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Background

Cardiovascular disease (CVD) is the leading cause of premature death and disability in Europe, costing the EU economy almost EUR 196 billion a year. While effective cardiac rehabilitation (CR) improves mortality and morbidity rates, uptake of community-based CR, which represents the long-term rehabilitation phase (III), is very low (approximately 11%). Numbers are further diminished by low adherence rates. Key reasons for this include lack of programmes, travel time and scheduling issues.

PATHway will provide individualised rehabilitation programs that use regular, socially inclusive exercise sessions as the basis upon which to provide a personalized, comprehensive lifestyle intervention program (managing exercise/physical activity (PA), smoking, diet, stress management, alcohol use etc.) to enable patients to both better understand and deal with their own condition and to lead a healthier lifestyle in general. This will be made possible by the provision of an internet-enabled, sensor-based home exercise platform that allows remote participation in CR exercise programs at any time, either by one-self or by a small number of patients, from the comfort of their own living room.



Objective

The aim of this study was to understand PATHway patients' technology competencies, needs and wants.

The objective of this research was:

-to identify CVD patients experience of, and their needs and wants from a technology-based intervention including an assessment of smart phone use, internet use and interest in a virtual cardiac rehabilitation programme.

Method

A technology usage questionnaire based on a previous study investigating the role of technology and mHealth in a CVD population was used (Dale et al., 2014) to ascertain the current level of technology use. All patients attending the Phase Four community cardiac rehabilitation HeartSmart programme (MedEx) were recruited (N=67; 66.2 years, SD= 8.55, Males =76.1%, Females=20.9%).

Conclusions

This study provides support for the patient need for a technology enabled behavioural change intervention, specifically through the provision of an internet-enabled sensor-based home exercise platform that allows remote participation in CR exercise programs.

Results

Technology usage was high with 60% of participants owning a smartphone and 85% accessing the internet (54% of whom access it everyday). Participants endorsed the idea of technology enabled cardiac rehabilitation, indicating that they found the idea 'appealing'. 79% were interested in receiving ongoing CR support via their smartphones, 79% were interested in receiving CR via the internet. It was found that 52% of patients found the idea of a virtual rehabilitation class appealing.