

# Adapting LifeGuide web-based interventions for multiple uses: the example of 'POWeR'

Dr Leanne Morrison, Dr Laura Dennison, Katherine Bradbury, Prof. Richard Hobbs, Prof. Paul Little, and Prof. Lucy Yardley

On behalf of the LifeGuide, UBhave and POWeR Teams

16 May 2013, ISRII 2013

## Web-based interventions for weight management

- In the UK 61.3% of adults are overweight or obese\*
  - Associated with mortality and morbidity
  - Financial burden to public health services
- Reviews of web-based interventions for weight loss<sup>1,2</sup>
  - Promising
  - Heterogeneity
  - Adherence



\*DOH (2013). Policy: reducing obesity and improving diet

<sup>1</sup>Neve et al. (2010). Effectiveness of web-based interventions in achieving weight loss and weight loss maintenance in overweight and obese adults: a systematic review with meta-analysis. *Obesity Reviews* 11(4), 306-321

<sup>2</sup>Arem & Irwin (2011). A review of web-based weight loss interventions in adults. *Obesity Reviews* 12(5), e235-243



- Support users to adopt a **sustainable and positive approach** to weight management
- **Theory and evidence-based**
  - Self-determination theory
  - Self-management “POWeR tools” (goal setting, planning, self-monitoring etc.)
  - Social support through “POWeR stories”
- **Nurse support**
- Developed using **LifeGuide**

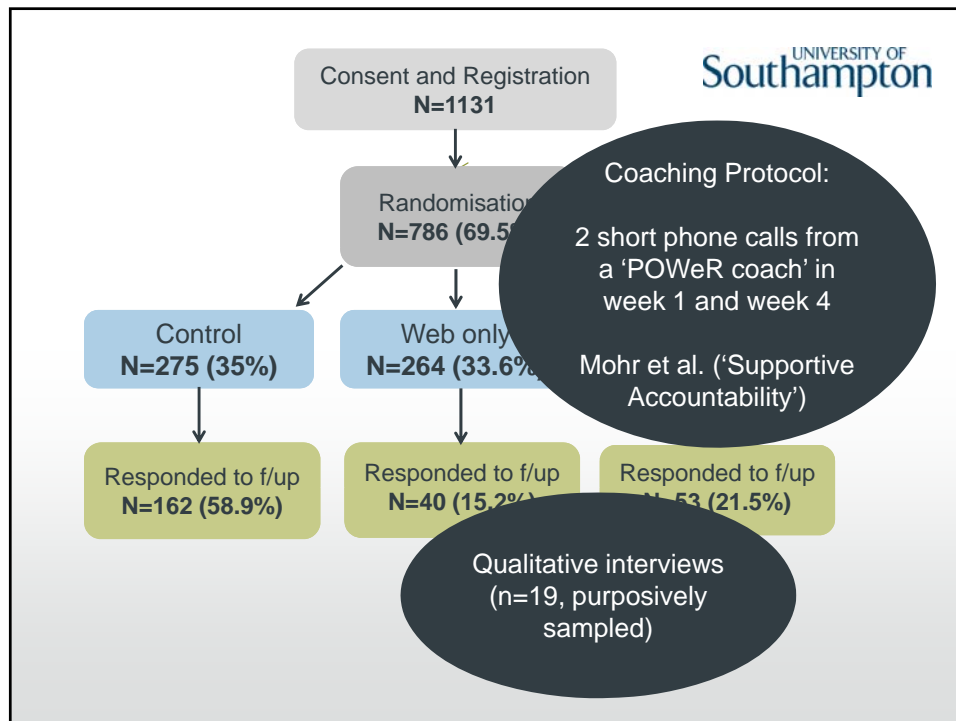


## The Story of POWeR...

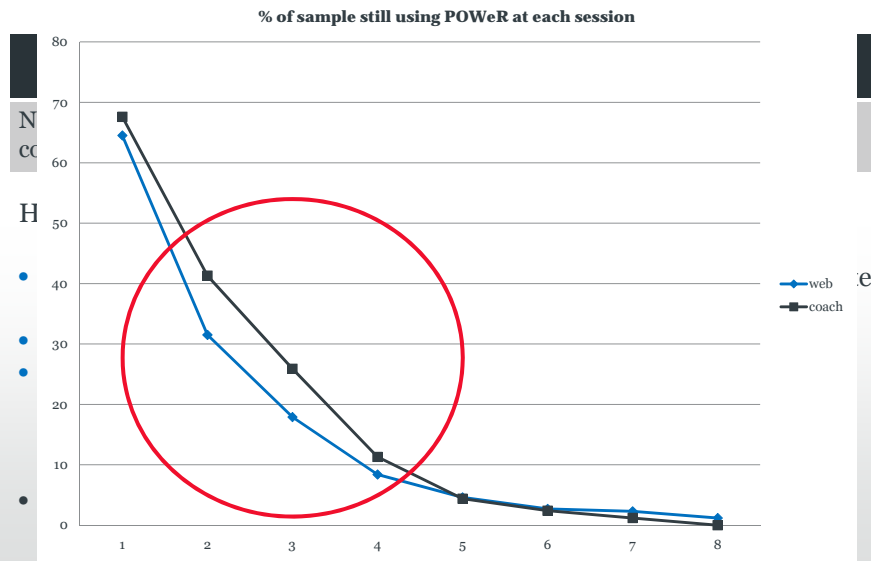
- **POWeR1**: primary care trial evaluating POWeR with varying levels of nurse support
- POWeR for the **Royal Navy**
- **POWeR Plus**: maintenance programme
- **Community POWeR**: general dissemination of POWeR with and without brief “coach” support
- **POWeR Tracker**: Smartphone application to accompany the web-based programme

## Community POWeR

- Public Health Rollout in North East of UK.
  - In collaboration with public health teams (Scott Lloyd, NHS Tees, NHS Durham and Darlington)
- Aims and research questions
  - Usage/adherence
    - Is usage enhanced by the addition of brief human support?
  - Weight loss (self-reported, at 8 weeks).
    - POWeR users compared to a waiting list control
    - Is weight loss enhanced by addition of brief human support?



## Use Patterns



## Exploring coaching uptake

- Low uptake
  - only **23.5%** had **one phone call**, **18.6%** had **both**
  - Why the low uptake?
- Uptake of coaching associated with:
  - older age, lower health literacy, higher BMI at baseline, hypertension, referred to a weight loss scheme by health professional
  - More sessions completed, more log-ins, more time online
  - More weight loss
  - More satisfied with POWeR, fewer doubts about how to use POWeR, more autonomous motivation

## Coaching – insights into process

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“I like to have someone say well done when I have done well” [P5]

“I will have to try harder this week, you know, somebody’s is looking after me. I can’t let her down”(P4)

“The second time she called I was struggling, ‘cos I hadn’t lost any weight for a couple of weeks... and I was a bit frustrated . But just having talking to her, sort of helped me sort of to not go and rubbish the diet. And so, actually after getting off the phone to her I actually changed what I was doing that night to actually get myself back on track.”(P1)

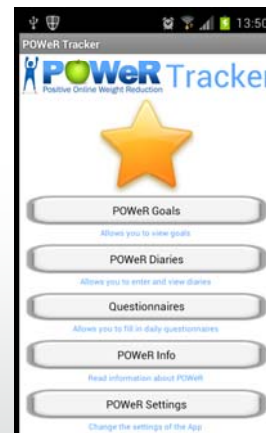
“I expected more support. Don't get me wrong, I didn't expect them to ring me every week but like...I got two phone calls in eight weeks” [P7]

“The calls were good but they were when you [i.e the POWeR team] wanted to do them rather than maybe when I needed them” [P1]

## POWeR Tracker

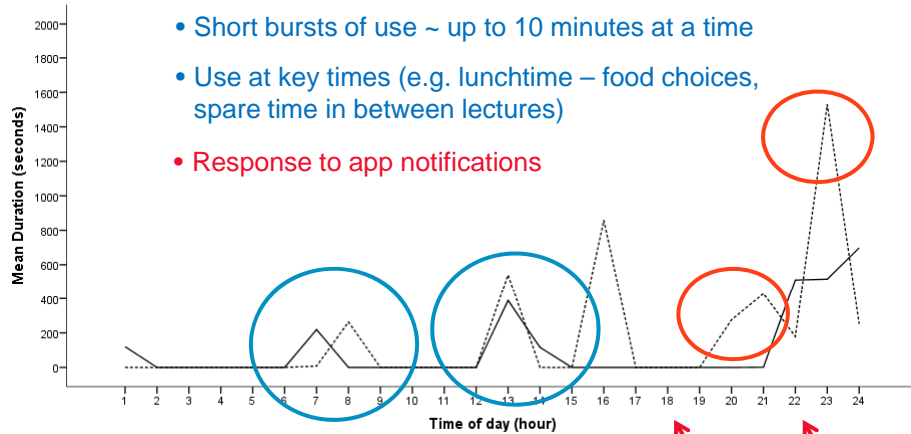
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- Maintain awareness of personal POWeR goals and monitor progress
- Compare web-based POWeR with and without POWeR Tracker
- N of 1 methodology
  - 4 weeks (ABAB vs. BABA)
  - Daily measures, weekly telephone interviews
- Research questions:
  - How do people engage with a mobile intervention?
  - Does an ‘app’ improve goal perceptions/progress?



10

## Engagement with PWeR Tracker



11

## Summary and Implications

- LifeGuide allows researchers to efficiently **adapt existing interventions** for use in different contexts
- Brief human support is useful and **beneficial to those who need it**
- Offering mobile tools appears to **improve the convenience and accessibility** of health behaviour change interventions

12

# Acknowledgements

Funded by the EPSRC under the UBhave project

For more information please visit: <http://ubhave.org>

## Behavioural/Social Scientists:

- Professor Lucy Yardley
- Professor Susan Michie
- Professor Peter Smith
- Dr Jason Rentfrow
- Dr Leanne Morrison
- Dr Laura Dennison
- Dr Sharon Lin

## Computer Scientists:

- Dr Cecilia Mascolo
- Dr Mark Weal
- Dr Mirco Musolesi
- Dr Danilus Michaelides
- Dr Charlie Hargood
- Dr Neal Lathia
- Dr Veljko Pejovic

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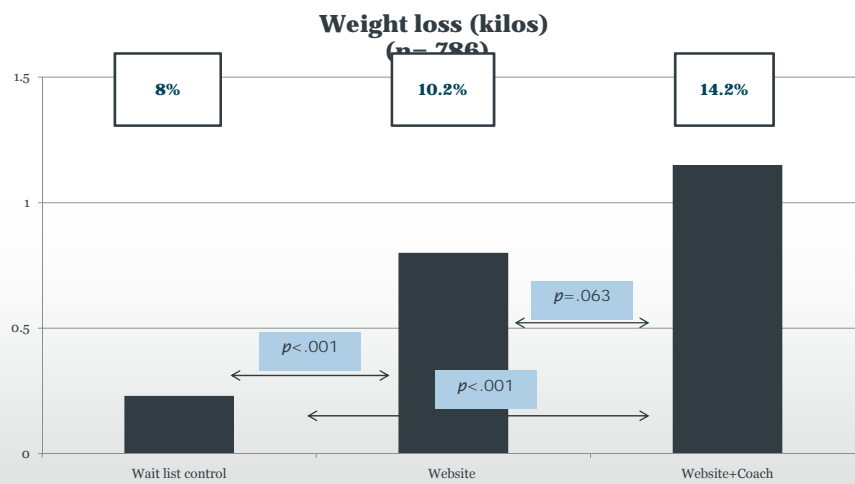
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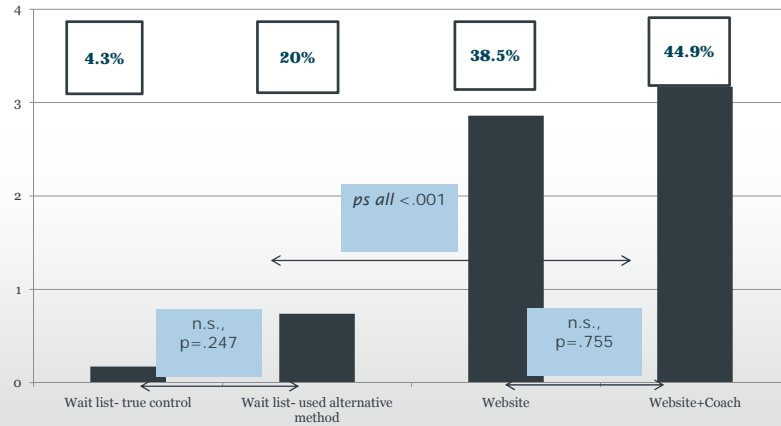
# Weight loss analysis: ITT

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# Weight loss analysis: Follow-up responders only

Weight loss (kilos)  
(n=246 follow-up responders only)



ANCOVA:  $F(3) = 14.292, p < .001$