

Can Doula Birthing Support Reduce the Risk of Stillbirth? Setting a research agenda

James A. McGregor^{1,2}, Janice I. French², Charmaine Carvalho³, Marti Perhach¹

1. Group B Strep International 2. LA Best Babies Network 3. Quebec Association of Doulas

Background:

Evidence shows consistent beneficial effects of Doula supported cared during labor and delivery. Of these, reduced need for primary cesarean section birth is considered clinically important. Use of Logic Modeling (LM) mandates thorough review of evidence and application for individual, family, medical provider, community, policy maker and payer participation.

Methods:

1. We constructed a Logic Model Matrix by searching electronic databases (PubMed, Medline and Google, 1990-2018).

A doula “mothers the mother”



Objectives:

1. Review evidence regarding doula participation in birthing (1990-2018)
2. Analyze biological, epidemiologic, behavioral and experimental factors which may influence pregnancy outcomes
3. Suggest research agendas which may confirm and elucidate these findings to calculate benefits for reducing need for primary cesarean section in the index and future pregnancies
4. Specifically seek information regarding occurrence of stillbirth and group B strep (GBS) related outcomes



From the beginning of time, women have been cared for and nurtured as they become mothers.

Results:

1. We reviewed 50 primary research articles (5 Cochrane Databases) and 15 RCTs as well as authoritative analysis (ACOG Clinical Guides).
2. We noted no information regarding stillbirth or GBS outcomes or altered obstetric procedures or care which accounted for a) reduced operative birth, shortened labor, greater Bishop scores on admission or reduced use of oxytocin.
3. The review prompted consideration of unacknowledged sources of bias, including observer effects (“Hawthorne,” “Golum,” others).
4. Participation by doulas or other non-medical supportive birth attendance may offer multiple benefits including reduction of fear, pain and stress.
5. Possible “harms” were not identified in any study or review.
6. Behavioral and study-associated benefits were not discussed in our review.

Discussion:

Despite long-time use and accepted benefits of DOULA supported birthing and pregnancy care, the benefits of doula participation in pregnancy care are poorly studied, recognized, and paid for. No direct studies of fetal or perinatal loss or mortality (late miscarriage, stillbirth) were found.

The possibilities for improved birth outcomes by increased parental care and use of conventional service (checklists) and advocacy have not been studied.

Adequately powered and controlled studies of prenatal, birthing, and post-partum care are urgently required.

Suggested Research Agenda:

Large epidemiology-informed studies should be designed and performed to evaluate the effects of doula participation in different pregnancy population and delivery situations.

1. Demonstrate pregnancy care goals of knowledge, respect, and transgenerational reproduction outcomes
2. Evaluation of the mechanisms of improved care outcomes (epidemiological effects)
3. Evaluate for possible harms of doula involvement
4. Explore expectations of doula services (preconception, lifestyle, lactation and contraception, psychological support, and improved obstetrical care checklists)

Conclusion:

1. Supportive (doula) birth services appear associated with multiple benefits including reduced use of primary cesarean section.
2. No information was found evaluating the mechanisms of the benefits or potential harm or cost savings or benefits in future pregnancies.
3. No changes were noted in regard to stillbirth or GBS outcomes.
4. Future research should feature well-designed, adequately powered studies which could inform mechanisms of consistently favorable outcomes.

A doula forms a bridge between the medical staff and the parents.



Opportunities:

1. Vaccination recommendations
2. Public health advisories
3. Pregnancy nutrition services
4. Updated supplements (folate, omega-3), BMI information, pollution mitigation
5. Active stress mitigation
6. Active substance use mitigation
7. Updated family planning
8. Updated social supports
9. Updated screening tests, ACEs, partner violence

Whether a birth is completely unmedicated or medically very complex, every family can benefit from nurturing and connection at this tender, incredible time in their lives.

References:

1. K. Kozhumannil et al. 2006. JPBFM, 29 308-17.
2. Hadnet F. et al. Cochrane Database. 2013 7. CD 003766.
3. LUMC, Halfen N. 2003. 7 13-30.
4. ACOG 2014. ObGyn, 2013. 348-58.