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The development and co-design of the PATHway intervention: a theory-driven eHealth platform for the self-management of cardiovascular disease.

Walsh, D., Moran, K., Cornelissen, V., Buys, R., McDermott, L., Claes, J., Zampognaro, P., Melillo, F., Malgaveras, N., Chouvarda, I. Triantafyllidis, A., Filos, D., Woods, C.

Background

Cardiovascular diseases (CVD) are a leading cause of premature death and disability and an economic burden worldwide. International guidelines recommend routine availability and delivery of all phases of cardiac rehabilitation (CR). Uptake of traditional cardiac rehabilitation remains suboptimal, as attendance at formal hospital-based CR programmes is low, with community-based CR rates and individual long-term exercise maintenance even lower. Home-based CR programs have been shown to be equally effective in clinical and health-related quality of life outcomes, and yet are not readily available.

Purpose

The aim of the current study was to develop the PATHway intervention (Physical Activity Towards Health) for the self-management of cardiovascular disease. Increasing physical activity in individuals with CVD was the primary behaviour.

Methods

The PATHway intervention was theoretically informed by the Behaviour Change Wheel (BCW) and Social Cognitive Theory (SCT). All relevant intervention functions, behaviour change techniques (BCTs) and policy categories were identified and translated into intervention content. Furthermore, a person-centred approach was adopted involving an iterative co-design process and extensive user-testing.

Results

Education, enablement, modelling, persuasion, training and social restructuring were selected as appropriate intervention functions. Twenty-two BCTs, linked to the 6 intervention functions and 3 policy categories were identified for inclusion and translated into PATHway intervention content.

Conclusions

This paper details the use of the BCW and SCT within a person-centred framework to develop an eHealth intervention for the self-management of CVD. The systematic and transparent development of the PATHway intervention will facilitate the evaluation of intervention effectiveness and future replication. The Template for Intervention Description and Replication (TIDieR) checklist was used to specify details of the intervention including the who, what, how and where of proposed intervention delivery (see additional file 1).

Keywords: intervention development, person-centred approach, behaviour change wheel, health behaviour change, eHealth, physical activity, cardiovascular disease