

Using mHealth for the management of hypertension in UK primary care

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Document Version

Peer reviewed version

Citation for published version (Harvard):

Grant, S, Hodgkinson, J, Schwartz, CL, Bradburn, P, Franssen, M, Hobbs, FDR, Jowett, S, McManus, RJ & Greenfield, S 2019, 'Using mHealth for the management of hypertension in UK primary care: an embedded qualitative study of the TASMING4 randomised controlled trial', *British Journal of General Practice*, vol. 69, no. 686, pp. e612-e620.

[Link to publication on Research at Birmingham portal](#)

Publisher Rights Statement:

Checked for eligibility: 03/10/2019

<https://doi.org/10.3399/bjgp19X704585>

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Table 2 – Facilitators and barriers to self-monitoring and telemonitoring interventions, classified by key implementation priority area

Intervention group			
Self-monitoring with mHealth		Self-monitoring without mHealth	
Facilitators	Barriers	Facilitators	Barriers
Acceptability			
<ul style="list-style-type: none"> • Simple, quick and easy to use, technology widely available 	<ul style="list-style-type: none"> • May not suit all people across the wider population e.g. less technologically minded patients 	<ul style="list-style-type: none"> • Non-technical alternative, more usable across a wider population 	<ul style="list-style-type: none"> • Paperwork unwieldy
<ul style="list-style-type: none"> • Active patient engagement, empowerment to take control of 'own' BP 	<ul style="list-style-type: none"> • Not all patients want to be actively engaged with BP 	<ul style="list-style-type: none"> • Active patient engagement empowerment to take control of 'own' BP 	<ul style="list-style-type: none"> • Not all patients want to be actively engaged with BP
Managing data			
<ul style="list-style-type: none"> • Easily accessible online portal for HCP to view monthly BP readings 	<ul style="list-style-type: none"> • Separate website to log in to, not linked to practice's clinical system to enter average BP calculations 	<ul style="list-style-type: none"> • Hard copies/ written record of BP data for every patient, easily scanned to practice's clinical system 	<ul style="list-style-type: none"> • Extra workload for health professional/ other practice staff to process the paperwork (BP readings) e.g. scanning/data entry/ averaging
<ul style="list-style-type: none"> • Automatic calculation of average BP reading 	<ul style="list-style-type: none"> • Average BP value does not automatically import to the practice's clinical system 	<ul style="list-style-type: none"> • Easy view of the range of BP readings across the monitoring week 	<ul style="list-style-type: none"> • Risk of human error manually calculating a weekly average and entering monthly BP readings for each patient
<ul style="list-style-type: none"> • Web based visual metric of monthly average BP 	<ul style="list-style-type: none"> • May require help of others to make the system work e.g. partner assistance, using relative's phone 	<ul style="list-style-type: none"> • Once scanned in, manual written log was integral to the electronic health record 	<p>–</p>

<ul style="list-style-type: none"> • Encryption on own mobile phone device keeps data secure 	<ul style="list-style-type: none"> • Confidentiality and security concerns if (a) medical advice is missed/ not read (b) others (e.g. caregivers) required to help patient use system. 	–
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Integrating self-monitoring in hypertension management - Structured care

<ul style="list-style-type: none"> • Schedule for home monitoring BP provided 	<ul style="list-style-type: none"> • Time consuming, too rigid protocol for some, not suitable for everyone 	<ul style="list-style-type: none"> • Schedule for home monitoring BP provided 	<ul style="list-style-type: none"> • Time consuming, too rigid protocol for some, not suitable for everyone
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<ul style="list-style-type: none"> • Rapid clinical decision making reduced clinical inertia through a trusted reliable database of home monitored BP readings 	<ul style="list-style-type: none"> • Lack of reminder system for health care professionals to check BP readings. 	–	<ul style="list-style-type: none"> • Lack of reminder system for health care professionals to check BP readings.
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Communication

<ul style="list-style-type: none"> • Patients liked timely reminder feedback texts to send in BP readings 	<ul style="list-style-type: none"> • Potential increase in face to face appointments if uncertain of texting back 	–	<ul style="list-style-type: none"> • Potential increase in patients making extra appointments whilst at the practice to deliver paper readings
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<ul style="list-style-type: none"> • Texts sent by the GP encouraged patients to continue monitoring 	<ul style="list-style-type: none"> • Some patients prefer to see their doctor about BP and vice versa, doctors prefer to see some of the patients. 	–	<ul style="list-style-type: none"> • Some patients prefer to see their doctor about BP and vice versa, doctors prefer to see some of the patients.
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