

STATISTICAL ANALYSIS PLAN NCR191281

OFFICIAL TITLE:

How Will an Educational Video About the Induction of Labor Process Impact Patient's Knowledge of and Satisfaction With the Induction Process

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Statistical Analysis methods:

Methods:

Baseline knowledge score was calculated as the number of correct answers from the baseline knowledge survey questions 6 through 15 (10 questions total), presented as a percentage correct out of 100%. Satisfaction survey questions 1 through 6 were analyzed on a Likert Scale (1 being the least satisfied, 3 being neutral, 5 being the most satisfied). After utilizing Cronbach's α to identify the high level of similarity between these 6 questions in measuring satisfaction, resulting responses on the Likert Scale from questions 1 through 6 were averaged to get a distribution of overall satisfaction that would span all 6 questions of interest but result in one single score on the Likert scale (between 1 and 5) per respondent.

Baseline knowledge and satisfaction were compared between randomized intervention and control arms using the Mann-Whitney U test in order to test for significant differences in baseline knowledge and induction process satisfaction between those who received the survey with the video compared to those only received the survey. Sub-analyses analyzed baseline knowledge differences between those who had a prior induction, those who had no prior induction, those who were nulliparous, and those who were multiparous. Sub-analyses additionally investigated satisfaction with the induction process sub-stratified by those who had a cesarean delivery and those that had a history of a prior induction. All statistical analysis was performed using SAS version 9.4 (SAS Institute Inc., Cary, NC) with a two-sided p-value less than 0.05 considered statistically significant.

Results:

From October 2019 to February 2020, 145 scheduled IOLs were eligible and approached for the study. 129 participants consented, and 119 completed the entire study. 64 were randomized into the control group and 55 into the intervention group.

The median (quartile 1, quartile 3) baseline knowledge score for the randomized intervention cohort was 90% (90%, 100%) relative to 60% (50%, 70%) for the control cohort, indicating that the baseline knowledge scores were significantly higher for the intervention cohort ($p < 0.001$). This same trend was seen when comparing only those who had prior induction (median 90% vs 60%, $p = 0.002$), no prior induction (100% vs 60%, $p < 0.001$), nulliparous women (90% vs 60%, $p < 0.001$), and multiparous women (100% vs 60%, $p < 0.001$).

Cronbach's α for Likert Scale satisfaction questions 1 through 6 was $\alpha = 0.854$, indicating ideal similar measure across questions for quantifying satisfaction. The median (quartile 1, quartile 3) overall satisfaction score for the randomized intervention cohort was 4.3 (4.0, 4.5) relative to 3.6 (2.9, 4.2) for the control cohort, indicating that satisfaction was significantly higher in those that received the intervention ($p < 0.001$). In looking at only women who delivered via cesarean, satisfaction was still significantly higher in the intervention group (median 3.9 vs 3.0, $p = 0.003$).