

Title: Postpartum Care Quality: Real-Time Postpartum Symptom Monitoring through Gator MOMitor™

Background:

Gator MOMitor™ is a smartphone-based application that utilizes EMA technology to provide an effective and safe tool for obstetrics clinicians to effectively address maternal morbidity and mortality by continuing to monitor at-risk postpartum women during the initial 6 weeks postpartum through an innovative method allowing for decreased face-to-face interaction. Gator MOMitor™ allows for continuous monitoring and real-time assessment of postpartum women who are at risk of developing mental health and medical conditions and equips those women with a tool for self-management and increased patient-provider communication.

The immediate impact of this mobile health (mHealth) care quality project is to provide crucial follow-up of postpartum patients on a routine basis, thereby actively and rapidly identifying new or worsening psychiatric or medical conditions, so that they can be addressed in real-time by phone conversation, telehealth, or in-person visits.

Methods:

Intervention Detail: Patients delivering at UF Health were offered participation in Gator MOMitor™ from November 1, 2021 to current. Included data is through December 31, 2022, and comprises 939 patients. Gator MOMitor™ intervention arms include: mood, hypertension, cesarean wound infection, Type I, II diabetes, cardiovascular disease, and lactation concerns. This abstract specifically focuses on mood and hypertension. All patients, 939, were enrolled in the mood intervention, 374 patients (38.6%) were enrolled in hypertension intervention. A total of 6309 assessments were completed by patients. Of these, 3044 were for hypertension and 2118 were for mood. When a positive result or concerning symptom was received, a notification was triggered to the study nurse and the patient was contacted immediately. Based on the evaluation, the nurse could reassure the patient, discuss the treatment plan with the physician, schedule a telehealth or clinic visit, or refer the patient to the emergency department or for inpatient admission. A positive result for the mood intervention included an Edinburgh Postpartum Depression Scale (EPDS) score of 12 or greater, or a request via the app for the nurse to contact the patient regarding her mood. A positive result for hypertension included a blood pressure value greater than 140/90.

Results:

In the mood intervention group, 209 follow-ups with patients were required due to positive results. As a result of the app-prompted follow-up contacts during the study period, 4 patients were admitted to a psychiatric hospital, 15 patients were seen in clinic for intervention, 5 patients were referred for lactation services, 5 patients had an in-home wellness check by county officials to verify they did not require hospitalization. Nearly half (100|209) patients had continued monitoring resulting in no further action after follow-up via app trigger. Only 49 patients were unreachable for follow-up by phone following a trigger from the app.

Of the hypertension intervention group, 220 follow-ups with patients were required due to positive results. As a result of the app-prompted follow-up contacts during the study period, 11 patients were hospitalized for blood pressure management, 10 received outpatient treatment and 8 were referred to the emergency department for evaluation. Most (160|220) had continued monitoring resulting in no further action after follow-up via the app. 25 were unreachable by phone following the trigger from the app.

Conclusions:

Gator MOMitor™ improves follow-up of postpartum women, allowing for their active engagement in their mental and physical health, and improves access to care. Additionally, rapid identification and treatment of postpartum conditions (postpartum depression, pre-eclampsia, cardiovascular disease, poorly controlled diabetes, post-operative wound infections, and lactation concerns) is an opportunity to decrease unplanned inpatient readmissions.