

Showcasing LifeGuide:
software that allows YOU to
create internet-delivered
interventions

LifeGuide: the first five years

Lucy Yardley

Faculty of Social and Human Sciences

Mark Weal

Electronic and Computing Sciences

- unique set of software tools enabling researchers with no programming skills to create interactive online behaviour change interventions
- easy to quickly modify interventions (e.g. during development, after feedback, when circumstances change)
- reduces time and costs caused by duplication of programming for each intervention
- open source, free – opens up use by new researchers, developing countries, facilitates collaboration

www.LifeGuideonline.org

Highlights from just 5 years of LifeGuide

Attracted over £15 million funding to University of Southampton (ESRC, EPSRC, MRC, NIHR, EC, DoH, MoD)

Now over 1500 people worldwide registered on the LifeGuide Community website

First full trial of a completed LifeGuide intervention (carried out in 6 European countries) published in Lancet

Many interventions developed and being trialled at Southampton and internationally – those presented today just a taster

SPaCE: an intervention for parents and carers of children with eczema

Miriam Santer

Miriam Santer¹, Ingrid Muller², Lucy Yardley², Sue Lewis-Jones³,
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Funding: £129,000

Funder: NIHR Research for Patient Benefit

Aim: To develop and test a web-based behavioural intervention for parents and carers of children with eczema.

1. Qualitative study with 28 parents to inform intervention
2. Pilot RCT with 143 carers recruited through 31 practices
3. Qualitative interviews with 13 HCPs (mainly practice nurses) and 26 participants



Two week challenge

Two week challenge

The best way for you to find out how much emollient moisturisers can help your child is to try putting them on as much as possible on a daily basis.

The two week challenge is a way you can test this yourself by choosing an emollient and using it regularly for two weeks to see how much difference it makes to your child's skin.



Main menu

Diet and allergy

Topical steroids

✓ Emollient moisturiser

Talking to your GP

Starting school

Managing scratching

Sleep problems

Involving your child

Bath time

Avoiding stress for parents

Washing clothes

Click on any of the units you would like to read about

★ You marked this unit as a favourite

✓ You've completed this unit

Going on holiday

Swimming

Eczema in summer

Eczema in winter

[Click here](#) to meet the SPaCE team

Pictures

Videos

Print sheets

- The mean decrease in follow-up compared with baseline POEM score was 1.56 in website groups and 0.41 in the usual care group, i.e. a difference between groups of 1.15 (95% confidence interval -0.81 to 2.3)
- Health care professional support did not improve outcomes and was not valued by participants as website was a better ‘fit’ with their lives

Next steps:

- Seek funding for full-scale trial to measure effect on eczema severity

ACTIB – Assessing Cognitive behavioural Therapy in Irritable Bowel

Hazel Everitt & Stephanie Hughes

Hazel Everitt¹, Rona Moss-Morris²,
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Funding: £1,232,554

Funder: NIHR

LifeGuide is being used to develop web-based materials to support people with Irritable Bowel Syndrome.

Regul-8 self-management website previously developed for MIBS. This is being amended and updated for the ACTIB trial.

Aim:

To determine the clinical and cost-effectiveness of therapist delivered cognitive behavioural therapy and web-based CBT self-management in irritable bowel syndrome.

3 arms in the trial:

1. 8 one hour telephone CBT sessions + Paper manual
2. 8 on-line modules + 5 thirty minute telephone CBT sessions
3. Treatment as Usual

- Recruitment target: 495 from Southampton and London
- Clinical effectiveness will be assessed by examining the difference between arms in the IBS Symptom Severity Score and Work and Social Adjustment Scale
- ACTIB will go live in Spring 2014

Session 1: Understanding your IBS

[Home](#) [My Sessions](#) [My Tasks](#)

6) Stress and your symptoms



- Our **brains** talk to our **digestive system** all of the time.
- They do this by sending out **nerve impulses** to the **gut**.
- The brain sends messages to the gut to **speeding it up** or **slowing it down**.
- When a person feels **stressed** these **messages** become more **frequent**.
- This can **result** in your body speeding up the bowel (**diarrhoea**) or slow it down (**constipation**).

....but why does the body do this?

have you ever heard of the phrase?

"I have butterflies in my tummy!"


[Back](#)

A snapshot of the ACTIB website – Regul-8

Session 5: Identifying your thought patterns

[Home](#) [My Sessions](#) [My Tasks](#)

6) Thought record

Thoughts like those in your personal model probably happen every day.

To understand more about these unhelpful thoughts it is good to record them when they happen and stop and think:

1. How do I feel right now (my emotions)?
2. What am I thinking right now to cause the negative thought (my thoughts)?



A **thought record** is an excellent way of understanding how your thought patterns may affect your emotions, behaviours and symptoms. It may sound easy – but capturing our unhelpful thoughts can actually be **quite hard** as they **happen so automatically** we are not aware of them.

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[Next](#)

INDRA: An intervention for managing stress in primary care

Adam Geraghty

Adam Geraghty¹, Michael Moore¹, Paul Little¹, Lucy Yardley²,
Ricardo Munoz³

¹Primary Care and Population Sciences

²School of Psychology

³Palo Alto University/University of California, San Francisco

Funding: £45,094

Funder: NIHR School for Primary Care Research

LifeGuide is being used to develop an intervention for patients who present in primary care experiencing emotional distress.

Aim: To develop an internet intervention to support patients in managing difficult emotions by

1. Providing a broad range of psychological and behavioural techniques
2. Allowing patients to chose techniques that suit them
3. Encouraging use as and when needed, rather than as a linear course


HEALTHY PATHS
THROUGH STRESS

Welcome to

Healthy Paths Through Stress

This website provides advice, suggestions and tools for working with difficult emotions

Developed by:




You will learn about:

- Two approaches to help reduce stress
- Lots of specific helpful techniques

You will be able to:


- Choose techniques you like, that work for you
- Use the website in a way that suits you best

Are you a new user?

Sign Up

Are you already registered?

Login



HEALTHY PATHS
THROUGH STRESS

Benefits of awareness

Feeling clearer, calmer and showing self-kindness can, in itself, bring some relief from stress. You'll know better where you stand.

You may also:

- Have a better sense of what to do next.
- Gain perspective on your situation and find that some parts of your experience are actually quite pleasant and stress is just part of the picture.
- Become aware that a situation is more bearable than you thought, or become aware that a stressful time will pass.



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Next

- Qualitative testing is ongoing with primary care patients
- Patient's experience and understanding of distress is being explored through in-depth interviews. Emerging themes are being used to modify and contextualise LifeGuide material
- Use of LifeGuide allows US team to develop a version of INDRA intervention for Spanish speakers

Next steps:

- Complete qualitative testing
- Intervention to be tested in large trial in comparison to smart phone App. Plans for large US trial. Grant submissions for UK trials for distress and disease-related distress

POWeR Plus: Trialling an intervention for sustained weight loss

Emily Smith

Emily Smith, Jo Kelly, Lucy Yardley, Paul Little with
Julie Hooper, Stephanie Hughes, Michael Moore, Mark Weal, Peter Smith, Beth
Stuart, James Raftery, Christopher Byrne, Barrie Margetts, Hilary Warwick, Ravita
Taheem, Richard Hobbs, Mike Lean, David Turner, Simon Griffin, Catherine Brant

Faculties of Medicine, Social and Human Sciences and ECS at University of
Southampton, plus University of Oxford

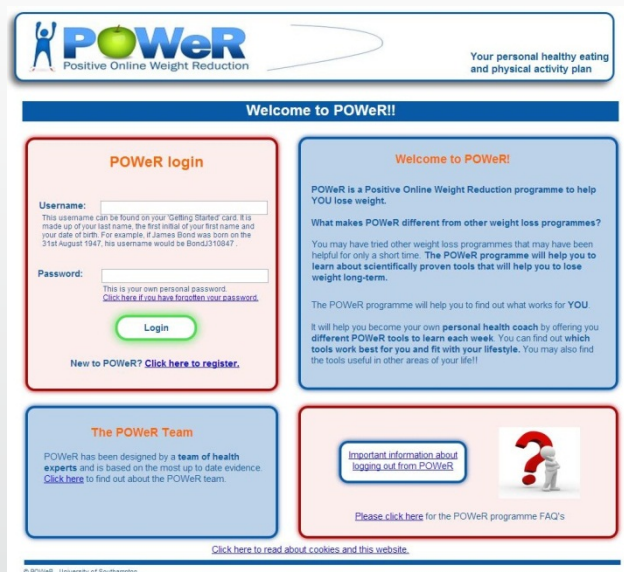
Funding: £1,090,461

Funder: National Institute of Health Research: Health Technologies
Agency

LifeGuide was used to develop web-based materials suitable for
helping people to self-manage their weight with support from practice
nurses.

Aim: To estimate the effectiveness and cost-effectiveness of an internet based behavioural intervention with face-to-face nurse support vs remote nurse support:

1. Uses goal setting to establish long lasting healthy eating and exercise behaviours
2. Nurses encouraged to use motivational interviewing techniques to support but not advise participants
3. Individual tailoring to support self-management of weight



POWeR
Positive Online Weight Reduction

Your personal healthy eating and physical activity plan

Welcome to POWeR!!

POWeR login

Username:

This username can be found on your 'Getting Started' card. It's made up of your last name, the first initial of your first name and your date of birth. For example, if James Bond was born on the 31st August 1947, his username would be BondJ310847.

Password:

This is your own personal password.
[Click here if you have forgotten your password.](#)

Login

New to POWeR? [Click here to register.](#)

Welcome to POWeR!

POWeR is a Positive Online Weight Reduction programme to help YOU lose weight.

What makes POWeR different from other weight loss programmes?

You may have tried other weight loss programmes that may have been helpful for only a short time. The POWeR programme will help you to learn about scientifically proven tools that will help you to lose weight long-term.

The POWeR programme will help you to find out what works for YOU.

It will help you become your own **personal health coach** by offering you different POWeR tools to learn each week. You can find out which tools work best for you and fit with your lifestyle. You may also find the tools useful in other areas of your life!

The POWeR Team

POWeR has been designed by a **team of health experts** and is based on the most up to date evidence. [Click here](#) to find out about the POWeR team.

Important information about logging out from POWeR

[Please click here](#) for the POWeR programme FAQ's

[Click here to read about cookies and this website.](#)


© POWeR - University of Southampton



POWeR
Positive Online Weight Reduction

Your personal healthy eating and physical activity plan

Choosing a Long-Term Eating Plan



Different eating plans suit different people - With POWeR you can choose an eating plan to suit you.

These eating plans have been designed to give you ideas to form healthy habits.

You can look at both eating plans before you decide which one you want to try.

Which eating plan would you like to find out more about?

A Low Calorie Plan

The low calorie eating plan is scientifically proven to work. You limit foods that are high in calories, but still eat plenty of fruit and vegetables. High calorie foods include fast or fried food, cakes, crisps and chocolate.

Low Calorie

A Low Carbohydrate Plan

The low carbohydrate eating plan has been shown to work. You limit the amount of carbohydrates you eat but still eat plenty of fruit and vegetables. Carbohydrates are found in foods such as bread, pasta, rice, cereal and sugary foods.

Low Carbohydrate

Back

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- Pilot study recruited 179 participants across 5 practices.
 - *Pilot study reported greatest weight loss with regular (7 face-to-face sessions) nurse support at 6 months, but greater weight loss maintenance at 12 months with basic (3 face-to-face sessions) nurse support.*
- Main trial recruiting 790 participants across 55 practices
- LifeGuide allows delivery of a tailored weight management programme encouraging sustained weight loss
- **Next steps:**
 - Complete recruitment for main trial
 - Begin 12 month follow-up of first participants
 - Due to complete early 2015

LifeCIT

A web-based support programme for people using Constraint Induced Movement Therapy (CIMT) at home

Jane Burridge, Lucy Yardley, Ann-Marie Hughes, Sebastien Pollet and Claire Meagher



This presentation presents independent research funded by the National Institute for Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference Number PB-PG-0909-20145). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

Constraint Induced Movement Therapy - CIMT

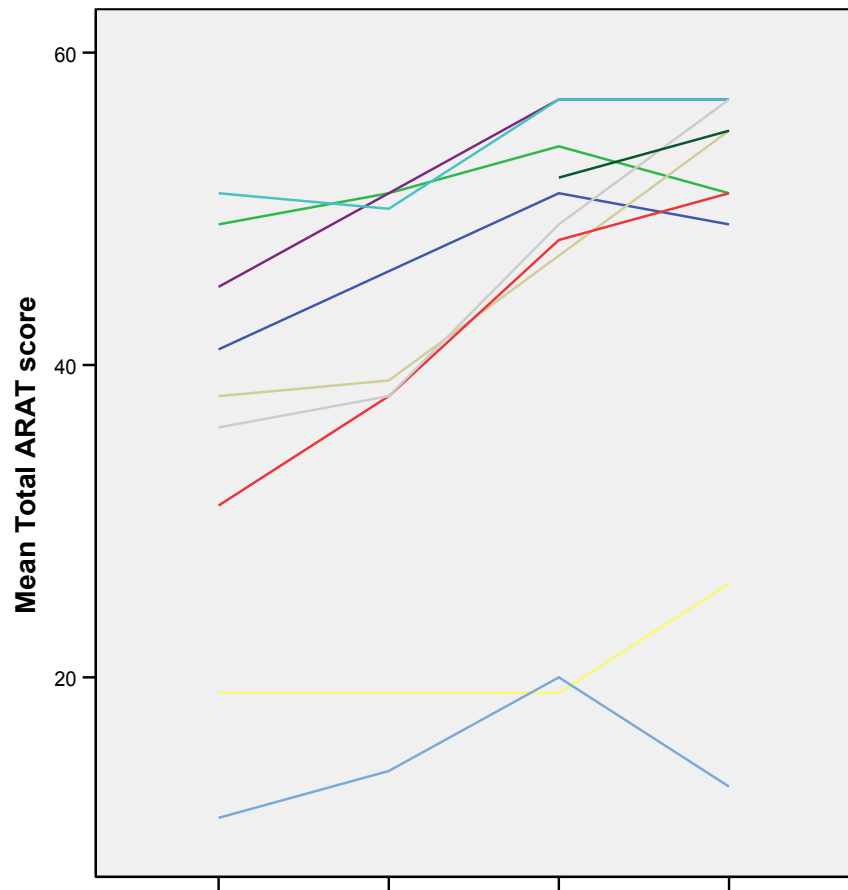
- Learnt non-use – changes in motor cortex topology weakening of synaptic connections etc.
- Intensive short-term training
- Evidence: from animal models to large clinical trials and systematic reviews (Taub, 1994) (Sirtori et al., 2009)
- CIMT programme:
 - Constraint of the unaffected limb (90% of waking hours)
 - Repetitive training
 - 1:1 therapy (6 hours/day for 2 weeks) + activities at home
- Cost of therapy time
- Patient and carer burden - adherence & motivation



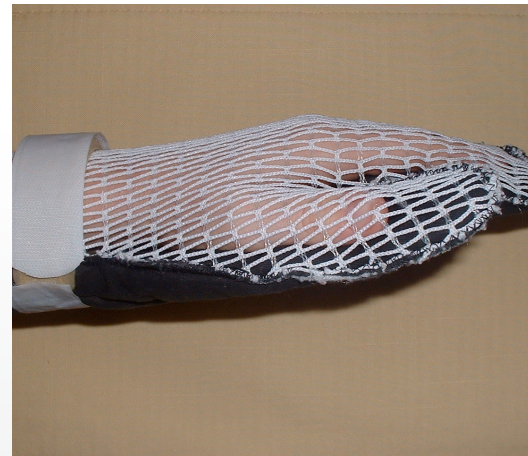
The C-Mit
www.odstockmedical.com



Forced Use trial with patients <6 months post-stroke



- Study design: ABA N=10
- All completed the trial
- No adverse events



- Mean change in ARAT score from 38.3 (SD 13.7) (A1) to 53.1 (SD 15.13) (A4)
- Statistically significant changes (A3-A2) corrected for natural recovery ($p=0.016$)
- Lower functioning patients benefitted less

The LifeCIT concept

- Forced use therapy – 3 weeks
- Interactive website
- Motivating support and feedback
- Exercises and games
- Minimal cost: £50 for the constraint mitt

Phases of the study

- Phase 1: development (18 months) (2011-2012)
- Phase 2: multi-centre pilot RCT (24 months) (2012-2013)

Phase 1: Prototype 2. Developed via think-aloud studies with 12 sub-acute (<12 weeks) patients in hospital and home

Developments based on observed patients' behavior navigating the website and simultaneous oral feedback

Developments based on observed patients' behavior navigating the website and simultaneous oral feedback

- Website navigation:
 - avoid multiple menu options - linear progression through the pages
 - no scrolling – all information on one page
- Clarity of instructions:
 - minimal text and avoiding ambiguity
 - motivational language and illustrations e.g. 'congratulations' 'use or lose it'
 - Instructions via video with a voice-over rather than text

Final Version of the Website

Welcome to LifeCIT

If this is the very first time on the LifeCIT website then click here:

This is the first time I am using LifeCIT

If you already registered with LifeCIT then click here:

I've used LifeCIT before

If an existing LifeCIT user has given you their user name to view their progress, click this button:

**View user
progress**

How can I get the most out of LifeCIT ?

Wear the mitt for up to 9 hours a day. The longer you wear it, the better the chances of improving.

Log onto LifeCIT each morning and plan daily activities that you can do using your stroke arm

Log on later in the day to tell LifeCIT what you have been doing

Play LifeCIT **computer games** and do some LifeCIT **arm exercises**

Click here to continue:

Next

How long do I need to use LifeCIT for?

LifeCIT has been designed to help you to wear your mitt for 15 days, 5 days a week (3 weeks in total)

Doing LifeCIT for 5 days in a row and then having 2 days off may give you the most benefit - you can choose which days are rest days.



Click here to continue:

Next

Watch a film on how to use LifeCIT



Click on the
button with a
triangle to
play the film



Click here to
continue:

Next

Question 1 of 10

Can you turn a light switch on with your stroke hand?

Please click on yes or no

Yes

No

Question 1 of 10

That's great!

How well can you turn a light switch on with your stroke hand?

Click on the ☐ symbol next to the best answer

- ☐ Very slowly, with difficulty
- ☒ Slowly, with some effort
- ☐ Almost normally
- ☐ As well as before my stroke

Back

Next

Question 10 of 10

That's great!

How well can you open a door by turning the door knob or handle with your stroke hand?

Click on the ☐ symbol next to the best answer

- ☐ Very slowly, with difficulty
- ☒ Slowly, with some effort
- ☐ Almost normally
- ☐ As well as before my stroke

Back

Next



Set your goals for this week

Select goals by clicking on the small grey circles:

I will wear the mitt for:

1 2 3 4 5 6 7 8 9 10 hours a day
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ ☐

I will do activities for:

1 2 3 4 5 6 7 8 9 10 hours a day
☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐

I will play LifeCIT computer games for:

0 15 30 45 60 minutes, twice a day
☐ ☐ ☒ ☐ ☐

The numbers in **orange** are our suggestions for a goal, but you can choose what is realistic for you this week

Next

For yourself

Select **as many** activities as you like, from **any level**, by clicking on the small grey square. You can de-select an activity by clicking on the grey square again.

Level 1

- ☐ Wash face
- ☐ Brush hair
- ☐ Apply cream/moisturiser
- ☒ Eat a meal/snack with fingers

Level 2

- ☐ Brush teeth
- ☐ Style hair
- ☐ Pour a cold drink
- ☒ Drink from glass/cup
- ☐ Eat a meal/snack with cutlery
- ☐ Make a phone call
- ☐ Electric shave

Level 3

- ☐ Wet shave
- ☐ Put makeup on
- ☐ Prepare a simple meal/snack
- ☒ Open a letter
- ☐ Write a few sentences

Next

Your list of activities for today (19 Sep 2012):

- Hand painting with grandson
- Eat a meal/snack with fingers
- Drink from glass/cup
- Open a letter
- Wipe down kitchen surfaces
- Set the table
- Clean windows (inside)
- Carry a shopping bag from a shop
- Unload dishwasher
- Play scrabble
- Play Connect 4
- Do a jigsaw puzzle (small pieces)

Goals for today:

- Wear the mitt for 9 hours
- Do 4 hours of activities

Have you selected enough activities to be busy for 4 hours today?

Click here to add more activities:

Go back

Print list

(if you have a printer)

Email list

(if you have an email address)

Text list

(if you have a mobile phone)

Open new
window

(to open a copy of the list to keep for reference)

Click here to continue:

Next

Wrist bending and straightening

- Place your forearm over the edge of a chair arm or table with the palm of your hand facing down
- Hold your arm with your other hand to keep it in place
- Lift your wrist as high as you can for a count of 3
- Lower your wrist down for a count of 3
- Repeat 5 times



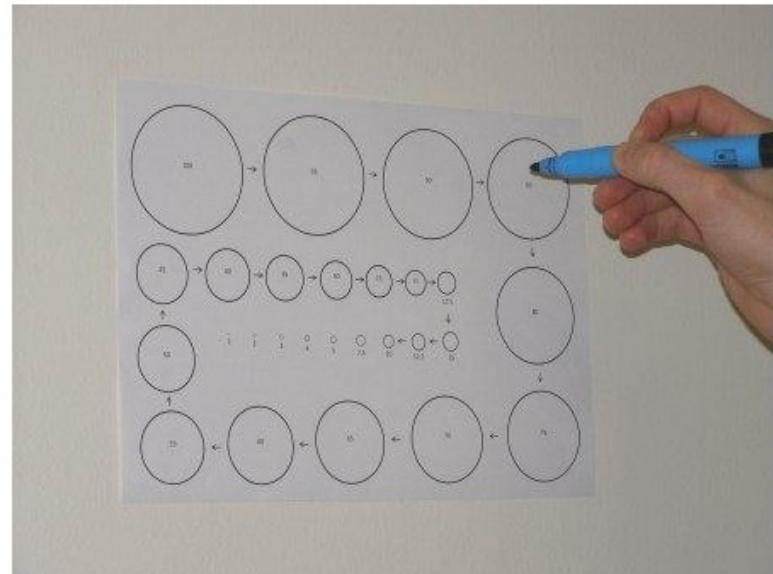
Next

Targets

- You can only do this exercise if you have a printer
- Print the targets sheet by clicking here:

[Targets sheet printing page](#)

- Attach the sheet to a wall
- Using a felt-tip pen or marker, try to hit the inside of each circle, starting with the largest one



Next

Game instructions:

When you start the game, your computer mouse will be in control of a green square on the screen:



Move the green square with your computer mouse to swat the black "flies" inside the purple box. The more flies you swat, the better your score will be! But be careful not to hit any yellow-and-black "bees" - hit 10, and it's Game Over! Your scores are recorded below

Pause

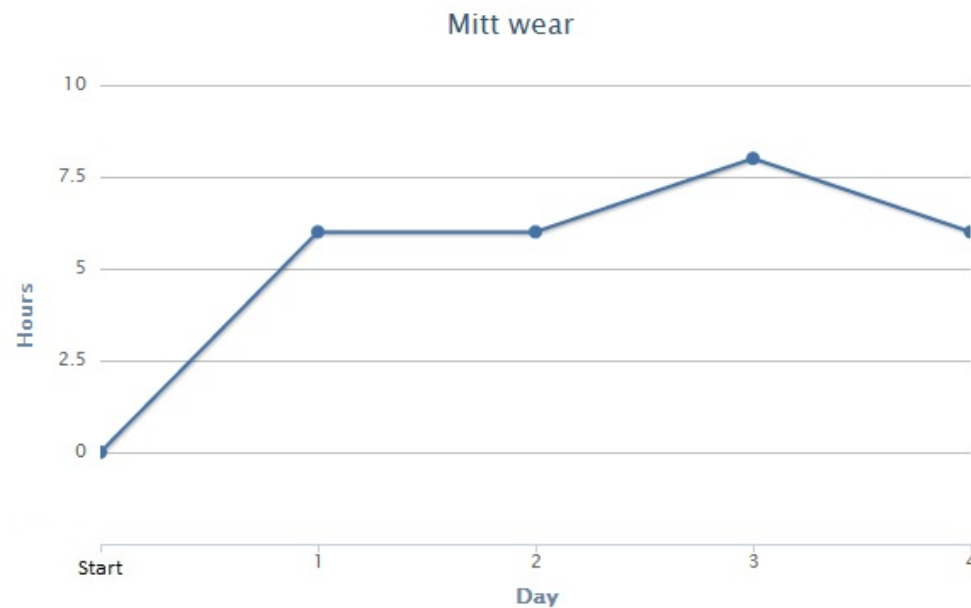
Current score: 1

Bees struck: 4

Best score so far: 0

© 2007 Ben Bryant, First Objective
Software, Inc.

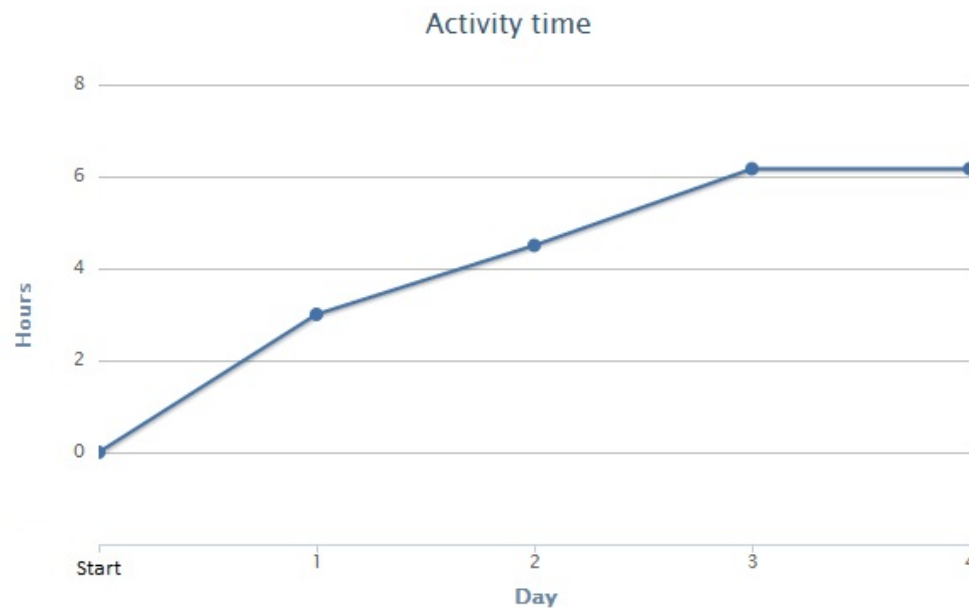
A graph of your progress for mitt wear time



The goal that you have set for this week is to wear the mitt for 9 hours a day.

Next

A graph of your progress for activity time



The goal that you have set for this week is to do 4 hours of activities every day.

Next

Developing materials for people with low health literacy: an international study

Ingrid Muller

Ingrid Muller¹, Ali Rowsell¹, Chris Byrne², Paul Little², Don Nutbeam³, Lucy Yardley¹

¹ School of Psychology

² School of Medicine

³ Office of the Vice-Chancellor

Funding: €455,000

Funder: European Union under the Seventh Framework Programme (FP7)

LifeGuide was used to develop web-based materials suitable for people with lower levels of health literacy using tailoring, interactivity and engaging audio-visual and quiz formats.

Aim: To examine the potential for web-based materials and tools to provide enhanced support by:

1. Tailoring the material to the user
2. Employing engaging audio-visual presentation and quiz formats
3. Providing simple interactive tools to support self-management



Healthy living with diabetes

Welcome!

Welcome to the Staying Healthy with Diabetes website!

This website will explain some interesting and useful findings from medical studies about how to **stay healthy with diabetes**.

This website is being tested to find out what is the best way to give people advice about diabetes. If you want to take part in the study **just click on 'I want to take part'** at the bottom of the page.



What will happen if I take part in the study?

- You do not need to give your name or contact details
- We will ask you some brief questions about yourself.
- You will then be able to see the website
- After you have looked at the advice we will ask a few more questions to find out what you feel about it


[Click here](#) if you want to **READ more details** about the study
[Click here](#) if you want to **HEAR more details** about the study

Meet the team

[Click here](#) to meet the **team of health experts** who created this website!

I want to take part

[Click here](#) for details about cookies



Healthy living with diabetes

How can I fit a bit more activity into my life?

Thinking about the **physical activity you already do** is the best way to plan how you can fit a little more into your lifestyle.

Just tell us **how often you do some activities in an average week** – then we can help you get the most benefit out of them.

On how many days a week do you do this activity?
 Only record activities that make you feel a bit warmer and breathe a bit harder than normal.

Walking (only count brisk walking for at least 10 minutes non-stop)	2
Heavy housework (makes your heart beat faster) , DIY or gardening	0
Fun physical activities (e.g. dancing, sports)	1
Cycling	0
Other activity of any kind (e.g. exercises, swimming, gym)	0

Very gentle activities such as walking slowly or washing the dishes do not count!

Next

- Qualitative testing of 35 participants in the UK
- *Positive feedback, similar across health literacy levels*
- LifeGuide allows rapid duplication and adaptation of interventions: Intervention has been adapted for use in USA and Ireland, and translated for use in Austria and Germany
- **Next steps:**
- Complete qualitative testing in Ireland, USA, Germany and Austria
- Intervention to be tested in a RCT across all 5 countries comparing it to a static version of the website (N = 700)

Evaluating a self-management intervention for older adults with dizziness

Rosie Essery



Collaborators and Funding

UNIVERSITY OF
Southampton

Rosie Essery¹, Adam Geraghty², Sarah Kirby¹, Paul Little²,
Adolfo Bronstein³, Gerhard Andersson⁴, Per Carlbring⁵, Beth
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¹ School of Psychology

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⁴ Dept. of Behavioural Sciences and Learning, Linköping University

⁵ Umeå University

⁶ Faculty of Medicine and Health Sciences, University of East Anglia

Funding: £155,380

Funder: The Dunhill Medical Trust

Utilising LifeGuide to develop ‘Balance Retraining’: a standalone
intervention for the treatment of vestibular-related dizziness
suitable for use by adults aged 50+.



Using LifeGuide In This Project

- **Research Question:** ‘Can an online intervention for dizziness be more effective than usual care in reducing self-reported symptoms amongst adults aged 50 years+?’

Balance Retraining
Exercise that speeds recovery from dizziness and unsteadiness

Your first Balance Retraining session

Hello (name). Welcome to Balance Retraining!

In this session you will be able to:

- Read about dizziness and why it happens
- See videos of the exercises you can try
- Plan your exercises for the coming week.

Just click the 'next' button to begin your first session.



Next ►


Balance Retraining
Exercise that speeds recovery from dizziness and unsteadiness

Nod exercise demonstration

Instructions

- Nod your head up and down and back again 10 times in 10 seconds.
- When you do this, tip your head as far as it will comfortably go.
- Look in the direction your head is pointing.
- After you have done 10, wait 10 seconds, then do 10 more.

Go back to view other exercise demonstration videos



- Central component of intervention - Vestibular Rehabilitation Therapy exercises:
 - Instructions
 - Demonstrations
 - Information
 - Tailored support and feedback

Balance Retraining
Exercise that speeds recovery from dizziness and unsteadiness

Your Balance Retraining exercises for this week

To recap, here are the exercises Balance Retraining recommends for you this week based on your Timed Exercise Scoring Test feedback. You may find it helpful to make a note of these.

- This week you should practice the **shake** exercise whilst **standing up**.
- This week you should practice the **nod** exercise whilst **standing up**.
- This week you should practice the **shake, eyes closed** exercise whilst **standing up**.
- This week you should practice the **nod, eyes closed** exercise whilst **walking a few steps backwards and forwards**.
- This week you should practice the **shake, stare** exercise whilst **standing up**.
- This week you should practice the **nod, stare** exercise whilst **standing up**.

◀ Back

Next ►



Preliminary Feedback and Current Work

- **Development** – longitudinal design: semi-structured and think-aloud interviews with 18 users of development version:

- liked general ‘look and feel’, especially positive about demo videos and tailored feedback

“I found that helpful, to actually see somebody else doing it, so that you know you're doing it exactly correctly” (P204, Int.3, F)

“I am managing the way I deal with my Meniere’s better since I’ve been doing the balance retraining.” (P203, Int. 3, M)

- many also reported benefits from practicing exercises after just 6 weeks

- **Current phase** - RCT investigating effectiveness and cost-effectiveness of intervention in primary care:
 - 71 GP practices to recruit 262 participants, randomisation, baseline measures and follow up at 3 and 6 months. Primary outcome: VSS.
 - Intervention group: access intervention once per week, practice exercises 2 x per day for min. 9-12 weeks.

RESTORE: An exploratory randomised controlled trial of an online intervention to enhance confidence to manage problems associated with cancer related fatigue following primary cancer treatment.

Claire Foster

Claire Foster¹, Chloe Grimmett¹, Chris May¹, Lynn Calman¹, Jo Armes⁵, Matthew Breckons⁶, Jessica Corner², Deborah Fenlon², Claire Hulme⁷, Carl May², Emma Ream⁵, Alison Richardson², Peter Smith⁴, Lucy Yardley³

¹ *Macmillan Survivorship Research Group, Faculty of Health Sciences*

² *Faculty of Health Sciences*

³ *School of Psychology*

⁴ *Social Sciences: Social Statistics & Demography*

⁵ *Florence Nightingale School of Nursing & Midwifery*

⁶ *Institute of Health & Society, Newcastle University*

⁷ *Leeds Institute of Health Sciences, University of Leeds*

Funding: £ 350,000 (approx)

Funder: Macmillan Cancer Support

LifeGuide was used to develop an online intervention to enhance confidence to manage problems associated with cancer related fatigue following cancer treatment.

Exploratory Randomised Controlled Trial

- **The aim** of this study is to test whether the use of an online intervention increases **self-efficacy** to self manage fatigue following completion of primary cancer treatment.
- Participants (n=166) randomised (1:1) to RESTORE intervention vs. Macmillan Coping with Fatigue leaflet. The intervention lasted 6 weeks plus 3 month follow-up
- Process evaluation of the RESTORE intervention is also underway using semi-structured interviews of recruitment site staff, RESTORE intervention participants and participants in the Coping with Fatigue leaflet group

The RESTORE resource is divided into 5 sessions:

- Session 1. Introduction
- Session 2. Goal setting and planning
- Session 3 – 5. Choice of areas to focus on

- ❖ Diet, sleep, exercise, home life, work
- ❖ Managing thoughts and feelings about fatigue
- ❖ Talking to others about fatigue

Activities:

Goal setting, self-monitoring, feedback/evaluation, links to other resources; relaxation & mindfulness training

RESTORE

Living with cancer related fatigue after treatment

Welcome

How will these sessions help me?

Restore will:

- give you information about fatigue
- help you to set personal goals
- allow you to read about other people's experiences

This is so you can feel more confident and able to live with your cancer related fatigue.

These are methods that have been shown to help people increase their confidence in managing health conditions.



There will be links to other recommended websites which will provide you with extra tools you may find helpful.

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RESTORE

Living with cancer related fatigue after treatment

How are you this week?

Last session we asked you to think about how fatigued you are feeling and how confident you are to manage your fatigue. Please answer the questions below. You will be able to see if things have changed on the next page.

1. How would you rate your fatigue on a scale of 0 to 10 over the last 7 days?

No fatigue 0 1 2 3 4 5 6 7 8 9 10 Worst imaginable fatigue

2. How confident are you that you can manage your cancer related fatigue to allow you to do the things you want to?

Not at all confident 1 2 3 4 5 6 7 8 9 10 Totally confident

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Living with cancer related fatigue after treatment

Session 2 - setting goals

- This session introduces setting goals and planning.
- You will be able to develop a goal which will help you become more confident to live with your fatigue.
- You can also read about other people's experiences of managing cancer related fatigue. This will give you ideas about what might help you.

It may be helpful to refer to your fatigue diary when deciding what your goal is.



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Living with cancer related fatigue after treatment

Setting your goals

From what you have learnt this week from the session and your fatigue diary, write up to three SMART goals for this week and a plan of how you will achieve them:



1) Goal:
Plan:

2) Goal:
Plan:

3) Goal:
Plan:

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Internet Intervention Supporting Management of Low Back Pain in Primary Care: a feasibility study

Rosie Stanford

Rosie Stanford¹, Lucy Yardley², Paul Little¹, Lisa Roberts³,
Nadine Foster⁴, Jonathan Hill⁴, Elaine Hay⁴, Adam Geraghty¹

*Primary Care and Population Sciences¹ School of Psychology²,
School of Health Sciences³, Keele University⁴*

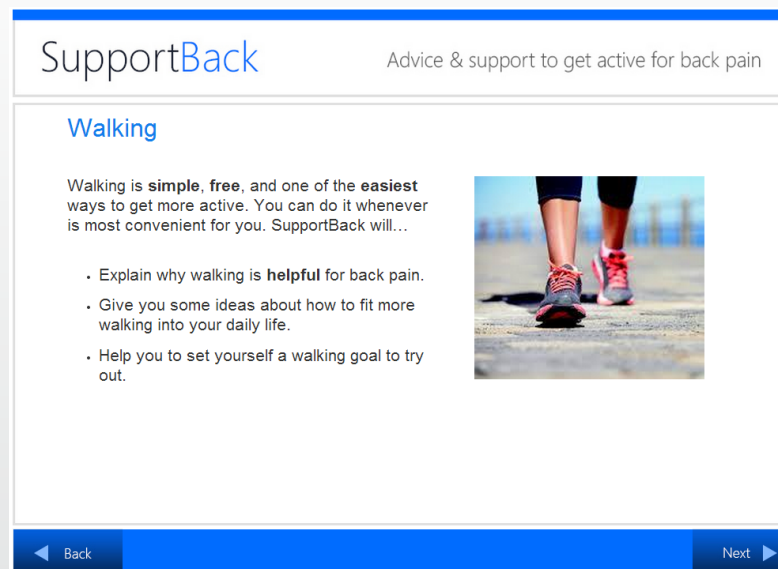
Funding: £249,934

Funder: NIHR Research for Patient Benefit Scheme

LifeGuide is being used to develop a web-based intervention supporting people with low back pain within primary care, using tailored activity and self-management modules.

Aim: To examine the potential of an internet intervention to support self-management of low back pain in primary care by:

1. Tailoring information to the user based on functional difficulty.
2. Providing positive advice and support to obtain activity goals.
3. Offering novel material back pain-related material at each login.



- **Phase 1:** Development of the intervention
 - *Working with clinicians to develop and finalise content.*
 - *Iterative evaluation of the intervention by patient panel (n = 25) via semi structured interviews and think aloud methods.*
- **Phase 2:** Feasibility trial (n = 60 - 90)
 - *3 x trial arms (supported intervention/unsupported intervention/usual care) with 3 month follow up.*
- **Next Steps:** To investigate effectiveness in a large-scale trial if feasibility of the intervention is demonstrated.

UBhave: software for creating interventions for smart phones

Charlie Hargood

Charlie Hargood¹, Veljko Pejovic², Neal Lathia³, Danius Michealides¹, Leanne Morrison⁴, Mark Weal¹, Mirco Musolesi², Cecila Mascolo³, Lucy Yardley⁴

¹ *Electronics and Computer Science Southampton*

² *Computer Science Birmingham*

³ *Computer Science Cambridge*

⁴ *Psychology Southampton*

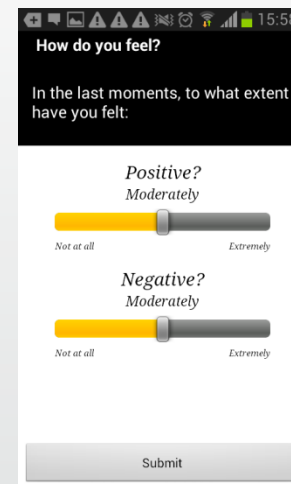
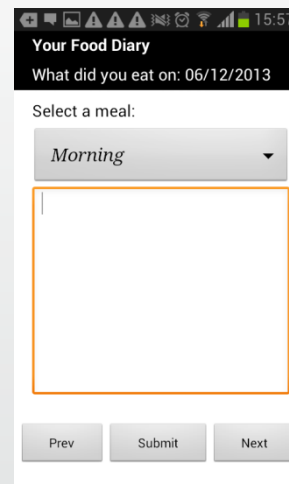
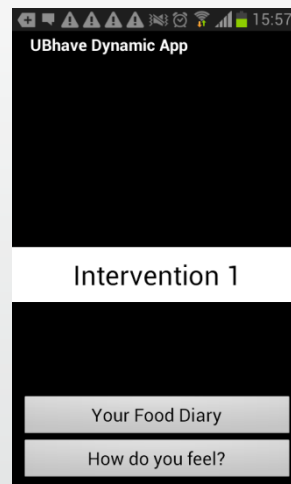
Funding: £1.5 million

Funder: Economic and Physical Sciences Research Council
(under Cross-Disciplinary Interfaces Programme)

Developing a framework for authoring behaviour change mobile interventions on android.

Aim: To create a dynamic generic android client capable of delivering defined interventions created with an authoring tool through templates of common activities.

1. What are the key generic activities required for mobile interventions?
2. What level of support for author tailoring and custom design is required?
3. How can we make best use of the affordances of pervasive technology (sensors, notifications, etc.)



- Initial prototyping complete with android client
- Provides range of generic activities and notification triggers
 - Surveys, Diaries, Information pages and lists
 - Notifications triggered on time or sensor data
- Stores intervention data and usage logs on central server
- **Next Steps:**
 - Authoring Tool: Visual tool for designing and creating interventions
 - Intelligent Triggering: Systems that learn when to notify users
 - Increased range of activities and visual elements
 - Multimedia slideshows, adaptive visual feedback, tailored structures and content

Understanding development and usage of health behaviour change apps

Leanne Morrison

Leanne Morrison¹, Laura Dennison¹, Charlie Hargood², Sharon Lin³, Danius Michaelides², Mark Weal², Peter Smith³, Lucy Yardley¹

¹ *Psychology*

² *Electronics and Computer Science*

³ *Statistical Sciences Research Institute*

Funding: £1.5 million

Funder: Economic and Physical Sciences Research Council
(under Cross-Disciplinary Interfaces Programme)

Existing LifeGuide authored interventions informed the development of health behaviour change ‘apps’.

Aim: whether and how an app could add to participants' experiences of using web-based POWeR

1. Does access to an app improve thoughts and awareness of weight management goals?

2. When, why, and how is an app-based tool used?



POWeR
Positive Online Weight Reduction

Your personal healthy eating and physical activity plan

Review your eating goals

By reviewing the goals you set yourself last week you will be able to see:

- What you have achieved
- What has not worked so well
- Which goals you want to change

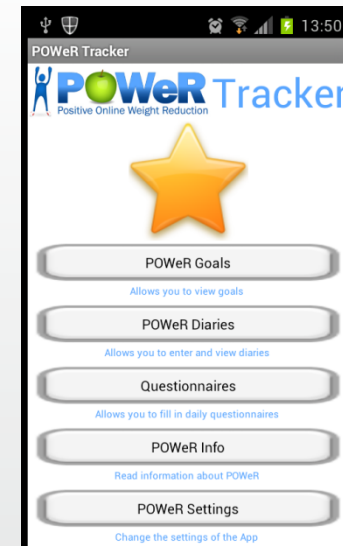
How many days did you reach your eating goals last week?

These are the goals you set last week:

Goal	Days	0	1	2	3	4	5	6	7
I will reduce the portion size of my lunch and evening meal by a quarter	Days	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will not eat the foods from the amber list any more than three times a day	Days	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will only have take away once a month	Days	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Back](#) [Click Next to see how well you have done](#) [Next](#)

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POWeR Tracker

POWeR Tracker
Positive Online Weight Reduction

POWeR Goals
[Allows you to view goals](#)

POWeR Diaries
[Allows you to enter and view diaries](#)

Questionnaires
[Allows you to fill in daily questionnaires](#)

POWeR Info
[Read information about POWeR](#)

POWeR Settings
[Change the settings of the App](#)

- Mixed method 'n of 1' case studies with 13 participants
 - *Improved awareness and perceptions of eating goals*
 - *App more convenient, but website still useful; use of the app triggered by time-relevant app tools, automated notifications, and availability of free moments; individual differences in tool preferences.*
- **Next steps:**
 - Roll-out POWeR Tracker to up to over 40,000 people in workplaces across North East England
 - Development and evaluation of stress management app harnessing sensing capabilities of the phone (in collaboration with the INDRA project)

Visualising LifeGuide usage data

Danius Michaelides
Laura Dennison

- Take the PageFlow data that LifeGuide records and visualise it as sequences
- Get an intuition of the usage of an intervention
- Explore the data and begin to look for interesting usage patterns
- Export participant groupings for further analysis
- Page names -> code -> colour

Sequence Analysis

Regenerate plot

Plot Type ⓘ

- ☒ Normal
- ☐ Frequency
- ☐ Clustered
- ☐ Group

Sort Participants ⓘ

- ☐ None
- ☒ Sequence Length

Data Coding Filtering Tools Config

Summary

☒ Limit number of participants ⓘ

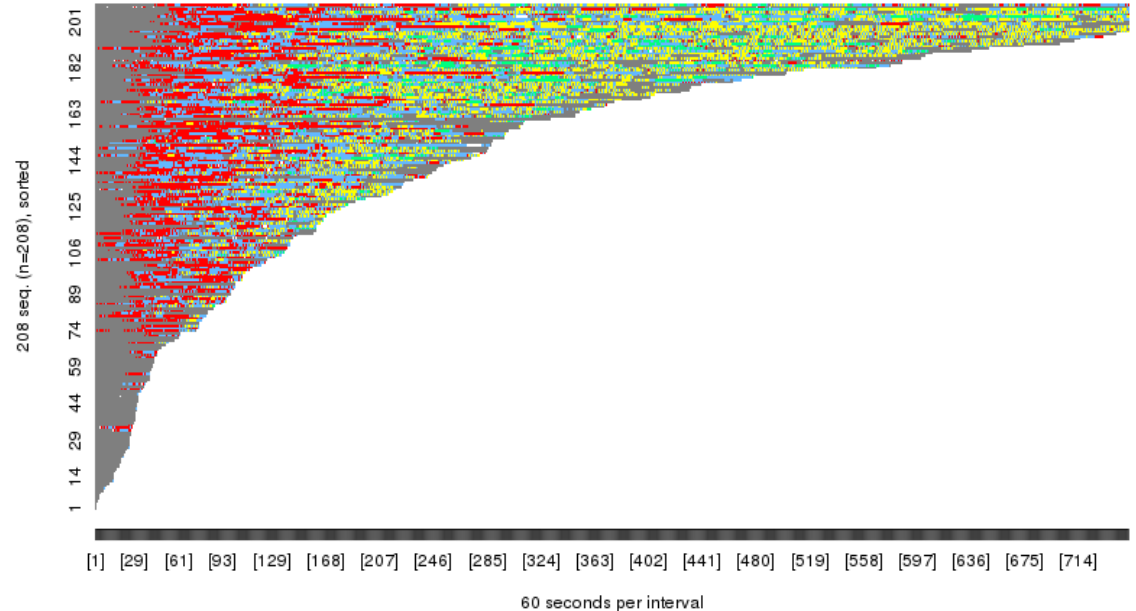
250

☒ Limit sequence length ⓘ

750

Legend text: ⓘ

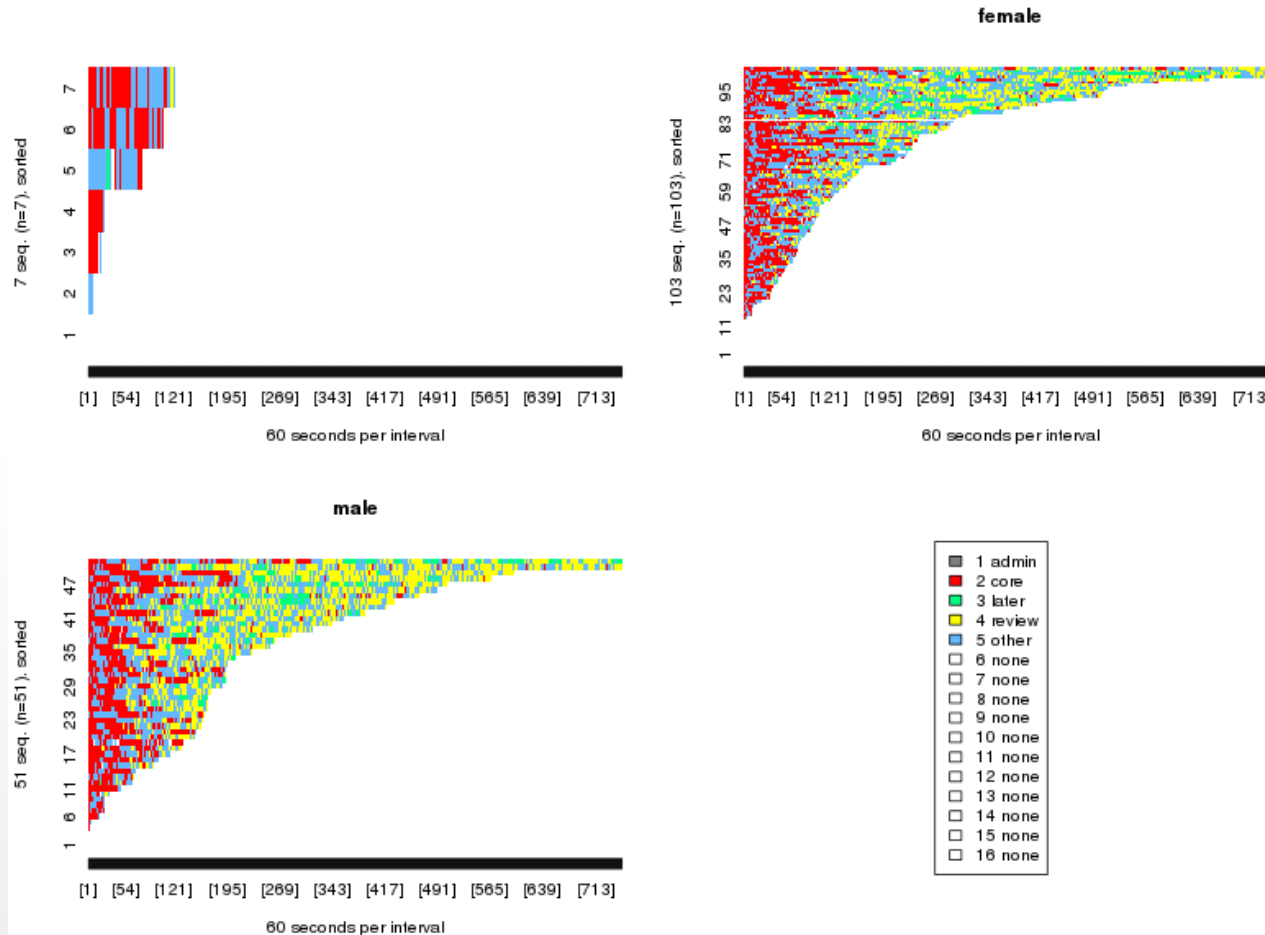
- ☒ Code
- ☐ Label
- ☐ Code + Label



1	4	7	10	13	16
2	5	8	11	14	
3	6	9	12	15	

Save Plot

Notice:Loaded Page flow Loaded User Data Loaded Codes Loaded Colours



- **Next steps:**
- Visualise usage of mixed (web+mobile) interventions
- Release more widely

LifeGuide: the next five years

Lucy Yardley and Mark Weal

Future is bright for next 5 years!

DIPPS: Integrating Digital Interventions into Patient Self-Management Support, NIHR, £2 million, 2014-2019

- working with primary care in hypertension and asthma

CLAHRC: Collaborations for Leadership in Applied Health Research and Care, NIHR, £18 million

- LifeGuide interventions proposed for implementation in 3 of the 6 CLAHRC themes

Numerous proposals submitted/ in preparation (for EC, NIHR, medical charities...)

Thanks to all the LifeGuide contributors who did not present

LifeGuide support team

Matt Taylor, Judy Joseph, Jin Zhang

Primary care team

Jane Barnett, Judy Chatwin, Sue Edwards,
Julie Hooper, Jo Kelly, Karen Middleton,
Gilly O'Reilly, Beth Stuart, Tammy Thomas
and last but not least Paul Little!

