

Overview:

Paternal Involvement and Pregnancy Outcomes

Ronald Mincy,
Columbia University School of social Work
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Introduction

- The United States ranks 28th among developed countries in infant mortality [7]. The Healthy People 2010 target goal for the US infant mortality rate (IMR) is 4.5 infant deaths per 1000 live births [4]. The current US rate is about 50% higher the goal.
 - Infant mortality rate among non-Hispanic black women infants is more than twice that of non-Hispanic white infants, a persistent disparity despite efforts to reduce this disparity by reducing low birth weight and preterm births[13]. Although Hispanics and blacks share many of the socio-economic characteristics, which are predictors of adverse birth outcomes [24] (have similar (maternal age, stress, income, education, employment, housing), the birth outcomes of Hispanics are more comparable to those of whites[14, 15].
 - However, these standard risk factors account for only a small fraction of explained variation in infant mortality rate among racial/ethnic groups [24].
 - Well known that married women have lower incidence of low-birthweight and are more likely to get adequate pre-natal care and that nonmarital births are much higher among black women. This leads researchers to suspect that paternal involvement (PI) may be a key to reducing the racial gap in infant mortality rate.
 - If PI can reduce the race gap in infant mortality rates, it will be critical to Increase PI generally, because the precursors of infant mortality such as low birth weight are much lower among married and than unmarried women, but rates of nonmarital childbearing are increasing among all race and ethnic groups [2].
- Indeed, 51% of births to women under 30 occur to unmarried mothers.



Findings

- Paternal involvement (PI) has been recognized to have an impact on pregnancy and infant outcomes [1-6].
- PI during pregnancy, is significantly associated with
 - Reduced maternal negative health behaviors especially
 - smoking , alcohol use and inadequate prenatal care visits.
 - reduced risk of
 - preterm birth, low birth weight and fetal growth restriction [1-4,6] and infant mortality up to one year after birth [2].
 - Substantial reductions in gaps in infant mortality between Black and white pregnant women. [1,2,4,7] [17].
 - One study found that 60 to 75% of excess mortality among black women could be prevented with increase paternal involvement [2].



Research limitations

- Not many studies have been conducted about how paternal involvement affects pregnancy and infant outcomes.
- Available studies use a variety of measures of paternal involvement, including whether or not the father's name appears on the birth certificate..
- The preponderance of evidence comes from these types of studies, but presence of information about the father's identity on the birth certificate may not be a good indicator of the kind of paternal involvement that promotes positive child outcomes.



Mixed evidence about paternal involvement and predictors of pregnancy outcomes

- A recent doctoral dissertation from the University of Maryland [19] shows
 - no association between direct paternal involvement (e.g. attending at childbirth/Lamaze classes, viewing a sonogram or ultrasound, feeling the baby move, discussing how the pregnancy was going with the mother, buying things for the child, listening to the baby's heartbeat,) and the fathers' name on the birth certificate.
 - fathers' name on the birth certificate was negatively associated with paternal history of negative behaviors and positively associated with living in states with high rates of paternity establishment
- Further, earlier studies that relied on more direct measures of father involvement from the fragile families and child well-being survey data [9. 10] found mixed support for associations between PI and pregnancy outcomes.
 - Paternity acknowledgment, contributions during pregnancy, and intentions to contribute, unmarried father involvement does not impact birth weight [10],
 - Unmarried mothers who were romantically involved with nonresident fathers were more likely to have low-birth babies than unmarried mothers who cohabited with the fathers of their children [9]
 - Mothers in no relationship with the fathers of their children were less likely to have low birth weight than mothers who were romantically involved, but not living with the fathers of the children [9] .and
 - financial support from unmarried fathers *increased* the likelihood of having a low birth weight child [9]
 - By contrast paternity acknowledgment, contributions during pregnancy, and intentions to contribute, presence of father's name on the birth certificate, as well as having the father's surname were all positively associated with early prenatal care. [9]



Implications of the evidence

- We lack good measures on which to base intervention designed to improve birth outcomes by PI.
- We understand little about the mechanisms through which PI affects pregnancy outcomes.
- We lack theoretical framework and methodological frameworks to help us understand how paternal involvement during pregnancy affects pregnancy outcomes [21].
 - For example, even the well established typology for describing fraternal involvement (accessibility, engagement, responsibility) by Michael Lamb and his colleagues [20].
- PI studies rely too frequently on father data collection efforts after a major project that has already been designed and launched.
- Obstacles to having adequate databases to document paternal involvement include
 - the additional effort and expense required to include fathers in studies;
 - a lack of understanding of cultural variations in fatherhood;
 - sensitive issues relating to nontraditional the parental relationships and repartnering and surrogate fatherhood, shortly after childbirth [21].



Mechanisms

- Fathers may positively influence birth outcomes by
 - Helping mothers to adopt positive pregnancy behavior (regular and adequate prenatal care visits) or to avoid negative pregnancy behaviors (smoking or alcohol and drug use)
 - For example, pregnant women with involved partners have been found to be more likely to receive early and more regular prenatal care and to reduce cigarette smoking [9,10] and alcohol consumption (10).
 - Supporting improve birth outcomes [11,12] by supporting mothers in ways that
 - reduce maternal stress [3], which adversely affects length of gestation and fetal growth
 - for example, fathers may provide reduce maternal stress by providing emotional, logistical and financial support [6].
 - or improve maternal well-being [11,12]



Insights for Intervention Research & Clinical Practice

- The few rigorously evaluated interventions and convenings of experts suggest on PI suggest that intervention should[22]
 - take advantage of the prenatal period during which expectant fathers, like mothers, are particularly open to advice, support and information, to counsel expectant parenting couple to help fathers to be more accepting of sharing and to develop a more positive relationship with both the fetus and his partner [21].
 - overcome expectant fathers' feelings of exclusion and competitiveness that occur when family, friends and healthcare professionals focus on the expectant mother leaving expectant fathers to process their own experiences without support.
 - compensate for the expectant fathers lacks of a physical connection to the developing child so that the father avoids
 - competing with the expectant mother for attention and support from family and friends
 - competing with the fetus for as attention from his partner.
 - train and encourage prenatal health care providers to engage fathers in the pregnancy so that he is less reliant on the expectant mother for information about their forming child, which can set up unhealthy power dynamic, in which the mother becomes the gatekeeper to the baby.
 - use prenatal visits to
 - expose the father to his developing baby's heartbeat and sonogram,
 - ask the father questions about his worries and dreams for his baby.
 - show the expectant father how much his baby experiences in the womb as a way to predispose him towards later involvement in his infant's development.
- One study tested the impacts of a couple based intervention targeting mostly white an Latino adolescent parents and found that the approached improved fathers relationships skills by improving the mother's relationship skills and the fathers' post birth engagement with the child[25]'. A similar approach may help to improve PI during pregnancy and birth outcomes.



Insights from qualitative research [23]

- A qualitative study with low-income parenting couples suggested Increasing male involvement in pregnancy outcomes that produced an ideal involve father or male partner who was accessible,, available, understanding, willing to learn about the pregnancy process and eager to provide emotional, physical and financial support to the woman carrying the child.
- To accomplish this goal study participant suggested
 - creating male-targeted prenatal programs,
 - enhancing current interventions targeting females, and
 - increasing healthcare providers ' awareness of the importance of men ' s involvement during pregnancy.
- Interestingly, this sample composed of mostly African-American mothers and fathers participating in a national healthy start conference acknowledged the importance of engaging both biological fathers and current partners in PI
- One possible reason is that high rates of nonmarital births among black women mean that by the the child is born many mothers are no longer romantically involved a cohabiting with the biological father and some will have gone on to form new romantic relationships with other men.
- This suggests that cultural sensitivity to the variations in patterns of family formation by race and ethnicity may be critical in developing PI interventions to improve pregnancy outcomes.



Recommendations

- The Commission on Paternal Involvement in Pregnancy Outcomes (PIPO), transdisciplinary working group of racially–ethnically diverse practitioners and public health professionals from a variety of health fields convened in 2010 by the Jt Center for Political and Economic Studies [21].
- CPIPO defined PIPO as activities or practices by the male partner and a couple anticipating birth that ideally lead to an optimal pregnancy outcome.



Policy reform CPIPO [21]

- Reform of current tax, welfare, and child support policies to encourage family formation and father involvement.
 - Reduce the ‘marriage penalty’ in the EITC to allow deductions on the second earner’s income.
 - Amend FMLA to include paid parental leave (maternal and paternal).
 - Eliminate the distinction between single-parent and two-parent families in determining TANF eligibility.
 - Increase TANF funds to support fatherhood initiatives.
 - Expand eligibility for EITC and TANF to include noncustodial fathers who pay child support. (
 - Calculate the father’s actual earnings as a percentage of child support payment.
 - Improve child support payment to be ‘passed through’ to their children, and lower the amount deducted from TANF payment to the mother.
 - Reauthorize the TANF program to improve PIPO.
 - Reauthorize the Workforce Investment Act (WIA) to support employment–training opportunities for low-income fathers. (10)
 - Mandate that Healthy Start, Early Head Start, Head Start and other public programs serving children and families develop more ‘father-friendly’ practices and programs that promote family values.
 - Mandate that manage care organizations (MCOs) offer comprehensive family planning services for fathers and mothers.
 - Create family leave policies that are globally competitive.



CPIPO Best Practice Reform

- Obstetricians–gynecologists can play a greater role in promoting more ‘father friendly’ practices in preconception, prenatal, intrapartum, and postpartum/interconception care. More specifically:
- CDC should:
 - expand current efforts to enhance public awareness of the importance of preconception health and healthcare for men.
 - promote awareness among healthcare providers that all men of reproductive age should be asked about their reproductive life plan at every routine clinical visit.
 - support the development of practitioner training models to include men in preconception and prenatal care.
- Congress and/or state legislatures should mandate that insurance plans cover preconception health for men.
- Health Resource and Services Administration (HRSA) and other funding agencies should support action learning collaboratives to develop and disseminate best practices for paternal involvement in pregnancy.



Expanding Research on PIPO

- As we have seen most studies of pregnancy outcomes lack scientific aims and hypotheses specific to the roles of men and fathers;
- few studies are guided by broader conceptual or theoretical frameworks (e.g., life-course perspective or the social ecological model) in their examination of PIPO.
- Measurements of paternal involvement in pregnancy are underdeveloped, as are methods for recruitment and retention of fathers, particularly men of color, in research.
- Pathways to paternal involvement are poorly understood, as are mechanisms linking paternal involvement to pregnancy outcomes.
- More intervention research is needed to identify effective strategies for enhancing PIPO.



Recommendations for Research

- The National Institutes of Health (NIH) and other relevant agencies should expand current efforts in, and support for, research on PIPO, especially in communities with marked disparities in health and healthcare.
- Funding should be made available for researchers to
 - conduct research
 - on the relationships and mechanisms linking PIPO.
 - that advances measurements of paternal involvement in pregnancy, and methodologies for data collection and analysis.
 - that advance the understanding of cultural variations in paternal involvement in pregnancy (
 - on the influences of contextual factors on paternal involvement using multilevel analyses.
 - using longitudinal data on the pathways to fatherhood. conduct research on the physiological and behavioral changes in expectant fathers.
 - on fathers' perspectives of pregnancy and parenting.
 - apply a transdisciplinary, integrative approach to studying PIPO, integrating methods and perspectives from clinical, social, and behavioral sciences.
 - develop
 - further theories and definitions of PIPO.
 - more effective methods for recruitment and retention of men in communities with high levels of poor pregnancy outcomes for PIPO research.
 - a network of transdisciplinary research centers of excellence in PIPO.



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