The Impact of Stress and Poverty on Pregnant Women & Children: How Community-Based Doulas Make A Difference

I hear those voices that will not be drowned

Christine H. Morton, PhD
Mother Friendly Childbirth Initiative Symposium, Los Angeles, CA
October 14-15, 2015

Scallop, 2003
Maggi Hambling
Objectives

#1. (20 minutes) Describe how stress and poverty among pregnant women contribute to chronic physical conditions in the mothers as well as their children.

#2. (20) Identify the evidence to support the use of community-based doulas to the stressors contributing to poor maternal and infant outcomes (i.e. hypertension, gestational diabetes, prematurity, perinatal mortality).

#3. (20 minutes) Compare the patient navigator model with the current community-based doula framework and how each has been incorporated into public health and hospital-based care.
Experts I learn from

- Jennie Joseph, CommonSense Childbirth
- Paula Braveman, UCSF
- Tyan Parker Dominguez, USC
- HealthConnect One
- Dorothy Roberts, Legal scholar
- Black Women Birthing Justice
- Shafia M. Monroe
- Elizabeth Dawes Gay
- Louise Roth, U Arizona
- Choices in Childbirth NYC
- And many more!!
Stress, Poverty, Race & Birth Outcomes

Poverty

Stress

Racism-Related vigilance

Poor Birth Outcomes

Maternal health

Infant Child health

Doula Care
Causes of Racial-Ethnic Disparities in Infant Mortality

- Low birth-weight (LBW) and pre-term births
  - >2* more Black than White non-Hispanic infants

- Very low birth-weight (VLBW) and very preterm births
  - >3* more Black than White non-Hispanic infants

- Low Breastfeeding Rates
  - 58.9% Black infants ever breastfed in 2008, compared to 75.2% among Whites and 80.0% among Hispanics
Poverty, Stress and Pregnancy

- **POVERTY** – difficult to measure; political differences

- 2013 federal poverty threshold (FPT)
  - $23,624 for a family of four with two children
  - $18,751 for a family of three with one child
  - $16,057 for a family of two with one child

- Socioeconomic status (SES) often a proxy for poverty
  - Educational level; Income; Occupation; Housing condition

- Lower SES generally associated with poorer health outcomes
Child Poverty in the U.S.

- 22% of all children – more than 16 million – live in families that are considered officially poor
- Children < 18 are 23% of the population but 33% of all people in poverty
- Children < 6 very vulnerable; 48% living in low-income and 25% living in poor families
- Over half of poor children lived in households headed by women

Figure 1: Children under 6 years old by family income, 2013

© National Center for Children in Poverty (www.nccp.org)
Basic Facts about Low-Income Children: Children under 6 Years, 2013
Maternal Poverty in the U.S.

- Poverty is a women’s issue
- Pregnant women covered by Medicaid increased from 40% in 2008 to nearly 50% in 2010
  - Single mothers – poverty rate 40% (vs. 22% single dads)
  - Black women – poverty rate 28.6% (vs. 10.8% for white women)

Source: Census Bureau, Current Population Survey
Medicaid-Covered Births, 2010

Percent of Births Financed by Medicaid, 2010

CA = 47.6%
Poverty & stress impacts pregnancy & childhood

- Prenatal nutrition shapes health in childhood and adulthood

- Stressful experiences in pregnancy can lead to preterm birth or low birth rate AND impact other children in the household

- Children in adverse psychosocial environments are at elevated risk for serious cognitive, emotional, behavioral, and physical problems in childhood, adolescence, and adulthood

Poverty, Near-Poverty, and Hardship Around the Time of Pregnancy
How many pregnant women are poor and experience hardships?

- Study to assess income distributions and prevalence of major stressors around the time of pregnancy in different income groups

- Over half (53%) of postpartum women reported low incomes during pregnancy; nearly 34% were poor and 20% were near-poor.

- Lower-income postpartum women more likely to be
  - Black or Hispanic, HS education or less, Teens, Unmarried and Mothers already

- 43% of CA women reported at least one hardship: unpaid bills, job loss, separation/divorce, economic, food insecurity, lack of practical or emotional support (13-20%)
  - 65% of lower- vs. 13% of higher-income women

Poverty, Near-Poverty, and Hardship Around the Time of Pregnancy
Low Income and Hardships among Pregnant Women

- 10-40% women experienced
  - Inability to pay bills
  - Involuntary job loss (woman or partner)
  - Divorce or separation

- Nearly 33% of Californian, and 20% of US women were food insecure by USDA criteria

- Approximately 150,000 pregnant women are homeless each year

- Over 800,000 pregnant women experience food insecurity
Poverty + Stress + Pregnancy ≠ Healthy Birth Outcomes

- Pathways to poor birth outcomes
  - Inadequate nutrition, housing, or other health-related material conditions
  - Exposure to stressful conditions with fewer resources to cope.
  - Physiological mechanisms including neuroendocrine, immune, and vascular responses to stressors.
  - Lack of practical or emotional social support
Poverty, Stress and Pregnancy

- **MULTIDIMENSIONAL CONSTRUCT**

- Person – environment transactions involving exposure to a stressor, one’s perception of how threatening and unmanageable the stressor is, and emotional, behavioral, and physiological responses commensurate with that appraisal.

- Environmental demands that tax or exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place the organism at risk for disease.

Dominguez et al Racial Differences in Birth Outcomes: The Role of General, Pregnancy and Racism Stress Health Psychology 2008
Many studies focus on differential exposure to risks during pregnancy.

Also differential exposure to protective factors during pregnancy.

Lu and Halfon 2003: Need to examine cumulative exposure.

Cumulative effects of stress over the reproductive life course.
Long-Term Influences

- Adverse childhood experiences
- Air quality/pollution
- Neighborhood environment
- Exposure to violence
- Community resources
- Poverty
- Discrimination
Social Causes of Stress

- Not genetic or biological
- Racism = source of stress that contributes to preterm birth
- Personal and institutional racism
- Negative racial stereotypes
- Obligation to act as role model for others

“It’s the skin you’re in”...
Stress Response System in Pregnancy

- Chronic stress $\rightarrow$ elevated cortisol levels
- Cortisol binds to receptors on the placenta
- Placenta generates corticotrophin-releasing hormone (CRH)
- Elevated CRH levels increase mother’s stress response
  - Speeds up placental clock
  - Increases risk of infection
Racism-Related Vigilance and its role in Preterm Birth

- How racism experience may contribute to birth outcome
- Developed a metric: “Racism-Related Vigilance”
  - “Overall, during your life, how often have you worried that you might be treated or judged unfairly because of your race or ethnic group?” Very often, Often, Sometimes, Never
- MIHA + Birth Certificate dataset on California women who had given birth
- FINDINGS: After adjusting for SES factors, major life stressors, depressive symptoms and medical risks,
- **BLACK WOMEN WHO REPORT RRV ARE ABOUT 2X MORE LIKELY TO HAVE PRETERM BIRTH**
From knowing the causes of poor birth outcomes to finding solutions

Efforts to improve birth outcomes via Community-Based Doula programs and comprehensive, intentional prenatal care programs
Doula Care – HealthConnect One Model

~600 women served at 8 sites

BREASTFEEDING DURATION: BLACK OR AFRICAN AMERICAN MOTHERS

*Sample of participants in PRAMS (Pregnancy Risk Assessment Monitoring System)
Breastfeeding while black

Breast are BEST

Give your baby your heart!!!
Life comes from you!!!
Breastfeeding feels so good!!!
Doula Care – HealthConnect One Model

~600 women served at 8 sites

Cesarean Births

- Community-Based Doula Participants: 24%
- PRAMS*: 30%
Birth Equity + Doulas

#Doulas in the house!
#birthequity @NEMSBP
9:12 AM - 9 Sep 2015
DOULA CARE – HeathConnect
One Model

- HRSA should continue to promote and expand the Community-Based Doula Program

- Most compelling data findings: the high breastfeeding rates and low c-section rates

- High quality implementation of the model is critical to achieve strong positive outcomes

- Sustainability requires integration of the program into a variety of systems and venues

- Doulas paid a living wage + benefits
Community-based doula programs

- Mottl et al 2008 – Boston Medical Center

- Doula support was significantly related to:
  
  - Higher rates of breastfeeding intent and early initiation rates for all women regardless of parity or provider with the exception of multiparous women with physician providers
  
  - Lower rates of cesarean deliveries for primiparous women with midwife providers.
Community-based doulas on the national radar!

Opportunities for Prevention & Promotion

- Missed opportunities
  - smoking cessation
  - safe to sleep
  - breastfeeding
  - Immunization
  - family planning
- New Workforce
  - Health educator
  - Home visiting nurse
  - Community health worker or doula
- New Platform
  - Group prenatal care
- New Technologies
  - Social media
  - Text messaging

Dr. Michael C. Lu
(MCHB, HRSA Associate Administrator)
presentation to National Governor’s Association 2013 Learning Network Conference: Improving Birth Outcomes
Doula Care – Economic Concerns

- Clear evidence that women need supportive care in labor and that it is beneficial

- Economic benefits often emphasized for policy-solutions yet cost-benefit analyses show only ~$150-300 in savings per birth (and doulas often charge double that in private care)

- Critical to specify the doula model of care on which the economic model is based

- Type of doula model is critical for assessing the benefits of doula-attended births (only a few pay living wage to doulas)

- DOULA BENEFITS CANNOT BE CAPTURED SOLELY THROUGH AN ECONOMIC MODEL
Doula Care – Can it Scale?

- Doulas attend ~6% of all births in the US; community-based doulas attend fewer (unknown number)

- Methodological issues with studies that extrapolate benefits from a small program to a state or the US

- Doulas should not be promoted as a primary means to reduce cesarean rates but as one of SEVERAL strategies

- It is not clear that any doula practice, let alone one that pays so little, can scale to meet the needs of the nearly two million women whose births are covered by Medicaid each year in the U.S
Doula Care – Reproductive Justice Concerns

- Recruiting women of color from the community to become trained and certified as labor support doulas

- Financial viability of a career as a doula for low-income women

- Content of doula training does not include key topics on social determinants of health, trauma-informed care, and experiences of under-served populations

- Concern that Community-Based Doula Model will perpetuate a model of economic marginality and potential exploitation for the doulas who serve a low income population of childbearing people.
Doulas as Experts

“If we believe that Medicaid clients with doula support at their births will have improved outcomes (in terms of racial/ethnic disparities in cesareans and breastfeeding, etc.) that have been persistent and worsening for such a long time in the current US maternity system, then the American way is to regard these doulas as experts in supportive care in labor and reimburse them in a manner that reflects and respects that expertise and value. Otherwise, we will potentially create a system of institutionalized racism that we are ostensibly trying to eradicate.”

Sheila Capestany, founder and former executive director, Open Arms Perinatal Services, Seattle WA
Doulas – Future Directions

- Doulas need to be recognized and compensated fairly for the valuable, multifaceted, and often, unquantifiable, contributions they make to building healthy families and communities.

- We need to encourage the development of a research and advocacy agenda that prioritizes work equity and social justice equally to cost savings.

- At the same time, doulas cannot be held entirely responsible for reforming maternity care as we know it.
Other Models to Consider

- Licensure
- Patient / Health Navigator Model
- Patient Safety Liaison Model
- Partnerships with Birth Centers
- .......
THE COMMONSENSE CHILDBIRTH MODEL – JENNIE JOSEPH

- Cultural model of prenatal & birth center care that includes:
  - Mission-driven practice
  - Staff integration
  - Respectful care to women and families ... where they are
  - Everyone has the goal of healthy outcome for mother & baby
Doula Care in NYC – the promise of scaling up?
The Impact of Stress and Poverty on Pregnant Women & Children: How Community-Based Doulas Make A Difference

Thank you!

Christine H. Morton, PhD
cmorton@stanford.edu