% vs. 24%). Melissa Schwartz (1988) found similar numbers (86% vs. 29%). In a third study, Pennington (1991) found that four "Non-Bonding Events" were most predictive of the development of asthma: delay in holding the baby, a family death in the first year, emotional problems during pregnancy, and maternal emotional problems in the first year. He concluded that bonding disruptions appear to be the mediating variable that links pediatric asthma with the various maternal factors and stressors that previous researchers have identified.

Bonding Therapy

Following this connection between asthma and disruptions in bonding, these researchers looked at what would happen if unbonded mothers could bond to their asthmatic children. Three pilot studies (Madrid, 2005; Madrid et al., 2000, 2004) used a type of Bonding Therapy with the mothers of 37 asthmatic children. Thirty-one of the children improved in the following measures: days housebound, interrupted sleep, wheezing with exercise, emergency doctor visits, use of rescue

medications, overall use of medication, and the mothers' impression of overall health.

The child's age was a significant factor in improvement: older children (>12 years old) did not improve, while younger children, even infants, improved the most. In addition, the previous study showed a reduction in depression on the Beck Depression Inventory for all the mothers, even those whose children did not improve.

Bonding Therapy is a Three-Step Process: (1) Discovering the Non-Bonding Event (NBE); (2) Healing the NBE; and (3) Creating a new, unimpeded birth. Each of these will be discussed.

(1) Discovering the Non-Bonding Event

Klaus and Kennel (1976) outlined events that can impede bonding, typically falling into two categories: separation at birth and maternal distress. Separation at birth occurs when the mother is unconscious: when hospital procedures take the child away from its mother, when the child is adopted, or when any other event keeps the mother from being with her baby. That time is when a mother falls in love with her baby. When that is missed, the chance of bonding is lowered. Maternal distress occurs when a mother is grieving a loss, when a mother has had a traumatic event, or when a mother is preoccupied.

(2) Healing the Non-Bonding Event

Healing the Non-Bonding Event (NBE) can occur through any psychological intervention such as EMDR, hypnosis, or guided imagery. In many cases, the NBE has already healed. For example, a mother may have already processed her father's death, her abusive marriage, or her being in a car accident.

(3) Creating a New, Unimpeded Birth

Creating a new, unimpeded birth can be done in a swift and direct fashion. The gestational parent is asked to consider what it would have been like if their child's birth went just as they wanted, without the NBE. The birth parent is taken through all the stages of birth—finding out they are pregnant, the trimesters of pregnancy, the birth, holding their baby, and so forth—using hypnosis or other mental imagery. The therapist can decide how far the gestational parent needs to take this new birth. If the parent has trouble imagining any part of this, there is usually some other impediment blocking their way, which needs to be processed before continuing. These three steps can be accomplished in very few sessions, often in a single session. Follow-up sessions are used to see if the therapy positively affected the child's condition.

Conclusion

Maternal stress includes systemic inequities in healthcare, systemic sexism, systemic racism for parents of color, C-section deliveries, physical illness, maternal depression, obstetrical complications, and separation at birth, which fit into the paradigm of disruptions in Maternal-Infant Bonding. In this context, childhood asthma can be considered a response to bonding disruptions.

A handful of pilot studies have indicated that repairing the disrupted bonding can improve pediatric asthma. Repairing the disrupted bond involves finding and healing the cause of the impaired maternal-infant bond and creating a new birth. These studies warrant further investigation.

Appendix

For more information on this topic, please navigate to:
www.mibsonoma.weebly.com.

References

- Annesi-Maesano, I., Moreau, D., & Strachan, D. (2002). *In utero and perinatal complications preceding asthma*. *Allergy*, 56(6), 491-497. <https://doi.org/10.1034/j.1398-9995.2001.056006491.x>
- Barnett, S., Tursynbek, A., & Nurmagambetov, T. (2011). Costs of asthma in the United States: 2002-2007. *Journal of Allergy and Clinical Immunology*, 127, 145-152. <https://doi.org/10.1016/j.jaci.2010.10.020>
- Cassibba, R., van IJzendoorn, M., Bruno, S., & Coppola, G. (2004). Attachment of mothers and children with recurrent asthmatic bronchitis. *Journal of Asthma*, 41(4). <https://doi.org/10.1081/JAS-120033984>
- Feinberg, S. (1988). *Degree of maternal infant bonding and its relationship to pediatric asthma and family environments* [Unpublished doctoral dissertation]. Professional School of Psychology.
- Kero, J., Gissler, M., Grönlund, M., Kero, P., Koskinen, P., Hemminki, E., & Isolauri, E. (2002). Mode of delivery and asthma – Is there a connection? *Pediatric Research*, 52(1), 6-1. <https://doi.org/10.1203/00006450-200207000-00004>
- Klaus, M., & Kennell, J. (1976). *Maternal-infant Bonding*. St. Louis, M. V. Mosby.
- Klennert, M., Nelson, H., Price, M., Adinoff, A., Leung, D., & Mrazek, D. (2001). Onset and persistence of childhood asthma: Predictors from infancy. *Pediatrics*, 108(4), e69. <https://doi.org/10.1542/peds.108.4.e69>
- Kozyrskyj, A., Mai, X., McGrath, P., Hayglass, K., Becker, A., & Macneil, B. (2008). Continued exposure to maternal distress in early life is associated with an increased risk of childhood asthma. *American Journal of Respiratory and Critical Care Medicine*, 177(2), 142–147. <https://doi.org/10.1164/rccm.200703-381oc>
- Lange, N., Bunyavanich, S., Dacd, M., Judy Silberg, J., Canino, D., Rosner, B., & Celedón, J. (2011). Parental psychosocial stress and asthma morbidity in Puerto Rican twins. *Journal of Allergy and Clinical Immunology*, 127(3), 734-740. <http://dx.doi.org/10.1016/j.jaci.2010.11.010>
- Madrid, A. (2005). Helping children with asthma by repairing maternal-infant bonding problems. *American Journal of Clinical Hypnosis*, 48, 199–211. <https://doi.org/10.1080/00029157.2005.10401517>
- 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, 221–232. <https://doi.org/10.1080/00029157.2005.10401517>
- 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.
- Mäntymaa, M., Puura, K., Luoma I., Salmelin, R., Davis, H., Tsiantis J., Ispanovic-Radojkovic, V., Paradisiotou A., & Tamminen, T. (2003). Infant-mother interaction as a predictor of child's chronic health problems. *Child Care Health Dev.* 29(3),181-91. <https://doi.org/10.1046/j.1365-2214.2003.00330.x>

- Mrazek, D., Klinnert, M., Mrazek, P., & Macey, T. (1991). Early asthma onset: Consideration of parenting issues. *Journal of the American Academy of Child & Adolescent Psychiatry*, 30(2), 277-282.
<https://doi.org/10.1097/00004583-199103000-00017>
- Nafstad, P., Samuelsen, S., Irgens, L., & Bjerkedal T. (2003). Pregnancy complications and the risk of asthma among Norwegians born between 1967 and 1993. *Eur J Epidemiol*. 18(8), 755-61.
<https://doi.org/10.1023/a:1025395405101>
- Pennington, D. (1991). *Events associated with maternal-infant bonding deficits and severity of pediatric asthma* [Unpublished doctoral dissertation]. Professional School of Psychology.
- Roduit, C., Scholtens, S., de Jongste, J., Wijga, A., Gerritsen, J., Postma, D., B Brunekreef, B., Hoekstra, M., Aalberse, R., & Smit, H. (2009). Asthma at 8 years of age in children born by caesarean section. *Thorax*, 64 i-i.
<https://doi.org/10.1136/thx.2008.100875>
- Schwartz, M. (1988). *Incidence of events associated with maternal-infant bonding disturbances in a pediatric asthma population* [Unpublished Doctoral Dissertation]. Rosebridge Graduate School.
- World Health Organization. (2021). World health statistics 2021: Monitoring health for the SDGs, sustainable development goals.
<https://apps.who.int/iris/bitstream/handle/10665/342703/9789240027053-eng.pdf>
- Wright, R., Rodriguez, M., & Cohen, S. (1998). Review of psychosocial stress and asthma: An integrated biopsychosocial approach. *Thorax*, 53(12).
<https://doi.org/10.1136/thx.53.12.1066>
- Yatsenko, O., Pizano, P., & Nikolaidis A. (2016). Revisiting maternal-infant bonding's effects on asthma: A brief history. *Cogent Psychology*, 3(1).
<https://doi.org/10.1080/23311908.2016.1161267>