

Depression in Families: Treating Mothers, Helping Children

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Is Depression Inherited?

OPINION

BY DAPHNE MERKIN
The author of a forthcoming memoir on living with depression.

SOME of my happiest moments have been spent as a mother. I say this despite being a constitutionally unhappy person who has fought all her life against an encroaching darkness — and not always successfully. Those moments stretch back decades — to, say, summer mornings in a rented cottage on Block Island, when I, an inveterate late sleeper, would be awakened shortly past dawn by my 10-month-old daughter, Zoë, standing up in her crib, cheerfully gurgling at me, raring to begin the day. And they are as recent as last week when Zoë, now 22, and I engaged in one of our long analytical talks about the movie we had just watched, and I was struck by the ways in which her mind works differently from mine and by certain perceptual habits we have in common.

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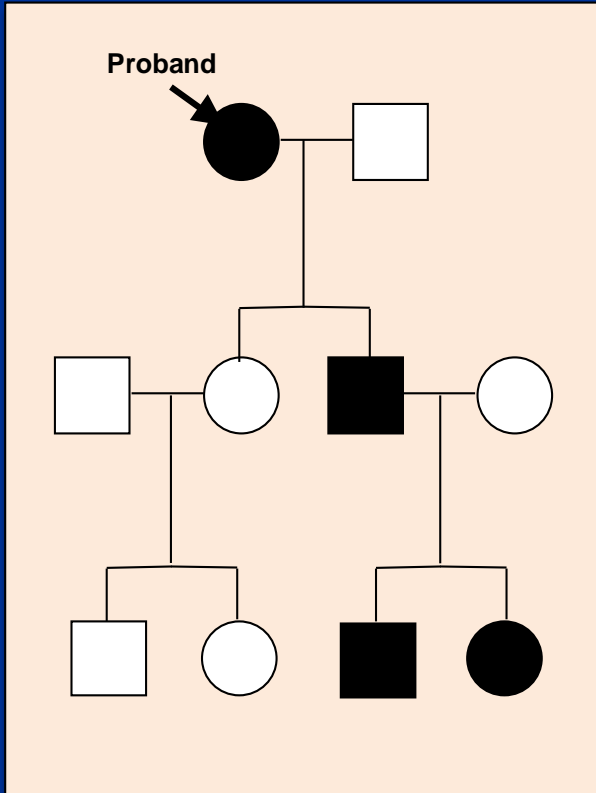
but I feel intensely guilty to assume that she modeled her conversation she had overheard from my periods of depressive suicidal wishes and sink into virtual immobility. I have been thinking about comedian Sarah Silverman, who didn't want to have a child out of fear of passing on her depression (Ms. Silverman's trepidation taken seriously), I think it is assigned to genetic depression, a phenomenon, one that has swung in the natural course of the 1950s and '60s of environmental factors to such handy but "genetic" mother and daughter mothers caused our brains work differently. Where once we

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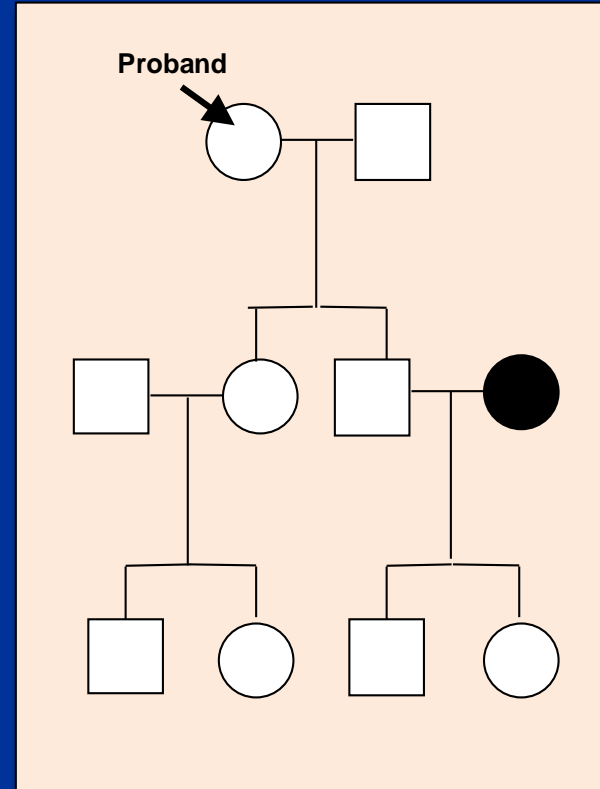
now fear the So how

- Depression runs in families
- Mother's remission helps her children
- Personalized treatment for depression
 - to predict early remission based on patient's individual characteristics

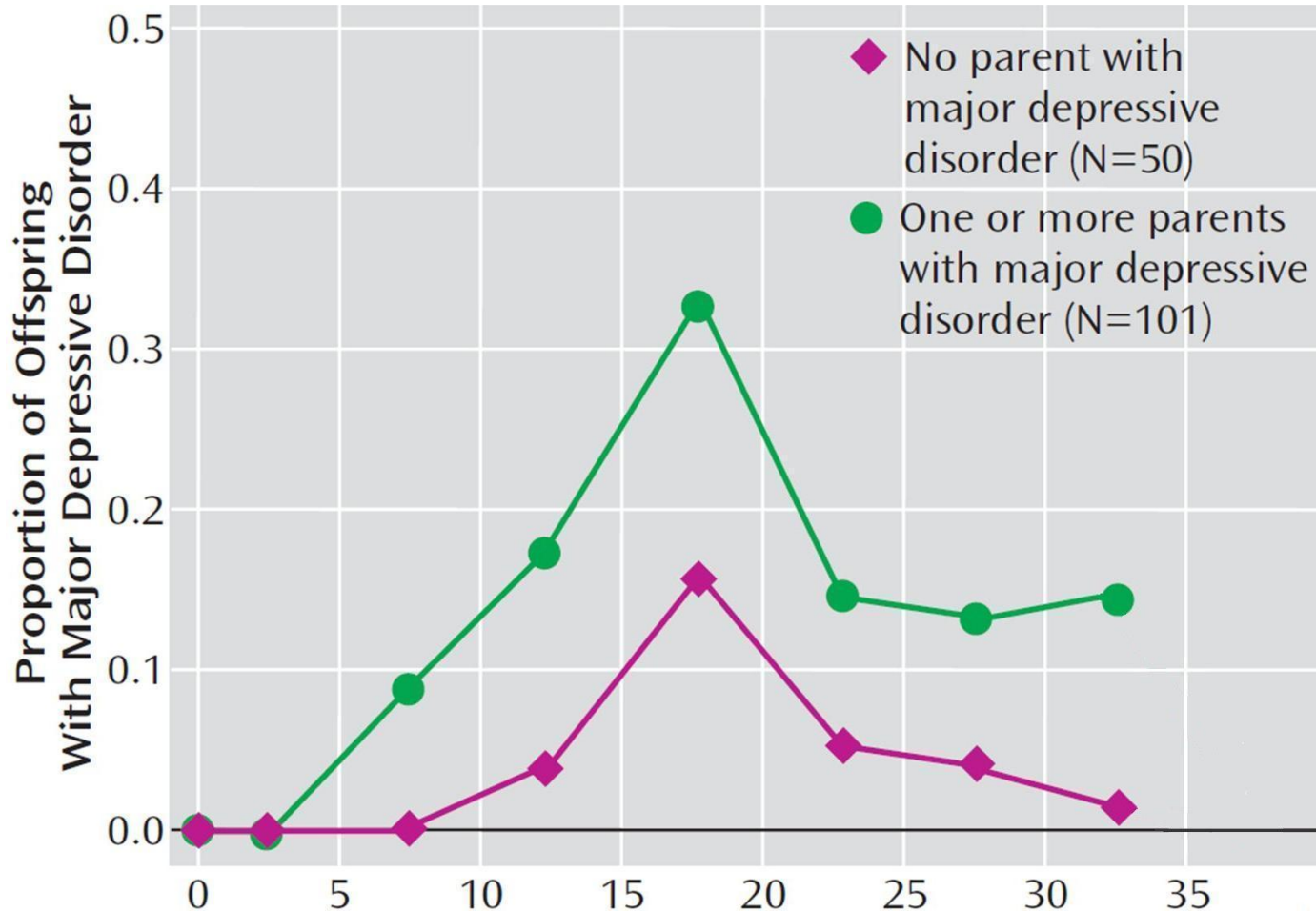
High Risk Families



Low Risk Families



Major Depression in 2nd Generation (G2) Offspring of Depressed and Non-depressed Probands (G1)



Mood Disorder in Grandchildren (G3), by MDD Status of Grandparents (G1) and Parents (G2)

Depression Status

Low Risk

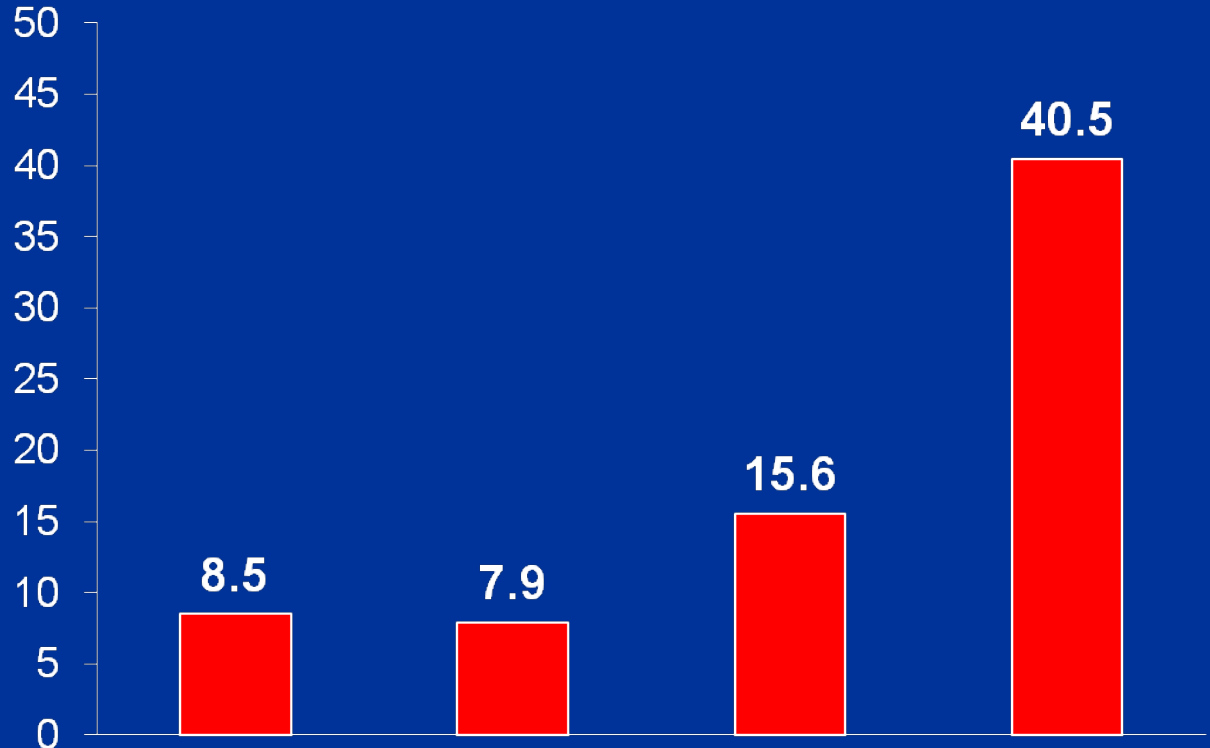
High Risk

Grandparent ▶

Parent ▶

Grandchild ▶

Rate Per 100



Consistent Across 3 Generations

- 2- to 6-fold increased risk of depression
- Anxiety is the first presentation in childhood
- Substance abuse increased in adulthood
- 40% of grandchildren with a depressed parent and grandparent have a depression by adolescence
- Parents, now in their 50s, have increased risk of cardiovascular problems

- While numerous studies show that children of depressed mothers have more psychiatric disorders than children of non-depressed mothers...
- We don't know what happens to these children when their mothers' depression remits
 - Do children benefit from a remission of their mother's remission?

Rationale for Intervention

- Depression is a complex genetic disorder. Onset and recurrence is precipitated by stress in vulnerable persons.
- A depressed parent is a stressful event in a vulnerable child.
- Do children benefit from a remission in their parents' depression? (a modifiable risk)
- We designed a study to treat the depressed parent and follow their children.

Study Design

STAR*D

Mothers



Treated for Depression



Mothers' Outcomes

(7 sites)

STAR*D-CHILD

Their Children



Followed over Time



Child Outcomes*

*Assessed by clinicians not providing mother's treatment and blind to mother's clinical outcome

Maternal Treatment

- Mothers received treatment as part of STAR*D (Sequenced Treatment Alternatives for the Relief of Depression), conducted in 14 sites across the U.S.
- Purpose: To understand what to do next if the first treatment does not produce a remission

STAR*D Child

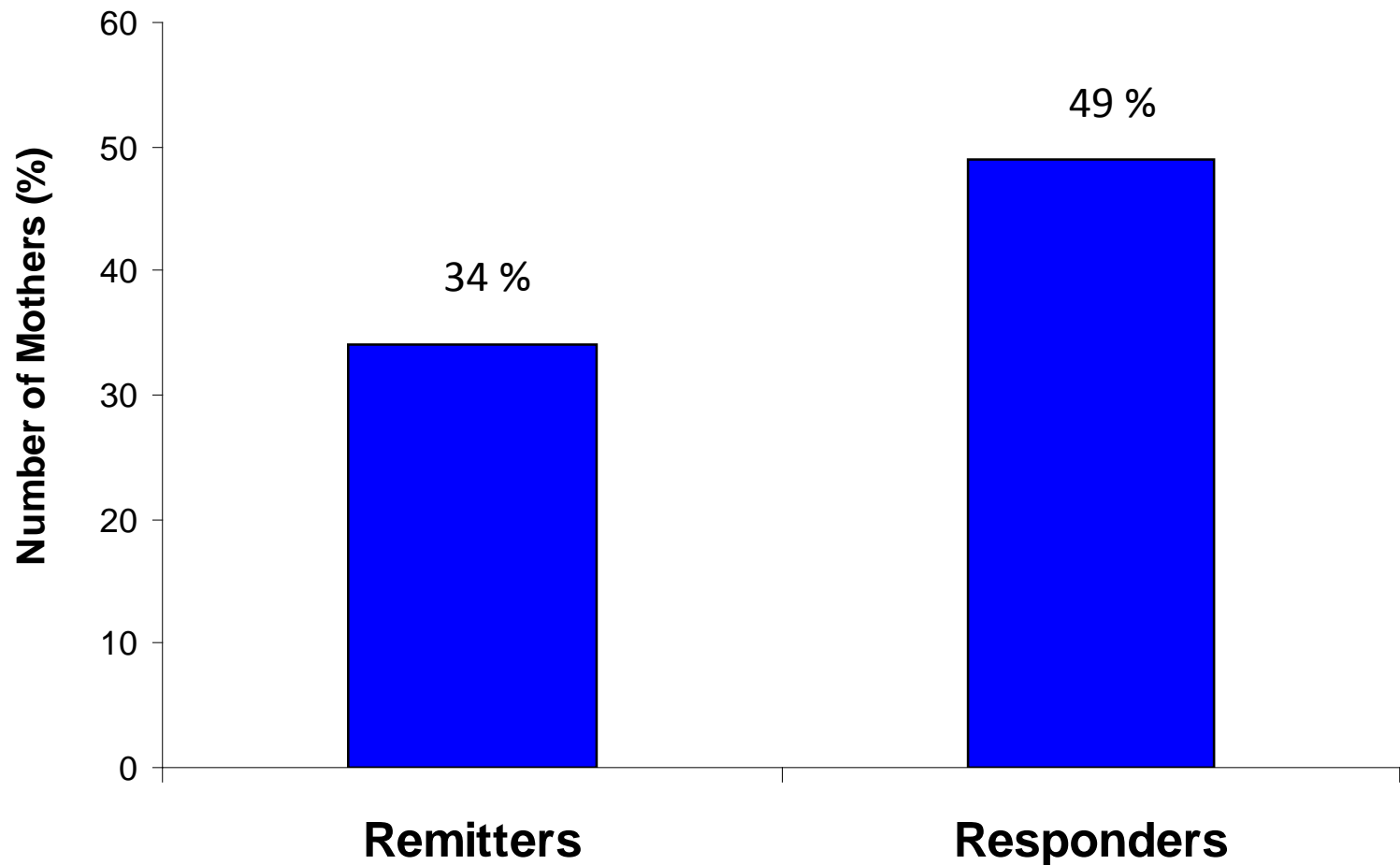
- Goal
 - Study the impact of improvement in mothers' depression on children's psychiatric diagnoses, symptoms, and functioning
- Study design
 - Recruit mothers with current MDD
 - Treat maternal MDD
 - Assess children before mothers are treated and follow them up for a year after maternal depression remission

At Study Entrance

- 1 / 3 of the children were currently ill with a psychiatric disorder
- 1 / 2 had a lifetime history of a psychiatric disorder

Three Months After Initiation of Mothers' Treatment...

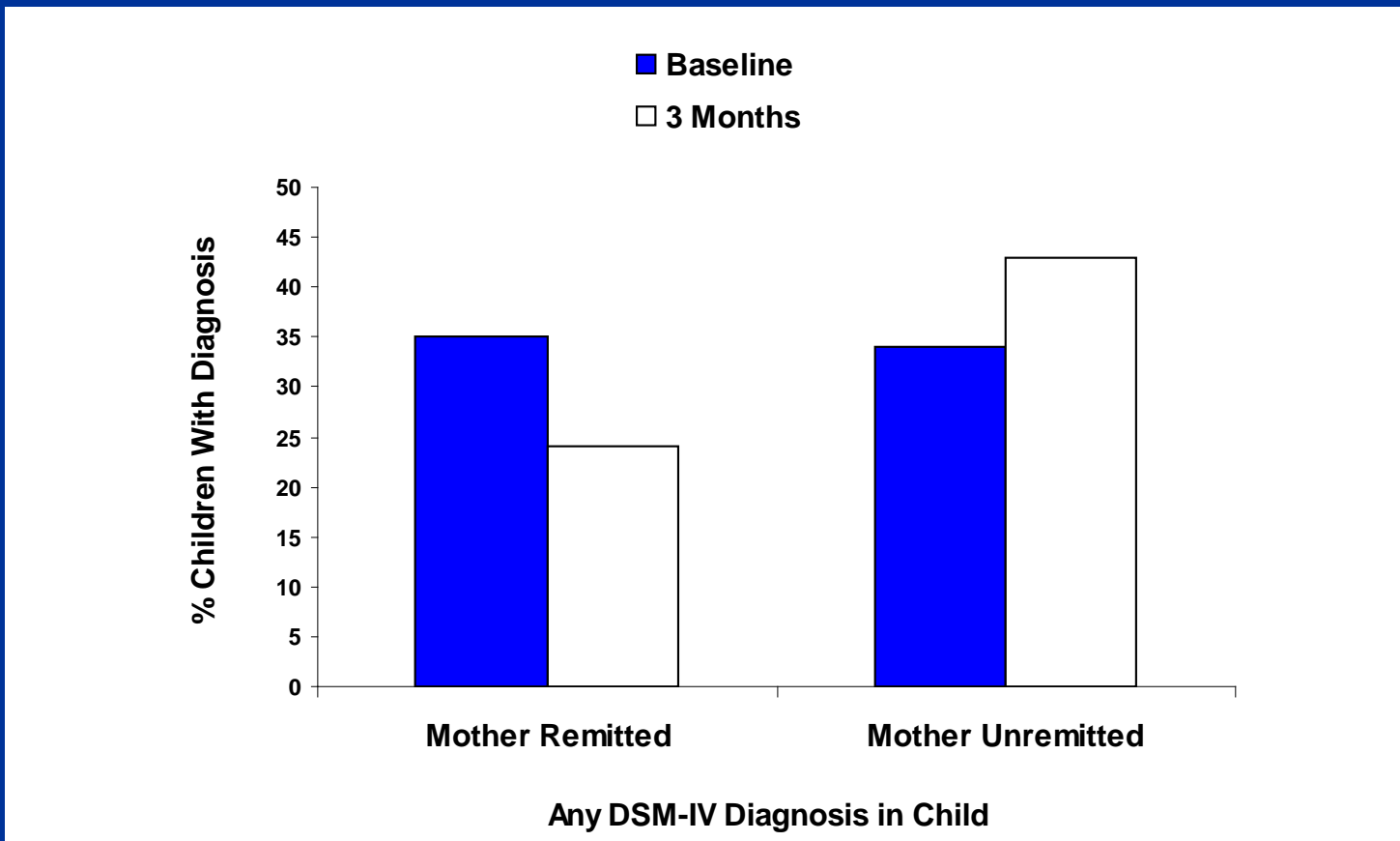
Mothers' Remission and Response at 3 Months



Change in Child Diagnoses by Mother's Remission

- If mother remitted:
 - 11% overall decrease in children's diagnoses
- If mother did not remit:
 - 8% overall increase in children's diagnoses

Change in Child Diagnoses by Mother's Remission



- Of children with a diagnosis at baseline:
 - If mother remitted, 33% of children got better
 - If mother did not remit, 12% of children got better

- Of children without a diagnosis at baseline:
 - If mother remitted, ALL children remained well
 - If mother did not remit, 17% of children developed a diagnosis

HEALTH JOURNAL | MAY 17, 2011

Helping Kids Beat Depression... by Treating Mom

By MELINDA BECK



Treating moms for depression has a significant impact on the mental health of their children, according to a new study. Kelsey Hubbard talks with WSJ's Melinda Beck about the findings showing children get better along with their mother's successful treatment of the disease.

Successfully treating a mother with depression isn't just good for the mom; it also can provide long-lasting benefits for her children's mental health, new research shows.

One-Year Follow-up

Change in Child Symptoms by Maternal Remission Status

Maternal Remission	Child Assessment Period					P*
	Baseline	3 mos.	6 mos.	9 mos.	12 mos.	
EARLY REMISSION	6.3	4.7	3.8	3.6	3.3	< .0001
LATE REMISSION	7.6	7.0	7.0	5.1	5.4	.0497
NON-REMITTED	6.6	5.9	5.9	5.9	7.0	.64
<i>(REMISSION STATUS X TIME) INTERACTION:</i>						.01

*P-level for linear time trend after adjusting for child's age, gender and annual household income.

- Children of early remitters: Significant ↓ in DSM-IV symptoms
- Children of non-remitters: No significant change in DSM-IV symptoms
- Children of late remitters: Intermediate outcomes

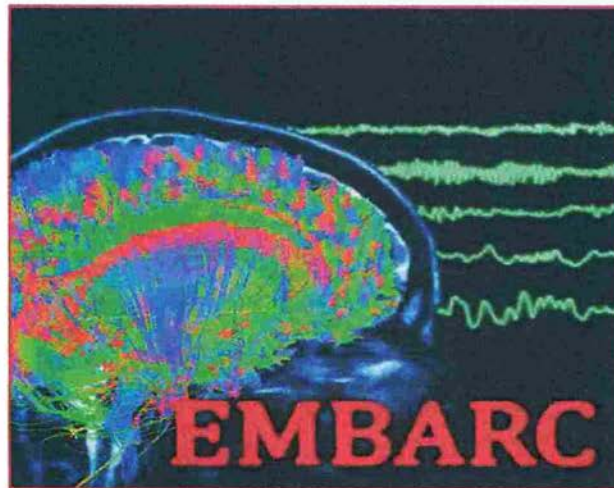
Summary

- Overall decrease in child symptoms over the course of the 12-month follow-up
- Child's improvement significantly associated with mother's remission status
- Children of mothers who remitted had a greater reduction in their own psychiatric symptoms
- Children of mothers who remitted in the first 3 or 6 months (early remitters) had the most positive outcomes

- Antidepressants or psychotherapy are, on average, more effective than placebos or no treatment BUT individual response to specific treatment varies widely
- STAR*D found that only ½ of patients went into remission after 3 months of treatment, and only 50–60% were in remission after a year of varying the treatments
- Clinicians cannot easily predict which evidence-based treatment will work for a given individual

- Personalized treatment is the delivery of health care tailored to a unique individual based on his/her characteristics rather than information about what works for groups of individuals
- Develop a panel of tests that together create a unique biosignature that can predict response
- Reduce “hit or miss” choice of evidence-based treatment

Establishing
Moderators and



Biosignatures of
Antidepressant
Response in
Clinical care

- **New York:**
Columbia University, 212-543-5734
- **Boston:**
Mass General Hospital, 617-726-0517
- **Dallas:**
Southwestern University, 214-648-4357
- **Detroit:**
University of Michigan, 877-864-3637

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