Parental Depression: The Elephant in the room with us

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- 8 year old who was already heavy has been gaining weight rapidly in the last 6 months
- 1 month old with 3 visits for feeding issues
- 15 month old with delayed language development
- Mother concerned about 3 year old’s out of control behavior
- 11 year old with multiple visits for dizziness, headache, and abdominal pain
- Mother of infant and 2 year old whose mother is terminally ill
Concerns about Children of Mothers with Depression

- Depression is the most common psychiatric disorder in adults
- 1 in 5 women and 1 in 10 men will have a clinically significant episode at some point
- > 80% are recurrent
  - > 50% within 2 years
  - More episodes => quicker and more frequent relapse
- May be particularly prevalent during childbearing years
Depressive Symptoms in Mothers linked to

- More visits in the first month of life, more temperament difficulties and sleep problems
- More visits for child’s somatic concerns, behavioral problems, injuries
- Less likely to implement preventive safety practices advised, or read to child

*Independent factor distinct from socioeconomic factors in predicting child behavior problems, developmental delay, and school problems*
Major long term impact on child

- 61% of children of parents with a major depressive disorder will develop a psychiatric disorder during childhood or adolescence.

- Offspring of depressed parent are 4 x more likely to develop an affective disorder than if non-depressed parent

- 40% chance of experiencing an episode of depression by age 20 and 60% by age 25
Understanding the elephant:

- Prevalence and risk factors
- Issues of post partum depression
- How depression affects parenting and the impact on the child
- Pediatric clinician roles in parental depression
Determining maternal depression

- DSM IV criteria for clinical depressive disorder

- Symptom levels
  - Usually determined with self report measures
    - number and duration of depression symptoms
  - Referred to as sub-threshold or minor depression
    - Most studies in pediatric literature use symptom measures
      - Depressive symptoms alone in adults are associated with impairment in work, home and social function
      - 10-25% will develop major depression within a year
Types of depression

Major Depressive Disorder (MDD), Dysthymia, Bipolar Depression, Post partum depression

DSM IV Criteria for MDD:
5 of 9 symptoms more than half the time in the past 2 weeks
and impaired daily function

DSM IV criteria for Dysthymia:
Less severe but more persistent;
Depressed or irritable mood most of day for the majority of the time with 2 other symptoms for at least 2 years

DSM IV Post partum Depression:
Onset in first 4 weeks, more common time frame first 3-6 months
Examples of depression screening

- Edinburgh Post Partum Depression scale
  - Specific to post partum issues
  - 10 items, scored about symptoms in past 7 days

- Depressive symptom check lists
  - Report on frequency of symptoms for past 2-4 weeks
  - Measures range 8 to 29 items

- Patient Health Questionnaire-2 items (PHQ-2)
  - 2 questions about anhedonia and mood
  - Same yield as longer screening measures
  - Developed from the PHQ-9 which gives DMS IV based diagnosis and can be used in follow up for PHQ-2 positive
Prevalence of parental depression

- Most studies explore only maternal depression
- Clinical Depression (Major Depressive Disorder)
  - 8% prevalence in mothers overall
  - Rates among men about half that of women
  - Prevalence of major depression in the 1st year of life not different than other women
  - not different than later in childhood
- Depressive symptoms are common
  - Community prevalence rates of minor depression
  - 20% in women, 10% in men during the parenting years
Mothers at greater risk for depressive symptoms

- Financial adversity: 2-3x higher
- Teen age mothers
- Single mothers: 2x higher
- Marital or Family difficulties present
- Mothers with medical illnesses; 2 x higher
- Children with chronic illnesses: 2-3x higher
- Mothers of young children
  - Postpartum: 10-20%
  - Toddler years: 2x higher
Post Partum Depression

- Peaks between 2 and 4 months
- Without treatment, 1/2-2/3 have improved by 6 months
- <1% with post partum psychosis
- 30% present with depression beginning during pregnancy
- Often presents as mixed anxiety/depression where anxious worried symptoms may predominantly be seen by health provider
Course of Postpartum Depression

- 24 month longitudinal study of 70 white married mothers who screened positive for PPD at 2 month
  - 56% had major depression, 33% probable depression, and 11% minor depression,
  - 24% still depressed at 1 year
  - 13% at 2 years

O’Hara 1994
Maternal Issues at 2 months

- 53% care difficulties; sleeping, feeding, crying issues
- 65% relationship issues; infant demand for attention, marital support
- Leads to guilt about the child, low self esteem and perceived incompetence as a parent.
Over 24 months

- 28% had intense but brief symptoms and recovered by 4 months and remained symptom free
- 18% had an episodic course where better in 2 months but recurrences of clinical symptoms
- 30% had a chronic course with varying levels of symptoms throughout
Three different forms of PPD

1) Post Partum Depression is one episode among several in mothers who have a past history of depression

2) High levels of socioeconomic stressors in population with high levels of existing depression with birth of child is one additional stressor

3) Transition to parenthood and burden of caring for the child act as specific destabilizing events.
Barriers to Treatment: Mothers

Beliefs:
- I’m a failure.
- I’m ashamed I can’t manage alone.
- I should be happy.
- I’m ashamed to be having these feelings (supposed to be joyful)
- I feel guilty and inadequate because I can’t relate to my baby
- The baby blues are just part of adapting to motherhood

Fears:
- The stigma of mental illness.
- Medication, both in relation to pregnancy and breastfeeding.
- Being diagnosed as ‘crazy’ and committed to a hospital.

Tendencies:
- Focus on the baby rather than the mother
- Overall reluctance to talk about mood symptoms
- May, instead, talk about panic attacks, hopelessness, obsessional thinking
Depression is a common problem in families seen by pediatricians. It plays a role in many of the clinical problems where families seek help. Adverse short and long term outcomes for children of depressed parents.

How does depression lead to these difficulties for the child?
Mechanisms contributing to the development of adverse child outcomes

*Role of both Nature and Nurture*

- **Genetic**
  - Family risk of mental illness
  - Temperament variations

- **Development of inadequate emotional regulation mechanisms**
  - Physiologic stresses
  - Inadequate emotional support

- **Interpersonal processes**
  - Maladaptive role models
  - Inadequate social emotional interaction
  - Chronic family stress
Neonates and Infants
Impact on neonates

- Limited attentiveness and responsiveness
- Fussiness and inconsolability
- Elevated stress hormones at birth (cortisol/norepinephrine)
  - Fetal increased stress hormones if Mom depressed prenatally
- Disorganized sleep patterns
- EEG changes

Field et al., 1992 to 1998
Depressed Mother’s Infant Interaction

Withdrawn
- Disengaged/ responded only to distressed infant 80% of time
- Infant first protests, attempts to engage, then over time withdraws

Intrusive and over stimulating
- Anger/irritation/rough handling 40% of the time
- Infant tries to avoid mother, fusses most of the time

Remember not all mothers show these behaviors in public
Young Child
Depressive Symptoms and Parenting

- Low levels of positive parenting behaviors and daily routines predicted by:
  - Depressive symptoms in mothers independent of socio-economic level
  - Socio-economic level of fathers, not depression

- Negative conflict/limit setting behaviors predicted by:
  - Depressive symptoms for both parents
  - Little influence of socio-economic level

Survey of 1320 mothers and 697 fathers of children under age 3, Lyons- Ruth 2002
Interaction of parenting and depression leading to child problems

Maladaptive Interaction Patterns in Family of Origin

Parental Maladaptive Interaction Patterns

Child Attachment

Parental depression

Other parental Diagnoses

Child Depression

Other child diagnoses
Young Child responses to parenting

Hostile parenting

Disorganized, upset (insecure)

Controlling by punitive behaviors

Depression

Stressful events

Helpless parenting

Seeks but receives inconsistent response

Controlling by “care giving” behaviors
“Your mother and I are feeling overwhelmed so you’ll have to bring yourself up”
Older Child and Adolescent
Parental Depression results in chronic stressors for the child

- Increased marital conflict
- Pattern of parenting that is negative, inconsistent, unpredictable and unsupportive
  - More irritable and hostile in child interactions
  - Worried and overly intrusive in child’s activities
  - Withdrawn and unresponsive
- Child’s peer conflict and academic problems

Compas et al. 2002
Helping Mom helps the child

- Australian study shows helping with infant sleep disorders decreases maternal depressive symptoms

- Increasing social supports in young mothers pre and postnatally decreases depressive symptoms

- Children’s behavior improves when mother treated successfully with medication
Depressive disorders include major depressive disorder, dysthymia, depressive disorder not otherwise specified, adjustment disorder with depressed mood, and with mixed anxiety and depressed mood. Anxiety disorders include specific phobia, separation anxiety disorder, social phobia, generalized anxiety disorder; obsessive-compulsive disorder; and anxiety disorder not otherwise specified. Disruptive behavior disorders include attention deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder.
A Change in Child Diagnoses

Percentage Change in Rates of Diagnosis

Maternal Response Level, %

<0 (n = 12) 0-24 (n = 16) 25-49 (n = 33) 50-74 (n = 27) ≥75 (n = 26)
B. Change in Child Internalizing Symptoms

![Graph showing change in severity of internalizing symptoms.](image)

- Change in Severity of Internalizing Symptoms, Mean
- Maternal Response Level, %

- <0 (n = 12)
- 0-24 (n = 16)
- 25-49 (n = 33)
- 50-74 (n = 27)
- ≥75 (n = 26)
C Change in Child Externalizing Symptoms

![Graph showing change in severity of externalizing symptoms by maternal response level.](image)

- Change in Severity of Externalizing Symptoms, Mean
- Maternal Response Level, %
- <0 (n = 12), 0-24 (n = 16), 25-49 (n = 33), 50-74 (n = 27), ≥75 (n = 26)
Depressed Mother

Risk

Moderators
- Father
  - Availability
  - Mental health
- Timing and Course of Mother’s Depression
- Characteristics of the Child
  - Temperament
  - Gender
  - Intellectual and Social-Cognitive Skills

Mechanisms
- Heritability of Depression
- Innate Dysfunctional Neuroregulatory Mechanisms
- Exposure to Mother’s Negative and/or Maladaptive Cognitions, Behaviors, and Affect
- Exposure to Stressful Environment

Vulnerabilities
- Psychological Dysfunction
  - Skills Deficits or Maladaptive Styles or Behavioral Tendencies
    - Cognitive
    - Affective
    - Behavioral or Interpersonal

Outcome
- Childhood or Adolescent Depression
- Other Disorders
Current and Potential Provider Roles with Parental Depression
Challenges for clinicians in detecting depression

Only the most severe, chronically depressed are detected in routine encounters, even with psychologist

Up to half of mothers may not realize their discouragement, irritability, fatigue are depression

Mothers commonly conceal depression out of the home where they may rally the resources to function with other adults.

Irritability, hostility and withdrawn behavior occurs most within the family
How pediatricians determine if the parent is depressed?

- 8% routinely ask about depressive symptoms
- 81% rely on mother’s behavior, appearance or complaints

How effective is this approach?
37% detect documented depression during the clinical visit
Only 50% of those who screen positive observed to have a depressed affect

Olson, Pediatrics, 2002
Henneghan, Pediatrics, 1998
What can a pediatric clinician do?
Developing better ways to detect and respond

- US Preventive Services Task Force recently recommended all adults be screened routinely for depression with 2 questions

- With practicing pediatricians* we developed a paper based format to screen at well child visits
  - Office environment, education and referrals

- Conducted 3 clinical trials in screening parents at well child visits in 4-7 practices
  - Trial 1: 250 mothers with interview based screening compared with 232 mothers with paper based screen
  - Trial 2: 848 mothers with paper based screen for 1 month
  - Trial 3: Ongoing screening at all well visits for 6 months (9,000+ visits)

*Clinicians Enhancing Child Health, Dartmouth’s practice based research network
Paper Based Maternal Depression Screening

- Brief, but needs to be given in exam room for confidentiality
- Adults more likely to respond to depression screening with paper or other neutral methods
- Requires an organized office to implement and maintain screening
- Need to discuss responses
Depression is a common but treatable illness in parents. Many people who suffer from depression don’t realize they have a medical disease and could benefit from treatment.

The US Preventive Services Task Force recently recommended that all adults be checked for depression when they see a doctor. The Task Force is considered the authority of preventive health care and we believe it wise to follow their advice.

Parents of children who are cared for in this practice may see us more often than any other health care provider. If a parent is depressed, the child is affected and does better if that parent gets help.

For this reason, please take a minute to respond to the 2 questions below and we will look at your responses during the visit.

Over the past two weeks, have you felt down, depressed or hopeless? Y/N

Over the past two weeks, have you felt little interest or pleasure in doing things? Y/N

For each question then asked if yes, have felt this way for __ (1)several days, __ (2)more than half the days, __ (3)nearly every day
In the first 2 trials practice prepared to respond when screening is positive

- Developed their options for follow up
  - schedule second visit or MD call
  - local adult primary care and mental health referral sources
  - nurse or social worker follow up as available

- Handouts
  - Self help for depression handouts
  - information about depression

- Local resources
  - parenting support resources
  - Postpartum depression supports
3rd large scale feasibility trial addition supports in place

- Option of referral to central triage/referral assistance 800 number
  - Not well utilized when moms had to call (5%)
  - Changed to pro-active calling mom used then by 25%

- Handouts
  - Parenting when times are tough
    - Parenting suggestions to help child do well while parent depressed
  - Stress and parenting

- Office posters/ staff education
What we have learned in our first screening trials

- Depression screening positives twice as high when asked on paper screener, not interview
  - Mothers of children under age 1 much less likely by interview
  - Providers missed half the mothers by their overall assessment
  - Screening was well received by parents

- Practices able to conduct screening in 75% of all well child visits

- Discussion with parents revealed family information helpful to the care of child
  - Family stresses, parental mental health treatment, child related issues
## Maternal Depression Screening

<table>
<thead>
<tr>
<th>Symptom</th>
<th>1 month (n=848)</th>
<th>6 months (n=703)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt down, depressed or hopeless</td>
<td>17.1%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Little interest or pleasure in doing things</td>
<td>9.2%</td>
<td>10%</td>
</tr>
<tr>
<td>Either symptom present</td>
<td>18.3% (155)</td>
<td>15.4% (108)</td>
</tr>
<tr>
<td>Screen positive (scores 3-6)</td>
<td>6.1% (52)</td>
<td>6% (42)</td>
</tr>
</tbody>
</table>

P values: all NS, between 2 trials
Clinician time in discussion of screening with all mothers

<table>
<thead>
<tr>
<th>Discussion Time</th>
<th>1 month</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>No discussion</td>
<td>85%</td>
<td>90.5%</td>
</tr>
<tr>
<td>&lt;3 minutes</td>
<td>31%*</td>
<td>21.5%*</td>
</tr>
<tr>
<td>3-5 minutes</td>
<td>11%*</td>
<td>4.7%*</td>
</tr>
<tr>
<td>5-10 minutes</td>
<td>2.6%*</td>
<td>3.4%*</td>
</tr>
<tr>
<td>&gt;10 minutes</td>
<td>1.4%*</td>
<td>1.4%*</td>
</tr>
</tbody>
</table>

* P<.001.
### Maternal responses to screening

<table>
<thead>
<tr>
<th></th>
<th>Low level symptoms (score 1-2) (n=152)</th>
<th>Screen positive (score 3-6) (n=79)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feels stressed not depressed</td>
<td>34.2%</td>
<td>26.6%</td>
</tr>
<tr>
<td>Feels might be depressed but not willing to pursue now</td>
<td>8.6%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Feels might be depressed and willing to take action*</td>
<td>20.4%*</td>
<td>44.3%*</td>
</tr>
<tr>
<td>History of mood disorder, not currently on treatment</td>
<td>9.9%</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

*P<.001
## Provider clinical actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Low level symptoms (score 1-2)</th>
<th>Screen positive (score 3-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussed impact on the child</td>
<td>28.5%</td>
<td>45.6%</td>
</tr>
<tr>
<td>Referral to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s PCP or Mental Health or Community supports</td>
<td>21.9% *</td>
<td>40.4% *</td>
</tr>
<tr>
<td>Follow up phone call planned</td>
<td>7.3% *</td>
<td>13.9 % *</td>
</tr>
<tr>
<td>Any of the above Actions</td>
<td>42% *</td>
<td>64.9% *</td>
</tr>
</tbody>
</table>

*P < .001
Summary

- One in six mothers had depressive symptoms and one in sixteen screened at high risk for clinical depressive disorder in community practice.

- Pediatric providers were willing to screen consistently and discuss the screening. The time required was rarely lengthy.

- Screening process appears to initiate a discussion that leads to referral of mothers at different symptom levels who feel they might be depressed.

- As a result of discussion with mothers pediatricians took a clinical action with the majority of mothers who screened positive and nearly half of mothers with lesser symptoms.
Can one fit depression screening into the well child visit?

Clinician’s choice between time involved and the value or benefit for the child
What practices say about feasibility

Time
- Did not result in prolonged discussions
- More efficient because prepared with knowledge of depression resources
- Parenting issues already part of care
- Role not to diagnose or solve problem that day
- Discussion time not seen as a barrier

Value
- Gratifying to help, appreciated by parent
- Other efforts with child’s problems not effective unless tend to parental depression
- Early interventions: able to help validate as parent, enlisting support, being available
- Preventive mental health care for the child
Options to Improve Recognition

- Increased vigilance by providers
  - Child presentations
  - Parents at increased risk
- Specific inquiry during interviews
- Paper based screening
- Improve parental self awareness of symptoms through education
Usual Care

Respond to
- Parent requests
- Obvious need

Recommend
Parent seek
mental health care

Enhanced Care

Improved Recognition

Explore severity/child impact
Engage/motivate parent
to get help

Refer for evaluation/ rx
Ongoing parenting support
Intervene to help child
How to have a system that can screen and respond

Be clear what provider/practice role is:

- Increase parental awareness of symptoms of depression and their impact on their child
- Motivate parent to seek assistance to determine if depressed
- Help parent be a more effective parent when depressed
- Assist with problems related to with depression
  - Sleep problems in the child
  - Child behavior problems
- Activate their support system
- Refer to mental health resources, parent primary care provider, community support programs
- ROLE NOT TO DIAGNOSE DEPRESSION
Implementation Issues learned

Need to obtain BUY-IN at 3 levels to implement an office system
   A physician practice leader, champion
   Other physicians, nurse practitioners
   Supervisor of nurses, medical assistants

Practice needs to determine local resources and supports for referral for adult mental health and parent support before
   Pediatricians more likely to use resources that are personally known, not distant or anonymous.
Pediatric Clinician’s Guide: Steps to Parental Depression Screening

**Assess**
Conduct brief parental depression screening at well child visits
Score to determine if risk for major depression

**Address**
Discuss screening results and the possibility of depression
Explain the impact of parental mood on children.

**Agree**
Doctor and parent jointly agree on what to do next.

**Assist & Arrange**
Assist with child developmental/behavioral issues when needed
Provide parent with educational materials.
Provide referrals to community resources and other providers

**Address Again**
Follow up at next pediatric visit or sooner if needed
Conclusions

Both clinical depression and depressive symptoms are common in Mothers

Impaired parenting is an important issue with short and long term adverse outcomes for the children of depressed parents

Pediatric clinicians are the professionals who have the most contact with parents and children

Pediatric clinicians are in a unique position to recognize, respond and intervene
Every mom has bad days

But as one Mom said,

“Maternal Depression is when the bad day comes to your house and doesn’t leave”
Screening with interview format

1- How are things at home?

2- What recent stresses or changes have there been in your family?

3- How has your mood been?
   Ask 3A only if concerns with #3:
   
   3A- In the past couple of weeks, have you been in a depressed mood most of the time?

4- Have you been able to enjoy things most of the time?
   Ask 4A only if concerns with #4:
   
   4A- During the past month, have you often had little interest or pleasure in doing things?