

# Retrospective Review of Delivery Outcomes Following Longitudinal Intrapartum Osteopathic Manipulative Treatment

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## Introduction/Background:

Much of the literature investigating intrapartum Osteopathic Manipulative Treatment (OMT) has focused on pregnancy-related musculoskeletal complaints. Beyond improving pain levels, OMT also addresses the neuroendocrine and cardiopulmonary systems. Although rare studies have suggested OMT positively impacts incidence of pre-term labor, fetal distress, and obstetrical procedures, no single study has compared the various delivery outcomes on a local and national level.

## Objective:

We hypothesize that four intrapartum visits with OMT directed at clinically indicated regions is sufficient to decrease incidence of cesarean deliveries while also minimizing complications during delivery.

## Methods:

The electronic health records from a single, multidisciplinary, outpatient, musculoskeletal specialty clinic from 1/1/2015 to 12/31/2020 were queried for pregnancy ICD-10 codes, then OMT CPT codes. After chart review ensuring patients received OMT to  $\geq 3$  body regions during each of  $\geq 3$  intrapartum visits, the following data was collected: quantity of OMT visits and body regions treated, use of obstetric interventions, and maternal morbidities. This parturition data was compared to 2018 local and national hospital averages and outcomes compared with summary statistics.

## Results:

55 pregnancies met study criteria; 8 had complete records for analysis. Delivery data means included: age (31.25 years), BMI (30.29 kg/m<sup>2</sup>), predelivery visits (5.6), body regions treated (5.7), gestational age (38.2 weeks). Study Group / National Percentages included: Cesarean: (12.5% / 31.9%). Pre-term: (12.5% / 10.0%). Induction: (12.5% / 27.1%).

## Discussion/Conclusion:

This study suggests that intrapartum OMT addressing a patients' chronic underlying somatic dysfunction throughout pregnancy may decrease incidence of Cesarean deliveries. Although retrospective and limited in sample size, it suggests a larger, prospective study on pregnant patients

may demonstrate an increase in full-term, vaginal deliveries by emphasizing the profession's holistic, patient-centered approach over standardized protocol.