

Double Down: The Interactive Risks of Prematurity and Parental Stress on Infant Development

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Risks of prematurity for infants

- ✦ Range of developmental problems
 - ◆ Cognitive
 - ◆ Motor
 - ◆ Emotional self-regulation
- ✦ These risks are well understood and widely accepted
- ✦ These differences remain at least into adolescence (Allin et al 2001)
- ✦ Are all these differences just due to prematurity?

Risks of maternal postpartum depression for infants

✦ A range of cognitive, emotional and behavioral effects:

- ◆ Decreased maternal sensitivity to infants needs (Murray and Cooper, 1997)
- ◆ Behavior problems in children (Cummings and Davies, 1994)
- ◆ Reduced cognitive ability and emotional development long term (Beck, C.T. 1998)
- ◆ Poor attachment, more negative maternal responses, etc.
- ◆ Greater risk for abuse and neglect

Maternal prenatal stress as a risk factor for infants

✦ A range of well controlled studies show that maternal stress is positively correlated with risk of preterm labor and low birth weight (e.g. Zambrana et. al. 1999)

✦ Maternal prenatal stress also directly affects fetal development.

- ◆ Stress hormones (e.g. cortisol) are released and affect fetal brain development (Weinstock, 2001)

Risks of prematurity for parents

- ✦ Mothers of preterms tend to be less involved with infants (DiVitto and Goldberg, 1979)
- ✦ Families report significant stress because of prematurity (Macey et. al 1987)
- ✦ A substantial majority of mothers feel the birth of their premature infant negatively impacted the family

Risks of prematurity for parents (cont)

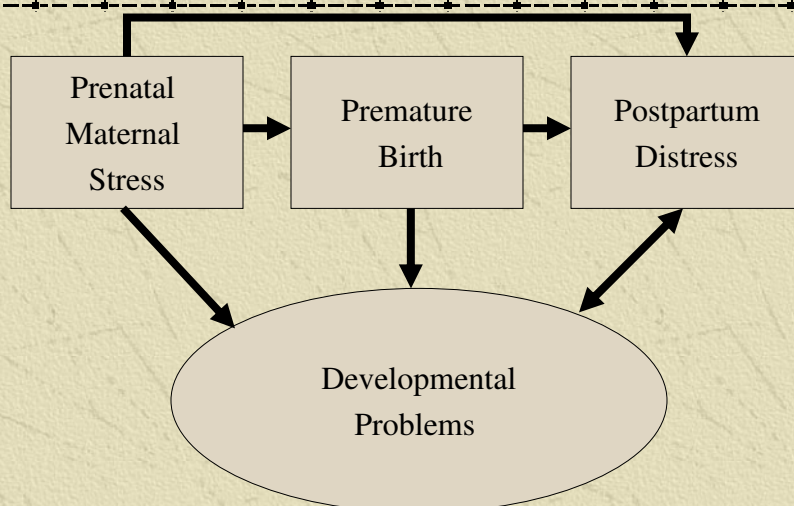
- ✦ As many as 78% of mothers of premature infants have clinically significant psychological distress (Davis et.al., 2003)
 - ◆ Post-partum depression typically affects roughly 15% of new mothers
- ✦ Similarly, fathers of high risk NICU babies report significantly less positive adaptation and more need for external support than fathers of typical, infants (Rautava et al 2003)

Risks of prematurity for parents (cont)

✦ Anecdotal reports from Joe DiMaggio NICU support program and nursing staff at Joe DiMaggio Hospital suggest:

- High parental conflict
- High rates of divorce
- Abandonment by fathers
- Financial stress on families
- Long term adjustment problems for parents

The Perfect Storm...



The Experience of Families in the Neonatal Intensive Care Unit (NICU)



Ante-partum stressors

- ✦ Substantial portion of mothers on bedrest
 - ◆ Both anxiety provoking and disabling
 - ◆ “Do nothing, or your baby may die.”
 - ◆ Medications often increase agitation
- ✦ Intermittent hospitalizations and crises
- ✦ Increasing financial stress on family
- ✦ Health concerns for mother (preeclampsia, toxemia, etc.)

The trauma of NICU entry

- ✦ Always a negative event for the family, even when expected
- ✦ Broken expectations of birth experience
 - ◆ Separation from baby
 - ◆ Baby's appearance and behavior
 - ◆ Being unable to hold or breastfeed baby
 - ◆ Others caring for the baby

Initial adjustment to NICU

- ✦ Camping in the NICU
 - ◆ Preparing for months in the hospital
 - ◆ Meeting the staff
 - ◆ Meeting other parents
 - ◆ Seeing the other babies
- ✦ “Will my baby die?”
 - ◆ How much to attach to high risk baby
 - ◆ How to stay with baby and maintain household
- ✦ “Will my baby be disabled?”
 - ◆ Never a clear answer

The long wait

- ✦ Pressure to return to work
 - ◆ Especially for those on previous bedrest
- ✦ Mounting medical bills
 - ◆ Fears about long term care needs for disabled child
- ✦ Mother may have own medical problems
 - ◆ C-section, recovery from preeclampsia, exacerbation of pre-existing conditions that lead to prematurity
 - ◆ Postpartum depression sets in....

The long wait (cont)

- ✦ Maternal guilt
 - ◆ If only... better prenatal care, health, stress, worked less, etc.
- ✦ Marital conflict
 - ◆ Financial, household, childcare, etc.
- ✦ Social isolation
 - ◆ Family in NICU where others cannot easily visit
- ✦ Traditions broken
 - ◆ Christening, bris, etc.
- ✦ Up and down course for baby is the norm

The long wait

✦ Facing death in the NICU

- ◆ Other babies WILL die around you if you are there long enough
- ◆ Mother's of multiples may have one die and others live

✦ Removal of life support

- ◆ Ultimate dilemma parents are faced with
- ◆ Overwhelmingly choose to continue even when faced with likelihood of severe outcome

The return home

✦ Fears about inability to care for baby

- ◆ Managing healthcare procedures/equipment
- ◆ Normal new parent fears in the context of high risk infant ("Is that cry really ok?")

✦ Many healthcare appointments

- ◆ Still no return to work

✦ Waiting for the developmental delays to appear...

- ◆ Comparisons to other babies

Conclusions

- ✦ Prematurity represents a unique constellation of biological **and** psychosocial factors that present a synergistic risk to infants and their families
- ✦ While much attention has been paid to intervening with the biological aspects of this risk, much less effort has been made to address the psychosocial factors.

Conclusions...

- ✦ Psychosocial interventions are needed for at risk parents and infants at a variety of points in the preterm birth process
 - ◆ To mothers (and couples) experiencing high risk pregnancy or preterm labor
 - ◆ To families of premature infants in the NICU
 - ◆ And to families upon their return home
- ✦ At minimum, mental health support should become a basic part of NICU services

Conclusions....

✦ Types of NICU mental health services needed....

- ◆ 1:1 mental health counseling for specific parents
- ◆ Bereavement counseling
- ◆ Counseling through specific medical choices
 - e.g. Termination of life support
- ◆ Father support and engagement in NICU programs
- ◆ Short term couples counseling through transition
- ◆ Parent to parent support
- ◆ Support for nursing staff in NICU
 - Work can be traumatizing and parent/staff conflict common

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