
Enhancing obesity management using mobile Health

Initiative Type

Model of Care

Status

Sustained

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Summary

A suite of mobile health (mHealth) services has been designed, implemented and evaluated as an adjunct to routine care in post-bariatric surgery patients to support behaviour change and improve long term health outcomes. Positive project outcomes have resulted in these mHealth services be delivered as the business as usual model in the Statewide Bariatric Service, Royal Brisbane and

Women's Hospital (RBWH) moving forward.

Key dates

Jul 2019

Jun 2021

Implementation sites

Royal Brisbane and Women's Hospital, Herston

Partnerships

Griffith University

Key Contacts

Jane Musial

3881

[Anonymous](#)

Dietition, RBWH

Nutrition and Dietetics Department, RBWH

(07) 3647 0492

jane.musial@health.qld.gov.au

Aim

To design, implement and evaluate a mHealth model of care for bariatric surgery patients to support behaviour change and improve long term health outcomes.

Benefits

- supports behaviour change through targeted educational information to improve long term outcomes
- is NOT resource intensive
- has the ability to ensure out of town patients receive equitable care
- creates service efficiencies

Background

The Statewide Bariatric Service offers bariatric surgery to eligible patients from across Queensland. However, due to capacity limitations the service can only provide post-operative care for 12 months post-surgery. To achieve long term health outcomes and maintain weight loss, it is important to address underlying behaviour change issues. mHealth services have the ability to address this through providing more frequent, sustained and targeted health information to patients with minimal resources

Solutions Implemented

A suite of mHealth (mobile health) services including educational text messages, eNewsletters, patient videos, a bariatric surgery website and increased telehealth services were developed to compliment standard face to face care for patients undergoing bariatric surgery.

Evaluation and Results

A mixed methods evaluation was applied for the implementation of service and the clinical outcomes. Outcome measures include recruitment rate, retention rate, excess weight loss, HbA1c, blood pressure, quality of life, human eating behaviour, feasibility and acceptability, technology functionality, healthcare utilisation and cost effectiveness.

- 50 patients were recruited to the study

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- 98% of patients offered mHealth services accepted
 - 100 text messages developed, over 50 sent throughout project and six eNewsletters were sent
 - only one patient opted out of receiving content

Survey results of patients receiving mHealth services

- 93% of respondents agreed that the frequency of text messages being sent was appropriate
- 93%-of respondents receiving text messages always read the content
- 100% of respondents agreed or strongly agreed that text message content was easily understood
- 86% of respondents reported the newsletter content useful

Pre- and post-bariatric surgery appointments conducted via telehealth increased from 13% prior to the mHealth model to 35% since implementation. In addition, all pre-operative appointments are conducted via telehealth for out of town patients. Prior to the mHealth model of care, patients travelled to Brisbane for at least two visits pre- surgery. Patient interviews conducted with those receiving mHealth content indicate:

- mHealth has met expectations to provide extra support and motivation to facilitate long term success
- patients enjoy the tips and reminders sent by text message
- patients report implementing recommendations received and acknowledge the benefits
- patients enjoy hearing about other patient experiences in the e-newsletter
- a desire for a support group was a consistent theme.

Lessons Learnt

- Patients have the ability to navigate technology and are accepting of mHealth services as an adjunct to routine care.
- Several patients experience barriers to attending face-to- face appointments.
- Telehealth services require skilled and knowledgeable administration staff for effective delivery.

References

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Siopis, G., T. Chey, and M. Allman-Farinelli, *A systematic review and meta-analysis of interventions for weight management using text messaging*. Journal of Human Nutrition and Dietetics, 2015. 28(s2): p. 1-15

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