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Steven Donahue & Micaela Sunday

What We Learned
Our completed literature review showed a significant decrease in cesarean section when patient care was primarily led by certified midwives. The nursing-led research article literature review was completed to fulfill our nursing curriculum’s research class requirements.

Background
- The current cesarean section rate in the United States is around 33%.
- The World Health Organization recommends a rate of 15%.
- Preliminary studies indicate that midwife led care can:
  - Reduce cesarean section rates
  - Reduce medical costs.
- Only 7.6% of U.S. births are attended by a certified midwife.

Purpose & Aims
Conduct a literature analysis to compare cesarean section rates in midwife led facilities versus obstetrician led facilities.

Population of Interest
- The majority of research focused on participants that were considered to have "low risk pregnancies".
- Participants were:
  - Full-term gestation
  - Singleton pregnancies
  - Uncomplicated obstetric history.

Methods
- Database search: CINAHL & Google Scholar.
- Four quantitative, peer-reviewed, primary journal articles were selected.
  - Published 2011-2014
  - Search terms: midwife, cesarean section, and obstetrics.

Cesarean Section Rates
- Varied from 1.9% to 6.1% when low risk women received care in midwife-led facilities (Prelec et al., 2014; Stapleton et al., 2013).
- Varied from 13.4% to 36.5% (Barber et al., 2011; Prelec et al., 2014) when a similar population of women received care in obstetric led units.

Medical Interventions
- Labor arrest and non-reassuring fetal heart tones (55 per 1000 births) contributed to the most cesarean sections (Barber et al., 2011).
- Labor arrest cesarean section in the hospital based facility (88 per 1000 births) (Barber et al., 2011), compared to those in the birth center study (1.5 per 1000 births).
- Abnormal fetal heart tones as a primary indicator for cesarean section is less utilized in midwife led care (Stapleton et al., 2013).
- Significantly less pharmacological analgesia (58.4% vs. 79.6% in OB facility) and epidural analgesia (30.4% vs. 34.6% in OB facility) were utilized in the midwife led care settings.

Medical Savings
- Stapleton et al. (2013) explored this phenomenon by analyzing Medicare reimbursement rates for 2011, and determined that by utilizing the birth center model instead of a hospital facility, approximately $2,000 per birth could be saved.

Results

Conclusions
Across all research studies, there was a significant decrease in cesarean section when patient care was primarily led by certified midwives (Barber et al., 2011; McLachlan et al., 2012; Prelec et al., 2014; Stapleton et al., 2013).

Next Steps
- Further research to qualitatively explore:
  - The motivations and mentality of mothers who choose the midwife led care model over the obstetrician led model.
  - The motivations of obstetricians to conduct cesarean sections; determine if liability concerns or revenue have significant roles in the increased cesarean section rate.
- Clinical application:
  - Findings should be utilized to provide adequate pre-conception and birth planning education for expecting parents.

Limitations
- Limited to four quantitative articles.
- Significant variation for low risk pregnancy inclusion criteria.
- Inconsistency in setting of care and country of origin.

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