Changing expectations: factors influencing paternal involvement in pregnancy and childbirth

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While studies have demonstrated that men are important to maternal and child health, expectant fathers lack specific roles in pregnancy and childbirth. In this article, the author examines pathways to improve paternal involvement in childbirth and family health.

In human reproduction, gestation is preceded by conception whereby the male sperm cell fertilises the female egg, resulting in an offspring. While this practice has been an acknowledged phenomenon for eons, men and expectant fathers have until recently been excluded from pregnancy and childbirth. Retrospective studies have been largely reassuring that fathers play a vital role in child health and development; however, little is known regarding the role of the expectant father in pregnancy outcomes.1

Pregnancy remains an immunological mystery. Why, then, if half of the embryo’s genes are inherited from the father, are men not directly and equally involved in pregnancy and childbirth? The exclusion of men from reproductive health has limited our ability to predict how great an impact increasing the role of men and expectant fathers can have on pregnancy outcomes and the health of families.

The little that we know about paternal involvement and pregnancy outcomes suggests that paternal involvement can have a positive influence on maternal health behaviours during pregnancy.2 Much of what we know and understand about fathers during pregnancy has stemmed from research on the mother.1

Our attempt to advance paternal involvement presents a key opportunity to impact the health and wellbeing of families, which comprise the most basic structural unit of our society.1 Both American and European investigators have documented that expectant fathers can be a strong source of support or stress during labour and delivery,3,4 but more research is needed to understand exactly what role the expectant father plays in pregnancy and childbirth.1

In 2009, the Joint Center for Political and Economic Studies assembled the Commission on Paternal Involvement in Pregnancy Outcomes (CPIPO) with funding from the US Department of Health and Human Services.5 CPIPO is a transdisciplinary working group of ethnically diverse practitioners and public health professionals with training in epidemiology, family planning, medical sociology, paediatrics, family medicine, urology, obstetrics, gynaecology, psychology and anthropology.6 Members of CPIPO have conducted research on men’s health, infant mortality, racial and ethnic disparities in pregnancy outcomes, and paternal

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involvement in pregnancy outcomes, and have published books and numerous scholarly articles in peer-reviewed journals.

Many CPIPO members hold prestigious academic and clinical positions and are leaders in their respective fields. The purpose of CPIPO is to improve paternal involvement in pregnancy and family health by reframing debates and informing research, policy and practice to support greater involvement of expectant fathers in pregnancy and to shift the men’s health focus to a more positive, direct, active and constructive role in the reproductive health agenda.

WHAT IS PATERNAL INVOLVEMENT AND HOW IS IT MEASURED?
Parenting is a multidimensional, evolving cultural concept and much of the parenting literature stems from research and theory developed on mothers. Three dimensions of paternal involvement include:
- engagement – the extent to which fathers experience direct contact and shared interactions with their children in the context of caretaking, play or leisure
- availability – a father’s presence or accessibility to the child
- responsibility – the extent to which a father arranges for resources to be available to the child, including organising and planning children’s lives.

However, a fourth dimension encompassing pregnancy and childbirth is lacking.

The Commission has defined paternal involvement in pregnancy outcomes as activities or practices by the male partner and a couple anticipating birth that ideally lead to an optimal pregnancy outcome. Those activities may include the three dimensions described above, but are unique to the preconception and perinatal period. One evolving approach to increasing our understanding of factors and predictors of paternal involvement is that of the life-course perspective (Figure 1, Table 1), defined as ‘a pattern of socially defined, age-graded events and roles that is subject to historical changes in culture and social structure’; this is an ideal organising framework for paternal involvement in reproductive life and family formation.

CONTEMPORARY ASPECTS OF PATERNAL INVOLVEMENT IN PREGNANCY
Marital and relationship status defines paternal involvement during pregnancy. Fathers’ prenatal involvement may determine later engagement and presence in the lives of mothers and families. Present fathers impact development in the cognitive and language skills of their children. Fathers have always been indirectly involved during pregnancy and experience pregnancy in their own way. Biologically, men experience significant pregnancy-related changes in prolactin, cortisol and testosterone. However, there is a gap in the theories that best explain paternal involvement in general and in pregnancy outcomes.

PATERNAL INVOLVEMENT IN PREGNANCY OUTCOMES
Although men are important in maternal and child health, they have not played a significant role in reproductive healthcare and only recently have men’s health issues been integrated into the US Healthy People Objectives. Evidence suggests that men can identify with their partners’ pregnancies and they can ‘feel pregnant’. The knowledge base is sparse and that limits our ability to engage men – particularly men of colour – in the health of their families. Paternal support plays a significant role in pregnancy outcome and close relationships with the mother result in positive pregnancy outcomes.

Prenatal paternal involvement enhances fathering and marital adjustment and is independently associated with prenatal care, drug and alcohol use, smoking, and reduces the risk of low birth weight.

Although men are important to maternal and child health, they are frequently on the margins of reproductive health. Studies of fathers tend to be methodologically and theoretically weak and findings from prospective longitudinal studies are often based on ‘add-on’ father data collection efforts after a major project was designed.
and launched. Developing standardised measures of paternal involvement in pregnancy outcomes, and identifying best clinical practices in reproductive healthcare for men using the life-course perspective is one possible solution.

Employing the life-course perspective to improve paternal involvement in pregnancy outcomes can also be a promising context for reproductive health to increase our understanding of health risk, protective factors, and environmental mediators experienced throughout the life course. Lu and Halfon synthesised the early programming and cumulative pathways models using the life-course perspective and suggested that research on racial and ethnic disparities in pregnancy outcomes must examine differential exposures to risk and protective factors in pregnancy and throughout the life course. CPIPO has developed 40 best and promising recommendations to improve paternal involvement in pregnancy outcomes. These key recommendations attempt to address research, policy and clinical practice to improve paternal involvement in pregnancy and family health.

### Advancing research on paternal involvement

There is a need to develop evidence-based strategies to improve paternal involvement in reproductive health, particularly in communities where paternal involvement has been low and pregnancy outcomes have been poor. 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 paternal involvement in pregnancy outcomes. Most importantly, setting the research agenda is the first step in advancing the recommendations below. Urologists and GPs are ideally situated to address the target male population by developing specific research questions that naturally result from relevant clinical experiences and by formulating research hypotheses for exploratory and experimental studies.

### Addressing policy barriers to paternal involvement

Managing a professional career and family life can pose an enormous challenge for an expectant father. While reform of current US tax, welfare and child-support policies is needed to encourage family formation and father involvement, Europe’s gender egalitarian policies offer more liberal and varied family-friendly options. Urologists and GPs can play a greater role by promoting family-friendly values and evidence-based practices while encouraging insurance providers to cover preconception health and care for men and future fathers.

### Promoting best and promising practice in paternal involvement

Preconception presents a key opportunity to engage men regarding their health and reproductive life plans. Preconception health has been promoted for women but not men. Best and promising practices need to be identified to help men prepare for pregnancy and fatherhood. During routine health maintenance visits, urologists and GPs should be prepared to guide men on the path to fatherhood by assessing health risk, promoting healthy behaviours and recommending appropriate clinical and psychological counselling.

### Enhancing paternal involvement in pregnancy and childbirth

Traditionally, men have not had a defined role in pregnancy and childbirth. Today, expectant fathers are encouraged and invited to attend prenatal visits and want to be present at the time of birth. The

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
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<tr>
<td>Trajectories</td>
<td>Stable patterns of health behaviour or health across time</td>
<td>Alcohol, tobacco use, chronic disease</td>
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<tr>
<td>Transitions</td>
<td>Changes in social roles or responsibilities</td>
<td>Marriage, divorce, birth of a first child, career change</td>
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<td>Turning points</td>
<td>Transitions that are major changes in ongoing social role trajectories</td>
<td>Educational decision that impacts career path</td>
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<td>Cultural and contextual influences</td>
<td>Events that shape and constrain the process of change or adaptation</td>
<td>A recession, race, gender or neighbourhood factors that affect childhood</td>
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<td>Timing in lives</td>
<td>The interaction between age-stage of the life course and timing of an event or transition</td>
<td>Age at the time of a major event; age at birth of first child</td>
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<td>Linked lives</td>
<td>Dependencies of the development of one person on the presence, influence, or development of another</td>
<td>Influence of spouse on the other's health behaviours</td>
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<td>Adaptive strategies</td>
<td>Conscious decisions that people make to improve their health or wellbeing or social norms that frame the way in which decisions are made to adapt to external changes</td>
<td>Changes in health behaviour; individual coping strategies, such as taking action, denial, or avoidance</td>
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*Table 1. Key concepts and definitions of the life-course perspective*
pregnancy period is a magnificent occasion to engage, educate and empower expectant fathers. Just as mothers are open and available to receive health information, most expectant fathers also want to be involved, want to ask questions and try to understand the role they have in ensuring a healthy and safe delivery. Urologists and GPs can help by designing educational material for expectant fathers, working with obstetricians and by facilitating antenatal education courses specific to expectant fathers. This is vital to prevent health problems and complications during pregnancy. Antenatal education for expectant fathers should also include planning for pregnancy and the perinatal and postpartum periods.

CONCLUSION
While studies have demonstrated that men are important to maternal and child health,1 expectant fathers lack specific roles in pregnancy and childbirth. We now know that expectant fathers have the ability to contribute positively or negatively to pregnancy and childbirth. More funding should be made available to increase our understanding of the role of expectant fathers. Future studies of paternal involvement should focus on developing specific measures and indicators of involvement while addressing the healthcare needs of the expectant father.

Subsequently, policy barriers to paternal involvement need to be addressed to encourage family formation, preconception health and reproductive life planning. Finally, in order to change expectations regarding the role of expectant fathers in pregnancy and childbirth, father-friendly clinics and hospitals are necessary to welcome, educate and encourage equal father participation and engagement to enhance the pregnancy and childbirth experience.

Declaration of interests: none declared.

REFERENCES