

Digital interventions for hypertension and asthma to support patient self-management in primary care: the DIPSS research programme including two RCTs

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Plain English summary

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Plain English summary

Long-term conditions can be difficult and costly to manage. Online interventions (e.g. websites) can support people to look after their health at home, but we need to understand how to make these online interventions acceptable and effective.

We carried out a review of existing research, which showed that digital interventions could lower blood pressure and improve asthma symptoms, but the evidence was varied in terms of how well the interventions worked. We also developed and evaluated two online interventions (one for high blood pressure and one for asthma). Detailed feedback from patients and general practitioners helped us to improve the interventions to ensure that they were persuasive and easy to understand.

Our hypertension intervention (i.e. HOME BP) helped patients to monitor their own blood pressure at home and prompted general practitioners to change medication when the patient's blood pressure was raised over time. A trial with 622 patients found that after 1 year patients using the HOME BP intervention had lower blood pressure than patients receiving usual care. The HOME BP intervention had a high probability of being cost-effective in relation to the criteria used by the NHS.

Our asthma intervention (i.e. My Breathing Matters) provided information and support to help patients engage in activities that would help them to better control their asthma. For example, using their medication as prescribed or learning breathing exercises. We carried out a small trial to check whether or not our research procedures were feasible. We recruited 88 asthma patients (our target was 80 patients) and only a small number of patients did not complete questionnaires at all time points, suggesting that it would be worthwhile testing the asthma intervention with a larger number of people.

Interviews with patients and general practitioners suggested that the online interventions were acceptable and useful for helping to manage high blood pressure and asthma. This research suggested modifications for improving users' experiences.

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