SUPPLEMENTAL RESEARCH GUIDE ON MATERNAL MENTAL HEALTH

Supplemental Research Guide: Maternal Mental Health

Contents

Defining Maternal Mental Health.

Definition.

A. World Health Organization Constitution: **Health** is a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." [1]
B. World Health Organization: **Mental Health** is a "state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community."[2]
C. ***Important Caveat***: Given the breadth of human cultures and experiences, it is nearly impossible to comprehensively define mental health from a cross-cultural perspective. That said, experts generally agree that "mental health is broader than a lack of mental disorders"[3]

Importance of Maternal Mental Health.

A. ***An Urgent Need***: The World Health Organization (WHO) identifies an urgent need for "evidence based, cost effective, and human rights oriented mental health and social care services in community-based settings for early identification and management of maternal mental disorders."[4] First-time psychiatric episodes that necessitate treatment at inpatient facilities **increase 12-fold** in the short period following childbirth (0.02 vs. 0.25 per 1,000 births) compared to during pregnancy.[5]
B. ***Maternal Mortality and Suicide***: Women with postpartum psychiatric disorders have a higher mortality rate and risk of suicide; in fact, unnatural causes of death represent 40.6% of fatalities among these women.[6] Suicide is the leading cause of maternal mortality.[7]

Treatment Issues and Barriers to Treatment.

A. ***Resistance to Mental Health Treatment***: Among pregnant women about to give birth, 92% would likely participate in individual therapy if postpartum help is needed, 35% would likely take medication if recommended, and only 14% would likely participate in group therapy.[8]

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[3] World Health Organization. "The World Health Report 2001: Mental health: new understanding, new hope." (2001).

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B. ***Prevalence of Untreated Mental Disorders***: Regardless of pregnancy status, most women with psychiatric disorder(s) did not seek mental healthcare in the last year.[9]
   a. 77% of pregnant women with psychiatric disorders and/or substance use had no evidence of mental health treatment in their obstetric charts.[10]
   b. Only 13.8% of pregnant women experiencing severe or mild symptoms of depression receive formal treatment. That is, over 85% do not pursue treatment.[11]

C. ***Overall Barriers to Seeking Mental Health Support***: Attitudinal barriers (i.e., low perceived need for treatment) are significantly more important than structural barriers (i.e., financial woes) in preventing persons from starting and continuing mental health treatment. However, women and young adults are more likely to recognize a need for treatment.[12]
   a. Among those who do not seek treatment despite (1) having a diagnosed mental disorder, and (2) recognizing a need for treatment:
      i. 63.8% desire to **handle the problem on their own**.[13]
      ii. 39.3% ceased treatment due to **perceived ineffectiveness** of treatment.[14]
      iii. 26.9% of respondents with severe disorders ceased treatment due to **negative experiences with treatment providers**.[15]
   b. Among women with perinatal depression, the greatest perceived barriers to treatment are **a lack of time** (65%), **stigma** (43%), and **childcare issues** (33%).[16]

Maternal Intimate Partner Violence.

A. ***Suicide and Homicide***: Intimate partner conflicts may contribute to 54.3% of pregnancy-associated suicides, and 45.3% of pregnancy-related homicides are associated with intimate partner violence.[17]
B. ***Association with Mental Health Disorders***: Women with a history of intimate partner violence are more likely to have mental health disorders.[18]

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Prevalence of Maternal Mental Health Disorders.

A. **Maternal Depressive Disorders**.
   a. ***Among Women Overall***: Lifetime rates of depressive disorders among women range from 10-20%. They occur more frequently in women's childbearing years.[19] [20] In 1990, the leading cause of medical disability in women of childbearing age was unipolar major depression (15-44).[21]
   b. ***Depression Across Pre- & Post-Partum Periods***: The overall prevalence of perinatal (i.e., both prenatal & postpartum) depression is 11.9%.[22]
      i. Prenatal Depression: Between 6.5 and 12.9% of women experience major and/more minor depression during pregnancy and the first postpartum year. From 1.0% to 5.6% of these women experience major depression.[23]
         1. Another study found that 20% of pregnant women experience mild or severe symptoms of depression,[24] although these rates may vary by country.[25]
         2. Among mothers with postpartum depression, 33.4% *began experiencing depressive episodes during pregnancy*.[26] [27]

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ii. Postpartum Depression: The prevalence of postpartum depression ranges from 13% to 19%,[28] [29] although this rate may vary by country. [30]
    1. In the three months following childbirth, 19.2% of women have a depressive episode and up to 7.1% have a major episode.[31]
    2. Among mothers with postpartum depression, studies suggest that almost 2/3 have **comorbid anxiety disorders**[32] and 22.6% have **comorbid bipolar disorder**.[33] ("Comorbid refers to having one or more secondary mental health challenges in addition to the primary challenge).
iii. Maternal Depression Beyond the Postpartum Period: Depression among women with young children is common (17% in one study), and 46% of these women continue experiencing such symptoms for at least one year.[34]

c. ***Increasing Prevalence Over Time***: One longitudinal study suggests the prevalence of prenatal depression is more common among the younger generation of pregnant women compared to their mothers' generation.[35]

B. **Maternal Anxiety Disorders**.
   a. According to the 2001-02 U.S National Epidemiological Survey on Alcohol and Related Conditions, 13% of pregnant or postpartum women had an anxiety disorder in the prior year,[36] and this number may be lower in other countries.[37]
   b. Prenatal Anxiety Disorders: Of women enrolled in the Yale Pink and Blue study, 9.5% had generalized anxiety disorder at some point during pregnancy. Symptoms

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were strongest in the first semester - 2.07% of pregnant women experience Obsessive-Compulsive Disorder (OCD) (1.08% in the general population).[38]

c. Postpartum Anxiety Disorders: Among women in the United Kingdom, 3.7% presented with postpartum anxiety.[39]
   i. Most cases of postpartum anxiety were preceded by prenatal anxiety.[40]
   ii. Postpartum OCD prevalence is 2.43% (1.08% in general population).[41]
   iii. Comorbidity of postpartum depression: Among 14% of mothers with postpartum depression, almost 2/3 had comorbid anxiety disorders.

d. Maternal Anxiety Beyond the Postpartum Period: Mothers of young children with persistent depression symptoms (still experiencing symptoms after one year) have comorbid high anxiety symptoms.[42] Comorbidity of maternal depression: among women with young children, depression symptoms are associated with comorbid anxiety symptoms.[43]

C. **Maternal Post-Traumatic Stress Disorder (PTSD)**.
   a. Traumatic Experiences of Giving Birth: From 9-44% of women have severe stress responses to birth, and 1-3% of women develop chronic postnatal PTSD.[44] [45]
   b. Prevalence of symptoms of PTSD in perinatal women range from 16-18%,[46] [47] though acute postpartum PTSD rates are 4-6%.[48]

D. **Maternal Eating Disorders**.

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a. Eating disorders become less prevalent during[49] and following pregnancy.[50] Symptoms increase from their prenatal low three months postpartum.[51]
b. Anxiety is comorbid with binge eating.[52]

E. **Maternal Bipolar Disorders (BD)**.
   a. In 2002, there was a 2.8% prevalence of BD in pregnant or postpartum women.[53]
   b. Among pregnant women with BD who experienced mood swings during pregnancy, the median prevalence is 24% but ranged 4-73% in 11 studies.[54]
   c. A significant number of women with BD relapse into serious mental illness during pregnancy.[55] Comorbidity of Depression: among women with postpartum depression, 22.6% has BD.[56]

F. **Maternal Substance Use and Abuse**.
   a. In 2002, 63% of pregnant/postpartum women had past-year alcohol, tobacco, or illicit drug use (compared to 73.8% prevalence among nonpregnant women).[57] There is a 6.2% prevalence of illicit drug use in pregnant/postpartum women.[58]
   b. Comorbidity for Postpartum Depression: Among women who screened positive for postpartum depression, 0.5% had substance use disorders.[59]

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Correlates and Effects of Maternal Mental Health Disorders.

A. **Maternal Depressive Disorders**.
   a. Correlates: Maternal depression (pre- & post-natal) is associated with socioeconomic and educational deprivation,[60] [61] poor family functioning,[62] [63] [64] lower marital satisfaction,[65] low social support,[66] [67] [68] stressful life events,[69] [70] [71] and chronic strain.[72] Physiological correlates include sensitivity to hormonal change.[73]

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b. Effects on Women: Mothers with pre- and post-natal depression are at increased risk of self-harm ideation,[74] hospital admission for unipolar depressive disorder,[75] substance abuse,[76] and compromised social functioning.[77]
c. Physical Effects on Children: Prenatal depression is associated with pre-term birth,[78] [79] [80] low birth weight,[81] [82] smaller newborn head circumference,[83] and altered newborn immune functioning.[84] Newborns display poor motor skills, activity, coordination, and resilience.[85] [86] Long-term consequences of maternal depression in

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children include disruptive social behavior,[87] depression,[88] and worse health outcomes.[89]

B. **Maternal Anxiety Disorders**.
   a. Effects on Women: Maternal anxiety disorders are associated with lower self-confidence[90] and compromises in maternal social and emotional functioning.[91]
   b. Physical Effects on Children: Elevated cortisol levels (stress reactions) during pregnancy cause poor physical outcomes in infants, and anxiety disorders result in higher stress levels.[92]

C. **Maternal Post-Traumatic Stress Disorder (PTSD)**.
   a. Correlates: Factors that increase women's risk of postnatal PTSD include poor or moderate coping skills,[93] low social support,[94] and past psychiatric problems.[95]
   b. Effects on Women: Negative subjective experiences of childbirth are the most important predictor of postnatal PTSD,[96] and women with birth-induced PTSD had higher rates of detachment, loss of interest, anger and irritability, trouble sleeping, and nightmares.[97]

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c. Physical Effects on Children: High stress during pregnancy affects child birthweight,[98] head circumference,[99] and premature birth.[100]

D. **Maternal Eating Disorders**.
   a. Correlates: Impoverished individuals are more vulnerable to binge eating disorder during pregnancy.[101]
   b. Effects on Women: Pregnant women with a recent history of binge eating disorder dieted, used laxatives, reported self-induced vomiting, and exercised more than other groups. They also were more likely to report eating disorder cognitions and weight/shape concerns during pregnancy.[102]

E. **Maternal Bipolar Disorders**.
   a. Correlates: Predictors of bipolar disorder relapse include non-affective psychosis, recent hospital admissions, recent self-harm, substance use, and medication nonuse during pregnancy.[103]
   b. Effects on Women: Women with bipolar disorder are at increased risk of depressive episodes,[104] gestational hypertension, antepartum hemorrhaging, use of induced labor and c-section procedures, postnatal mood disorders, and postnatal hospital admissions for bipolar affective disorder.[105]
   c. Physical Effects on Children: Children of women with bipolar disorder are more likely to be severely small for gestational age,[106] have higher rates of neonatal anoxia (i.e. oxygen deprivation during birth), and physical/psychological symptoms due to the mother's symptoms.[107]

F. **Maternal Substance Use and Abuse**.

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a. Comorbidity for Depression: Depressive symptoms during pregnancy were associated with the use of cigarettes, alcohol, and cocaine.[108]
b. Physical Effects on Children: Smoking during pregnancy negatively affected birth weight and newborn head circumference.[109] [110] Prenatal alcohol exposure negatively impacts cognitive outcomes and worse mental health in children.[111]

G. **Maternal Schizophrenia-Like Disorders**.
a. Effects on Women: Women with schizophrenia are at higher risk for pre-eclampsia (high blood pressure and organ damage) and venous thromboembolism (circulating blood clots) during pregnancy.[112] Schizophrenic women are at higher risk of hospital admission through the first 30 days postpartum.[113]
b. Effects on Children: Pregnant women with schizophrenia are at increased risk of premature births,[114] [115] abnormally low[116] or high[117] birthweight, and neonatal morbidity and mortality.[118]

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Effects of Maternal Mental Health on Children.

Question of Causality: Does Medication/Treatment Cause Poor Outcomes in Newborns?

Research suggests that medication/treatment is *not* the cause of adverse physical outcomes in neonatal children. Rather, the conditions themselves cause bad outcomes.

A. Untreated depression was associated with higher risks of preterm births and low birth weight.[119] Since the depression was untreated, the effect is not due to treatment.
B. Pregnant women with schizophrenia are at increased risk of low birth weight and premature birth. There is not a statistically significant difference in risk of low birth weight or pre-term births between schizophrenic mothers receiving antipsychotic medication during pregnancy and those that do not.[120] The condition, not the medication, is causing the increased risks.

What Mechanisms Link Maternal Mental Health to Child Psychology?

Key Mediating Mechanism 1: Maternal Sensitivity.

A. DEFINITION—Maternal Sensitivity: A collective term for various affective and behavioral caregiving attributes. This is synonymous with maternal responsiveness and competency.[121]
B. Four Critical Attributes of Maternal Sensitivity: If the following four critical attributes are present, they result in the infant's comfort, mother-infant attachment, and infant development.[122]
    a. *Dynamic process involving maternal abilities*: Mothers need to perceive, interpret, and respond to their child's needs.
    b. *Reciprocal give-and-take with the infant*: Mothers should interpret and respond to infant behavior. The infant's responsiveness informs the mother that her behavior satisfies the infant's needs, which demonstrates their reciprocity.
    c. *Contingency on the infant's behavior*: The mother's response to the infant should be expected by the infant, and maternal behavior needs to be contingent on the infant's prior behavior.
    d. *Quality of maternal behaviors*: Mothers must be emotionally available and "able to respond to the infant's cues appropriately."
C. Factors That Facilitate and Impair Maternal Sensitivity:
    a. Social support (partner, social network, financial, etc.), maternal-fetal attachment, and high maternal self-esteem facilitate maternal sensitivity.[123]

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b. Maternal depression, stress, and anxiety impair maternal sensitivity.[124]

D. Demographic Correlates of Maternal Sensitivity: Demographic characteristics that explain differences in maternal sensitivity include level of education, feelings of parental incompetence, and family income. Young mothers with high levels of depressive symptoms and insecure, low-income mothers were at particular risk of low maternal sensitivity.[125]

Key Mediating Mechanism 2: Mother-Child Attachment.

A. Definition—Attachment: The tendency of young children to seek contact with and be comforted by one or more caregivers when frightened, worried, or vulnerable.[126]

B. Two Core Hypotheses of Attachment Theory:
   a. Stronger parent sensitivity and responsiveness to their infant's cues results in a stronger parent-child attachment relationship.[127]
   b. Individuals form 'mental models' of attachment based on their attachment relationships with parents and others in childhood, and these 'mental models' serve as the basis for later attachment relationships with their offspring.[128]

C. Intergenerational Transmission of Attachment Gap: Parents 'transmit' risk of mental illness to their children through impaired parent-child attachment relationships (related to low maternal sensitivity).[129]

D. Attachment: Externalized and Internalized Child Behavior:
   a. Externalized Behavior: Insecure parent-child attachment and disorganized attachment are associated with externalizing childhood problems (i.e. children develop psychological problems that manifest externally).[130]
   b. Internalized Behavior: Insecure parent-child attachment is associated with internalizing childhood problems (i.e. children develop psychological problems that manifest internally, such as feelings of sadness, low self-esteem, etc.).[131]

Effects of Maternal Mental Health on Child Psychology.

A. **Maternal Depressive Disorders**.

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a. Mother-Child Relationship: Depressed mothers are less sensitively attuned[132] and responsive[133] to infants, disengaged from children,[134] and have compromised maternal-infant social and functional relationships.[135]
b. Gendered Effects on Children: Male infants are more vulnerable to maternal depression, but girls with chronically depressed mothers experience more internalized distress and dysphoric (uneasy) moods than their male counterparts.[136]
c. Effects on Children by Age: Children of depressed mothers have brain activity that mirrors depressed adults.[137] Animal studies suggest parents' mental illness interferes with development and is associated with lifetime adverse behavior.[138]
    i. Effects on Infants: Disturbed mother-child interactions are associated with poorer infant outcomes at 18 months,[139] which negatively biases their other interactions.[140] Infants of depressed mothers have brain activity that mirror depressed adults.[141]
    ii. Effects on Children: School-aged children of depressed mothers have elevated externalizing behavior problems, decreased social competence, reduced frontal

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brain activation, more depressive symptoms,[142] [143] and increased hyperactivity/attention problems.[144]

iii. Effects on Adolescents: Adolescents of chronically depressed mothers have more behavioral problems and engage in more risky behaviors.[145]

d. Associated Factors: Maternal depression often occurs alongside other factors that undermine child development, including young motherhood, **social isolation**, economic and educational deprivation, family conflict, and stressful life events.[146]

B. **Maternal Anxiety Disorders**.

a. Perinatal maternal anxiety has a small adverse effect on children's emotional outcomes,[147] negative infant temperament, and worse attentional regulation.[148]

b. Maternal anxiety is associated with compromised infant social and emotional functioning.[149]

c. Contrary Evidence: A study found that mothers with anxiety disorders perceive themselves to have mother-child bonding problems, but actually have normal mother-child interactions compared to the general population.[150] This suggests that anxious mothers perceive worse mother-infant interactions than is actually the case, undermining self-reported interactions.

C. **Maternal Post-Traumatic Stress Disorder (PTSD)**.

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a. Mothers with a history of trauma display more behavior characteristic of negative parenting,[151] and may respond to infants' attachment cues with disengagement.[152]
b. Parents with PTSD are more likely to report their infant as having a difficult temperament,[153] are less available to their children,[154] and perceive their children more negatively.[155]
c. Infants of mothers with PTSD have more separation anxiety around bedtime.[156]

D. **Maternal Eating Disorders**. Among mothers with lifetime eating disorders and eating disorders during pregnancy, maternal distress (i.e. depression and anxiety) increases the risk of infant feeding difficulties.[157]
E. **Maternal Bipolar Disorders**. Children of mothers with bipolar disorder suffer from more physical assault,[158] [159] psychological abuse,[160] and intellectual disability.[161]

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F. **Maternal Substance Use and Abuse**. Maternal substance use increases the likelihood of offspring maltreatment[162] and risks of their children developing substance use disorders in adulthood.[163]
G. **Maternal Schizophrenia-Like Disorders**. Children of schizophrenic mothers are at greater risk of intellectual disability.[164]

Maternal Mental Health During the COVID-19 Pandemic.

A. Pregnancy and COVID-19: Pregnancy is an immuno-compromised state, so pregnant women are more vulnerable to COVID-19.[165]
B. Public Policy and Newborn-Mother Contact and Breastfeeding: Organizations and government should develop guidance that does not over-emphasize separating mothers from their children or prevent/impede breastfeeding. Both mother-child attachment and breastfeeding are important for infant health and development outcomes. Impeding these factors may compromise infant health instead of protecting it from COVID-19.[166]
C. Maternal Mental Health and COVID-19 Lockdowns: A majority of mothers in the United Kingdom with infants less than one year of age reported feeling down (56%), lonely (59%), irritable (62%), and worried (71%) to some extent since the lockdown began, but 70% felt able to cope.[167]
    a. Predictors of Better Mental Health and Coping During Lockdown: Support with maternal health, contacting infant support groups, and higher gestational age of the infant facilitated better mental health. Support with maternal health and more equal division of household chores were associated with better coping.[168]

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[168] Dib, S., Rougeaux, E., Vázquez-Vázquez, A., Wells, J. C., & Fewtrell, M. (2020). Maternal mental health and coping during the COVID-19 lockdown in the UK: Data from the COVID-19 New Mum Study. *International Journal of Gynecology & Obstetrics*, *151*(3), 407-414.

b. Predictors of Poorer Mental Health During Lockdown: Travelling for work, the impact of lockdown on the ability to afford food and having a lower income led to poorer mental health.[169]

D. COVID-19 Anxiety Pregnancy: The COVID-19 pandemic increases the risk of anxiety among women during pregnancy. Support measures should be considered for women during pregnancy to help with mental health for this susceptible population.[170]

Treatment and Public Policy Research.

A. Preventative Approach: One review of the literature concludes that a preventative approach best addresses the "unique vulnerabilities of children with depressed parents."[171] Prevention and intervention in early childhood that targets parenting behaviors will bolster the cognitive and language skills of children of depressed mothers.[172]

B. Prenatal Interventions: Interventions to change health behaviors during pregnancy should consider a woman's affective state, social context, and mental health.[173] Evidence suggests that prenatal depression interventions do not prevent postpartum depression. Given this, the best interventions are intensive, professionally-based postpartum support.[174] However, one study of financially disadvantaged pregnant women found that prenatal interventions prevented the occurrence of major postpartum depression. This study lacks strong causal evidence due to its small, voluntary sample.[175]

C. Postpartum Interventions: For the best results, the identification and treatment of maternal depression must continue past the postpartum period to prevent negative outcomes in mothers and children.[176]

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[169] Dib, S., Rougeaux, E., Vázquez-Vázquez, A., Wells, J. C., & Fewtrell, M. (2020). Maternal mental health and coping during the COVID-19 lockdown in the UK: Data from the COVID-19 New Mum Study. *International Journal of Gynecology & Obstetrics*, *151*(3), 407-414.

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[175] Zlotnick, C., Johnson, S. L., Miller, I. W., Pearlstein, T., & Howard, M. (2001). Postpartum depression in women receiving public assistance: pilot study of an interpersonal-therapy-oriented group intervention. *American journal of psychiatry*, 158(4), 638-640.

[176] McCue Horwitz, Sarah, Margaret J Briggs-Gowan, Amy Storfer-Isser, and Alice S Carter. 2007. "Prevalence, Correlates, and Persistence of Maternal Depression." *Journal of women's health* 16(5): 678–91.

D. Formal Debriefing Interventions: Most trials of formal structured debriefing as a treatment for post-delivery PTSD **found no positive benefits** and one study showed a potential risk of harm. While women can benefit from discussions of their delivery, formal debriefing interventions are not supported by current evidence.[177]

Existing State-Level Maternal Mental Health Legislation.

Existing Mental Health Legislation—Insurance.

A. California Assembly Bill 577: For purposes of an individual who presents written documentation of being diagnosed with a **maternal mental health condition** (as defined, from the individual's treating health care provider) requires completion of covered services for that condition, not exceeding 12 months, as specified. By expanding the duties of health care service plans, the bill would expand the scope of an existing crime, thereby imposing a state-mandated local program.[178]
B. California Assembly Bill 2193:
    a. Requires, by July 1, 2019, a licensed health care practitioner who provides prenatal or postpartum care for a patient to **offer to screen or appropriately screen a mother for maternal mental health conditions**.
    b. Requires health care service plans and health insurers, by July 1, 2019, to **develop**, consistent with sound clinical principles and processes, **a maternal mental health program**, as specified.[179]
C. CT SB 1085 (Connecticut): Specifies benefits payable under a health insurance policy. Each individual health insurance policy providing coverage of the type specified … shall provide benefits for the diagnosis and treatment of mental or nervous conditions. Benefits payable include, but need not be limited to: … Evidence-based maternal, infant and early childhood home visitation services, … that are designed to improve health outcomes for pregnant women, postpartum mothers and newborns and children, including, but not limited to, for maternal substance use disorders or depression and relationship-focused interventions for children with mental or nervous conditions or substance use disorders.[180]
D. Illinois House Bill 2438:
    a. Requires health insurance to provide quality, cost-effective maternal mental health coverage; requires medical professionals screen **pre-** & **postpartum** moms for mental health conditions.
    b. Requires accident and health insurers to **develop a maternal mental health program** designed to promote quality and cost-effective programs.
    c. Requires medical professionals who provide pre- and postpartum care for patients to **ensure the mother is offered screening or is appropriately screened for mental health conditions;** includes medical professionals: licensed physicians, registered nurses, and Physician Assistants.[181]

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[177] Howard, L. M., Molyneaux, E., Dennis, C. L., Rochat, T., Stein, A., & Milgrom, J. (2014). Non-psychotic mental disorders in the perinatal period. *The Lancet*, 384(9956), 1775-1788.

[178] CA AB 577 - Health Care Coverage: Maternal Mental Health

[179] CA AB 2193 - Maternal Mental Health

[180] CT SB 1085 Health Insurance Coverage

[181] IL HB 2438 - Maternal Mental Health

E. Missouri House Bill 2120: Supports the governor's plan to apply for a Medicaid 1115 demonstration waiver that, if accepted by the Centers for Medicare and Medicaid Services (CMS), will **cover behavioral health services for women up to one year postpartum**.[182]
F. Texas House Bill 2466: Relates to the content of an application for Medicaid and coverage for certain services related to **maternal depression** under the Medicaid and child health plan programs.[183]

Existing Mental Health Legislation—Education.

A. Arizona Senate Bill 1011: designed to **improve screening/treatment of maternal mental disorders**. **Establishes the maternal mental health advisory committee** to recommend improvements for screening and treating maternal mental health disorders.[184]
B. California Assembly Bill 845:
    a. Requires the Medical Board of California, in determining the continuing education requirements for physicians and surgeons, to consider including a course in maternal mental health, addressing, among other provisions, the requirements described above.
    b. Requires the board to periodically update any curricula developed pursuant to the bill to account for new research.[185]
C. California Assembly Bill 3032:
    a. Requires certain hospitals to **develop a program relating to maternal mental health**, including **postpartum depression**. The program must include **education and information about maternal mental health** for many groups (below).
    b. Requires a general acute care hospital or special hospital that has a perinatal unit to **develop and implement, by January 1, 2020, a program relating to maternal mental health** conditions including, but not limited to, **postpartum depression**. The program would include, among other things, **education and information about maternal mental health** conditions for women, families, and hospital perinatal unit employees, as specified.[186]
D. Florida Senate Bill 138:
    a. **Requires education on perinatal mental health care and changes aspects of postpartum evaluation and provision of information on postpartum depression**.
    b. Requires the Department of Health to create public service announcements to educate the public on perinatal mental health care.
    c. Requires birth centers to provide certain information in the postpartum evaluation and follow-up care to include a mental health screening and the provision of certain information on postpartum depression, etc.

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[182] MO HB 2120
[183] TX HB 2466
[184] AZ SB 1011 - Maternal mental health; Advisory Committee
[185] CA AB 845
[186] CA AB 3032 - Maternal mental health conditions

d. Appropriates $1,156,520.[187]

E. Illinois House Bill 3511: Requires education on **maternal mental health** for healthcare professionals and treatment education for **postpartum** women/families.
   a. Creates Maternal Mental Health Conditions Education, Early Diagnosis, & Treatment Act.
   b. Provides that a general acute care hospital or special hospital that has a perinatal unit, in collaboration with medical staff, shall develop and implement a program to **provide education and information to appropriate health care professionals and patients about maternal mental health conditions**.
   c. Provides that the educational program shall include:
      i. **education and information for postpartum women and families** about maternal mental health conditions, post-hospital treatment options, and community resources;
      ii. **education and information for hospital employees regularly assigned to work in the perinatal unit**, including, as appropriate, registered nurses and social workers, about maternal mental health conditions; and
      iii. **any other service the hospital determines should be included in the program to provide optimal patient care**.[188]

F. Maryland Senate Bill 600: Requires the Department of Health and Mental Hygiene to:
   a. identify and publicly provide information about **perinatal mood** (i.e. **depression** and **bipolar**) **and anxiety disorders;**
   b. **develop program to address mental needs of women** suffering from these disorders;
   c. **identify specified information about perinatal mood and anxiety disorders**;
   d. **make available specified information** on the Department's Web site; and
   e. **develop a plan to expand** the Maryland Behavioral Health Integration in Pediatric Primary Care (BHIPP) program to address the mental health needs of specified women.[189]

G. New York Senate Bill 7409 and New York Assembly Bill 8308: Requires education on **maternal depression treatment** and requires the department of health and office of mental health to **provide information on their website regarding how to locate available providers who treat or provide support for maternal depression**.[190]

H. New York Assembly Bill 8953: Requires education on **maternal depression treatment** and requires the department of health and office of mental health to

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[187] FL SB 138

[188] IL HB 3511 - IDPH - Maternal Mental Health

[189] MD SB 600 - Public Health: Maternal Mental Health

[190] NY S 7409 - Relates to maternal depression treatment

provide information on their website regarding how to locate available providers who treat or provide support for maternal depression.[191]

I. Oregon House Bill 2235:
   a. Requires education of mental health care providers who serve **pregnant, postpartum, and post-pregnancy loss** patients.
   b. requires Health Authority to develop informational materials concerning maternal mental health for health care providers serving pregnant, postpartum, and post-pregnancy loss patients.[192]

J. Virginia House Bill 2613: Requires education on **perinatal anxiety, postpartum blues, perinatal depression**, and **infant safety** to midwives and other professionals. Adds information about perinatal anxiety to the types of information about which each licensed nurse midwife, licensed midwife, or hospital providing maternity care must provide to each maternity patient and, if present, the father of the infant and other relevant family members or caretakers (currently, licensed nurse midwives, licensed midwives, and hospitals providing maternity care are required to provide information about postpartum blues and perinatal depression, shaken baby syndrome and the dangers of shaking infants, and safe sleep environments for infants).[193]

Existing Mental Health Legislation—Services.

A. Delaware Senate Bill 197:
   a. Requires the Department of Health and Social Services to make available current information to healthcare providers regarding the signs and symptoms of maternal depression, screening tools, and available community resources.
   b. Requires that healthcare providers and facilities make available maternal depression information to women who present with signs of maternal depression, and to encourage the women to share that information with their family members or caregivers, and the family members and caregivers of the baby.[194]

B. Florida House Bill 937:
   a. Requires **perinatal mental health care** information provided by hotline and revision to **aspects of postpartum evaluation to include mental health and information on postpartum depression**.
   b. Requires Department of Health to offer perinatal mental healthcare information through a Family Health Line toll-free hotline accessible to the general public.
   c. Revises components included in postpartum evaluation and follow-up care provided by birth centers to include mental health screening and information on postpartum depression.[195]

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[191] NY A 8953

[192] OR HB 2235 - "Relating to maternal mental health; and declaring an emergency."

[193] VA HB 2613

[194] DE SB 197 - AN ACT TO AMEND TITLE 16 OF THE DELAWARE CODE RELATING TO MATERNAL MENTAL HEALTH

[195] FL HB 937 - Perinatal Mental Health

C. Illinois House Bill 5:
   a. Requires access to **substance use and mental health services** for **pregnant and postpartum** women.
   b. Requires gender-responsive and **trauma-informed** programs (i.e. **PTSD**).
   c. Requires that programs serve **women and young children** (**mother-child attachment**).
   d. Requires the Department of Human Services to ensure access to substance use and mental health services statewide for pregnant and postpartum women, and to ensure that programs are gender-responsive, are trauma-informed, and serve women and young children.[196]

D. New Jersey Senate Bill 705: Requires Department of Health to develop and implement a plan to improve access to **postpartum depression screening**.[197]

E. New Jersey Senate Bill 3365: Establishes a Medicaid perinatal episode of care pilot program Participating providers shall conduct a risk assessment for all episodes using the **Perinatal Risk Assessment** form, as used by the Division of Medical Assistance and Health Services in the state Department of Human Services (DHS), to determine each mother's level of need for state-sponsored support services. With the mother's consent, the provider shall forward the completed risk assessment form to the appropriate county central intake agency, which shall review the form and, if the form indicates a need for services, contact the mother to provide her with information and referrals to appropriate services. The services to which mothers may be referred pursuant to this subsection shall include but shall not be limited to: home visitation programs; **mental health and substance use disorder treatment**; **domestic violence support and intervention**; transportation and housing assistance; and **group prenatal counseling**.[198]

F. New Jersey Assembly Bill 3633: Requires each general hospital, ambulatory care facility, and birthing center that provides maternity care services to ensure that, prior to discharge following the end of a pregnancy, each woman receiving maternity care services is provided with **postpartum care information**, including information concerning the potential health issues that may occur during the postpartum period and a description of the **risks, warning signs, and symptoms of medically-significant complications that may occur during the postpartum period,** including severe bleeding, high blood pressure, infection, and **depression**.[199]

G. New York Assembly Bill 3016: Requires maternal health care providers providing **pre- and postnatal care or pediatric care** to the mother's infant to invite the mother to fill out a questionnaire to detect **maternal depression**.[200]

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[196] IL HB 5 - Maternal Care

[197] NJ S 705

[198] NJ S 3365

[199] NJ A 3633 - Establishes requirements concerning the provision of postpartum care information and the development of individualized postpartum care plans.

[200] NY A 3016

H. New York Senate Bill 7234: Relates to the provision of **maternal depression education**, screening guidelines, and referrals for treatment.[201]
I. Oklahoma Senate Bill 419: Directs certain licensing boards to work with hospitals and healthcare professionals to develop certain policies and materials to educate women and their families about perinatal mental health disorders.[202]
J. Texas Senate Bill 147: Relates to the **maternal mental health peer support pilot program for perinatal mood and anxiety disorder**.[203]
K. Texas Senate Bill 750: Relates to **maternal and newborn health care and the quality of services provided to women** in this state under certain health care programs.[204]

Existing Mental Health Legislation—Task Force.

A. District of Columbia Bill B 22-0172: Establishes a **Maternal Mental Health Task Force** ("Task Force"), funded by the District of Columbia Department of Behavior Health, to provide comprehensive policy **recommendations to improve maternal mental healthcare** in the District.[205]
B. Maryland Senate Bill 74: Establishes the **Task Force to Study Maternal Mental Health** to study and make recommendations regarding specified matters and report its findings and recommendations to the Governor and the General Assembly on or before December 15, 2016[206]
C. Texas Senate Bill 17: Relates to **maternal health and safety, pregnancy-related deaths, and maternal morbidity, including postpartum depression**.[207]
D. Texas House Bill 253: "The commission shall develop and implement a five-year strategic plan to improve access to **postpartum depression screening, referral, treatment, and support services**. Not later than September 1 of the last fiscal year in each five-year period, the commission shall develop a new strategic plan for the next five fiscal years beginning with the following fiscal year."[208]

Existing Mental Health Legislation—Funding.

A. California Assembly Bill 1893: Requires the Department of Public Health **to investigate and apply for federal funding opportunities regarding maternal mental health and** to notify the Legislature on or before January 1, 2020, on the Department's efforts to secure and utilize the federal funding it receives.[209]

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[201] NY S 7234 A
[202] OK SB 419 - Health Services
[203] Texas SB 147
[204] TX SB 750
[205] DC B 22-0172
[206] MD SB 74
[207] TX HB 253
[208] TX HB 253
[209] CA AB 1893 - Maternal Mental Health: Federal Funding

B. California Senate Bill 104: Subject to an appropriation in the annual Budget Act, extends Medi-Cal eligibility for a pregnant individual who is receiving health care coverage under the Medi-Cal program, or another specified program, and who has been **diagnosed with a maternal mental health condition,** for a period of one year following the last day of the individual's pregnancy if the individual complies with certain requirements..[210]

Existing Mental Health Legislation—Education, Services and Other Initiatives.

A. Massachusetts House Bill 4859: The Department of Public Health
   a. may consult with health care providers, non-profits and health insurance providers regarding **postpartum depression** to **develop a culture of awareness, de-stigmatization and screening for perinatal depression** so that residents of the commonwealth may be assured of the most effective and affordable provision of public health services possible; and
   b. **make perinatal depression a public health priority**, and in consultation with the special commission on postpartum depression and may **develop regulations, policies and resources to address postpartum depression including, but not limited to, public and professional education curricula, plans and materials; referral lists that build on existing resources; and the authorization of validated screening tools**.[211]

B. Oregon House Bill 3625: **Designates May of each year as Maternal Mental Health Awareness Month**.[212]

C. Utah Senate Bill 135: Requires the Department of Health to study the use of evidence-based home visiting programs in the state and report its findings to the Legislature; specifies what the study shall include; creates the Home Visiting Restricted Account and specifies how money in the account may be use.[213]

Therapeutic and Pharmaceutical Solutions.

Mother-Infant Dyadic Psychotherapy.

A. **DESCRIPTION**: Treatment that promotes maternal mental health and mother-child relationships through (a) mother-infant psychotherapy; and (b) an infant-oriented focus on promoting positive mother-infant interactions.[214]

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[210] CA SB 104 - Health

[211] MA H 4859

[212] OR HB 3625 - Relating to Maternal Mental Health Awareness Month; and Declaring an Emergency

[213] UT SB 135 - Maternal and Child Health

[214] Goodman, J. H., Guarino, A. J., & Prager, J. E. (2013). Perinatal dyadic psychotherapy: Design, implementation, and acceptability. *Journal of family nursing*, 19(3), 295-323.

B. **EVIDENCE/OUTCOMES**: All participants in one study achieved remission of depression with significant reduction in *depression* and *anxiety* symptoms.[215] Interpersonal psychotherapy is effective for women with postpartum depression.[216] [217]
C. **RESOLVES**: Alleviates all conditions that arise out of *poor maternal sensitivity* and *impaired mother-child attachment*. These likely include maternal **depression**, **anxiety**, and **PTSD**.

Mother-Infant Group Therapy.

A. **DESCRIPTION**: Postpartum mothers displaying symptoms of moderate to severe depression are referred to a manualized, 12-week mother-infant therapy group. In the first part of this therapy, mothers meet in a therapy group and their infants meet in a development therapy group. The second half of this therapy involves the reunification of mothers and infants for dyadic group therapy. Everything is supervised by trained therapists.[218]
B. **EVIDENCE/OUTCOMES**: Mothers with postpartum depression not only experienced relief of their depressive symptoms, but also reported improvements in the quality of their mother-infant relationship.[219] Further, interpersonal psychotherapy is effective for women with postpartum depression.[220]
C. **RESOLVES**: *Postpartum depressive symptoms* and *mother-infant relationship issues*.

Antidepressant Medication.

A. **DESCRIPTION**: Antidepressants are used to address severe depression, although experts recommend that other treatments should be used alongside medication.[221]
B. **EVIDENCE/OUTCOMES**: A panel of 36 national experts recommend antidepressant medication *alongside other options (especially psychotherapy)* for severe depression. However, medication should be a second-line treatment for milder symptoms.[222]
C. **RESOLVES**: Antidepressants can be used to treat severe and, to a lesser extent, mild symptoms of depression.

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[215] Goodman, J. H., Guarino, A. J., & Prager, J. E. (2013). Perinatal dyadic psychotherapy: Design, implementation, and acceptability. *Journal of family nursing*, 19(3), 295-323.
[216] Cuijpers, P., Andersson, G., Donker, T., & van Straten, A. (2011). Psychological treatment of depression: results of a series of meta-analyses. *Nordic journal of psychiatry*, 65(6), 354-364.
[217] https://web.archive.org/web/20180625174221/https://nrepp.samhsa.gov/Legacy/ViewIntervention.aspx?id=194
[218] Clark, R., Tluczek, A., & Brown, R. (2008). A mother–infant therapy group model for postpartum depression. *Infant Mental Health Journal: Official Publication of The World Association for Infant Mental Health*, 29(5), 514-536.
[219] Clark, R., Tluczek, A., & Brown, R. (2008). A mother–infant therapy group model for postpartum depression. *Infant Mental Health Journal: Official Publication of The World Association for Infant Mental Health*, 29(5), 514-536.
[220] Cuijpers, P., Andersson, G., Donker, T., & van Straten, A. (2011). Psychological treatment of depression: results of a series of meta-analyses. *Nordic journal of psychiatry*, 65(6), 354-364.
[221] Altshuler, Lori L et al. 2001. "The Expert Consensus Guideline Series. Treatment of Depression in Women." *Postgraduate medicine* (Spec No): 1–107.
[222] Altshuler, Lori L et al. 2001. "The Expert Consensus Guideline Series. Treatment of Depression in Women." *Postgraduate medicine* (Spec No): 1–107.

Toddler-Parent Psychotherapy (TPP).

A. **DESCRIPTION**: Based on the theory that mothers act out of their internal models of attachment relationship when interacting with their toddlers, this treatment involves therapists promoting warm, positive emotional interactions between mothers and their toddlers. Mothers are taught strategies to improve the quality of communications/interactions with their toddlers and encouraged to widen their understanding of/response to their child's behavior and emotional communication.[223] [224]
B. **EVIDENCE/OUTCOMES**: Children in the depressed intervention group had identical cognitive functioning compared to children of nondepressed mothers (i.e., no effects of maternal depression).[225] A later study found that TPP resulted in stronger mother-toddler secure attachment.[226]
C. **RESOLVES**: *Ameliorates the effects of maternal depression on their toddler's development*. This is because it improves mother-toddler attachment, so the child has stronger development.

Cognitive-Behavioral Therapy.

A. **DESCRIPTION**: In some studies, pregnant women with sub-clinically elevated stress, depression, and/or anxiety symptoms are treated using a manualized cognitive-behavior group program.[227] [228] Individual cognitive behavioral therapy benefits women with post-delivery PTSD.[229]
B. **EVIDENCE/OUTCOMES**: Pregnant women who participated in this therapy experienced improvements in their cortisol awakening response (a measure of one's biological stress response), indicating that *this treatment helps women with elevated stress, anxiety, or depressive symptoms*.[230]

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[223] Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2000). The efficacy of toddler-parent psychotherapy for fostering cognitive development in offspring of depressed mothers. *Journal of abnormal child psychology*, 28(2), 135-148.

[224] https://web.archive.org/web/20180625174221/https://nrepp.samhsa.gov/Legacy/ViewIntervention.aspx?id=194

[225] Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2000). The efficacy of toddler-parent psychotherapy for fostering cognitive development in offspring of depressed mothers. *Journal of abnormal child psychology*, 28(2), 135-148.

[226] Toth, S. L., Rogosch, F. A., Manly, J. T., & Cicchetti, D. (2006). The efficacy of toddler-parent psychotherapy to reorganize attachment in the young offspring of mothers with major depressive disorder: a randomized preventive trial. *Journal of consulting and clinical psychology*, 74(6), 1006.

[227] Austin, M. P., Frilingos, M., Lumley, J., Hadzi-Pavlovic, D., Roncolato, W., Acland, S., ... & Parker, G. (2008). Brief antenatal cognitive behaviour therapy group intervention for the prevention of postnatal depression and anxiety: a randomised controlled trial. *Journal of affective disorders*, 105(1-3), 35-44.

[228] Timpano, K. R., Abramowitz, J. S., Mahaffey, B. L., Mitchell, M. A., & Schmidt, N. B. (2011). Efficacy of a prevention program for postpartum obsessive–compulsive symptoms. *Journal of Psychiatric Research*, 45(11), 1511-1517.

[229] Ayers, S. (2004). Delivery as a traumatic event: prevalence, risk factors, and treatment for postnatal posttraumatic stress disorder. *Clinical obstetrics and gynecology*, 47(3), 552-567.

[230] Richter, J., Bittner, A., Petrowski, K., Junge-Hoffmeister, J., Bergmann, S., Joraschky, P., & Weidner, K. (2012). Effects of an early intervention on perceived stress and diurnal cortisol in pregnant women with elevated stress, anxiety, and depressive symptomatology. *Journal of Psychosomatic Obstetrics & Gynecology*, 33(4), 162-170.

a. In a primary care setting for pregnant women with symptoms of depression or anxiety, cognitive-behavioral group therapy moderately reduced depression in program completers.[231]
b. Among postpartum women who undergo cognitive-behavioral therapy at one, three, and six month(s) after birth, they had *significantly lower levels of obsessions and compulsions*.[232]
c. Mothers with severe postnatal PTSD benefit from individual cognitive behavioral therapy.[233]

C. **RESOLVES**: Therapy *helps pregnant women with maternal depression, anxiety, and PTSD*.[234] [235]
   a. Cortisol levels are one pathway through which maternal mental health effects fetal development, so this therapy should *ameliorate the physical effects of maternal mental illness on children*.[236]
   b. This therapy can *help with obsessive-compulsive disorders* among postpartum women.[237]

Exposure and Psycho-Education (Structured Interventions).

A. **DESCRIPTION**: Structured interventions include components like exposure treatment and psychological education.[238]
B. **EVIDENCE/OUTCOMES**: Exposure treatments and psycho-education lead to *fewer PTSD symptoms* in women who deliver via emergency cesarean delivery (C-Section).[239]
C. **RESOLVES**: *Treats PTSD symptoms* in mothers who deliver via C-section.

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[231] Austin, M. P., Frilingos, M., Lumley, J., Hadzi-Pavlovic, D., Roncolato, W., Acland, S., ... & Parker, G. (2008). Brief antenatal cognitive behaviour therapy group intervention for the prevention of postnatal depression and anxiety: a randomised controlled trial. *Journal of affective disorders*, 105(1-3), 35-44.

[232] Timpano, K. R., Abramowitz, J. S., Mahaffey, B. L., Mitchell, M. A., & Schmidt, N. B. (2011). Efficacy of a prevention program for postpartum obsessive–compulsive symptoms. *Journal of Psychiatric Research*, 45(11), 1511-1517.

[233] Ayers, S. (2004). Delivery as a traumatic event: prevalence, risk factors, and treatment for postnatal posttraumatic stress disorder. *Clinical obstetrics and gynecology*, 47(3), 552-567.

[234] Richter, J., Bittner, A., Petrowski, K., Junge-Hoffmeister, J., Bergmann, S., Joraschky, P., & Weidner, K. (2012). Effects of an early intervention on perceived stress and diurnal cortisol in pregnant women with elevated stress, anxiety, and depressive symptomatology. *Journal of Psychosomatic Obstetrics & Gynecology*, 33(4), 162-170.

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[236] Richter, J., Bittner, A., Petrowski, K., Junge-Hoffmeister, J., Bergmann, S., Joraschky, P., & Weidner, K. (2012). Effects of an early intervention on perceived stress and diurnal cortisol in pregnant women with elevated stress, anxiety, and depressive symptomatology. *Journal of Psychosomatic Obstetrics & Gynecology*, 33(4), 162-170.

[237] Timpano, K. R., Abramowitz, J. S., Mahaffey, B. L., Mitchell, M. A., & Schmidt, N. B. (2011). Efficacy of a prevention program for postpartum obsessive–compulsive symptoms. *Journal of Psychiatric Research*, 45(11), 1511-1517.

[238] Hollander, M. H., van Hastenberg, E., van Dillen, J., Van Pampus, M. G., de Miranda, E., & Stramrood, C. A. I. (2017). Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Archives of women's mental health*, 20(4), 515-523.

[239] Hollander, M. H., van Hastenberg, E., van Dillen, J., Van Pampus, M. G., de Miranda, E., & Stramrood, C. A. I. (2017). Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Archives of women's mental health*, 20(4), 515-523.

The Triple P (Positive Parenting Program) System.

A. **DESCRIPTION**: This is a system of parenting programs for families that strengthen parenting skills and prevents dysfunctional parenting to, in turn, prevent child maltreatment and emotional, behavioral, and developmental problems.[240]
B. **EVIDENCE/OUTCOMES**: This has an Evidence Based Program Rating of 'Near Top-Tier'
C. **RESOLVES**: Reduces effects on children of maternal mental illness through strengthening attachment.

Family Check-Up for Children.

A. **DESCRIPTION**: A preventative, family-based intervention targeted at families with young children, especially children with risk factors indicating child behavioral misconduct.[241]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'. The intervention appeared to significantly increase levels of parents' positive behavior support, which in turn significantly reduced children's problem behavior
C. **RESOLVES**: Improves parent-child attachment.

Mom's Empowerment Program.

A. **DESCRIPTION**: This program supports mothers who have experienced intimate partner violence through discussions of how such violence affects their child's development, trainings to build parental competency, and ways to build social connections in the support group.[242]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'. Results indicated a statistically significant improvement in child behavior and mothers experienced reductions in intimate partner violence.[243]
C. **RESOLVES**: Intends to prevent intimate-partner violence and improving parent-child attachment.

Mellow Babies.

D. **DESCRIPTION**: This program consists of a 14-week long postnatal group program for mothers and fathers. There are gender-specific sessions. These sessions include personal development for the parents, addressing relationship difficulties, and a parenting workshop.[244]
E. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'.
F. **RESOLVES**: Mother-specific aspects of the program, maternal depression, intimate partner violence, and parent-child attachment.

Connect: An Attachment-Based Program for Parents and Caregivers.

G. **DESCRIPTION**: Connect is a 10-week manualized program delivered in a group format to parents/caregivers of preteens and teens with serious behavioral problems. It promotes parental sensitivity, reflective function, and mutuality. In particular, it involves

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[240] https://evidencebasedprograms.org/programs/the-triple-p-system/

[241] https://crimesolutions.ojp.gov/ratedprograms/396

[242] https://crimesolutions.ojp.gov/ratedprograms/579#pd

[243] https://crimesolutions.ojp.gov/ratedprograms/579#pd

[244] https://www.cebc4cw.org/program/mellow-babies/detailed

using role plays and reflection activities to promote parental self-reflection, learning, and parenting skills development.[245]

H. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'.
I. **RESOLVES**: Improves parent-child attachment.

Child-Parent Relationship Therapy.

J. **DESCRIPTION**: This is a play-based treatment program for young children who have social and/or mental disorders. This therapy fully involves parents in the process through group sessions where parents learn how to respond to their child's emotional and behavioral needs more effectively.
K. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Highest Rating'.
L. **RESOLVES**: Parent-child attachment.

Professional, Psychiatric, and Home-Visit Care Solutions.

Risk-Benefit Analyses That Includes Children .

A. **Recommendation**: In addition to considering the benefits of treatment for parental mental illness, risk-benefit assessments must consider the impact on these parents' children of both (a) the treatment and (b) the parent's illness.[246]

Clinician-Based Child Assessments and Family Meetings.

A. **DESCRIPTION**: In this manual-based prevention strategy for families with parental mood disorders, families participate in a clinician-led, two-part process that includes (1) a child assessment and (2) a family meeting.[247]
B. **EVIDENCE/OUTCOMES**: Families that participated in the clinician-led approach had significant gains in parent child-related behaviors/attitudes and in child-reported understanding of their parent's disorder. Child and parent family functioning increased, while internalized symptoms decreased.[248]
C. **RESOLVES**: Improves *parent-child relationship issues* among families where at least one parent has a mood disorder. By improving mother-child attachment, this therapy may *prevent physical and psychological effects of poor attachment*.

Massachusetts Child Psychiatry Access Project for Moms.

A. Existing state-level maternal mental health program.
B. **DESCRIPTION**: A network of obstetric, pediatric, family medicine, psychiatric providers, and a group of counselors for women and their families.

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[245] https://www.cebc4cw.org/program/connect-an-attachment-based-program-for-parents-and-caregivers/detailed

[246] Newport, D. Jeffrey, Zachary N. Stowe, and Charles B. Nemeroff. 2002. "Parental Depression: Animal Models of an Adverse Life Event." American Journal of Psychiatry 159(8): 1265–83.

[247] Beardslee, W. R., Wright, E. J., Gladstone, T. R. G., & Forbes, P. (2007). Long-term effects from a randomized trial of two public health preventive interventions for parental depression. *Journal of Family Psychology*, 21(4), 703–713.

[248] Beardslee, W. R., Wright, E. J., Gladstone, T. R. G., & Forbes, P. (2007). Long-term effects from a randomized trial of two public health preventive interventions for parental depression. *Journal of Family Psychology*, 21(4), 703–713.

C. **RESOLVES**: This network of clinicians can identify and treat symptoms of postpartum depression.[249]

Postpartum Depression Screening Quality Improvement Project (Minnesota).

A. Existing state-level maternal mental health program.
B. **DESCRIPTION**: The quality improvement project develops and implements protocols for screening and referrals for postpartum depression in child visits within the first year of infants' life.[250]
C. **RESOLVES**: Improves the screening and referral process for postpartum depression.

Screening, Brief Intervention and Referral to Treatment (SBIRT) (South Carolina).

A. Existing state-level maternal mental health program.
B. **DESCRIPTION**: SBIRT takes an evidence-based approach to the identification and treatment of substance (drug and alcohol) use, domestic violence, depression, and tobacco use among pregnant women and mothers up to 12 months postpartum.
C. **RESOLVES**: Improves health outcomes of the mother and infant via strengthened attachment. Addresses symptoms of substance use, domestic violence, and maternal depression.[251]

BabyCare (Virginia).

A. Existing state-level maternal mental health program.
B. **DESCRIPTION**: This program is a Medicaid-sponsored home visit program for pregnant women and mothers of infants up to two years of age. The program will help mothers learn about their child's development and help them find medical care.[252]
C. **RESOLVES**: Improves maternal knowledge of mother-infant attachment.

Mandated Depression Screening Through Legislation.

A. Existing state-level maternal mental health programs.
B. **DESCRIPTION**: This includes legislation that requires women receiving prenatal care be screened to evaluate risk of depression.[253]
C. **EXISTING LEGISLATION**: Senate Bill 307 (West Virginia)[254] and Senate Bill 213 (New Jersey)[255] require women be screened to evaluate risks of depression.
D. **RESOLVES**: Maternal depression.

Maternal, Infant and Early Childhood Home Visiting Program (Maryland).

A. Existing state-level maternal mental health program.

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249 Massachusetts Child Psychiatry Access Project for Moms
250 Postpartum Depression Screening Quality Improvement Project
251 Screening, Brief Intervention and Referral to Treatment (SBIRT)
252 BabyCare
253 Mandated screening through SB 307
254 Mandated screening through SB 307
255 Mandated Screening through 2006 legislation S 213

B. **DESCRIPTION**: A statewide training and certification program to train home visitors to identify signs of maternal depression, substance abuse, domestic violence, and child behavior issues.[256]
C. **RESOLVES**: Maternal depression, substance abuse, domestic violence, and child behavior issues.

MAMA'S Neighborhood (California).

A. Existing state-level maternal mental health program.
B. **DESCRIPTION**: This is the standard of perinatal care in Los Angeles County. Initially aimed at reducing preterm births and low birthweights, this program provides care in the pregnancy, labor, delivery, and postpartum periods.[257]
C. **RESOLVES**: Physical effects on children of maternal mental illness.

Family Spirits.

A. **DESCRIPTION**: This is a culturally tailored home-visiting intervention for Native American teenage mothers from pregnancy to three years postpartum. The intervention is designed to improve parental competence, reduce maternal psychosocial/behavioral risks that may interfere with effective parenting, and link families to appropriate community services.[258]
B. **EVIDENCE/OUTCOMES**: Results First rating is Highest Rating.
C. **RESOLVES**: Maternal depression and substance use among Native American teenage mothers; focuses on improving parent-child attachment.

Emergency Room Intervention for Adolescent Females.

A. **DESCRIPTION**: A program for teenage girls who are admitted to a hospital emergency room after attempting suicide. This program especially emphasizes suicide attempts that originate out of family discord, maternal psychopathology, and depression. The treatment involves educating the family on the factors driving suicidal behavior.[259]
B. **EVIDENCE/OUTCOMES**: This intervention has a Results First rating of 'Highest Rating'.
C. **RESOLVES**: Suicidal tendencies among adolescent women, especially mothers.

Home-Visiting Program for Adolescent Mothers.

A. **DESCRIPTION**: A community-based program where adolescent mothers meet with trained home visitors who deliver parenting and adolescent curriculums.[260]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'. This intervention resulted in a statistically significant improvement in parenting skills.
C. **RESOLVES**: Improves parent-child attachment among teenage mothers.

Nurse-Family Partnership.

A. **DESCRIPTION**: A home-visitation program for low-income, first-time mothers designed to improve family functioning.

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[256] Maternal, Infant and Early Childhood Home Visiting Program

[257] MAMA'S Neighborhood (MAMA'S)

[258] https://web.archive.org/https://nrepp.samhsa.gov/Legacy/ViewIntervention.aspx?id=361

[259] https://web.archive.org/https://nrepp.samhsa.gov/Legacy/ViewIntervention.aspx?id=33

[260] https://crimesolutions.ojp.gov/ratedprograms/485

B. **EVIDENCE/OUTCOMES**: This program has a Results First rating of 'Highest Rating'. Treatment families reported statistically significant decreases in child abuse/neglect and domestic violence and improvements in home learning environments. Children had decreases in substance use.[261]
C. **RESOLVES**: Parental substance abuse and improves parent-child attachment.

Arkansas Center for Addictions Research, Education, and Services (Arkansas CARES).

A. **DESCRIPTION**: Arkansas CARES provides services to mothers with both substance abuse and mental health problems. Women receive treatment in long-term residential settings with family support. Additional services include maternal and child healthcare and parent training.[262] [263]
B. **EVIDENCE/OUTCOMES**: This program has a Results First rating of 'Second-Highest Rating'.
C. **RESOLVES**: Maternal substance use, depression and parent-child attachment improvements.

Generations.

A. **DESCRIPTION**: A family-centered medical home program which provides medical care, pregnancy prevention, mental health care, and social work services for teen parent families. This program is designed to improve mental and physical outcomes of teen parents and their children.[264]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Highest Rating'.
C. **RESOLVES**: Focuses on the maternal mental health of teenage mothers.

Minding the Baby (MTB).

A. **DESCRIPTION**: Home visits are conducted by a team composed of a pediatric nurse practitioner and a licensed clinical social worker. The team works to promote positive physical and mental health as well as attachment outcomes in babies, mothers, and their families.
B. **EVIDENCE/OUTCOMES**: This program has a Results First rating of 'Second Highest Rating'.
C. **RESOLVES**: Improvements in parent-child attachment.

Mothers and Babies Course.

A. **DESCRIPTION**: A preventative mood-management course for pregnant women and mothers in the first year postpartum who are at high risk of perinatal depression. The course teaches perinatal women mood regulation strategies and explains the benefits of mother-infant bonds.[265]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'.

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[261] https://crimesolutions.ojp.gov/ratedprograms/187

[262] https://www.methodistfamily.org/arkansas-cares.html

[263] https://www.cebc4cw.org/program/arkansas-center-for-addictions-research-education-and-services/detailed

[264] https://tppevidencereview.youth.gov/document.aspx?rid=3&sid=278&mid=1

[265] https://www.mothersandbabiesprogram.org/research/

C. **RESOLVES**: Prevents perinatal depression, strengthens the mother-infant relationship, and enhances maternal and infant mental and physical health.

Preventative Child Maltreatment Programs.

A. **DESCRIPTION**: These are designed to prevent child abuse or neglect by educating expectant and new parents in parenting skills, coping with stress, and how to stimulate child development. If designed for 'at-risk' populations, these should include parents having substance use or mental health problems, experiencing intimate partner violence.[266]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Highest Rating'.
C. **RESOLVES**: Teenage motherhood; demographic (low-income, low educational attainment); maternal substance abuse, intimate partner violence; and parent-child attachment.

SafeCare.

A. **DESCRIPTION**: This is a home-visitation program designed to prevent/address factors associated with child abuse and neglect. It does this by improving health decision making skills, addressing the safety of the home environment, and promoting positive parent-child interactions through parental skills training.
B. **EVIDENCE/OUTCOMES**: This has the Results First rating of 'Second Highest Rating'. Parents in this treatment group demonstrated statistically significant decreases in depression symptoms.[267]
C. **RESOLVES**: Promotes parent-child attachment and reduces parental depression.

Child First.

D. **DESCRIPTION**: This is a two-generation, home-based mental health intervention for vulnerable small children and their families. Goals include helping children heal from the effects of trauma and adversity, improving child and parent mental health, and improving child development.[268]
E. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Highest Rating'.
F. **RESOLVES**: Promotes parent-child attachment; reduces maternal substance abuse, intimate partner violence, and PTSD.

Personal and Inter-Social Solutions.

Expressive Writing Interventions.

A. **DESCRIPTION**: Pre-pregnancy writing interventions are aimed at expressing feelings about pregnancy, delivery, and the postpartum period.[269]

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[266] https://crimesolutions.ojp.gov/ratedpractices/93

[267] https://crimesolutions.ojp.gov/ratedprograms/680

[268] https://www.cebc4cw.org/program/child-first/detailed

[269] Hollander, M. H., van Hastenberg, E., van Dillen, J., Van Pampus, M. G., de Miranda, E., & Stramrood, C. A. I. (2017). Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Archives of women's mental health*, 20(4), 515-523.

B. **EVIDENCE/OUTCOMES**: Expressive writing interventions appear to be effective at preventing postnatal PTSD.[270]
C. **RESOLVES**: Prevents PTSD in post-delivery mothers.

Project Link.

A. **DESCRIPTION**: This program is integrated with maternal-child health at Women & Infants Hospital. Project Link provides substance abuse and mental health treatment for pregnant and parenting women.[271]
B. **EVIDENCE/OUTCOMES**: This program has a Results First rating of 'Second Highest Rating'.
C. **RESOLVES**: Maternal substance abuse and mental health treatment.

Community, Governmental, and Structural Solutions.

Govt. Support for Programs Emphasizing Mother-Child Interactions.

A. **Policymaking Recommendation 1**: Government-funded programs should (a) focus on the needs of mothers *and* their children; (b) be guided by neuroscience/development research; and (c) commit to rigorous evaluation (i.e., those where determining success or failure is straightforward).[272]
B. **Policymaking Recommendation 2**: Short-term, low-intensity therapies (which do not emphasize mother-child interactions) may alleviate depressive symptoms in mothers but are not likely to improve child outcomes. Policymakers should support therapies that emphasize mother-child interactions.[273]

Community Networking, Self-Guided Workbooks, and Telephone Support.

A. **DESCRIPTION**: The main component of this therapy involves weekly telephone support and the use of self-guided workbooks focused on reducing postnatal (a) depression/anxiety symptoms and (b) parenting difficulties. A secondary component involves (a) community networking (to increase social support) and (b) access to health professionals.[274]

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[270] Hollander, M. H., van Hastenberg, E., van Dillen, J., Van Pampus, M. G., de Miranda, E., & Stramrood, C. A. I. (2017). Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Archives of women's mental health*, 20(4), 515-523.

[271] https://www.cebc4cw.org/program/project-link/detailed

[272] National Scientific Council on the Developing Child and National Forum on Early Childhood Policy and Programs. 2009. "Maternal Depression Can Undermine the Development of Young Children."

[273] National Scientific Council on the Developing Child and National Forum on Early Childhood Policy and Programs. 2009. "Maternal Depression Can Undermine the Development of Young Children."

[274] Milgrom, J., Schembri, C., Ericksen, J., Ross, J., & Gemmill, A. W. (2011). Towards parenthood: an antenatal intervention to reduce depression, anxiety and parenting difficulties. *Journal of affective disorders*, 130(3), 385-394.

B. **EVIDENCE/OUTCOMES**: These interventions significantly reduced mild-to-severe depression/anxiety symptoms as well as parenting stress compared to routine care. The community networking component of the treatment was particularly helpful.[275]
C. **RESOLVES**: *Reduces depression and anxiety symptoms* in postpartum parents and *reduces parenting stress*.

Paid Family Leave (Legislative Policy).

A. **DESCRIPTION**: Paid Family Leave (PFL) provides employees with paid time off for circumstances such as a **recent birth** or adoption, a parent or spouse with a serious medical condition, or a sick child.[276]
B. **EVIDENCE/OUTCOMES**: This has a Results First Rating of 'Highest Rating'.
C. **RESOLVES**: Mother-child attachment.

Preconception Education Interventions.

A. **DESCRIPTION**: These education interventions provide information about the risks and benefits of behaviors that affect women's health before, during, and after pregnancy with the aim of improving certain behaviors such that the mother and infant have better health outcomes. Several states have developed preconception health campaigns that incorporate education as one component, including Every Woman California, Delaware Thrives, Every Woman North Carolina, Arizona's Power Me A2Z, and Utah's Power Your Life, Power Your Health.[277]
B. **EVIDENCE/OUTCOMES**: This has a Results First rating of 'Second Highest Rating'.
C. **RESOLVES**: Reduces maternal substance use.

Early Head Start (EHS).

A. **DESCRIPTION**: This is a federally funded program for low-income pregnant women, parents, and children ages 0-3. The program includes childcare, parent education, family support, and health and mental health services. It can be home-based, center-based, or a mix of both.[278]
B. **EVIDENCE/OUTCOMES**: This program has a Results First rating of 'Highest Rating'.
C. **RESOLVES**: Improves parent-child attachment. This program is means-tested, meaning it is designed for low-income families.

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[275] Milgrom, J., Schembri, C., Ericksen, J., Ross, J., & Gemmill, A. W. (2011). Towards parenthood: an antenatal intervention to reduce depression, anxiety and parenting difficulties. *Journal of affective disorders*, 130(3), 385-394.

[276] https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/paid-family-leave

[277] https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/preconception-education-interventions

[278] https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/early-head-start-ehs