Supplementing provider counseling with an educational video for scheduled induction of labor

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Abstract

PURPOSE: To present the effects of a pragmatic implementation of a video education tool on patient satisfaction and knowledge of induction experience in English and Spanish-speaking patients scheduled for induction of labor at a tertiary care hospital.

METHODS: IRB approval was obtained for this study. This was a pragmatic implementation of a quality improvement measure aimed to address the established negative effect labor induction has on birth satisfaction at an academic county hospital in Indianapolis, Indiana. A bilingual survey was developed to evaluate the impact of a brief, three-minute educational video on birth satisfaction and knowledge of induction experience. The survey consisted of two questions about induction agents received and expected labor duration, followed by the 10-question validated Birth Satisfaction Scale-Revised (BSS-R, scale 0-40 with higher scores indicating higher satisfaction). This scale has three validated sub-domains: stress experienced, personal attributes, and quality of care. The survey was distributed to patients during postpartum admission following scheduled induction of labor. The animated video was created by Sara Rahman, MD and is freely available on YouTube in English and Spanish. It reviews various induction agents, anticipated timeline, and indications for cesarean delivery. Baseline surveys were collected from June to July 2021, after which the video was implemented in associated obstetric clinics. This was completed by provider recommendation to view the video along with handouts linking the video. Handouts were provided to patients in checkout paperwork and electronically via the medical record messaging system. After a two-month implementation period, post-intervention surveys were collected from September to November 2021. Participants indicated whether they had watched the video on the post-intervention survey. Pre- and post-intervention groups were compared using t-tests for BSS-R scores and chi-square analyses for categorical variables. Patient characteristics and induction details were abstracted from the EMR.

RESULTS: 32 participants completed the baseline survey and 72 completed the post-intervention survey. 61 participants were English speaking (58%) and 43 Spanish (42%). Most inductions scheduled were elective (55.8%), followed by maternal indications (33.7%). Of the post-intervention group, 30 patients reported watching the video. There were no statistically significant changes between mean total BSS-R scores in the pre- and post-groups (26.9 vs. 28.0, p=0.29) or sub-domains between groups. There was an improvement in correct identification of amniotomy use (p=0.002) in the post-intervention group. No changes were seen in anticipated duration of labor between groups nor in whether patients would elect to be induced again if given the choice. Patients in the post-intervention group who did watch the video reported higher quality of care scores than those who did not watch the video (15.4 vs. 14.5, p=0.02). Patients who watched the video had higher rates

of correctly anticipating the duration of labor compared to those who did not watch the video, though the difference was not significant (33% vs. 19%, p=0.17). When looking at all participants, stress experienced subset scores, in which lower scores indicate more stress, were statistically significantly lower in nulliparous (8.9 vs. 9.6, p=0.04) and cesarean delivery patients (7.4 vs. 9.4, p=0.02) compared to multiparous and vaginal delivery patients, respectively.

CONCLUSIONS: Our study found that implementation of a video education tool for patients before scheduled induction of labor was associated with little improvement in knowledge about induction procedures, but no significant improvement in patient satisfaction measures. While video education has been demonstrated to improve patient knowledge in various specialties, including obstetrics, our study demonstrated that real-world implementation and patient uptake may be initially difficult. This study may help providers emphasize direct education and counseling during face-to-face interactions. While we did not find many measurable improvements in patient experience with video instruction implementation, we continue to use the educational tool as an adjunct to preprocedure counseling.