

Maternal Mental Wellness and Women's Health

Improving Mental Health During and After Pregnancy

Why focus on maternal mental health?

Pregnancy and a new baby are often accompanied by a range of emotions. Feeling anxious, overwhelmed, and sad is common at different times during pregnancy and after the baby is born. These feelings usually go away on their own, but they can also persist and become more serious. Depression and anxiety during pregnancy or anytime in the first year after the baby's birth are medical conditions, not personal failures. Importantly, they are *treatable*. If left unaddressed, they can affect the long-term health of parents and baby in different ways.

How does NICHD support research on maternal mental health?

NICHD research explores risk factors, short-/long-term effects, and other aspects of maternal mental health to advance screening, diagnosis, and treatment of these conditions, particularly in understudied groups. The institute co-leads an NIH-wide initiative to improve maternal health, including mental health, and pregnancy outcomes. Winners of prize competitions, meant to broaden research involvement and innovation, include community organizations and businesses with ideas and technology for improving maternal mental health. NICHD also offers information for families and providers through its *Moms' Mental Health Matters* program.

Success Snapshots

Screening for Postpartum Problems

Postpartum Post-Traumatic Stress Disorder (PTSD) is a mental health condition that can develop if a person experiences a highly stressful or traumatic delivery. Symptoms—negative emotions (i.e., fear, anger, guilt), recurring memories, distressing thoughts—can interfere with mother-child bonding. Because it is often undiagnosed, it often goes untreated. NICHD-funded work includes a promising screening tool that uses artificial intelligence-based analyses to quantify risk for postpartum PTSD. An ongoing clinical trial is evaluating expressive writing to help manage symptoms and improve bonding.

Evaluating Interventions

NICHD funds efforts to develop and test treatments that can improve maternal mental health. One NICHD-funded team tested a transition-to-parenthood program for couples to promote parenting quality. They found that the program reduced maternal stress, depression, and anxiety. Another NICHD-supported group, evaluating a community-based intervention in a diverse urban setting, found that participants who experienced discrimination or food insecurity showed the most significant mental health improvements from the intervention.

Selected NICHD-Funded Maternal Mental Health Projects

Understanding Risk Factors

By examining relationships between maternal mental health and sleep quality, parental age, intimate partner violence, and other factors, NICHD-funded researchers can identify at-risk groups and determine effective interventions.

- One study linked levels of caregiver anxiety and depression to infant night wakings. Addressing caregiver mental health could reduce nighttime wakings and improve overall caregiver well-being.
- Other work found that pregnant women with obesity had higher rates of depression than women without obesity. Improved prenatal screening for depression in this group may help improve outcomes.
- Research suggests that pediatricians are in a unique position to notice the mental health needs of adolescent parents during well-baby visits. Sharing mental health information and referrals during these interactions would benefit parents and infants.
- Researchers found that mothers who left violent or controlling partners remained at risk for developing depression and other mental health conditions over time.

Investigating Mental Health Science

To understand short- and long-term effects, researchers examine the biological factors that underlie maternal mental health conditions.

- NICHD investigators found that episodes of stress or depression during pregnancy caused chemical changes to genes in the placenta. Follow-up studies on these gene modifications are needed to understand their role in maternal and child mental health.
- Another study linked maternal anxiety during pregnancy to a child's risk of allergies or eczema (an inflammatory skin condition). This NICHD-funded team is following pairs of mothers and babies to understand how prenatal maternal anxiety influences children's immune systems, in hopes of identifying preventive measures against these common childhood health conditions.



Studying Disability and Mental Health

NICHD-funded research explores maternal mental health in the context of disabilities to develop better risk-reduction approaches and interventions.

- Data from an NICHD/Centers for Disease Control & Prevention project showed a higher likelihood of depressive symptoms during and after pregnancy among new mothers with disabilities. Increased perinatal support may improve outcomes for this group.
- One project on clinical factors that affect quality of life for caregivers of children with Rett syndrome found that children's feeding problems were a leading factor in caregivers' mental and physical well-being.
- A 12-year study of mothers of adolescents and adults with autism spectrum disorders found links between diverse social networks and reduced maternal depression and anxiety.

**Learn More About
NICHD Maternal
Mental Health Projects**



**NICHD's Moms' Mental Health
Matters Website:**

<https://go.nih.gov/64Dzj1T>



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