The Effects of Postpartum Depression on Children's Social Development

Delaney Besse
dpb41@uakron.edu
Margaret Williams
mcw69@uakron.edu
Danielle Spencer
dps64@uakron.edu
Brooke Walters
bmw155@uakron.edu

Follow this and additional works at: https://ideaexchange.uakron.edu/honors_research_projects

Part of the Maternal, Child Health and Neonatal Nursing Commons, and the Psychiatric and Mental Health Nursing Commons

Please take a moment to share how this work helps you through this survey. Your feedback will be important as we plan further development of our repository.

Recommended Citation
Besse, Delaney; Williams, Margaret; Spencer, Danielle; and Walters, Brooke, "The Effects of Postpartum Depression on Children's Social Development" (2021). Williams Honors College, Honors Research Projects. 1252.
https://ideaexchange.uakron.edu/honors_research_projects/1252

This Dissertation/Thesis is brought to you for free and open access by The Dr. Gary B. and Pamela S. Williams Honors College at IdeaExchange@UAkron, the institutional repository of The University of Akron in Akron, Ohio, USA. It has been accepted for inclusion in Williams Honors College, Honors Research Projects by an authorized administrator of IdeaExchange@UAkron. For more information, please contact mjon@uakron.edu, uapress@uakron.edu.
The Effects of Postpartum Depression on Children’s Social Development

Delaney Besse, Danielle Spencer, Brooke Walters & Maggie Williams

The University of Akron

Authors Note

Delaney Besse, Danielle Spencer, Brooke Walters, Maggie Williams, School of Nursing, The University of Akron. This paper is in fulfillment of the Williams Honors College. Due Spring, 2021. Instructor Debbie Horning, MSN, RNC-OB.
Abstract

The increased incidence of postpartum depression has had significant effects on children’s social development. The purpose of this systematic review is to bring attention to the growing problem in such a vulnerable population. In addition, it was designed to shed light on the lack of research in this area of healthcare. The methods used to conduct the study include various peer reviewed, scholarly and evidenced based articles from databases such as Academic Search Complete, PsycNet, and Pubmed. Each article has been critically evaluated based on the following guidelines: a population group of children under the age of four, specifically maternal postpartum depression rather than paternal, and studies focused on childhood social development.

The general consensus of the twenty articles conclude that maternal postpartum depression disrupts the social development of children. Specifically, decreased levels of attachment have been a common trend along with a developmental delay of communication. Based on the evidence collected during the systematic review future evidence-based practice should involve more rigorous screening of the mother child dyad in relation to promotion of mental health. How are children internationally, from birth to four years old, impacted by postpartum depression in relation to social development?

Keywords: postpartum depression, development, social development, cognitive development, pediatrics, mental health, infant
The Effects of Postpartum Depression on Children’s Social Development:

A Systematic Review

As the population number is on the rise, more people are having children and experiencing the stressors of raising a child in today’s society. The World Health Organization (WHO) conducted a study projecting urban population to increase from 54% to 60% in 2030. As a result, the rates of postpartum depression are also increasing. The WHO states that worldwide postpartum depression impacts 26% of all women after giving birth, in developing countries this is even higher at 35.4%. According to the article, *Perinatal Depression and Infant Mental Health*, author Janice Goodman states that postpartum depression is defined as maternal major and minor depression during the first year of postpartum. It is a common occurrence in child bearing women affecting up to 20% of perinatal women in the general US population (Goodman, 2019).

In nursing care today, the majority of concern focuses on the inpatient setting rather than the outpatient well-being. Once a patient is discharged, the lack of attention to the mother and baby’s mental health is significant. With the demographic increasing, those affected by postpartum depression can have consequences not only affecting the mother. With this being said, the impacts include it is associated with increased risk or wide ranging adverse child development effects that can affect infants in early childhood mental health (Goodman, 2019).

How does this previously mentioned depression affect the offspring of the mother experiencing it? Rather than researching how this impacts the mother, which has already heavily researched, these nursing students looked further into how this impacts the child's social development. The purpose of this systematic review is to provide insight into children who are
affected and may not know it. Overall, the significant question is how are children internationally, from birth to four years old, impacted by postpartum depression in relation to social development?

Methods

The methods of research are peer reviewed, scholarly articles from multiple evidence-based databases. The limitations of research include studies completed with a population group of children under the age of four. Originally the systematic review was planned to be based upon studies done only in the United States, but with further research the systematic review was opened up to studies world-wide due to lack of information. Additionally, the study was also expanded to include studies done over the last ten years, rather than five years. The plan is to focus on the child's social development. Therefore, our exclusions include: studies on Freud’s developmental theories in child development, and studies completed on children older than the age of four.

The articles used for this systematic review were vetted thoroughly in looking at relevance to the PICOT question and whether or not they met the limitation set by the nursing students. The nursing students took this action in order to have the best research articles to accurately represent the topic. Featured is a table of evidence in the appendix of this paper, this table organizes all of the research found in a mannerly way. Throughout the project, the table of evidence was used to summarize the articles found and utilized for the systematic review. The table of evidence consists of twenty primary research studies. The nursing students ensured all articles were peer reviewed and evidence based.
PsychNet, Medline and EBSCO host were three of the databases used in searching for scholarly articles. The keywords used were “postpartum depression,” “child,” “social” and “development.” These terms were manipulated with the Boolean phrases of “AND.” There were not very many articles that fit all of the requirements, so in selecting research articles each article was critically evaluated based on time the study was performed (i.e. ten years), peer reviewed, and location of study. With further research these nursing students found that there were not very many studies conducted in the United States alone, so they were advised to open up the search to all studies done internationally. With the removal of this restriction in the search there were more options to choose scholarly, peer reviewed and evidence-based practice articles from. These nursing students identify the potential bias, and when performing this systematic review both sides of the controversy will be addressed.

**Review of the Literature**

The majority of the research found for this systematic review showed consistent findings that maternal postpartum depression may lead to compromise of the infants behavioral and emotional responses. These responses include things such as overreacting, negative mindset, inappropriate behavior, and the inability to regulate their emotions. All of these factors may indicate inadequate communication skills, due to the mother’s postpartum depression.

Interventions conducted to further identify this phenomenon include measuring cortisol levels in saliva, conducting cognitive behavioral therapy (CBT), and direct observation of child behavior. Additionally, the Strange Situation Procedure (SSP), was also conducted which involved putting a child in a room with an unfamiliar host.
The majority of the studies analyzed were longitudinal for the purpose of seeing child developmental trends over time. With this being established, our findings may be hindered due to inconsistent participation, and self reported symptoms. Studies analyzed were pulled internationally to broaden our research, therefore the settings for these studies involve many dependable associations from across the world. Sample sizes range from 30 to 3,000 mother-child dyads.

**Measures**

A majority of the studies used tools such as the Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5), Edinburough Postnatal Depression Scale (EPDS), and the Beck Depression Inventory (BDI) to confirm that the mothers were in fact suffering from postpartum depression. The children were widely assessed with the Ages and Stages Questionnaire (ASQ); this questionnaire analyzed developmental delays throughout early childhood. The main gap of knowledge identified through the studies involve cultural variations stemming from a world-wide variation in studies, which led to stereotypes against postpartum depression.

**Behavioral and Social Changes in Offspring**

All the studies that were conducted found that postpartum depression was associated with the following: compromised behavioral and emotional developmental outcomes in the children up to four years old, poor behavior and emotional negativity, children’s difficulties in expressing verbal emotions, increased incidence of child depression and anxiety, and a child’s developmental delay in communication. Several of these factors were evaluated in the article, “Maternal Depression and Anxiety, Social Synchrony, and Infant Regulation of Negative and Positive Emotions,” by videotaping mother-infant interactions before and after a stranger was
introduced into the room. Findings of this study showed that a child who was exposed to a stranger had the same reaction to their mother who was diagnosed with postpartum depression. Therefore, one can conclude the harboring effects this diagnosis has on the mother-child dyad (Feldman et al., 2017).

**Erikson’s Stages of Psychosocial Development**

Erikson’s stages of social development are as follows: Trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, industry versus inferiority, identity versus confusion, intimacy versus isolation, generativity versus stagnation and integrity versus despair. The age range for children in this systematic review is ages birth to four years old, meaning that the only Erikson’s stages that apply are trust versus mistrust, autonomy versus shame and doubt, both of which normally end at the age of three years old. Erikson believed that the role of the caregiver/parent is essential in a child moving through all of these phases successfully.

Trust versus mistrust is the first stage from birth to around 18 months old, the responsiveness and the sensitivity of caregivers during this time is a primary director in developing trust according to “A Review of Measures of Erikson’s Stages of Psychosocial Development: Evidence for a General Factor” (2017). With the development of postpartum depression and a possible decrease in sensitivity and responsiveness to the child, the child is not able to fully develop a sense of trust to its caregivers and others. Without the development of this trust the child will not be able to develop a basic sense of psychosocial strength of hope.

The second stage in Erikson’s developmental stages is autonomy versus shame and doubt, this stage is from about 18 months of age to three years of age. Erikson believed that if caregivers provided opportunities for their children to explore the world around them a sense of
autonomy develops (Dunkel & Harbke, 2017). In the development of postpartum depression these mothers and caregivers may not be as motivated to allow their children to get out into the world around them, leading to a loss in the strength of willpower and self-control. This lack of willpower and self-control may be indicative of the behavioral changes seen in many children who have mothers diagnosed with postpartum depression.

**Inconsistent Findings: Maternal Anxiety**

Some inconsistencies found were several studies that focused on maternal anxiety. These studies indicated that maternal anxiety can have some of the same impacts on the new infant, this is an inconsistency due to the fact that the maternal anxiety and depression are grouped together. Maternal anxiety and depression stem from very different backgrounds, and this difference may lead to the same symptoms, but for very different reasons.

**Critical Appraisal of Evidence**

**Limitations of Findings**

Throughout the process of research, there were several limitations found across the studies. These limitations include factors such as the inclusion of the father in the report of depressive symptoms, this is an issue because this systematic review is focused on primarily the mother figure. Some studies did not consider single parents or any other living situation in that there were not two parents living in the home. Other limitations identified include self-reported data, which could be swayed, and several mothers who were diagnosed with major depressive disorder before becoming pregnant.

The biggest limitation found was the cultural differences in defining what postpartum depression is and how a mother should act after delivering her baby. There are many different
cultures and expectations for new mothers and the reporting of postpartum depression may be implemented differently across these cultures. On top of these differences many mothers may encounter a stigma associated with postpartum depression. This prevalent stigma may discourage mothers to report their symptoms, leading to fewer diagnoses. The main gap of knowledge identified through the studies involve cultural variations stemming from a world-wide variation in studies, which led to stereotypes against postpartum depression.

The students were challenged to find recent studies conducted within five years. There were not enough studies within the five-year mark for the students to use on the research project. The topic, the effects of postpartum depression on children, has not been widely studied. Due to this, the students had to broaden the studies to ten years.

Validity and Reliability of Methods

The methods used to conduct the study include various peer reviewed, scholarly and evidenced based articles. Each article has been critically evaluated based on the following guidelines: a population group of children under the age of four, specifically maternal postpartum depression rather than paternal, and studies focused on social development.

Synthesis of Evidence

In this systematic review, the evidence was critically appraised to determine the current healthcare practices and interventions. In the current status of healthcare practices and interventions, care is not as centered on maternal mental health and the impacts that may have on offspring in the long-term. The current practice may involve a check-up on a mother's mental health by questionnaire during pregnancy and at admission. If the mother reveals risk of postpartum depression the infants are screened with the Ages and Stages Questionnaire,
EFFECTS OF POSTPARTUM DEPRESSION ON CHILDREN

throughout the developmental stages of their lifespan. The results of the literature review all indicated that maternal postpartum depression had negative impacts on offspring. These impacts included things such as overreacting, negative mindset, inappropriate behavior, and the inability to regulate their emotions. Due to the consistency of these findings, studies show that there is a link between postpartum depression and social development of offspring.

Recommendations

With these findings, the nursing students recommend that new mothers should be screened for postpartum depression more frequently at follow up visits for the children, and postpartum visits. The current clinical care associated with new mothers is acute, focused on the discharge of both mother and baby safely. The nursing students recommend that in discharge planning long-term mental health support and resources should be provided to the family. This may include reassessing the mother during pediatric follow up appointments, at which the child would also be assessed with a standardized screening tool for atypical behavioral and social development. The nursing students suggest that discharge planning should also include providing information about support groups and adjusting the stigma associated with postpartum depression.

Conclusion

Throughout the study conducted, these nursing students identified the effects of postpartum depression on a child’s social development. Points identified in the paper included methods of finding, review of literature, measures used, consistent findings, inconsistent findings, critical appraisal of evidence, limitation of findings, validity and reliability of the methods, synthesis of evidence, and recommendations. In doing so, it was concluded that
maternal postpartum depression can lead to negative effects on the offspring. In completing this systematic review, it is hoped that more attention will be given to children who may be negatively affected by postpartum depression. Identifying this issue early on or in general may lead to earlier treatment and better outcomes. In addition, these nursing students will serve as advocates to their patients and inform their peers of the stigma identified.
References


EFFECTS OF POSTPARTUM DEPRESSION ON CHILDREN


https://doi.org/10.1007/s00737-015-0519-y


http://dx.doi.org.ezproxy.uakron.edu:2048/10.1037/emo0000614


https://doi.org/10.1002/da.22756
Appendix A

Table 1 PRISMA Chart

Records identified through database searching (5 years out) (n=948) → Additional records identified through other sources (n=0) → Records screened for relevance (10 years out) (n=1629) → Records included (n=681) → Full-text article assessed for eligibility (n=32) → Full-text articles excluded based on inclusion/exclusion criteria (n=12) → Studies included in review (n=20)
## Appendix B

### Systematic Review Table of Evidence

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Granat, A., Gadassi, R., Gilboa-Schechtman, E., &amp; Feldman, R. (2017). Maternal depression and anxiety, social synchrony, and infant regulation of negative and positive emotions. <em>Emotion, 17</em>(1), 11-27. <a href="http://dx.doi.org/10.1037/emo0000204">http://dx.doi.org/10.1037/emo0000204</a> PDF: <a href="https://psycnet.apa.org/fulltext/2016-35882-001.pdf">https://psycnet.apa.org/fulltext/2016-35882-001.pdf</a></td>
<td><strong>Purpose statement:</strong> Maternal depression has detrimental effects during the first months of life as the child is dependent on the mother and is being shaped by social and behavioral patterns of nurturing. <strong>Research question:</strong> How does maternal depression and anxiety, affect social synchrony, and infant regulation of negative and positive emotions?</td>
<td><strong>Framework:</strong> N/A</td>
<td><strong>Design:</strong> Extreme case design <strong>Site:</strong> Department of Psychology, Bar-Ilan University <strong>Sampling method:</strong> Looking at mothers who are on the upper and lower ends of the depressive spectrum and belong to a large community that represents an entire population of maternal depressive symptoms. <strong>Sample size:</strong> 100 mothers</td>
<td><strong>Variable and measurement instrument:</strong> During a nine month home visit, all mothers on each end of the spectrum were diagnosed with the SCID-1. Then mother-infant interactions were videotaped, interacted with strangers, and mother completed self-reports Cortisol in saliva was also measured from both mother and infants.</td>
<td><strong>Findings and Conclusions:</strong> Maternal depression during the postpartum year disrupts the development of infant emotion regulation. These results suggest that these children have diminished social synchrony and low differentiation of attachment and nonattachment.</td>
<td>All infants were raised in a two-parent environment Anxiety levels were not measured during pregnancy Effects of depression and anxiety were examined separately Fathers were not taken into consideration for development The sample focused on mothers with high and low depressive symptoms at each point and time The study tested infants affect and...</td>
</tr>
</tbody>
</table>
EFFECTS OF POSTPARTUM DEPRESSION ON CHILDREN

1. Regulation to joy and anger
Paradigms for mother and stranger were as identical as possible.


Purpose statement: Obstetricians must be familiar with the diagnosis and treatment of postpartum depression because of its significant impact on mother-baby relationships, if untreated adverse symptoms such as cognitive, emotional, and social development of the child in addition to impaired mother-infant bonding.

Research question: What should clinicians be assessing in mother-infant cases of PPD?

Findings and Conclusions: One episode of PPD increases risk of recurrence by 25% with future deliveries. Therapy after delivery should be considered if any previous episodes of depression are relevant. Psychiatric referral should be made in those who are experiencing significant suicidal or infanticidal symptoms.

Limitations of Findings: The study tested primarily focused on how doctors were the initial lead for starting treatment for PPD. Fathers were not taken into account in this study. No specifics were included in diagnosing PPD; just how to treat PPD.

Variable and measurement instrument:
Used the Edinburgh Postnatal Depression Scale [EPDS], the Beck Depression Inventory, the General Health Questionnaire, and the Anxiety and Depression Scale.

PDF: [https://reader.elsevier.com/reader/sd/pii/S088394171830384?token=50DEA8BFB73D5EE5059DB09EF545E8FFE5894C579AED019FB1B024F66C32EDA4FA6B2D89B76OB56AF82CCB0DC1B09C7](https://reader.elsevier.com/reader/sd/pii/S088394171830384?token=50DEA8BFB73D5EE5059DB09EF545E8FFE5894C579AED019FB1B024F66C32EDA4FA6B2D89B76OB56AF82CCB0DC1B09C7)

<table>
<thead>
<tr>
<th>Purpose Statement:</th>
<th>Frame work:</th>
<th>Design: N/A</th>
<th>Variable and Instrument Measures:</th>
<th>Findings and Conclusions:</th>
<th>Limitations of Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perinatal depression is associated with a wide range of adverse developmental impacts that occur in early childhood.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Perinatal depression is associated with a wide range of adverse developmental impacts that occur in early childhood.</td>
<td>Overview of what perinatal depression is and how it can impact infants mental health.</td>
</tr>
</tbody>
</table>

**Research Question:**
What is perinatal depression, what are the risk factors associated with it and what are some strategy of interventions?

**Purpose Statement:** Postpartum depression is linked to decreased quality mother-infant interactions and long-term negative impacts on children’s behavior and health. Infant care competence may be reduced by postpartum depression and other maternal or environmental variables. This study explains the factors that contribute to perceived infant care competence among mothers with postpartum depression.

**Research Question:** Predictors of Infant Care Competence Among Mothers With PostPartum Depression

<table>
<thead>
<tr>
<th>Frame work:</th>
<th>Design: Research Site: New Brunswick, Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Sampling Method:** Quasi-experimental study of a telephone-based peer support intervention for mothers with PPD

**Sample Size:** Sample of 55 women and their offspring. Mothers ranging from age 16-45

**Variable and measurement instrument:** N/A

**Findings and Conclusions:** The study indicates the children scoring below the 50th percentile (median) versus at or above the 50th percentile on the child development measures of gross motor, fine motor, problem solving, and personal-social skills are perceived by their mothers to be significantly diminished with regard to the responsiveness subscale of the ICQ.

Mothers with depression were observed to be more intrusive and less sensitive in maternal-infant interactions. Depression scores negatively affect bonding and parenting competence, but again, a focus on severity was not mentioned.

**Limitation of Findings:** Bigger study sample size, study limited to specific location.

**Purpose Statement:**
This study examined the relative impact of maternal depression, anxiety and stress symptoms from mid-pregnancy to early childhood on child communication, motor skills, problem solving and social skills up to three years of age.

**Research Question:**
How does the trajectories of maternal depression, anxiety and stress impact childhood development up to three years of age?

**Variable and measurement instrument:**
Used the Ages and Stages Questionnaires Third Edition. (Parent reported screening tool)

**Findings and Conclusions:**
The impact of high levels of maternal anxiety symptoms on the increased risk of child Developmental delay in communication. Early intervention and addressing maternal anxiety from pregnancy through early childhood, could have possible benefits.

**Limitation of Findings:**
This study was performed outside of the UNited States so the qualifications for Postpartum depression may be different. All results were self-reported by mothers, so the data could have been swayed.

---


**Purpose Statement:**
This study examines potential mechanisms

**Design:** Longitudinal randomized controlled

**Variable and measurement instrument:**
Self reported depressive symptoms on

**Findings and Conclusions:**
High depressive symptoms trajectories are marginally

**Limitation of Findings:**
Eligibility requirements for this study had to be adolescent
| symptom trajectories: Associations with 7-year maternal depressive symptoms and child behavior. *Journal of Family Psychology*, 31(4), 387-397. [http://dx.doi.org/10.1037/fam0000242](http://dx.doi.org/10.1037/fam0000242) | linking maternal depressive symptoms over two years and child behavior problems. **Research Question:** What are potential mechanisms the mechanisms that depressive symptoms are in relation to childhood disobedience? | **Sampling Method:** Recruited at delivery **Sample Size:** 118 | the Beck Depression Inventory (BDI) by the mothers. Latent growth curve modeling associated with lower parental nurturance that is significantly correlated with negative child affect in toddlerhood. This finding is not associated with parental control or child competence. |
| PDF: [https://psycnet.apa.org/fulltext/2016-44088-001.pdf](https://psycnet.apa.org/fulltext/2016-44088-001.pdf) | | | mothers under the age of 18, African American, low income and coresidence with the grandmother (Very specific population) |

7. Fisher, S. D., Brock, R. L., O'Hara, M. W., Kopelman, R., & Stuart, S. (2015). Longitudinal contribution of maternal and paternal depression to toddler behaviors: Interparental conflict and later depression as mediators. *Couple and Family Psychology: Research and Practice*, 4(2), 61-73. [http://dx.doi.org/ezproxy.uakron.edu:20](http://dx.doi.org/ezproxy.uakron.edu:20) | **Purpose Statement:** The purpose of this study was to extend previous research by examining the effects of maternal and paternal postpartum depression on child behaviors, and also to explore the potential roles of later depression and interparental conflict | **Frame work:** N/A | **Design:** Longitudinal **Site:** University of Iowa | **Sampling Method:** Longitudinal assessments **Sample Size:** 199 couples | **Variable and measurement instrument:** Couples participated in a previous study conducted during the postpartum period and then the child was reassessed at 45 months of age. The “postpartum assessment” and the “toddlerhood assessment” were both used |
| **Findings and Conclusions:** Parental depression during toddlerhood was associated with children's internalizing and externalizing of behaviors. Clinical implications include the need for pediatricians to routinely implement parental screening practices when depression is detected. | **Limitations of Findings:** Target children were around 45 months of age. Focuses on both maternal and paternal postpartum depression.
<table>
<thead>
<tr>
<th>Research Question:</th>
<th>Purpose Statement:</th>
<th>Frame work:</th>
<th>Design:</th>
<th>Variable and measurement instrument:</th>
<th>Findings and Conclusions:</th>
<th>Limitations of Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does postpartum paternal depression impact toddlerhood (45 months) behaviors?</td>
<td>This study examined the role of postnatal role of major depressive disorder (MDD) and postnatal generalized anxiety disorder (GAD) symptoms have an impact on behavioral and emotional function of the child at two years.</td>
<td>N/A</td>
<td>Longitudinal</td>
<td>Maternal symptoms were assessed by questionnaires (GAD-Q, CBLC, ECBQ) and a structured interview</td>
<td>This study found that persistent maternal anxiety and depressive symptoms during the first two years postpartum was related to reports of poorer behavior and emotional negativity in their 24-month-old children.</td>
<td>Focused on generalized anxiety disorder and major depressive disorder. To be eligible, mothers had to be 18 years or older, speak English, live within 35 miles of Oxford, have no life-threatening medical conditions, and plan to be the primary caregiver. Infants had to be delivered over 35 weeks gestation, weighing over 2,000 g, and with no life-threatening medical complications.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Postpartum period, in the development of behavioral and emotional behaviors in children of two years of age?</th>
</tr>
</thead>
</table>


**Purpose Statement:**
This study followed a low-risk birth cohort to visualize the effects of maternal depressive mood in an infant’s first year and the infant’s ability to manage negative and positive emotional moments with the mother or stranger.

**Research Question:**
How does a maternal depressive mood impact an infant's ability to manage emotions with a mother and/or stranger?

<table>
<thead>
<tr>
<th>Framework:</th>
<th>Design: Extreme</th>
</tr>
</thead>
</table>

**Site:** ****

**Sampling Method:**
Used mothers at the upper and lower levels of depressive symptoms

**Sample Size:**
971, final sample of 100 mother child pairs

**Variable and measurement instrument:**
Infant negative and positive emotions were tested with 4 emotional paradigms including: anger with mother, anger with stranger, joy with mother and joy with a stranger.

Mothers completed BDIs to assess for depressive symptoms

**Findings and Conclusions:**
Findings describe subtle processes by which maternal depression across the postpartum year disrupts the development of infant emotion regulation.

Suggest that diminished social synchrony, low differentiation of attachment and nonattachment, and increased self-regulation during positive moments may chart pathways for the transfer of emotional maladjustment from depressed mothers to their infants.

**Limitations of Findings:**
Included a group of clinically anxious mothers (children of anxious parents are 3.5 times more likely to develop an anxiety disorder)

PDF: file:///C:/Users/brook/Downloads/5665-Article%20Text-8407-1-10-20170219.pdf

<table>
<thead>
<tr>
<th>Purpose Statement:</th>
<th>Design:</th>
<th>Variable and measurement instrument:</th>
<th>Findings and Conclusions:</th>
<th>Limitations of Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This study examined the relative significance of maternal PPD in children's developmental disabilities at age four.</td>
<td>Longitudinal cohort study</td>
<td>EPDS is the most common screening instrument for measuring PPD. It is a 10-item Likert scale. The mother selects one of four possible responses (&quot;no, not at all&quot; to &quot;yes, quite often&quot;) according to her feeling within the past seven days.</td>
<td>The women with PPD only or both PPD and four years after delivery depression were less likely to breastfeed their baby compared with the ones without depression.</td>
<td>Included mothers who had depression before becoming a mother. Cultural differences were not taken into consideration.</td>
</tr>
<tr>
<td>Research Question: Is there a relationship between PPD mothers and the development of their children at age four?</td>
<td>Site: Mazaddaran, Iran</td>
<td>ASQ is a child developmental screening instrument. This questionnaire encompasses six items in five developmental domains: fine motor, problem-solving, communication, gross motor, and personal-social.</td>
<td>The women with PPD only significantly had more children suffering from developmental disabilities. That of ASQ including gross motor and personal-social domain. The mothers experiencing current depression or both PPD and current depression were more likely to have a child with developmental disabilities in most domains of ASQ. Which include fine motor, communication, gross motor and personal-social) after four years of birth.</td>
<td></td>
</tr>
<tr>
<td>Sample Size: 801 non-depressed pregnant women attending primary health centers (PHCs).</td>
<td>Sampling Method: Assessed for depression from two to twelve postpartum weeks using the Edinburgh Postnatal Depression Scale. Once the children were 4-years-old, those women’s PHC’s charts were reviewed in order to identify the qualified cases for the present study.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRAMEWORK: N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose Statement:</td>
<td>Frame work:</td>
<td>Design:</td>
<td>Variable and measurement instrument:</td>
<td>Findings and Conclusions:</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
<td>---------</td>
<td>--------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>To enhance the understanding of social and emotional development in children whose mothers are diagnosed with PPD.</td>
<td>N/A</td>
<td>Longitudinal</td>
<td>SCID-I tool used to select mothers who fit the proper criteria of postpartum depression according to the DSM-V</td>
<td>This study found that children with mothers diagnosed with postpartum depression were significantly worse at processing and labeling different facial emotional expressions. Maternal postpartum depression was able to predict the score on the FEE scale, however the current state of the mother's mental health had no impact on the child's score. It may be likely that the lower emotional labeling performance indicates specific difficulties in verbal expression relating to emotions.</td>
</tr>
<tr>
<td>Research Question:</td>
<td></td>
<td>Site:</td>
<td>FEE processing tool used to measure the children's recognition of basic emotions.</td>
<td></td>
</tr>
<tr>
<td>Whether maternal postpartum depression and anxiety disorders results in deficits of children's processing of facial emotional expression at preschool age.</td>
<td></td>
<td>Middle-sized town in southern Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampling Method:</td>
<td></td>
<td>Sampling Method:</td>
<td>SETK 3-5- This was the tool used to measure receptive and productive verbal and auditory abilities.</td>
<td></td>
</tr>
<tr>
<td>Mothers who fulfilled the criteria for postpartum depression according to the DSM-V.</td>
<td></td>
<td>Sample Size:</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>


PDF: http://web.a.ebscohost.com/ehost/pdfviewer?vid=12&sid=04dbd709-efe1-4676-8a28-be365d29003a%40sdc-v-sessmgr02
| --- |
| **Purpose Statement:**
Tested whether maternal depressive symptoms, tested biweekly would have an impact on childhood developmental milestones. |
| **Research Question:**
Do maternal depressive behaviors have an impact on the development and reaching of childhood milestones? |
| **Frame work:** N/A |
| **Design:** Longitudinal |
| **Site:** Southern and Eastern Finland |
| **Sampling Method:** Recruitment |
| **Sample Size:** 2667 |
| **Variable and measurement instrument:** CES-D - This was used to measure depressive symptoms in the mother, used with BDI-2 to further pinpoint depressive symptoms. ASQ Third edition- This tool was used to screen the children in a developmental assessment. |
| **Findings and Conclusions:** Maternal depressive symptoms during pregnancy, postpartum, and in early childhood each predicted lower child developmental milestone scores. These findings verify previous other findings in that maternal depressive symptoms carry adverse neurodevelopmental consequences on children. |
| **Limitations of Findings:** The sample size was very big and a large percentage of this study dropped out before reaching the final point of screening the child for adverse effects. The mother featured in this study had many comorbidities in relation to postpartum depression. These comorbidities included obesity, diabetes and smoking during or before pregnancy. |

| --- |
| **Purpose Statement:**
To test the long term effects of postpartum depression and see how they impact cognitive, social, and emotional development. |
| **Frame work:** N/A |
| **Design:** Longitudinal |
| **Site:** Center for Developmental Social Neuroscience, Israel |
| **Sampling method:** The study recruited a large community of women with |
| **Variable and measurement instrument:** The *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (*DSM–IV*) Axis I Disorders (SCID-I). The Development and Well-Being Assessment (DAWBA). The |
| **Findings and Conclusions:** The study found that children exposed to post partum depression in mothers had lower levels of development. A mothers care to their child was mediated by the child’s disorder and the mothers depression. |
| **Limitations of Findings:** As long term-effects of maternal depression were observed, other findings need replication in higher risk samples. Omission of fathers. |
**Research Question:**
Does maternal depression impair child emotion and executive functioning?

- no contextual risk and followed a select sample of mothers with postpartum depression across the first decade of the child’s life. The study observed mother and child interactions in the home throughout the first years of life for multiple theoretically based patterns of maternal care that facilitate regulation.

- **Sample size:** 53


- Additional executive tasks. Sample size was not large enough to separate children and should use larger sampling sizes in the future. Married couples.
<table>
<thead>
<tr>
<th>Purpose Statement:</th>
<th>Design: Cross-Sectional</th>
<th>Variable and measurement instrument:</th>
<th>Findings and Conclusions:</th>
<th>Limitations of Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To present research on the effects of postpartum depression (PPD) on mothers, fathers, and children that point to a re-conceptualization of PPD as a mental health condition that affects the whole family.</td>
<td>Site: Canada</td>
<td>The Edinburgh Postnatal Depression Scale (EPDS) is a brief 10-question self-report survey that reflects mood over the past seven days, and is the only screening tool normed for the identification of PPD in both mothers and fathers. A score greater than six on the EPDS is suggestive of symptoms of PPD in fathers. The EPDS is effective in rapidly identifying suicidal ideations.</td>
<td>In a case of nine studies PPD produced a significant negative effect on children’s emotional development. Rates of psychiatric disorders among children of depressed parents are two to five times above normal rates. Two studies showed that 70–80% of infants of depressed mothers were securely attached versus 18–20% of non-depressed mothers. Avoidant attachment was observed in 12-month and 18-month old infants of mothers who had PPD. Infants with mothers who have PPD also showed reduced affective sharing, sociability to strangers, and responsiveness in interactions. *More extensive findings in conclusion</td>
<td>Limited research kept from concluding suspected causes of PPD. Mothers coming into this study had already previously experienced PPD.</td>
</tr>
</tbody>
</table>

**Purpose Statement:**
To examine whether having a positive maternal postpartum depression screening correlated with maternal report of poorer infant social–emotional development and more negative maternal report of parent–child interaction, and whether scores on a measure of maternal feelings of attachment influenced this relationship.

**Research Question:**
Are moms with positive postpartum depression screenings causing a negative social–emotional development through attachment in their

<table>
<thead>
<tr>
<th>Framework</th>
<th>Design: Longitudinal study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site: Bronx, New York, USA</td>
<td></td>
</tr>
</tbody>
</table>

**Sample Method:**
Participants were recruited from two primary care centres in the Bronx, New York, USA. Participants were English speaking, first-time mothers in at least the seventh month of pregnancy at the time of recruitment.

**Sample Size:**
450 total mothers were enrolled, with 284 mother–child pairs participating through the 2-month assessment, and 232 participating through the

| Variable and measurement instrument: |
| The study used 4 different scales of measurement. The first was the Edinburgh Postpartum Depression Scale (EPDS). The second was the Maternal Postnatal Attachment Scale (MPAS). The third was the Ages and Stages Questionnaires: Social-Emotional (ASQ:SE). And the last was the Parent–Child Dysfunctional Interaction (P-CDI). |

**Findings and Conclusions:**
The findings revealed that PPD had negative associations on both ASQ:SE and P-CDI scores. And that these negative relationships were mediated by the mothers' feelings of attachment to their infants. Maternal PPD leads to poorer maternal feelings of attachment to the child, and poor maternal feelings of attachment in turn relates to less positive child social–emotional development outcomes.

**Limitations of Findings:**
Some demographic and methodological limitations to the current study. A limitation of the instruments used. A limitation of the use of self-report questionnaires presents a further limitation as there is a risk that participants may answer in ways that they feel are more socially desirable or that participants lack insight into their own functioning. Furthermore, the presence of depression may have a distorting effect on maternal reports about their infants, resulting in a more negative assessment than might be arrived at by someone else.
<table>
<thead>
<tr>
<th>newborns/children?</th>
<th>6-month assessment</th>
<th>Variable and Measurement instrument:</th>
<th>Findings and Conclusions:</th>
<th>Limitations of Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose Statement: Personality disorders may have an impact on security attachment in children whose mothers have postpartum depression.</td>
<td>Design: Longitudinal study conducted during pregnancy or during the eight weeks postpartum.</td>
<td>Self reported symptoms of depression. Used the Strange Situation Procedure (SSP) to assess attachment at 13months between the mothers and the children.</td>
<td>Postpartum depression was associated with attachment security only if the mother also had a personality disorder. Coexisting personality disorders may be essential in understanding how postpartum depression impact infant social and emotional development. Stable and underlying factors like personality disorder may magnify or buffer the effect sod postpartum depression in relation to infant development.</td>
<td>Self reported depressive symptoms. All assessments were taken place in a research lab setting which might have impacted a child's reaction to a stranger in the first place. The change in environment may have increased the want for maternal attachment. This study took place outside of the United States so the stigma surrounding postpartum depression may differ.</td>
</tr>
</tbody>
</table>


PDF: [https://reader.elsevier.com/reader/sd/pij/S0163638315301508?token=41F3E93A75F558576D7E140728B247088442852C5312895C44E35B4DECEF744E36A0DE78D906728C45ED7C63BAF71607](https://reader.elsevier.com/reader/sd/pij/S0163638315301508?token=41F3E93A75F558576D7E140728B247088442852C5312895C44E35B4DECEF744E36A0DE78D906728C45ED7C63BAF71607)
<table>
<thead>
<tr>
<th>Purpose Statement:</th>
<th>Frame work:</th>
<th>Design: Longitudinal</th>
<th>Site: Bar-Ilan University in Israel</th>
<th>Variable and Measurement Instrument: DSM-V to identify mothers with Major Depressive Disorder (MDD)</th>
<th>Findings and Conclusions:</th>
<th>Limitations of Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To better understand the effects of maternal depression on the infant, this early period of shown to be a key component in development.</td>
<td>N/A</td>
<td>How is postpartum depression impacting infant social development?</td>
<td>100 mothers, some diagnosed with anxiety of Major Depressive Disorder and anxiety disorders</td>
<td>Fear paradigm to assess emotion regulation.</td>
<td>Infants with mothers diagnosed with MDD, scored the lowest on infant developmental outcomes at 9 months of age. They had the lowest social engagement, more negative emotions, less regulatory behaviors and more cortisol in stress reactivity situations.</td>
<td>This study took place out of the United States, and the stigma surrounding mental illness may differ in Israel.</td>
</tr>
<tr>
<td>Research Question:</td>
<td></td>
<td></td>
<td></td>
<td>Cortisol levels were assessed during stress reactivity situations.</td>
<td>Infants of mothers with anxiety were shown to have similar reactions as children with mothers with MDD, but these children did not match the other children in fear regulation.</td>
<td>All of the observations and experiments were conducted in the home of the infant, and this may impact the infants reactions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Many of the mother were already diagnosed with MDD before the study so this may impact the intensity of postpartum depression.</td>
<td></td>
</tr>
</tbody>
</table>
Purpose Statement: To demonstrate different screening techniques during pregnancy and during post-partum in hopes to see a decrease in mother and baby from the negative effects of depression.

Research Question: How can more prevented screening of perinatal depression lower the risks of negative outcomes for the mother and baby during postpartum?

Frame work: N/A

Design: Experimental

Site: America (nationally)

Sample Size: N/A

Sample Site: Mothers were screened with the different interventions during pre-partum doctors visits and postpartum doctors visits.

Variable and Measurement Instrument: A variety of interventions have revealed some success in preventing postpartum depression. Delivery room companions. Visitation programs with nursing interventions, including cognitive behavioral therapy (CBT).

Practical Resources for Effective Postpartum Parenting (PREPP). PREPP is aimed at promoting the infant’s sleep while reducing fussing and/or crying. This is achieved through integrating evidence-based caregiving techniques, traditional psychotherapy approaches, psychoeducation, and

Findings and Conclusions: There is strong evidence that parental, particularly maternal, depression during pregnancy and the first year after childbirth (perinatal depression) has profound negative consequences on the well-being of women and infants, including family dysfunction, disruption of critical infant brain development, cessation of breastfeeding, and increased health care use, and may place the child at increased risk for future anxiety and depression. A growing body of research shows that fathers are also at increased risk of perinatal depression, which can magnify the adverse effects on an infant’s social-emotional development.

It also revealed that the absence of reciprocal interactions can have emotional consequences, including distress

Limitations of Findings: The article did not go into detail on the specific sample size used.
<table>
<thead>
<tr>
<th>Purpose Statement:</th>
<th>Design: Longitudinal population study</th>
<th>Variable and Measurement Instrument:</th>
<th>Findings and Conclusions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To investigate if maternal depression at different time points during the perinatal period impacts the child’s social-emotional development up to two years of age.</td>
<td></td>
<td>Maternal depressive symptoms were measured using the Edinburgh Postnatal Depression scale, at eight weeks and two years postpartum.</td>
<td>Social-Emotional problems in the child two years of age were strongly associated with maternal depression at 8 weeks postpartum and two years postpartum. Both pre and postnatal depression have unique impacts on children’s social-emotional development.</td>
</tr>
<tr>
<td>Research Question:</td>
<td>Site: Akershus University Hospital in Norway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How does maternal depression during the perinatal periods impact children’s social emotional development up to two years of age?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frame work: N/A</td>
<td>Sample Size: 1235</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sample Site: Akershus University Hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable and Measurement Instrument:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal depressive symptoms were measured using the Edinburgh Postnatal Depression scale, at eight weeks and two years postpartum.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitations of Findings:</td>
<td>Findings and Conclusions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This study was conducted outside of the United States which may cause a difference in how acceptable postpartum and other maternal depletions are.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose Statement:</td>
<td>Frame work:</td>
<td>Design: N/A</td>
<td>Variable and Measurement Instrument:</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>There has not been a more influential theory of psychosocial development than the lifespan theory introduced by Erikson.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Research Question:**
What are the stages of Erikson’s psychosocial development theory?