

# Birth Outcomes by Type of Attendance at Antenatal Education

## An Observational Study

Creating a Seachange: The Wave of Change in Birthing Outcomes

**The aim of this research was to determine whether there was a difference in mode of birth in women based on the type of antenatal education attended.**

### **BACKGROUND**

- ❖ Antenatal education aims to provide expectant parents with information about pregnancy, childbirth, infant feeding and parenthood.
- ❖ Women their partners may attend antenatal education, in addition to antenatal care, to be informed, obtain advice, have their questions answered, reduce anxiety, meet other parents, have a better labour and/or reduce birth intervention, as well as gain parenting advice.
- ❖ Over the last few decades, there has been a rise in obstetric interventions during labour and birth in most developed countries. This has led to interest in antenatal education as a strategy to reduce birth interventions, particularly caesarean section.
- ❖ Systematic reviews and meta-analyses have found that childbirth training workshops for mothers and couples, as well as nurse-led applied relaxation training and psychoprophylaxis couple-based programs, were associated with a reduction in caesarean section and may increase spontaneous vaginal birth rates.

### **METHODS**

- ❖ Prospective, cross-sectional study included nulliparous pregnant women with a singleton pregnancy  $\geq 28$  weeks gestation planning to have their baby at two hospitals in Sydney from July 2017 to December 2018 - The Royal Hospital For Women and St George Hospital.
- ❖ The study combined data from three sources: a pregnancy survey, a postnatal survey and hospital pregnancy outcome data.
- ❖ Self-administered surveys collected information on socio-demographic characteristics, attendance at antenatal classes, type of class, satisfaction with education and birth outcomes.
- ❖ The study's exposure of interest was attendance at antenatal classes and type of classes attended. Multiple classes were available. For analysis the classes were classified into 4 groups:
  - Psychoprophylaxis
  - Birth and parenting
  - Other
  - None.



### **RESULTS**

- ❖ 723 women completed the antenatal survey, and 505 women (69.9%) with birth data were included in this study.
- ❖ **79% of women who attended psychoprophylaxis education (95% of whom did the Calmbirth program) had a vaginal birth, compared with 69% of women who attended birth and parenting, 67% attending other or no education was 60% (p=0.045).**
- ❖ 78% of all women were tertiary educated. Most women surveyed (89%) attended antenatal education, with 23% attending psychoprophylaxis, 39% birth and parenting and 26% other education.
- ❖ Socio-demographic characteristics of women differed by type of antenatal education attended, with women not attending classes less likely to be born in Australia/New Zealand, have care in a midwifery group practice, and had lower income e and education levels compared to those attending classes.
- ❖ Main reason for attending classes – 86% better manage the birth.

### **DISCUSSION**

- ❖ Women who attended psychoprophylaxis education were more likely to have a vaginal birth than a caesarean section compared to women who did not attend education. They were also less likely to have regional anaesthesia for birth.
- ❖ The strengths of this study include the prospective design, that it was conducted in two hospitals with a multicultural population, in nulliparous women. Nulliparous women were included as the mode of first birth strongly influences subsequent births, and if education leads to improved outcomes, then nulliparous women have the most to gain. We included women who attended a range of different types of antenatal education or no education and used both survey data and routinely collected data to obtain obstetric outcomes.
- ❖ Given the high and rising rates of caesarean section and impact on costs and maternal health outcomes, antenatal education may provide an effective strategy to reduce these. Future high-quality randomised trials in a broader range of populations comparing different types of antenatal education without economic barriers to attendance, are required to determine whether psychoprophylaxis education can improve obstetric outcomes.