

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

Dr Jemma Hawkins

Research Fellow, DECIPHer, Cardiff University



DECIPHer

Development and Evaluation of Complex Interventions for Public Health Improvement
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

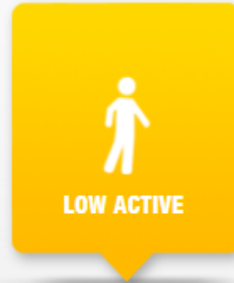
- Accelerometry-based uniaxial activity monitor
- Components include:
 - Real-time visual feedback via device's screen
 - Detailed feedback via web platform (MyWellnessCloud) to indicate progress towards goals, time spent at different intensities and calories burned, manually add other activity
 - Automatised 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

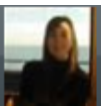
TRAINING

RESULTS

BODY MEASUREMENTS

CHALLENGES

COACH



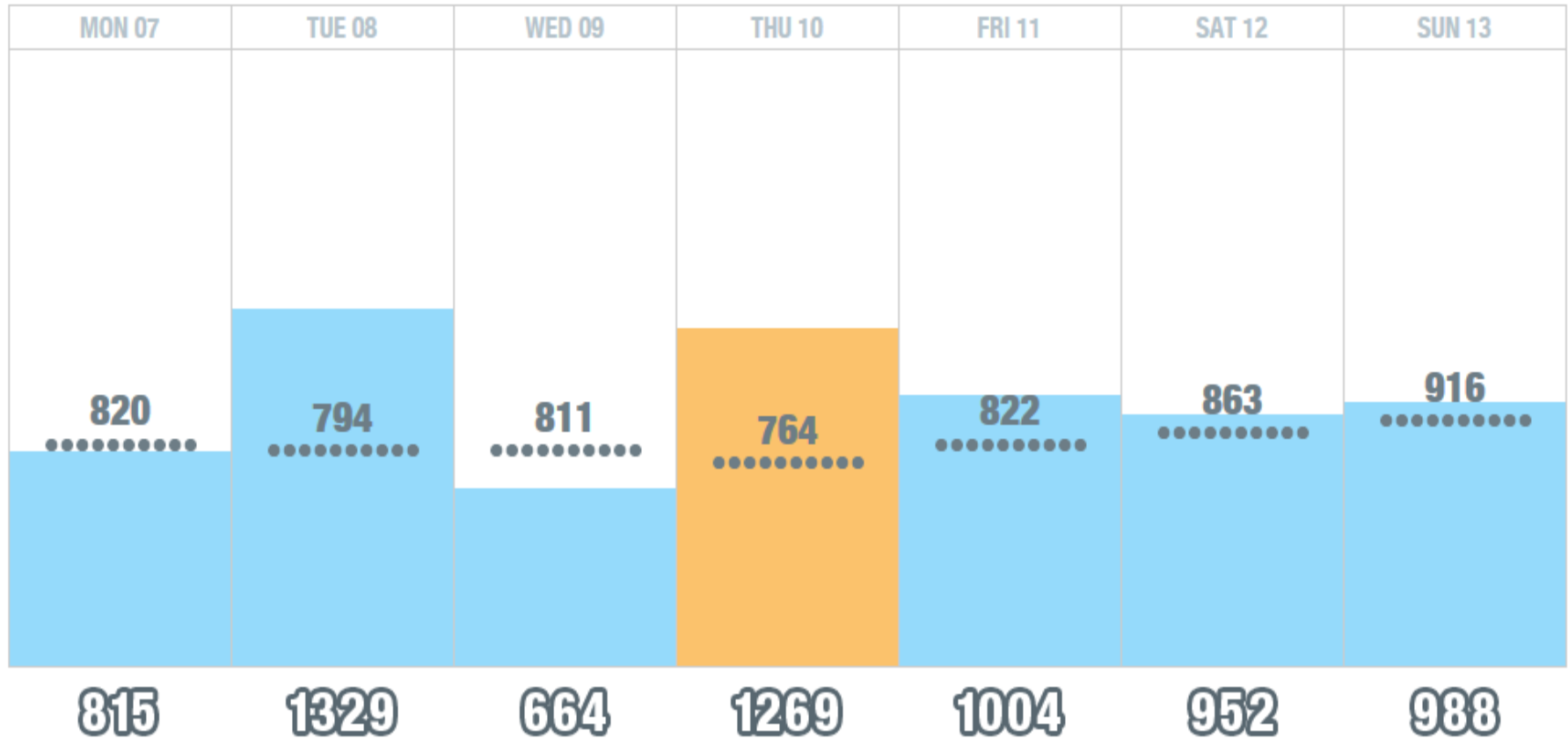
WEEKLY MOVES

•• 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

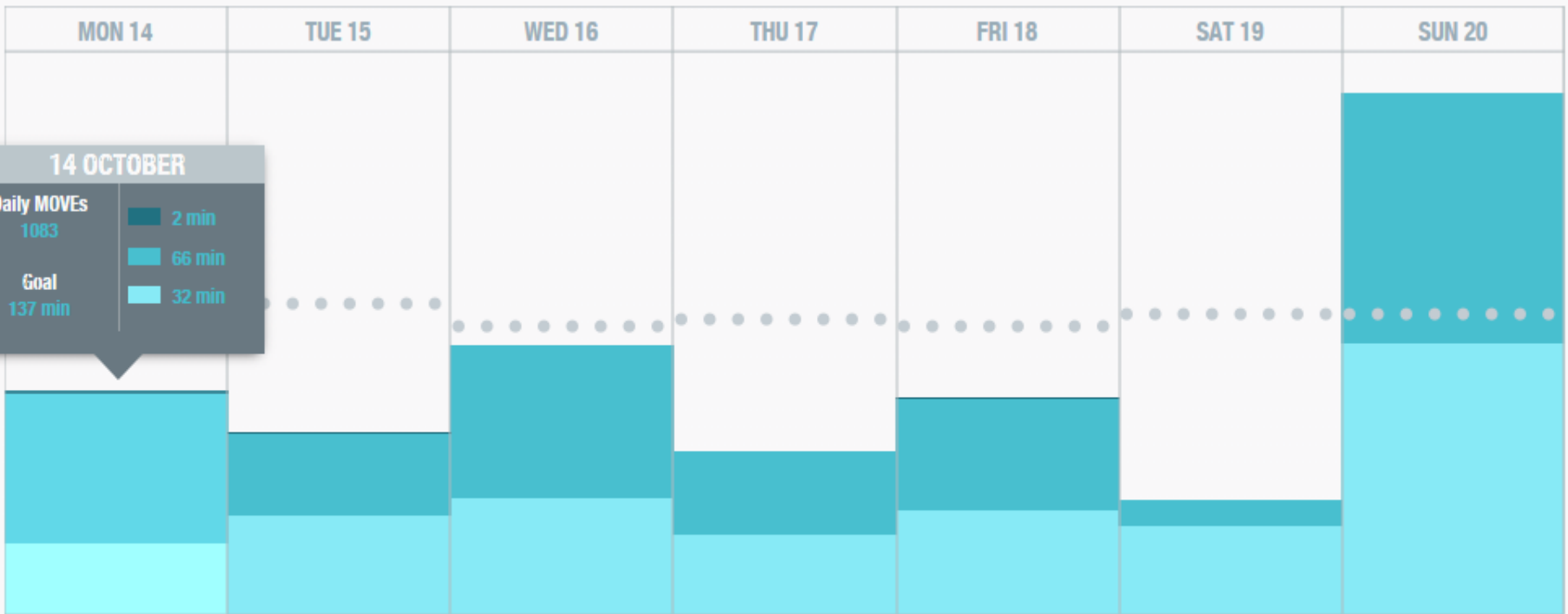
Time in intensity day by day

◀ 14-20 OCTOBER 2013 ▶

WEEKLY

MONTHLY

YEARLY

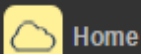
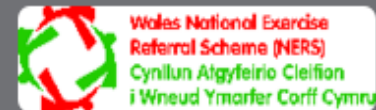


14 OCTOBER

Daily MOVEs
1083

Goal
137 min

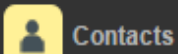
- 2 min
- 66 min
- 32 min



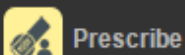
Home



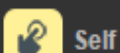
Profile



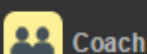
Contacts



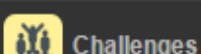
Prescribe



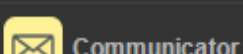
Self



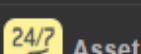
Coach



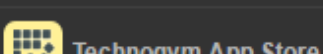
Challenges



Communicator



Asset



Technogym App Store



Staff



Club



Williams Joanna ✉

Last visit: 1 day ago

Last interaction: 1 day ago

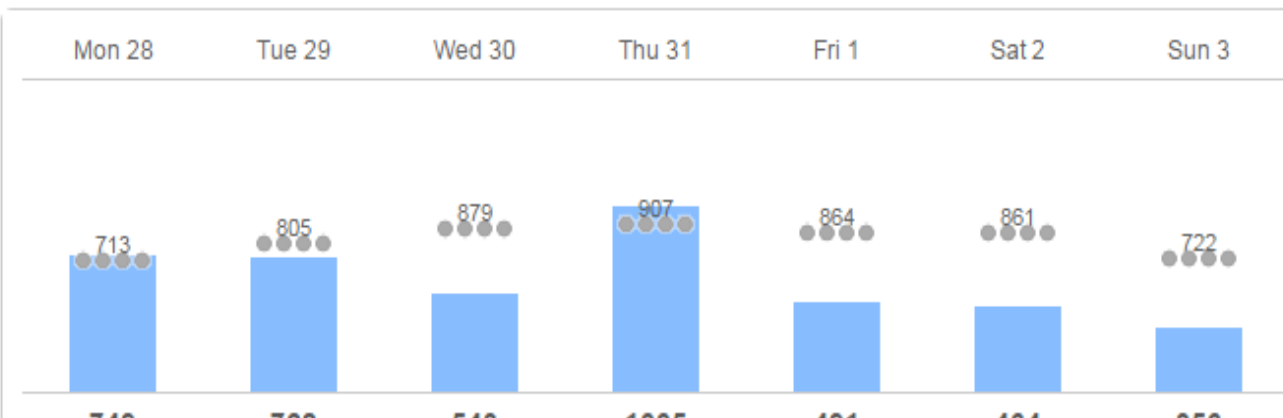


Activity level

Weekly MOVES



28 March - 3 April 2016



Action plan

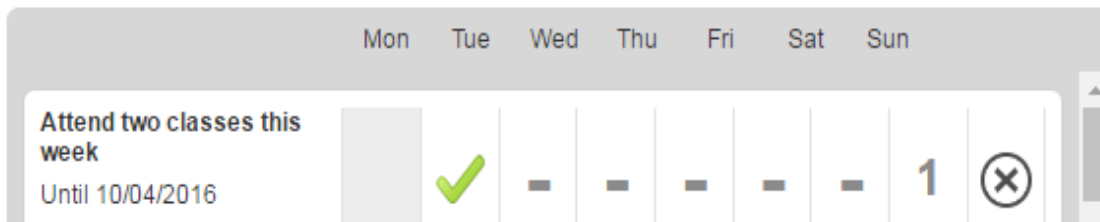
Next meeting No meeting **New**

Last meeting No meeting

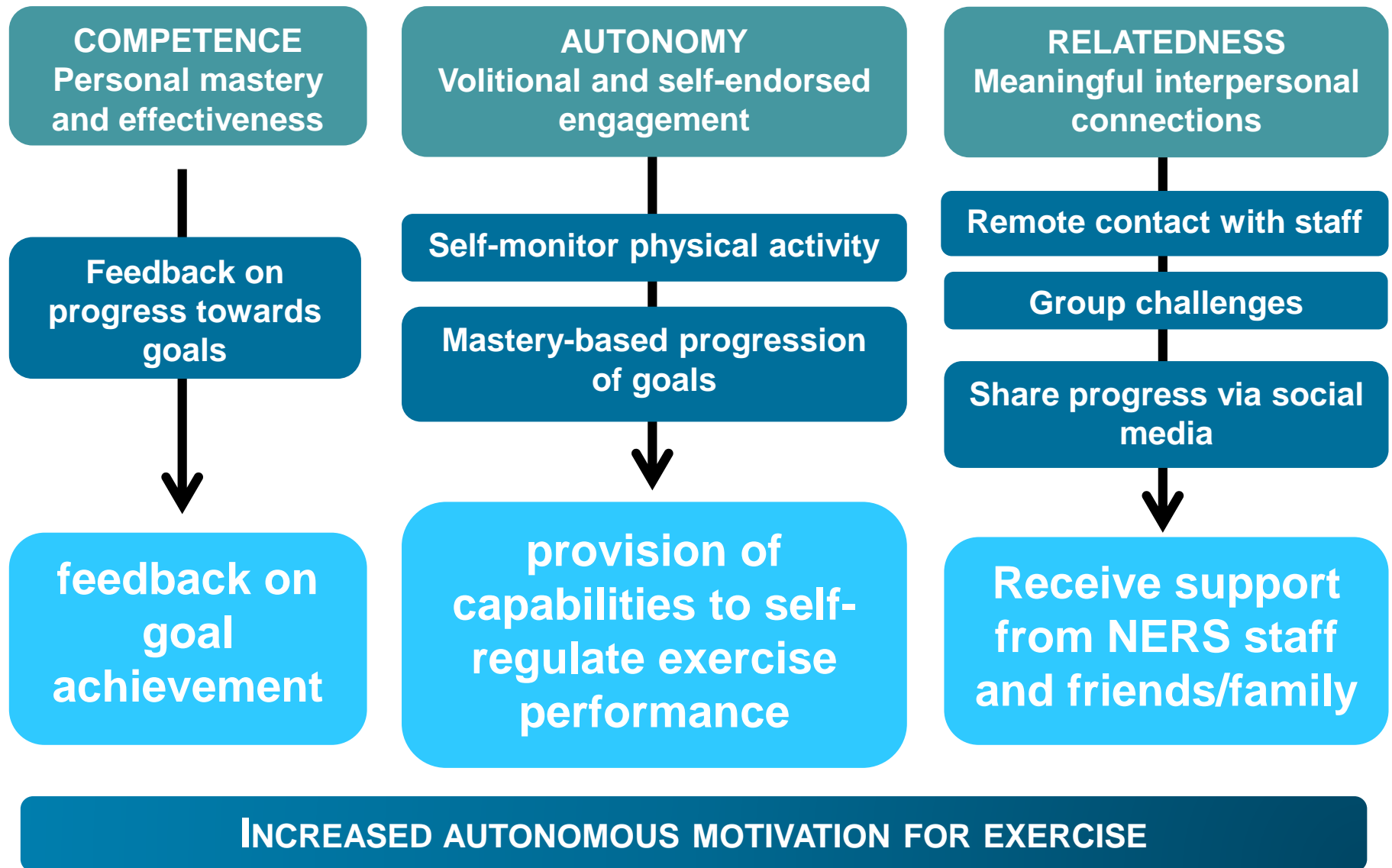
New action



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

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Investigators:

Dr Jemma Hawkins

Cardiff University (PI)

Dr Graham Moore

Cardiff University

Prof Simon Murphy

Cardiff University

Dr Mark Kelson

University of Exeter

Dr Emily Oliver

Durham University

Prof Russ Jago

University of Bristol

Prof Sharon Simpson

University of Glasgow

Prof Rhiannon Tudor-Edwards

Bangor University

Dr Joanna Charles

Bangor University



Study Managers: Dr Michelle Edwards & Dr Linda McConnon, Cardiff University

Data Programmer: Miguel Cossio, Cardiff University