of physical activity. A lack of timely and personalised communication between CR services and patients was seen as a barrier to enrolment.

Conclusion Misconceptions of patient perceived eligibility and communication of the benefits of CR can influence patient's decision to engage. Furthermore, engagement may be improved via offering patients adequate communication and greater flexibility over their rehabilitation journey.

22 AN ACCELEROMETERY-BASED EVALUATION OF SITTING TIME IN CARDIOVASCULAR PREVENTION AND REHABILITATION PARTICIPANTS

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10.1136/heartjnl-2022-BACPR.22

Background Sedentary behaviour (i.e., sitting time) is a modifiable risk factor for cardiovascular disease and an important part of secondary prevention. Sedentary behaviour greater than 9.5 hours per day is strongly associated with all-cause mortality. Few studies have quantified sitting time in cardiovascular prevention and rehabilitation (CPR).

Aims The primary aim was to robustly evaluate sitting and physical activity time in CPR attendees.

Methods 105 consecutive patients attending a CPR programme in Northern Ireland wore a blinded research-grade accelerometer (activPAL) on their thigh 24h/day for seven days as part of their initial assessment (IA). They then completed an individualised 8-12 week virtually-delivered CPR programme, which included personalised physical activity programming supported by a Fitbit device with weekly reviews and educational resources. At the end of programme (EOP) participants repeated the seven-day activPAL measurement. Sitting time was calculated as mean hours ± standard deviation (SD) and as a percentage of activPAL wear time during waking hours (WWT). A paired t-test compared differences in time spent sitting, standing and moderate-to-vigorous physical activity (MVPA) between IA to EOP.

Abstract 22 Table 1 Change in Sitting Time and Moderate-to-Vigorous Physical Activity

ActivPAL output variables	Pre Mean ±SD	Post Mean ±SD	Mean difference [95% CI]	*P* value
Average total sitting time (hours/day)	10.53 ± 2.23	9.73 ± 2.55	-0.80 [-1.30, -0.30]	**0.002**
Average total standing time (hours/day)	3.30 ± 1.85	4.03 ± 1.90	0.73 [0.43, 1.03]	**<0.001**
Average MVPA time [step cadence >100/min] (hours/day)	0.49 ± 0.52	0.62 ± 0.58	0.13 [0.01, 0.25]	**0.03**
Total sitting time (% wear time)	68.7 ± 13.9	61.7 ± 15.6	-7.5 [-10.5, -4.6]	**<0.001**

Results 101 participants (96%) had valid activPAL data at both timepoints. Mean age was 62 years (±11 years). The majority were male (77%). The activPAL data demonstrated significant reductions in sitting time, increased standing time and increased MVPA (table 1). However upon programme completion, participants still spent 62% of their WWT sitting (mean ± SD: 9.73 hours ± 2.55).

Conclusions Whilst the CPR programme resulted in reduced sitting time, daily sitting remained detrimentally high in CPR graduates. Despite participants meeting the MVPA recommendations within physical activity guidelines, sitting time remains a major concern. Routine assessment of sitting time in CPR is recommended. Effective interventions to reduce sitting in CPR warrants further investigation.

23 DIGITALLY ENHANCING EFFECTIVE HOME-BASED CARDIAC REHABILITATION FOR PEOPLE LIVING WITH HEART FAILURE

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10.1136/heartjnl-2022-BACPR.23

Background Heart failure (HF) continues to show an increasing prevalence and despite NICE guidance recommending that all patients with heart failure should receive cardiac rehabilitation (CR) participation in CR remains poor.

Aim To provide an additional mode of access to CR by digitally adapting, the evidence-based REACH-HF intervention, a facilitated home-based programme that clinically effective and cost-effective.

Methods We took an iterative approach to intervention development, exploring patient, caregiver, and healthcare professional (N=19) perceptions of various iterations of prototype designs of the D:REACH-HF platform with up to 2 interviews per participant resulting in 24 think aloud interviews (n= 28). Interviews were thematically coded and data were organised in a Table of Changes to help inform next design iteration. A patient advisory group was involved in interpreting findings and providing input into changes to designs.

Results The think aloud interviews focused on design, navigational, functional and content. Participants talked about barriers to navigation where links or buttons were not present, or clearly visible. Other barriers to accessibility were of font sizes, colour scheme, and ambiguous use of icons. Design issues were often accompanied by mentions of potential. For example, the ability to change text size, image contrast, as well as more complex functionality like sharing self-monitoring tools (progress trackers) with family and friends and setting medication reminders. Although, presentation of the content required breaking up in smaller chunks to be less overwhelming in places, persuasiveness of the content was less often highlighted as requiring change.

Conclusion Following the think aloud interviews (having worked with the intended users of the intervention and ensure that users' perspectives are taken into account) we shared these with our industry partner (Health and Care Innovations) and we now have a fully functional digital version of REACH-HF which is being test for acceptability and feasibility.