

# Influence of Doulas on Cesarean Section Rates at Albany Medical Center



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## BACKGROUND

- Since 1999, the maternal death rate has risen from 12.7 deaths to 32.2 deaths per 100,000 live births in the United States.
- One suggested contributor to this trend is the escalating rate of cesarean sections.
- United States reports the third-highest rate of C-sections globally, with 320 C-sections performed per 1000 live births.
- Trained nonmedical individuals known as birth doulas can offer women physical, emotional, and informational support throughout their pregnancy and labor journey.
- Doulas have been shown to decrease caesarean section rates, decrease epidural use in labor, decrease preterm births, and increase patient satisfaction of the birthing experience.
- The Birthing Center at Albany Medical Center (AMC) has recently made doula care available to all birthing women.

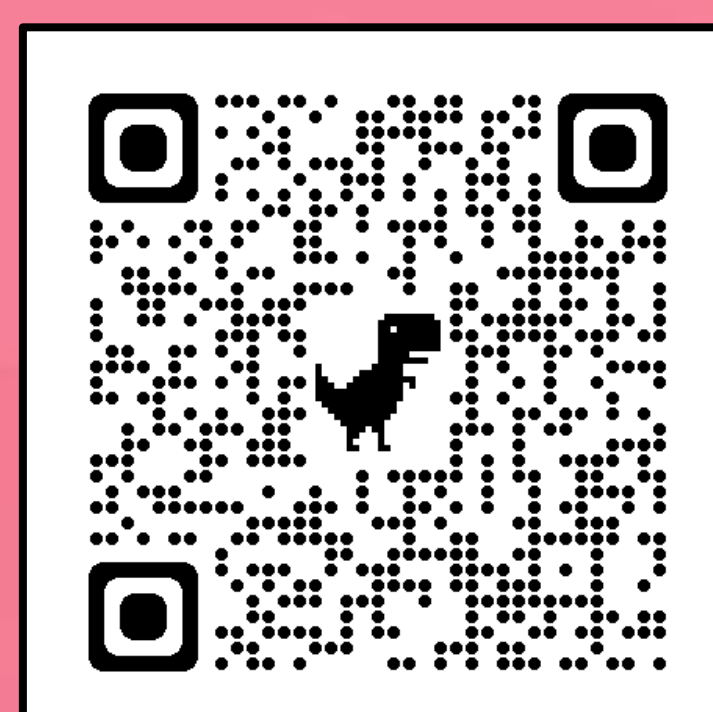
## PURPOSE

The purpose of this retrospective cohort study is to evaluate the impact of a hospital-based doula program on C-section rates and epidural use at Albany Medical Center (AMC).

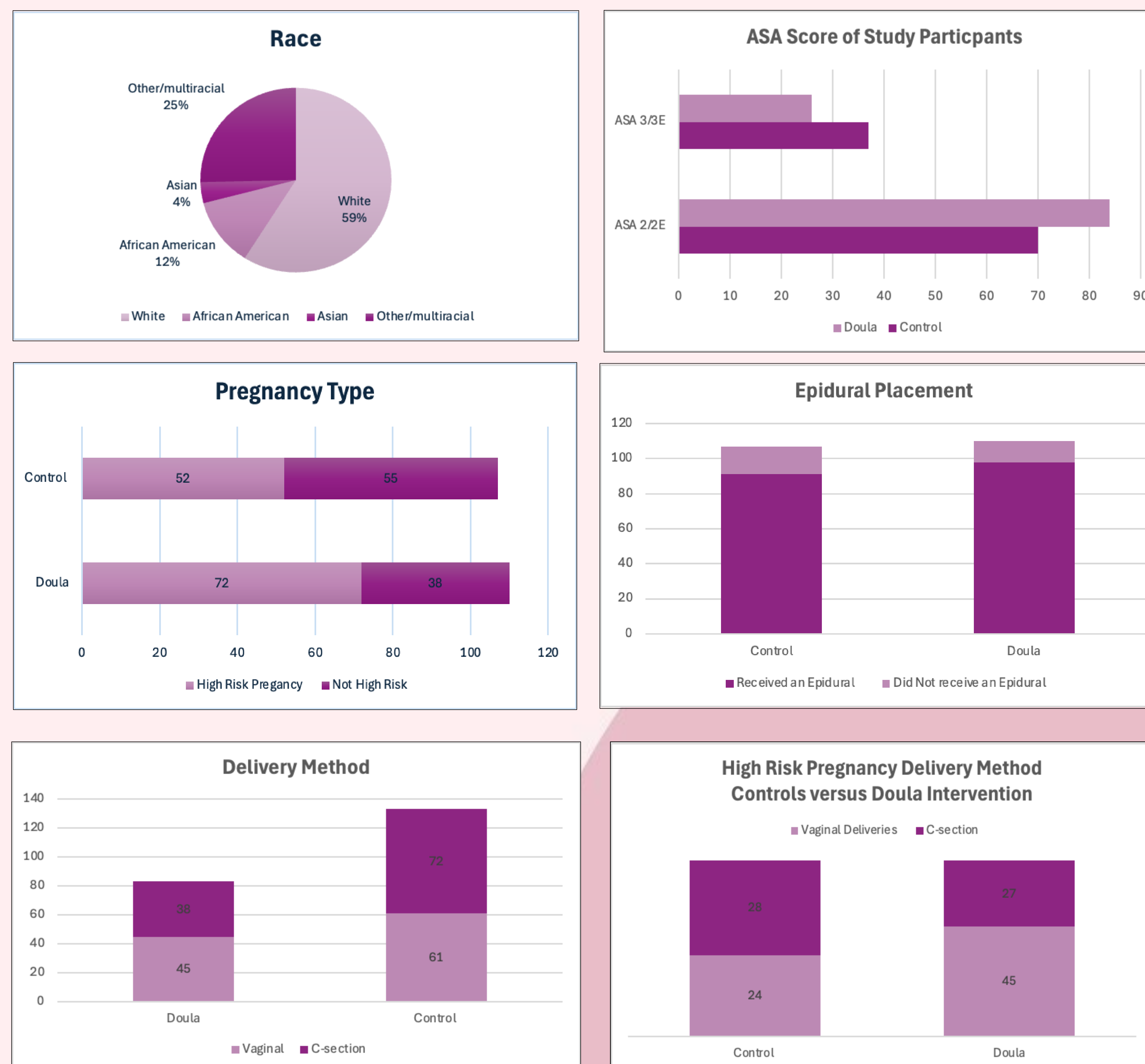
## METHODS

- Setting:**
- The Birthing Center at Albany Medical Center
- Methodology:**
- Retrospective chart review of birthing records from March 1st, 2024, to March 1st, 2025
- Intervention:**
- The Birthing Center initiated a Doula Program in March of 2024
  - Birthing women who interacted with a doula for at least 30 minutes
- Outcomes:**
- C-section Rate
  - Epidural use
- Inclusion Criteria**
- primipara females
  - ages 18-44 years old
  - 37 weeks' gestation or greater
- Exclusion Criteria**
- Women with a multiple pregnancy
  - Women who received private doula care
- Statistical Analysis**
- T-tests
  - Chi-squared tests

## REFERENCES

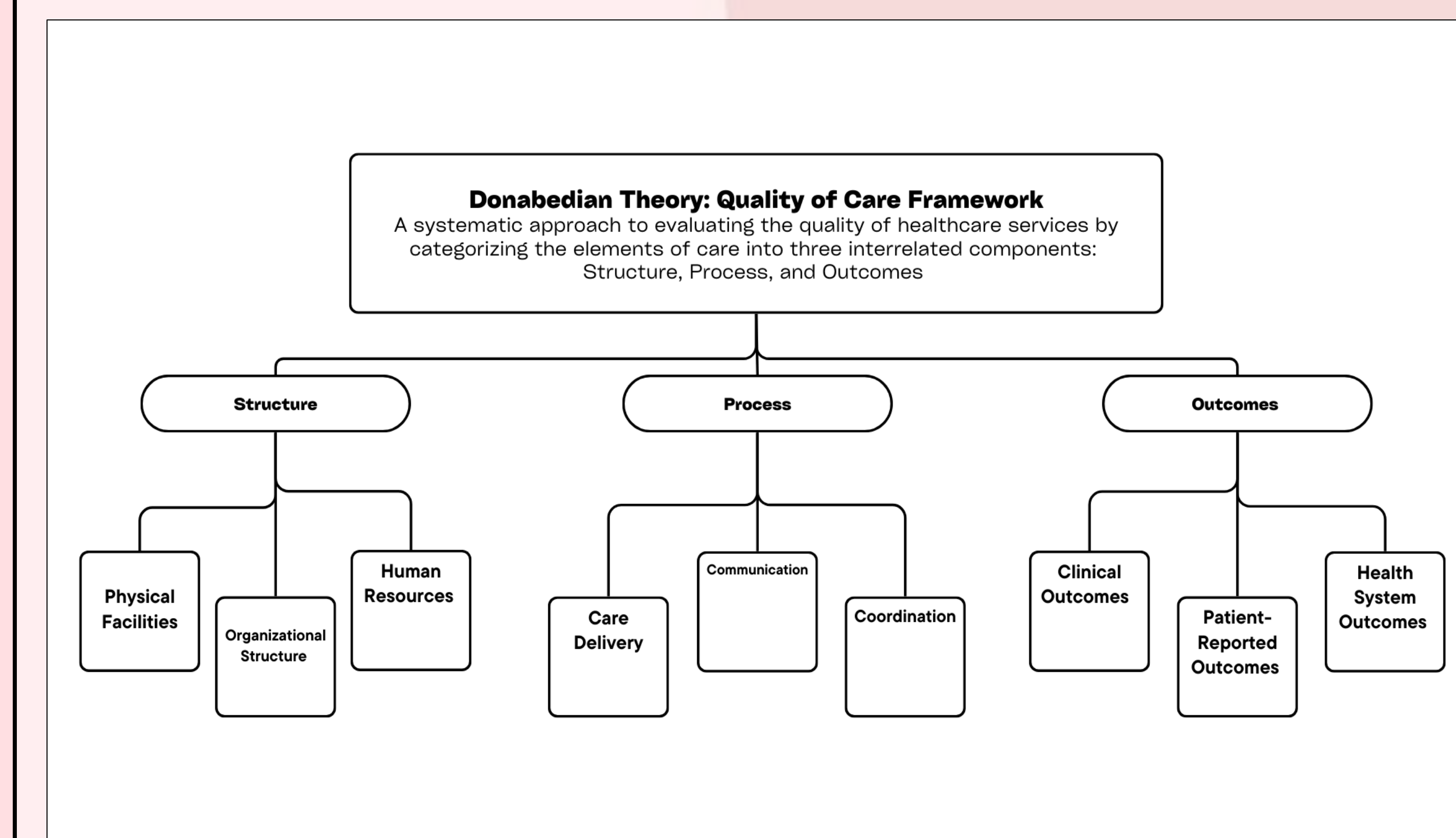


## RESULTS



- 218 subjects met the inclusion and exclusion criteria.
- The intervention group contained 111 women who interacted with an AMC doula for at least 30 minutes.
- The control group contained 108 women.
- Age Range 18-43 years old (Mean Age 29.1)
- The control and experimental populations are equal. There is no statistical difference when comparing age ( $p=0.4485$ ) or ASA scores ( $P=0.0758$ ) in the two groups.
- The total doula time: 14,886 minutes
- The average time a doula spent with a mother was 132.9 minutes.

## THEORY



## DISCUSSION

- 42.5% of the control group had c-sections; compared to 34.6% of the doula group had c-sections. While not a statistically significant difference ( $p = 0.2323$ ) there is a clear clinical significance.
- 85.1% of the control group received an epidural compared to 89.1% of the doula group received an epidural. This is not a statistically significant difference ( $p=0.3743$ ).
- When examining high-risk pregnancies, 53.8% of the control group had c-sections; compared to 37.5% of the doula group had c-sections. There was no statistical difference in delivery method between the control and intervention groups ( $P = 0.07$ ).
  - High-risk patients were defined as patients with diagnoses associated with high-risk pregnancies (Pre-E, gHTN, gDM, advanced maternal age, fetal abnormalities...) or a high-risk chronic disorders (Chronic HTN, DM 1&2, Bleeding disorders, BMI>40...)
- These findings, while not statistically significant, suggest that integrating doula support into maternal care, especially for high-risk individuals, helps reduce C-section rates, which can lead to improved maternal outcomes. Doulas are being utilized and often spend more than two hours with mothers, allowing healthcare providers to focus on delivering higher levels of care consistent with their training.

## FUTURE RESEARCH

- Conduct qualitative research on maternal satisfaction and emotional well-being after receiving doula support compared to those who did not.
- Impact of laboring time on delivery method.
- Cost-Benefit analysis of doula program.
- Assess whether hospital-affiliated doulas have different impacts on birth outcomes compared to independent/community-based doulas.

