Is opt-out enrolment acceptable for low-risk digital health services?

Rosie Dobson[A,B,*] , Amanda Uri[A,C], Robyn Whittaker[A,B], Karen Evison[D], Elaine Umali[A] and Hayden McRobbie[D]

For full list of author affiliations and declarations see end of paper

*Correspondence to:
Rosie Dobson
National Institute for Health Innovation,
University of Auckland, Auckland,
Aotearoa New Zealand
Email: r.dobson@auckland.ac.nz

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Felicity Goodyear-Smith

ABSTRACT

Introduction. Digital health programmes not only complement existing services, but have the potential to reach populations that existing services are not reaching. Many of these services require people to opt-in to receive them, which presents significant barriers to access. An alternative is to make low-risk digital services opt-out, ensuring appropriate members of the target audience are signed up for a service unless they select to not receive it. **Aim.** This study aimed to investigate how changing enrolment in a low-risk digital health programme from opt-in to opt-out would impact on enrolment and dropout rates. **Methods.** This study involved the retrospective analysis of registration data from txtpēpi, a maternal and child health text-message programme. System-recorded data from enrolments during a 12-month period were obtained. In the first 6 months, users had to opt-in to the service (Period 1), but in the following 6 months, an opt-out process was implemented (Period 2). **Results.** There was a 77% increase in enrolments in Period 2 (n = 113) compared to Period 1 (n = 64) and no significant change in the proportion of enrolments of Māori between time periods (P = 0.508). There was no significant difference in withdrawal rates between time periods at either 2 weeks (5% vs 6%, P = 0.676) or 1 month (9% vs 9%, P = 0.907). **Discussion.** This study has shown switching from an opt-in to an opt-out option resulted in an increase in enrolments in an mHealth programme, but had no impact on withdrawals. This indicates that employing opt-out enrolment for low-risk evidence-based interventions is acceptable and a potential way to make these services more accessible.

Keywords: child health, digital health, maternal health, mobile phone, mHealth, short message service, SMS, text messages.

Introduction

Differential access to health services contributes to health inequities between Māori and non-Māori.[1] There is potential that technology can play a role in providing accessible health services for Māori.[2] Digital platforms, including mobile phones, have been shown to be effective and acceptable modalities for the delivery of low-risk health interventions such as interventions for smoking cessation,[3] diabetes self-management,[4] maternal health,[5] and medication adherence.[6] And these platforms have also been shown to be equally effective in Māori and non-Māori.[7]

Digital health programmes can complement existing services by reinforcing key information, providing support and motivation in everyday environments, and reaching populations that existing services are not adequately reaching.[8] In most cases, there is a requirement for the patient to take some active role in enrolling for the service (opt-in), which presents significant barriers arising from firstly being aware of the service, and then having the means and time to complete the enrolment process. An alternative option is to make evidence-based, low-risk digital services 'opt-out', which means that all appropriate members of a target audience are automatically enrolled unless they select to not receive it, commonly done by ticking a box on a form. Opt-out approaches have shown promise in increasing participation in research and population health programmes internationally.[8–11]

WHAT GAP THIS FILLS

What is already known: Low-risk digital health programmes have the potential to complement traditional primary care services and provide reach into populations that existing services are not reaching. Although there is growing evidence for these programmes, enrolment processes can be a key barrier to access.

What this study adds: This study aimed to investigate how changing enrolment in a low-risk text message-based maternal health programme (txtpēpi) from opt-in to opt-out would impact enrolment and dropout rates. This study has shown that utilising opt-out enrolment for low-risk interventions is acceptable and is a potential way to make health services more accessible, thus reducing the sign-up burden for end-users.

This study aimed to investigate how changing enrolment in a low-risk digital health programme (txtpēpi) from opt-in to opt-out would impact enrolment and dropout rates.

Methods

This study involved the retrospective analysis of registration and engagement data from the txtpēpi programme. Ethical approval for this study was obtained from the New Zealand Health and Disability Ethics Committee (21/NTB/84). Research approval from Lakes District Health Board (DHB) was also obtained.

txtpēpi

txtpēpi is a maternal and child health text-message programme for māmā and whānau in the Lakes district (Rotorua, Taupō, Tūrangi and surrounding areas). The personally tailored text messages provide information, encouragement, tips, and links to local services to support māmā and whānau to care for their pēpi. The programme, available in Te Reo Māori or English, was adapted locally from a similar programme, TextMATCH, developed by the National Institute for Health Innovation (University of Auckland) for Waitematā and Auckland DHBs.[12] The free programme provides information and support to pregnant māmā and māmā of children under the age of 2 years and their whānau. txtpēpi went live in early 2021 for māmā and whānau living in the Lakes district. Users can withdraw from the programme at any time by free texting the word, STOP/KATI. The text message platform keeps a log of enrolment and withdrawal data. When the programme was first implemented, people could self-enrol for the programme or could be enrolled on it by their clinician (eg midwife). But in September 2021, additional to the existing enrolment options, all women or whānau signing up for hapū wānanga services in the district were automatically enrolled in txtpēpi unless they opted out on the registration form.

Participants and data source

System-recorded data from enrolments to the txtpēpi pregnancy programme during the 12-month period (22 March 2021 to 21 March 2022) were obtained. During the first 6 months, users had to opt-in to the service (Period 1: between 22 March and 21 September 2021) and in the following 6 months, the opt-out process was implemented (Period 2: between 22 September 2021 and 21 March 2022). Data extracted included demographics and dates of enrolment and withdrawal (dropouts).

Analysis

Descriptive statistics were produced from the system-recorded data for demographic and programme characteristics (date of registration, date of withdrawal, ethnicity, language choice (Te Reo Māori/English), category (māmā/whānau)). Chi-squared tests were used to assess differences between groups. All statistical tests were two-sided at a 5% significance level.

Results

A total of 177 people signed up to the txtpēpi service during the study period, of which 118 (67%) were Māori. The majority were māmā ($n = 163$; 92%), with the remainder whānau members (14; 8%), and most opted to receive their messages in English ($n = 160$; 90%) instead of Te Reo Māori (17; 10%). Of the 177 enrolments to the programme, nine (5%) users withdrew within the first 2 weeks and a total of 16 (9%) withdrew during the first month.

Table 1 presents enrolments and withdrawals by period. There was a 77% increase in people registered for the txtpēpi

Table 1. Enrolments and withdrawals by study period.

	Total	Period 1 'opt-in'	Period 2 'opt-out'
	n (%)	*n* (%)	*n* (%)
All			
Total enrolments	177 (100)	64 (100)	113 (100)
Withdrawals			
Withdrawals within the first 2 weeks	10 (5)	3 (5)	7 (6)
Withdrawals within the first month (<31 days)	16 (9)	6 (9)	10 (9)
Māori			
Total enrolments	118 (100)	41 (100)	77 (100)
Withdrawals			
Withdrawals within the first 2 weeks	8 (7)	3 (7)	5 (6)
Withdrawals within the first month (<31 days)	11 (9)	4 (10)	7 (9)

service in Period 2 (*n* = 113) compared with Period 1 (*n* = 64). There was no significant change in the proportion of enrolments of Māori between time periods (64% vs 68%, *P* = 0.508). There was no significant difference in withdrawal rates between time periods at either 2 weeks (5% cf. 6%, *P* = 0.676) or 1 month (9% vs 9%, *P* = 0.907).

Of the 105 people who registered for the hapū wānanga services during Period 2 where enrolment in txtpēpi was included, 27 (26%) selected to opt-out of the txtpēpi service during registration.

Discussion

As expected, there was an increase in registrations for an mHealth maternal and child health programme when enrolment switched from opt-in to opt-out (automatic enrolment with the option to 'opt-out'). The change in enrolment process did not increase withdrawals from the service. Some (26%) did use the opt-out option, indicating that people were exercising autonomy over the services they received. txtpēpi was designed with and for Māori in the district, and 67% of those enrolling in the service during the study period were Māori. Crucially, the switch in enrolment to opt-out did not impact on enrolment rates for Māori. This study shows that utilising opt-out enrolment processes for low-risk, evidence-based services is potentially acceptable and should be considered as an option when designing services. By combining registrations for digital and in-person services, it reduces burden for users and has the potential to make their interactions with services appear more cohesive and simpler.

An opt-out approach to accessing services has also shown benefit in other areas of health care. For example, a study looking at opt-out referrals for smoking cessation support in pregnant women who smoke found that this process increased the number of women receiving smoking cessation support and self-reported quitting.[13] Furthermore, in New Zealand, opt-out is already being used; for example, the KiwiSaver scheme and the National Cervical Screening programme, where women are automatically enrolled after their first smear test. Although there is potential benefit to utilising opt-out processes, it is important that there is good oversight and monitoring in place to determine which programmes are most suitable, and to ensure that users do not get overwhelmed with services.

Consideration of limitations includes that user perceptions on the enrolment processes were not collected, and therefore it is not clear how users feel about the opt-out process, although it is important to note that no complaints about the enrolment processes were received (txtpēpi users are requested to provide feedback at regular intervals during the programme by free reply message). Further, it is possible that registrations could have been impacted by changes in the coronavirus disease 2019 (COVID-19) settings between periods, although maternity services continued throughout the changes in restrictions and the Lakes district was only in COVID-19 lockdown (Level 4) for a period of 2 weeks during the study period (Period two). A final limitation is the low number of withdrawals during the time period, which makes drawing conclusions around the impact of the opt-out process on withdrawals difficult.

Conclusion

This study has shown that utilising opt-out enrolment for low-risk interventions is acceptable and is a potential way to make evidence-based health services more accessible, thus reducing the sign-up burden for end-users.

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Author affiliations
[A]National Institute for Health Innovation, University of Auckland, Auckland, Aotearoa New Zealand.

[B]Te Whatu Ora – Waitematā, Auckland, Aotearoa New Zealand.

[C]Te Arawa Whānau Ora, Rotorua, Aotearoa New Zealand.

[D]Te Whatu Ora – Lakes, Rotorua, Aotearoa New Zealand.