

Effectiveness of an induction of labor educational video on maternal knowledge

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Introduction

- Induction of labor (IOL) occurs in 24.5% gestations
- Numerous studies demonstrating that women who underwent IOL had decreased birth satisfaction
- AIM: To determine if an educational video on IOL improves patient knowledge surrounding IOL and to identify which maternal characteristics impact baseline induction knowledge and the improvement of knowledge.

Methods


- A prospective non-randomized controlled before-and after study was used with sequential pre ("control/treatment as usual") and post ("intervention/ educational intervention") groups.
- The primary outcome was maternal knowledge regarding the induction of labor through several induction of labor knowledge domains: ripening, indications, myths, and duration
- Statistical analysis included Chi-square tests, Mann-Whitney-U tests and Spearman's Rho correlations



Table 1: Sample Characteristics and Baseline Knowledge

	Control (n=153)	Intervention (n=153)	P-value
Overall Knowledge	11.0 ±1.94	12.5 ±2.23	0.99
Knowledge Domains			
Ripening*	3.41 ±0.84	3.36 ±0.91	0.49
Myths*	3.94 ±0.89	3.87 ±0.88	0.26
Indications*	3.62 ±1.03	3.57 ±1.21	0.28
Duration**	44 (28%)	51 (31.9%)	0.45
Race			0.19
Caucasian	123 (80.4)	110 (71.8)	
African American	7 (4.5)	12 (7.8)	
Hispanic	19 (12.4)	21 (13.7)	
Other	4 (2.6)	10 (6.5)	
Age (years)	31.1 ±4.8	30.8 ±4.6	0.66
Employed	105 (68.6)	103 (67.3)	0.81
Education			0.07
Some high school	5 (3.2)	0 (0)	
High school or equivalent	31 (20.2)	25 (16.3)	
Trade school	6 (3.9)	6 (3.9)	
Bachelor's degree	62 (40.5)	52 (33.9)	
Master's degree	42 (27.4)	56 (36.6)	
Professional degree	5 (3.2)	7 (4.5)	
Prefer not to state	2(1.3)	7 (4.5)	
Insurance			0.16
Private	113(73.9)	102(66.7)	
Public	40 (26.1)	51(33.3)	
Prenatal provider			<0.01
Private OBGYN	72(47.1)	66(43.1)	
MFM	24(15.7)	26(16.9)	
Resident OBGYN	3(2.0)	16(10.4)	
General OBGYN	40(26.1)	22(14.4)	
Midwife	13(8.5)	15(9.8)	
Other	0(0)	8 (5.2)	
No prenatal care	1(0.7)	0 (0)	

Data represented as mean ± SD or n (%)
* Median domain score ± SD ** Dichotomous Question, represented as n(%) correct


An educational video at time of woman's induction of labor increased patient's overall knowledge regarding induction of labor and knowledge surrounding ripening, duration and indications

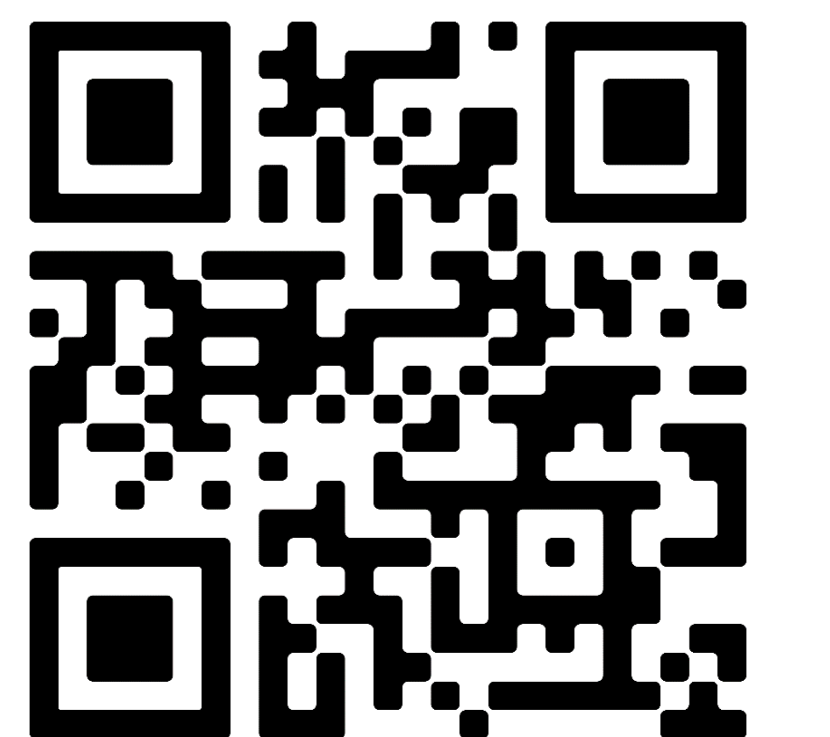


Why is labor induced?

- Past due date
- Water broke but no contractions
- Low fluid around the baby
- Medical problems
 - Common examples:
 - High blood pressure
 - High blood sugar
- Babies that are growing too small or too large



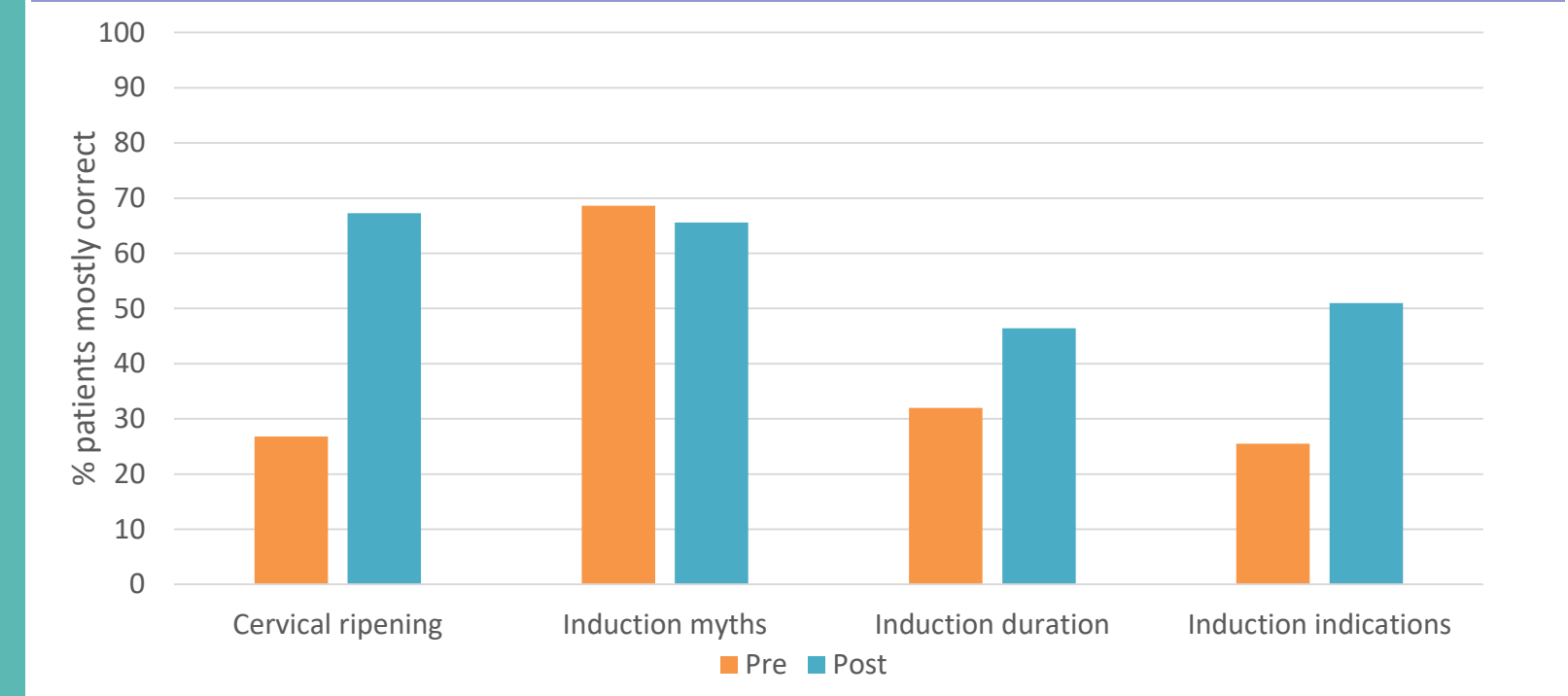


Scan for IOL Video

Results

- July 2021 and April 2022, 363 women approached with 306 enrolled for participation (153 per group)
- In both groups, overall baseline knowledge scores were associated with
 - Higher level of education ($r=0.20, p<0.001$)
 - Greater household income ($r=0.17, p<0.001$)
 - More knowledge sources about IOL ($r=0.20, p<0.001$)
- Following the educational video, overall knowledge significantly improved (pre- $M=1.53, SD=1.04$, post- $M=2.28, SD=1.09$; Wilcoxon Signed Ranks Test, $Z=-6.84, p<0.001$).
- Knowledge significantly improved in three of four domains including cervical ripening, induction duration and induction indications (Wilcoxon Signed Ranks Test, $Z=-7.11, Z=-4.44, Z=-3.64$ respectively, all p 's <0.001)

Figure 1: Changes in induction knowledge by domain



Discussion

- An educational video at time of IOL increased patients' knowledge regarding IOL
- Video education is beneficial in an inpatient setting, regardless of women's demographic characteristics.
- Further directions: use in non-English speaking populations and use in outpatient setting

References

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