

Exploring the **acceptability** and **feasibility** of implementing **activity monitoring devices** to support physical activity within an **exercise referral scheme**

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DECIPHer

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A UKCRC Public Health Research Centre of Excellence

Background

- Exercise Referral Schemes (ERS) are a common model of physical activity intervention
- Evidence that ERS increase activity in short-term
- Less evidence for long-term maintenance of activity
 - Need for enhanced motivational support to optimise and maintain effects long-term?
 - ERS should support transition to autonomous motivation by supporting psychological needs
- Activity monitoring devices provide opportunities to enhance delivery of motivational support

Exercise Referral in Wales



Wales National Exercise
Referral Scheme (NERS)
Cynllun Atgyfeirio Cleifion
i Wneud Ymarfer Corff Cymru

- In Wales, the National Exercise Referral Scheme is a 16-week programme that runs in all 22 local authorities
- Provides 1:1 instruction and/or group exercise
- Previous RCT found NERS to have significant impacts on physical activity at 12-month follow-up
- Change in physical activity was explained largely by improvement in autonomous motivation
- Building on this previous research to explore whether monitoring devices can help support motivation

The MyWellnessKey device

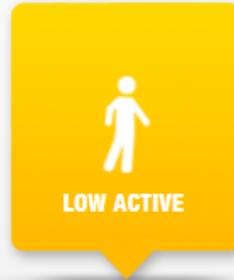
- Accelerometry-based uniaxial activity monitor
- Components include:
 - Real-time visual feedback via device's screen
 - Detailed feedback via web platform (MyWellnessCloud) to indicate progress towards goals, time spent at different intensities and calories burned, manually add other activity
 - Automatised goal progression
 - Facilitation of social support with exercise professional and friends
- Can they be implemented alongside usual practice?





WEEKLY ACTIVITY LEVEL

Last mywellness key sync on: 25/01/2016



YOUR WEEKLY GOAL: **210** MOVES

Add activities and exercises

New activity



Logbook



Aspirations determinate the way people live and move. **Discover what makes you move**

All

MOVEMENT

DAILY ACTIVITIES

EXERCISES

TRAINING PROGRAMME



Workout done @mywellness.com

12 November 2015 12:00

Your have completed the workout <<Free workout>> of 1 exercise - 20 min - 472 MOVES



mywellness key

12 November 2015

Your mywellness key has been synchronised. Your daily MOVES are 474



MOVEMENT

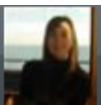
TRAINING

RESULTS

BODY MEASUREMENTS

CHALLENGES

COACH



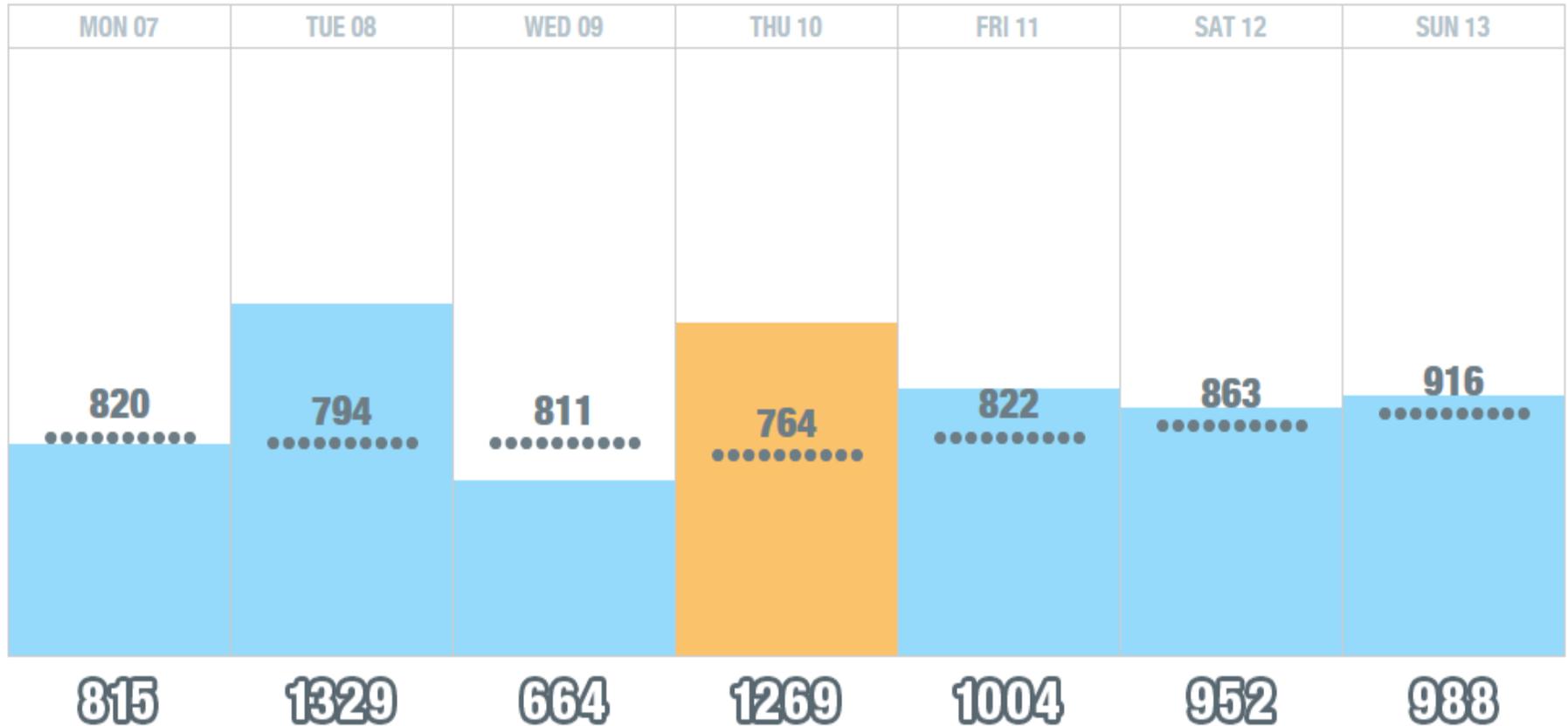
WEEKLY MOVES

•• DAILY GOAL ■ TRAINING PROGRAMME ■ EXERCISES ■ DAILY ACTIVITIES ■ MOVEMENT

◀ 07-13 OCTOBER 2013 ▶

OCTOBER ▼

2013 ▼



RESULTS

Select the type of result to view





HIGHEST NUMBER OF MOVES ON A BIKE

472 MOVEs

12 November 2015

TIME IN INTENSITY

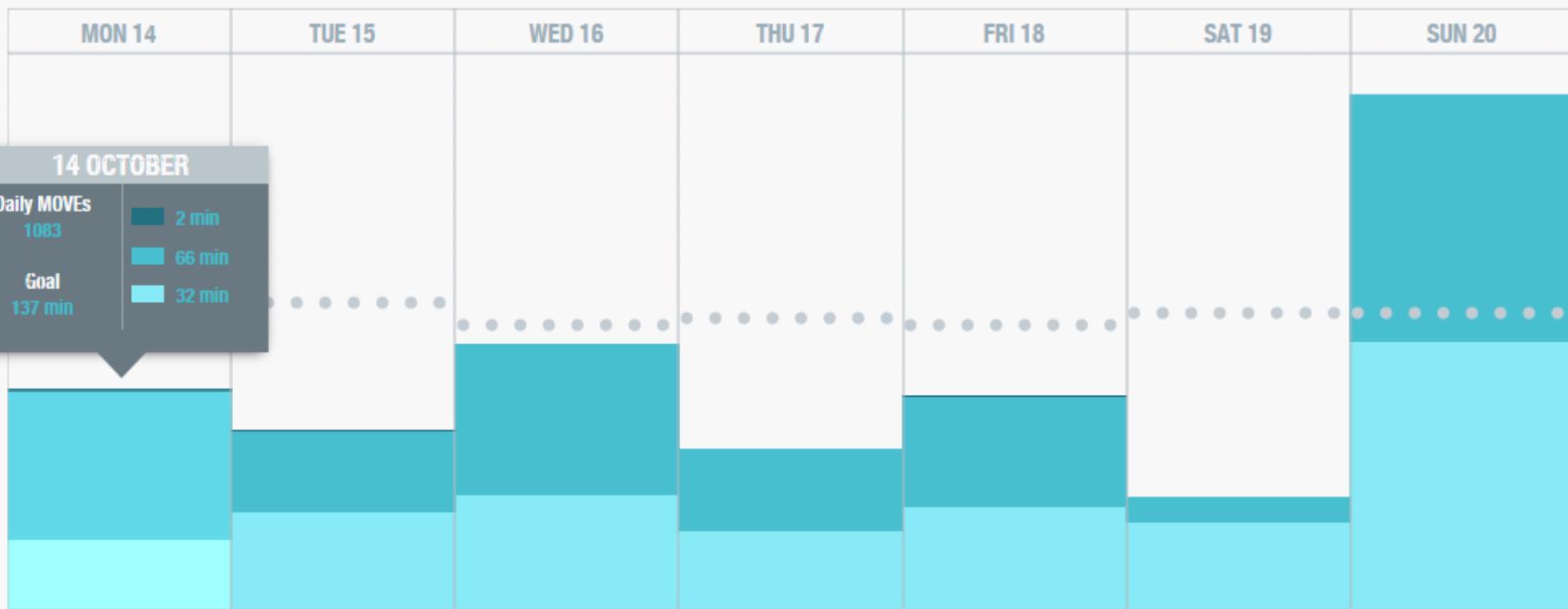
Time in intensity day by day

◀ 14-20 OCTOBER 2013 ▶

WEEKLY

MONTHLY

YEARLY



14 OCTOBER

Daily MOVEs
1083

Goal
137 min

- 2 min (High Intensity)
- 66 min (Medium Intensity)
- 32 min (Low Intensity)



Home



Profile



Contacts



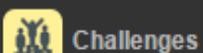
Prescribe



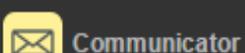
Self



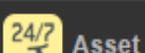
Coach



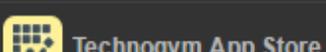
Challenges



Communicator



Asset



Technogym App Store



Staff



Club



Williams Joanna ✉

Last visit: 1 day ago

Last interaction: 1 day ago

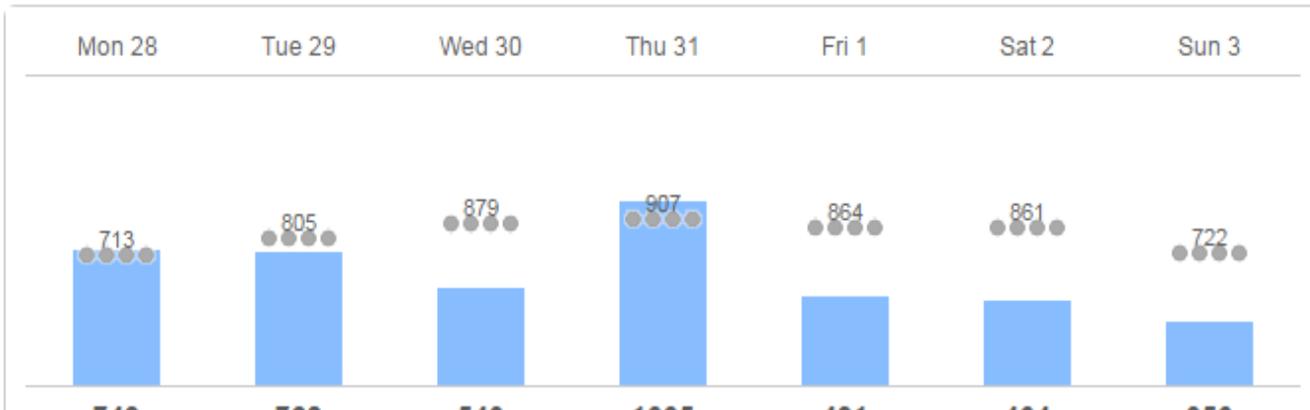


Activity level

Weekly MOVES



28 March - 3 April 2016



Action plan

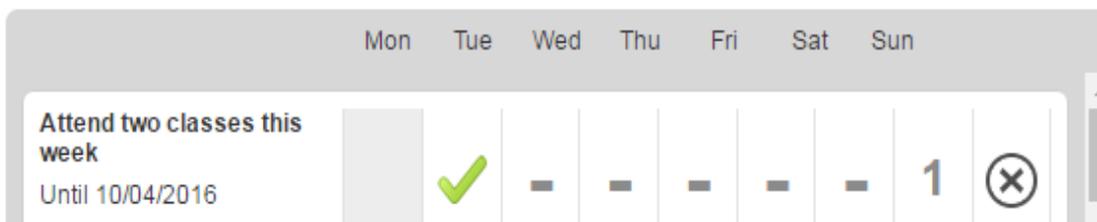
Next meeting No meeting **New**

Last meeting No meeting

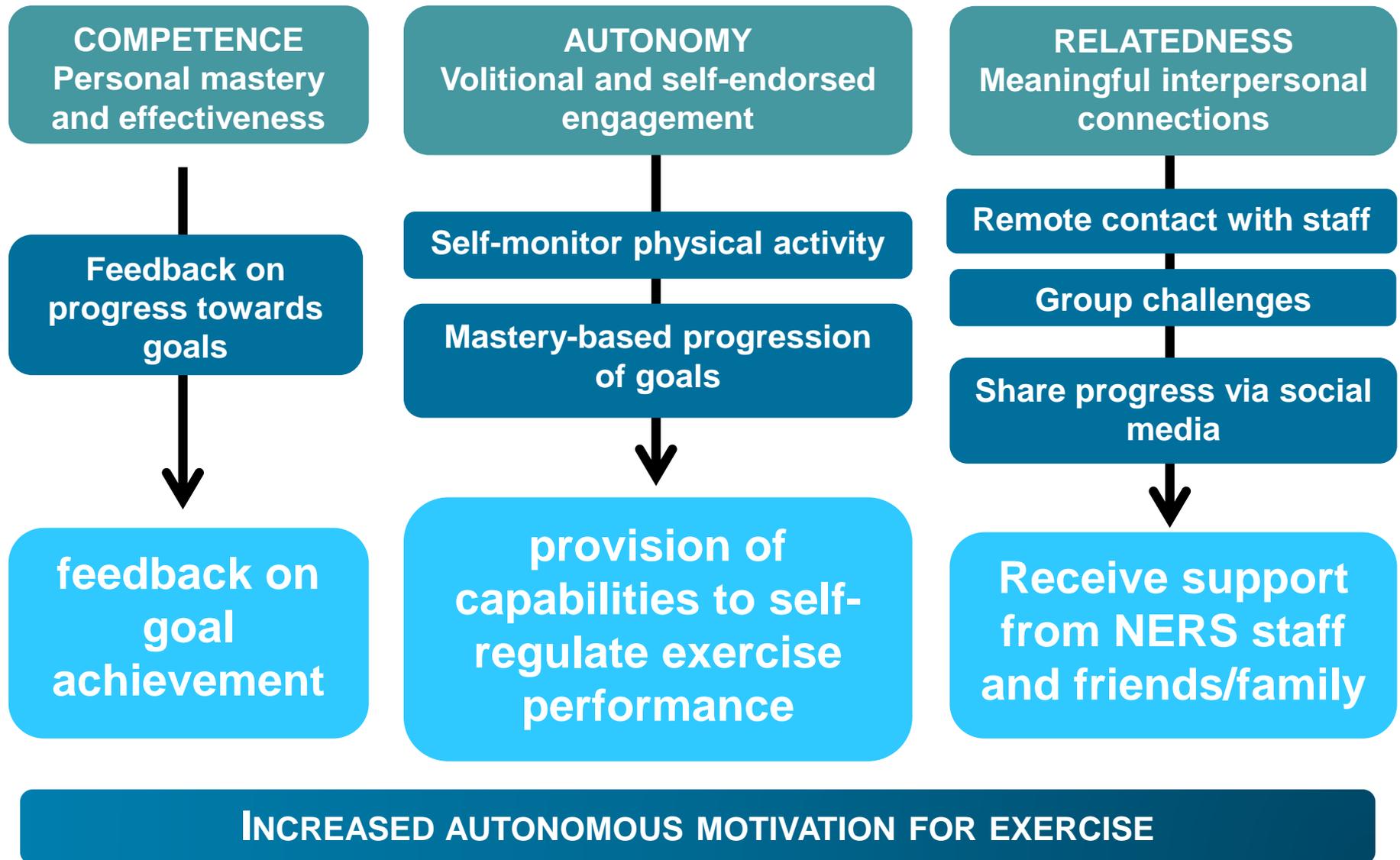
New action



4 - 10 April 2016



Supporting psychological needs



PACERS Aims and Objectives

Aim: Evaluate the **feasibility** and **acceptability** of the MWK intervention and effectiveness evaluation methods

Design: Pilot individually randomised controlled trial with embedded mixed-methods process evaluation.

Target Population: Individuals referred into the NERS generic pathway identified as having capacity to use the activity monitors.

Treatments: Control (NERS usual practice) and Intervention (NERS + MWK).

Setting: Purposive subsample of 8 areas, with variation in population size, level of deprivation, and rurality.

Research Questions

- How **feasible** is it to implement the MWKs in NERS?
What are the barriers / facilitators?
- How **acceptable** are the MWKs to NERS participants?
What are their experiences of using them and the web platform?
- Is a full scale RCT of the effectiveness of the MWKs warranted?
 - Can enough participants be recruited and retained?
 - Can we measure physical activity objectively?

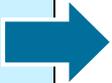
Methods

How **feasible** is it to implement the intervention?



- **Intervention ‘delivered as intended’**
 - Reports of receipt of intervention
 - Receipt of sufficient instructions
 - Self-reported usage data
 - Interviews re: intervention delivery

How **acceptable** is it to participants?



- **At least one of the two intervention components is acceptable to participants**
 - Participant-reported usage data
 - Perception of ease of use, likelihood of use, expectations met
 - Interviews re: acceptability and facilitators/barriers to use

Sample

- **156** participants from the generic pathway joined the study
 - **88 MWK**
 - **68 NERS usual care**
- The participants were representative of the wider NERS population in terms of age and gender
- Interviews conducted with sub-sample at 4wks & 12mths
 - **20 clients**
 - **11 staff members**

Findings: feasibility of implementation

- How **feasible** is it to implement the MWKs in NERS?
- What are the barriers / facilitators?

Questionnaire Data:

- 67% of participants received a MWK who were supposed to
- 94% received enough information to use the MWK
- 38% felt they didn't have enough information to use the Cloud
- In interviews, some participants talked about not being given any information about how to use the MWK

“They didn't show me how use it, I got given it at the end of the exercise session and they said well try it and see how it goes so I wasn't even told how to set it up”

Findings: feasibility of implementation

- How **feasible** is it to implement the MWKs in NERS?
- What are the barriers / facilitators?

Staff Interview Data:

- Most felt adequately prepared to deliver MWK to clients
- Being trained and familiar with the MWK system was key
- Some MWK devices had technical issues
- Time was a barrier for some people
- IT issues interfered with the set-up process in some areas
 - *USB connectivity, software download, internet access*

Findings: acceptability of intervention

- How **acceptable** are the MWKs to NERS participants?
- Most engaged in 'moderate' use of the MWK (not in last 3mths)
- 8.2% were still using at 12-month follow-up point

| | MWK | MWC |
|--------------------------------|------------|------------|
| - Engagement with intervention | 57% | 46% |
| - Intervention is easy to use | 49% | 33% |
| - Likelihood of future use | 37% | 15% |
| - Met expectations | 57% | N/A |

- Issues included IT access and **IT literacy**, technical problems, device **design**, understanding how the device worked

Findings: acceptability of intervention

- What are their experiences of using them and the Cloud?

Benefits of using MWKs

- Being able to view data on activity completed, graphs etc.
- Reflecting on progress made, 'seeing results'
- Being able to manually add activities on Cloud
- Receiving supportive summary emails
- Intensifies NERS

Facilitators to using MWKs

- Having regular access to a computer and the internet
- Being 'IT literate' and confident
- Information received on how to use the devices

Findings – overcoming issues

- Attempts made to overcome issues during study:
 - Use of laptops
 - Participants setting themselves up at home
 - Detailed ‘how to’ guide given to participants and staff
- Possible suggestions for the future?
 - More in-depth training, that covers IT issues and solutions
 - Use in other areas of the scheme
 - *E.g. those that don't come to the gym, use to support remotely*

Conclusions

- **Attempts were made to overcome issues with key, with mixed successes**
 - Not sufficient information to suggest the issues could be overcome without further feasibility testing
- **After considering all quantitative and qualitative data, decision made not to proceed to effectiveness study**
 - Results fed back to NERS national coordinator and commissioners to inform their decision about use of MWK

Funding acknowledgements

Funding Acknowledgement: This project was funded by the Welsh Government through the Health and Care Research Wales Health Research Award (HRA1019).

ISRCTN: 85785652

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