Remote Prenatal Care Monitoring With Digital Health Tools Can Reduce Visit Frequency While Improving Satisfaction [3]

Marko Kathryn I. MD; Ganju, Nihar MD; Brown, James; Benham, Joshua MD; Gaba, Nancy D. MD

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Abstract

INTRODUCTION: A high frequency of in-clinic visits is standard for prenatal surveillance. Yet in studies, reduction in prenatal care visits is not correlated with adverse perinatal outcomes for low-risk pregnancies. However, it is associated with decreased patient satisfaction. This study sought to measure the effect of reducing the frequency of prenatal visits while applying mobile/digital health technology for improved patient satisfaction and equivalent outcomes in low-risk pregnancies.

METHODS: 100 first-trimester low-risk obstetric patients were enrolled in a controlled study. 50 patients were placed on an alternative prenatal care schedule (8 visits), supplemented with an integrated technology platform of a mobile application and digital devices (weight scale and blood pressure cuff). The remaining 50 patients in the control group received routine frequency of care, without technology. Patients were evaluated for satisfaction, outcomes and engagement throughout pregnancy.

RESULTS: The study group attended 8.0±0.0 prenatal care visits, compared to 14.0±0.0, P<.005 in the control group. There was also increased patient satisfaction, and high engagement rates with the technology platform (determined by mean app task completion rates of 86.7±18.1%). On average, we generated fivefold more data points for weight and blood pressure measurements per patient with the digital devices. No adverse clinical outcomes occurred in either group.

CONCLUSION/IMPLICATIONS: Despite a 43% reduction of in-clinic visits, prenatal care supplemented with remote monitoring demonstrates enhanced satisfaction and increased engagement with no change in perinatal outcomes. Thus, mobile/digital technology may facilitate a new paradigm of prenatal care delivery that is safe, cost-effective and risk-appropriate.