M♡THer Gestational Diabetes Mellitus (GDM) App and Interactive Clinician Portal (Internet-based)

Metro South Health and CSIRO
Australia
GDM is one of the most common medical complications of pregnancy

GDM usually occurs around the 24th to 28th week of pregnancy

GDM is associated with short and long term risks for both mother and baby, especially if blood glucose levels are not well controlled
The incidence of GDM is increasing

In Queensland, the incidence rose from 4.9% to 8% between 2006-2013

New diagnostic criteria for GDM were introduced in 2014

16% of women engaged in Maternity Services at Redland Hospital are diagnosed with GDM (Over 300 women per year)
Suboptimal systems for sharing health measures
Key Problem for Suboptimal Care

- Women with GDM carry a paper based BGL diary
- BGL results not always available to the MDT team in a timely manner
- Inconvenient
- Ineffective
- Suboptimal Co-ordination of Care

Queensland Government
Metro South Health
Improved Care Through Innovation

Women with GDM record Health Measures in MOTHER

Health Measure viewed & reviewed by MDT team

Women’s Health Measures discussed at weekly MDT meeting

MDT Co-ordinated Care

Possible decrease in unnecessary clinic visits

Expedite access to Clinical Services

Queensland Government
Metro South Health
Collaboration with CSIRO

- Mobile health (mHealth) solutions that includes both web-based and smartphone applications has been increasingly used in the management of chronic disease.
- In conjunction with CSIRO, a platform comprised of a smartphone App and web portal - Mobile Health or mHealth Technology for a Mother or ‘M♥Ther’ - was developed for use by women with GDM.
- Leveraged off the validated mHealth program for cardiac rehabilitation.
MOTHer GDM App & Portal
The GDM App
Pilot Study

- Primary outcomes are user adoption and user satisfaction with this system following diagnosis of GDM
- Fully recruited with 40 participants, and all women have birthed
- Results show good levels of satisfaction with adoption of and continued use of the app
- The women commented that the app was easy to use and convenient
The pilot study has confirmed that this technology works for women with GDM, and some enhancements have been identified.

The next step is a widespread implementation trial, in continued partnership with CSIRO, across all maternity units in the Metro South Hospital and Health Service (6000 births per year or >900 women with GDM).

The App would be offered to all women with diagnosed with GDM as an alternative to the paper based diary.

Commercialisation of this technology platform for GDM.
Acknowledgments

• The CSIRO team, especially Marlien Varnfield
• Liesel Higgins
• Joel Iedema, Rachel Stoney, Roisine Warwick, Janet Knowles, Barbara Kleine, Denis Morton, Naomi Scolari
Contact us

Wendy Dutton
Redland Hospital
Wendy.Dutton@health.qld.gov.au
07 34883719