

Research Highlights: Recent, ongoing & future falls research in the North-West

Chris Todd

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Director of Research

- Recent
 - Older adults' exercise classes: role of the instructor
 - Adults with rheumatoid arthritis
- Ongoing
 - Toys in the park
 - VIP2UK
 - FARSEEING
- Forthcoming?
 - EPAF
 - ProFouND
 - RCT of Fall Prevention Tool Kit
 - *AMBUK Cluster RCT*

Understanding how we can engage and maintain older adults in exercise classes: the role of the exercise instructor.

Helen Hawley

Sean Demack

Malcolm Campbell

Maria Horne

Dawn Skelton

Chris Todd



- **Systematic Review- Uptake and adherence to exercise classes**
- **Study 1 quantitative - Instructors' training, characteristics & attitudes**
- **Study 2 qualitative - Instructors attitudes, beliefs & experiences.**
- **Study 3 quantitative - Influence of exercise instructors, class participants & class characteristics on adherence.**

Recommendations

Policy

- Emphasis on social benefits of classes
- Establish links between rehabilitation services and community exercise provision
- Professionals signpost to community provision
 - Discuss benefits of strength and balance
 - General provision

Practice

- All instructors should undertake motivational training
- Use experienced instructors
- Observation of range of classes with range of participants
- Clear boundaries of delivery
- Active engagement by health professionals
- Continuity of delivery

Falls in adults with rheumatoid arthritis

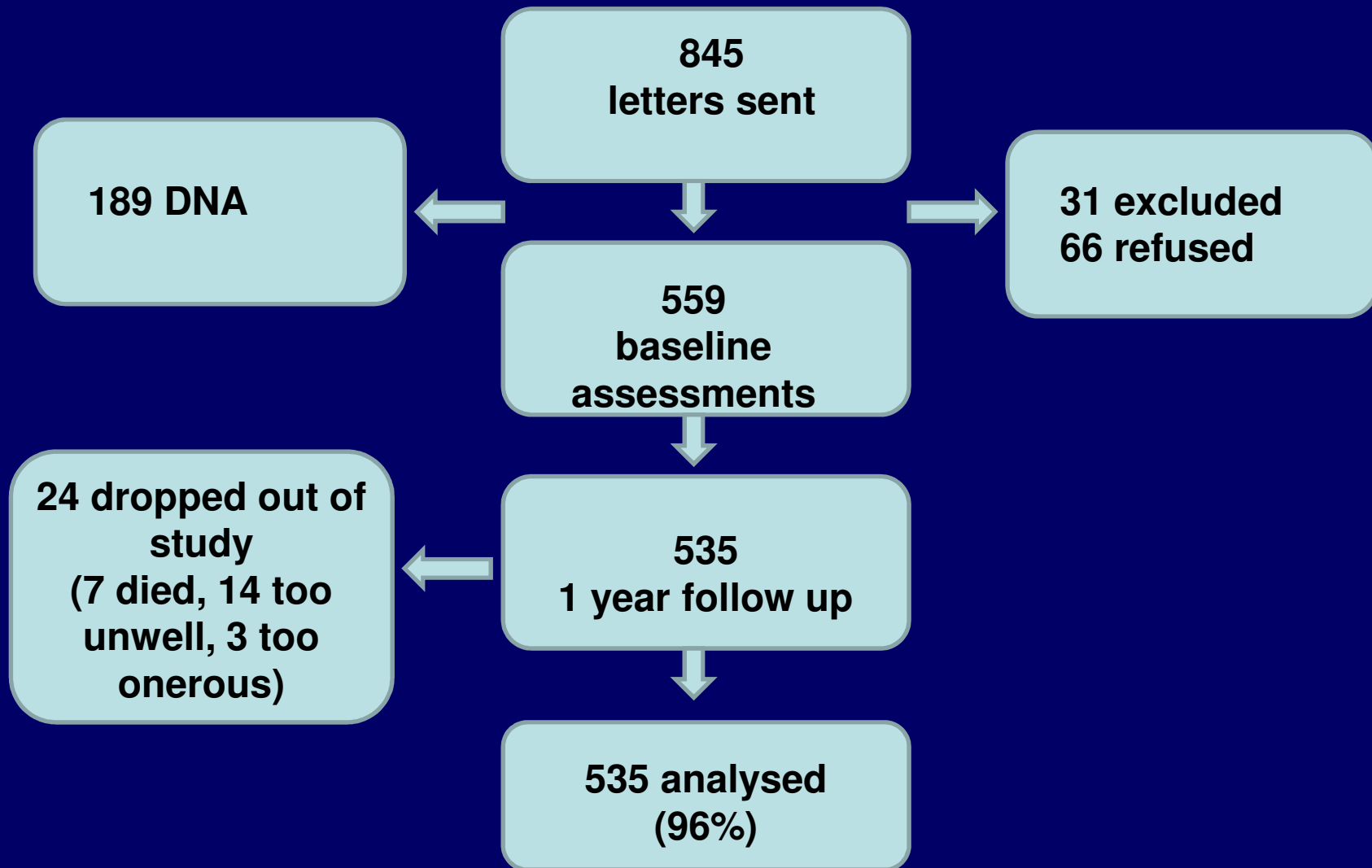
Emma Stanmore
Arthritis Research UK AHP PhD Fellow

Jackie Oldham, Dawn Skelton, Terry O'Neill & Chris Todd

Methods

- Prospective, cohort study 1 year f/up
- Recruitment - 4 rheumatology clinics
- Baseline clinical assessment & questionnaire
- Monthly fall calendars – telephone f/up
- ProFaNE definition of falls

Results



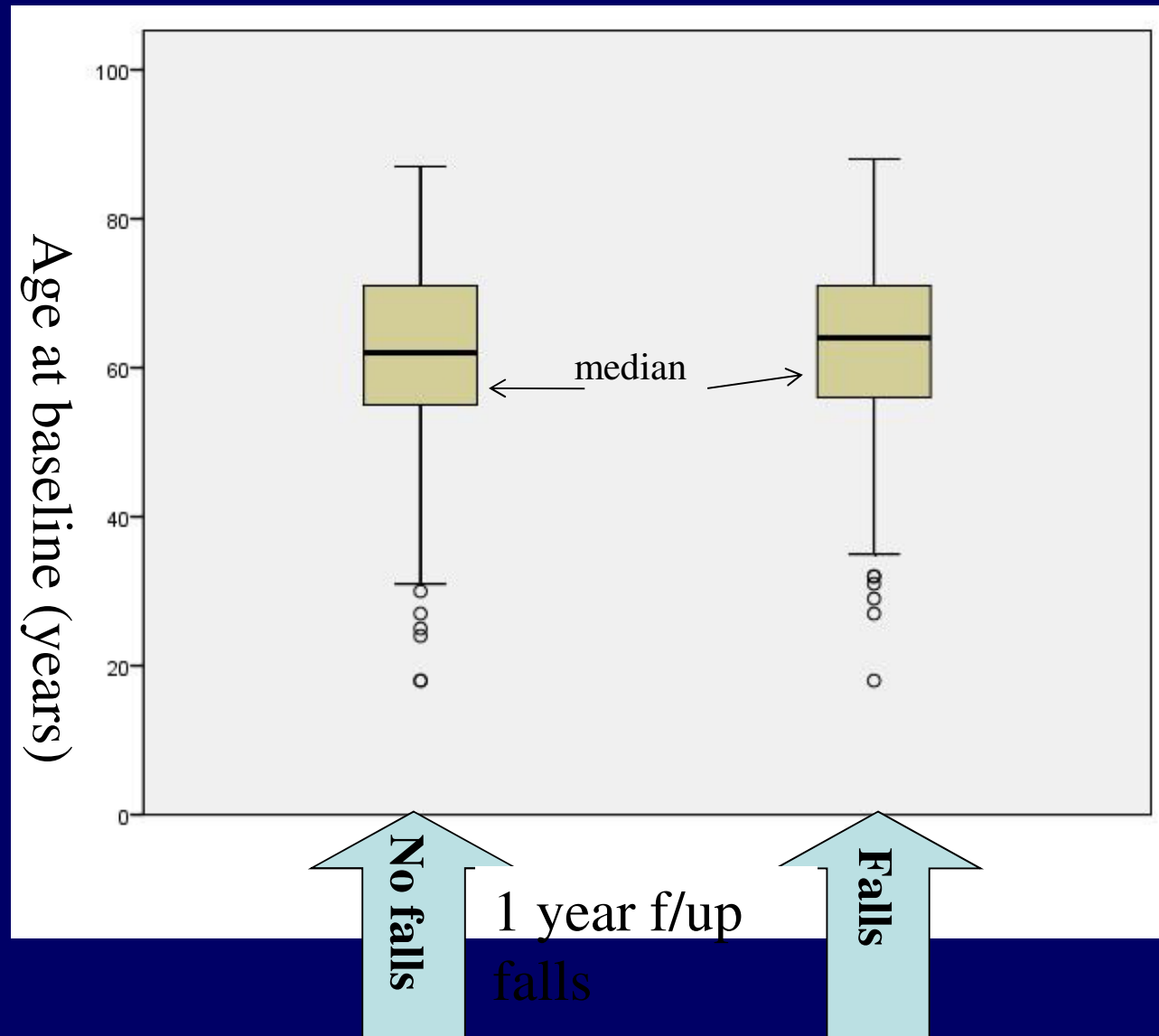
Incidence of falls



- 598 falls were reported during the follow-up period (1313/1000 person-years at risk or 1.11 falls per person)
- 36% (95% CI 32% to 40%) reported one or more falls during the follow-up
- Single faller = 94 (18%)
- Multiple faller = 101 (19%)

Mean age (SD) = 62 (12.8)

Falls and age



Key findings

- Adults of all ages with RA have an increased risk of falls (multivariate model)
- High risk falls patients with RA can be identified by asking whether patients have fallen in the past year
- Falls prevention strategies are a priority for patients with RA

Promoting physical activity amongst older people - what if we asked them what they want?

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Background

Physical activity can bring many benefits as people become older (1,2,3) and there are many programmes around the world that encourage older people to be active (4,5,6). Despite this, levels of physical activity amongst older people are well below the recommended level of 150 minutes across the week (1).

Few studies have asked older people if the types of activity that are on offer are ones that they are interested in. In Phase One, this study has asked older people what the essential ingredients of a successful intervention are. In Phase Two, the study goes on to ask whether applying some of these ingredients to the promotion of activities will make a difference to attendance and engagement.

"I'm looking for some more fun!"
Female, 63



"I'd like to join a lot more things, but they all cost." Female, 76

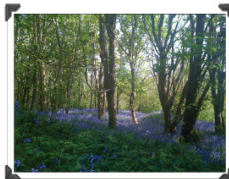
Methods - Phase One

The study follows a Mixed Methods design.

- ◆ 11 focus groups and 12 individual interviews were held between October 2011 and April 2012.
- ◆ 61 participants were recruited to ask why they engaged in physical activities (or not!) - what attracted them to the activities that they did!
- ◆ 47 women and 14 men, aged 54 - 87.
- ◆ 34 physically active and 27 not physically active.

Participants were recruited from independent Neighbourhood Schemes in Calderdale and through Age UK Calderdale and Kirklees.

"We're in the fresh air and everyone's friendly. There's smiles all round." Female, 59



Initial Findings - Phase One

Data was analysed using Framework Analysis and has been organised into five themes.

- ◆ Time and structure.
- ◆ Environmental factors.
- ◆ Personal qualities and drivers.
- ◆ Health and wellbeing.
- ◆ Challenges in promoting physical activities and maintaining the Neighbourhood Schemes.

Challenges

- ◆ Engaging men in group activities.
- ◆ Attracting people aged 50 - 100.
- ◆ Maintaining membership numbers.
- ◆ Attracting new members.

These challenges are being addressed in Phase Two, as an Action Research study.

The Top Six

In order to engage in physical activities, either independently, or as part of an organised group, the activity must be:

- ◆ Enjoyable.
- ◆ Sociable.
- ◆ Affordable.
- ◆ Flexible.
- ◆ Seasonal.
- ◆ Have pleasant surroundings.

"She's trying to get us doing exercise and we're killing ourselves laughing!"
Female, 59



Methods - Phase Two

An Action Research Group has been established, including 5 older people from 2 Neighbourhood Schemes, 2 community development workers and the researcher.

The Group is using the findings from Phase One to implement and evaluate an intervention to attract new participants and members to activities at the two Neighbourhood Schemes.

All members of the Action Research Group are involved in developing and monitoring the intervention, which will run until September 2012.



"No use me signing up for anything, I'm not here all the time." Female, 69

Initial Conclusions

Phase One of the study has identified some essential ingredients for a successful intervention to promote physical activity amongst older people. Activities need to be enjoyable; low cost; welcoming; flexible and need to take account of the weather and the surroundings.

Communicating that the Neighbourhood Schemes activities address all of these issues could be key to their success in recruiting new members.

The findings from Phase Two will indicate whether including information about these issues in the promotion of activities has a positive effect on the numbers of older people engaging in physical activities. If successful, activity sessions across the UK could benefit, by applying the same techniques.

"As soon as the clocks have changed, I've gone out for half an hour every night."
Male, 54

References

1. Department of Health. *Starts Active, stay active. A report on physical activity for health from the four home countries' Medical Officers*. London: Crown Copyright, 2011.
2. WHO. *Global recommendations on physical activity for health*. Geneva: WHO, 2010.
3. U.S. Department of Health and Human Services. *Healthy people 2010*. U.S. Washington DC: Department of Health and Human Services, 2000
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5. Lambert, S. et al. 2007. *As soon as I get my trainers on I feel like dancing' An evaluation of Ageing Well in England and Wales*. London: Age Concern England, Welsh Assembly Government.
6. Stewart, A. L. et al. 2001. *Physical Activity Outcomes of CHAMPS II: A Physical Activity Promotion Program for Older Adults*. *J Gerontol A Biol Sci Med Sci*, 56, 465-470.

Acknowledgments

I would like to thank the committee members from High Five and Reach Out and the Neighbourhood Schemes Team in Calderdale for their enthusiasm and commitment. Thanks go to my supervisors Chris Todd and Maria Horne for their guidance and support.

"Toys in the Park"

NZVIP Trial

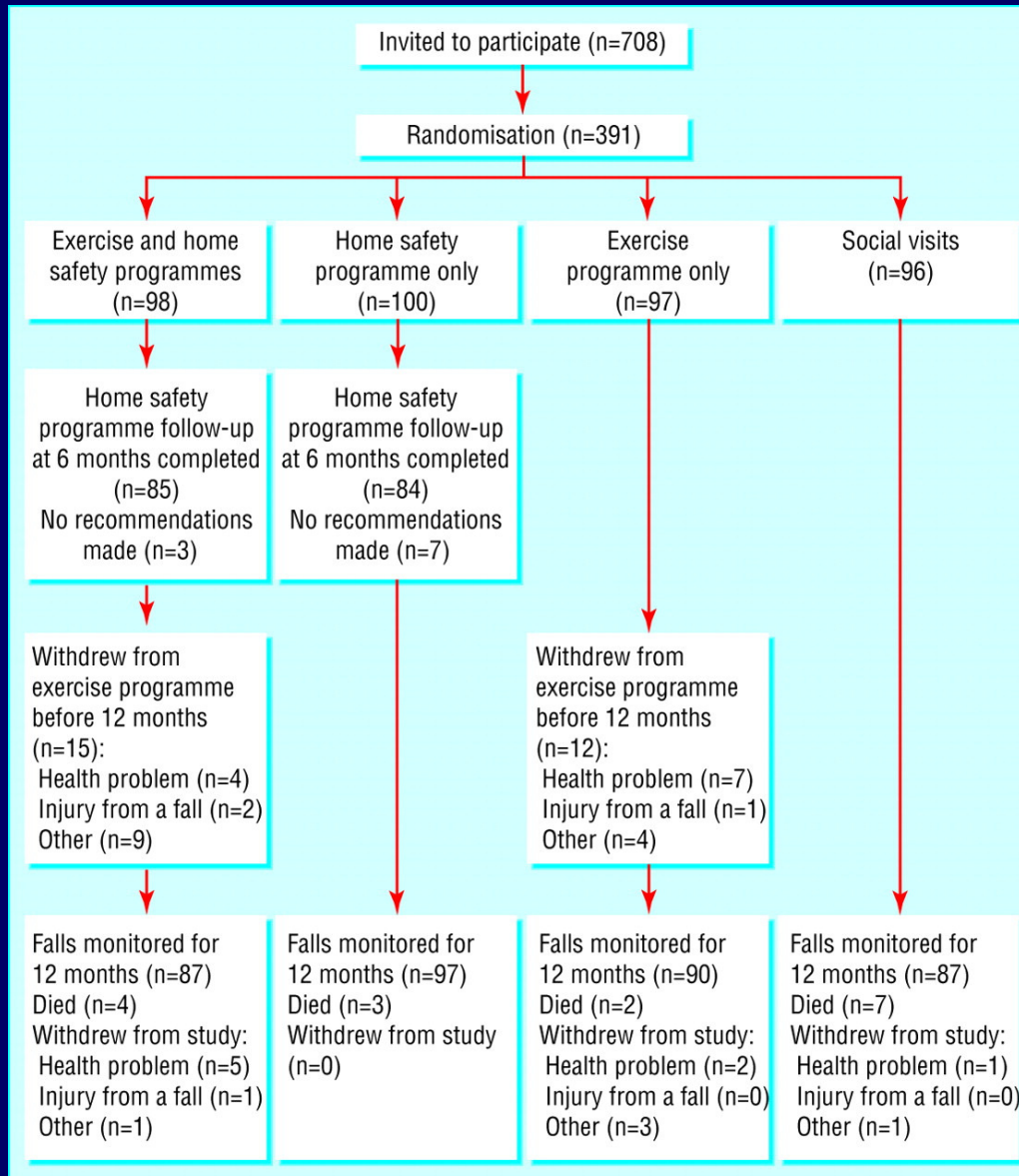
Randomised controlled trial of prevention of falls in people aged ≥ 75 with severe visual impairment: the VIP trial

A John Campbell, M Clare Robertson, Steven J La Grow, Ngaire M Kerse, Gordon F Sanderson, Robert J Jacobs, Dianne M Sharp, Leigh A Hale



Campbell A J et al. *BMJ* 2005;331:817

Flow of participants through the NZVIP trial



Campbell A J et al. BMJ 2005;331:817

Results

NZVIP trial

	Incidence rate ratio (95% CI)
Effect on falls	
Home safety programme:	
All receiving home safety programme (n=198) v all not receiving home safety programme (n=193)	0.59 (0.42 to 0.83)
Home safety programme only group (n=100) v social visits group (n=96)	0.39 (0.24 to 0.62)
Exercise programme:	
All receiving exercise programme (n=195) v all not receiving exercise programme (n=196)	1.15 (0.82 to 1.61)
Exercise programme only group (n=97) v social visits group (n=96)	0.79 (0.48 to 1.28)

Campbell A J et al. BMJ 2005;331:817

NZ-VIP trial

- Compared to those not receiving the programme
 - fewer falls amongst home safety programme
 - but not exercise programme
 - within exercise programme, stricter adherence associated with fewer falls
 - adherence to exercise programme not as good as in the general older population
- **“One size fits all” approach does not work**
 - People with visual impairment have different needs to those with good sight
 - Adherence to exercise regimen and issues to do with interaction between interventions, appear to be important
 - Home safety programme seemed less effective when the person was also receiving the exercise programme

VIP2UK

RfPB funded development and pilot study of falls prevention amongst older people with visual impairments.

MRC Framework/Guidance

MRC
Medical Research Council

**A FRAMEWORK FOR
DEVELOPMENT AND
EVALUATION OF
RCTs FOR COMPLEX
INTERVENTIONS TO
IMPROVE HEALTH**

This document is a discussion document drafted by members of the MRC Health Services and Public Health Research Board. It is intended to provide a framework for individuals considering the evaluation of a complex intervention. It does not set out a set of required steps in carrying out trials in this area.

April 2000

MRC | Medical
Research
Council

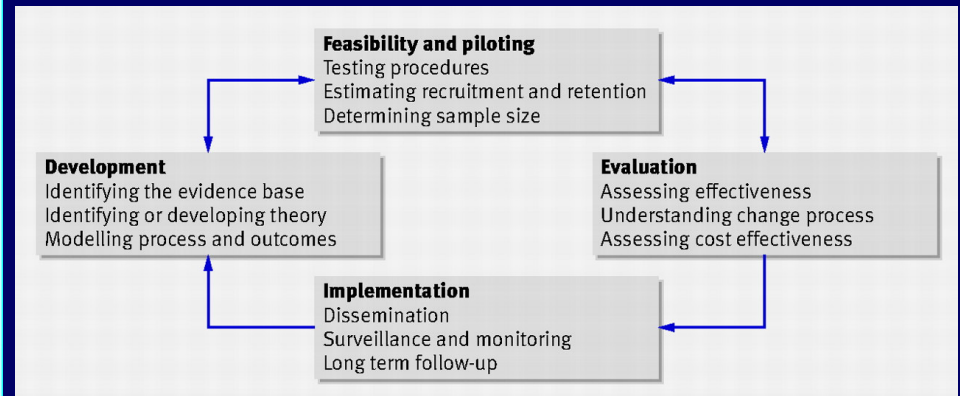
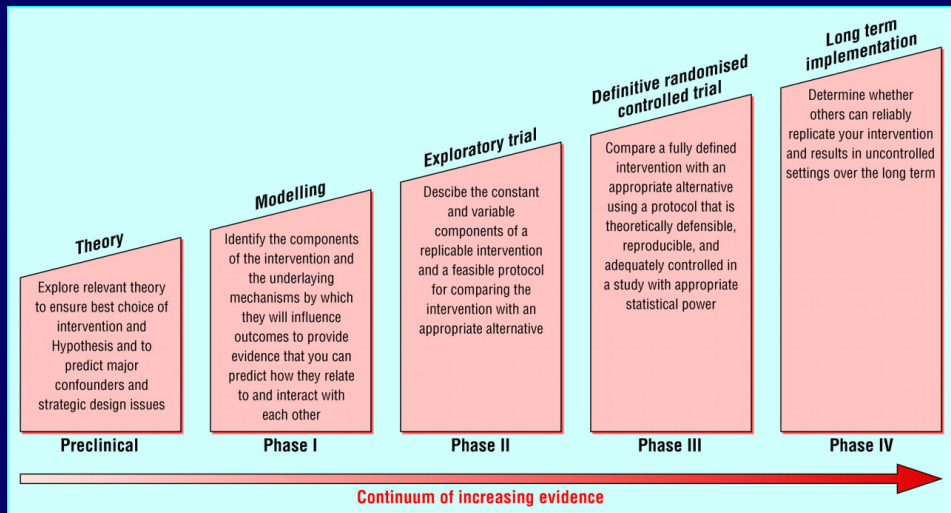
**Developing and
evaluating complex
interventions:
new guidance**

Prepared on behalf of the Medical Research Council by:

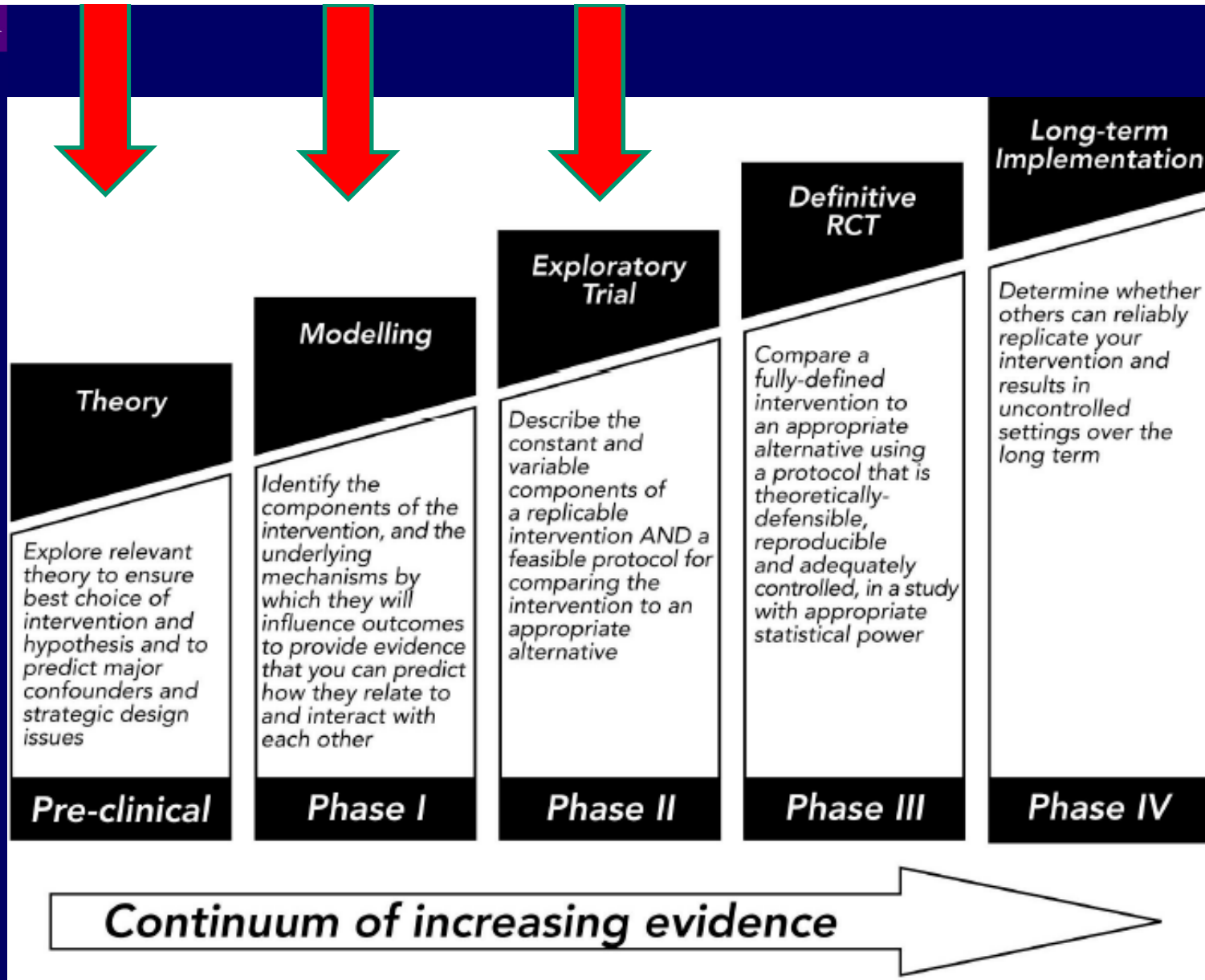
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www.mrc.ac.uk/complexinterventionsguidance

MRC framework/guidance for complex interventions

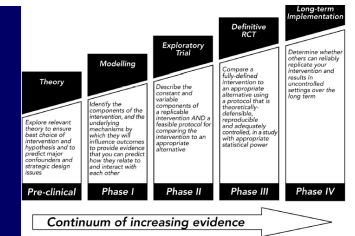


Campbell, M. et al. *BMJ* 2000;321:694-696
Craig P et al. *BMJ* 2008;337:bmj.a1655



Theoretical & Phase I Modelling

- Reviews of literature
- Work on the intervention
- Qualitative work with people with visual impairment & health care professional to clarify the best way to design & present the interventions



Otago & PSE

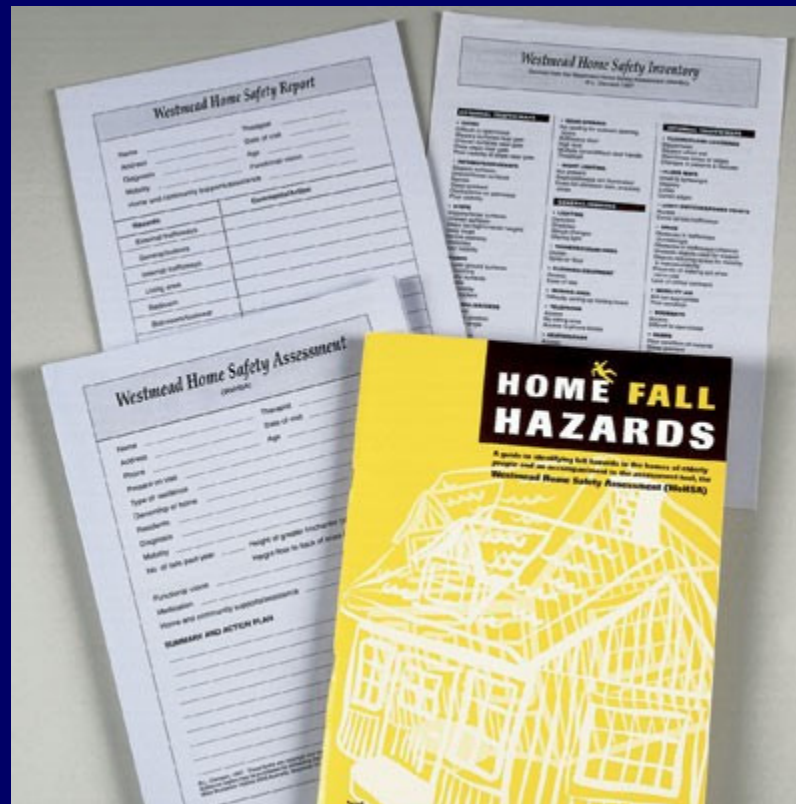


www.laterlifetraining.co.uk

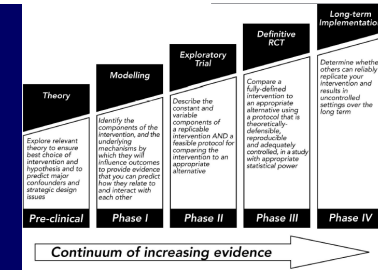


Otago exercises

Westmead Home Safety Assessment



Phase 2: Exploratory trial feasibility & acceptability



Recruit participants from Eye Hospital
Baseline measurement & randomisation

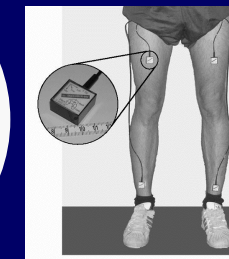
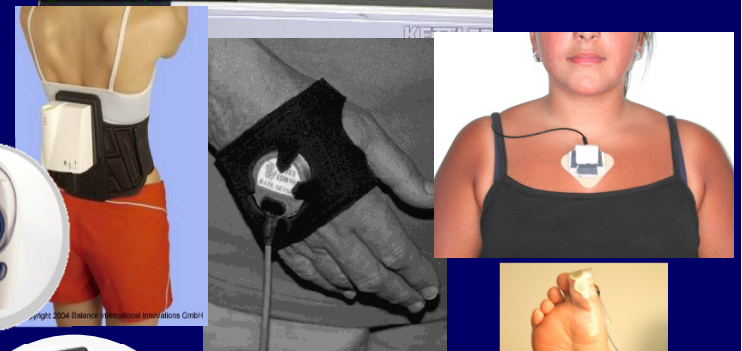
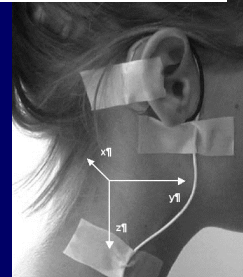
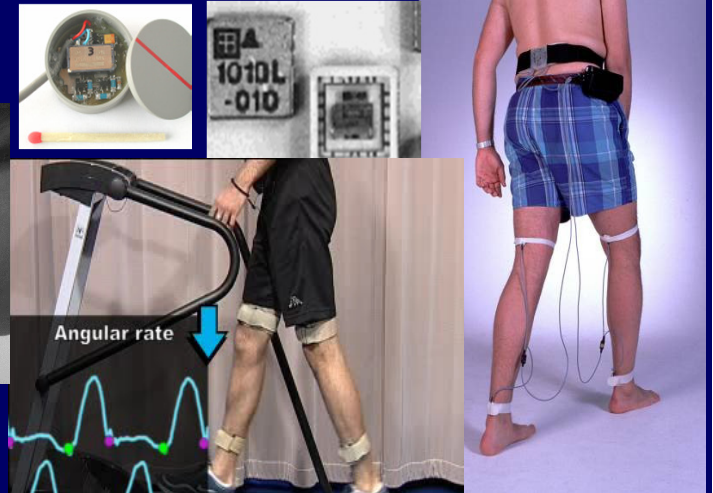
Occupational therapist home safety programme only

Occupational therapist home safety programme + Otago Exercise Programme

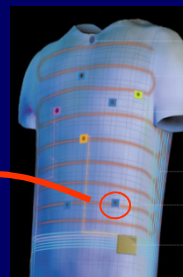
Usual care with social visits



- Accelerometry
- Gyroscopy
- Body fixed sensors
- SmartPhones



Foot pressure sensors





- User perspectives and psychological aspects of ICTs
- Technology development
- Longitudinal monitoring of mobility to predict disability & falls
- Creation of a meta-database
- Designing and testing a complex/self-adaptive intervention to reduce fall risks



- Recruitment centres in NW?

Submitted projects

- **ProFound:** Prevention of Falls Network for Dissemination
- **EPAF:** European Partnership for Active Ageing and Fall Prevention
- RCT of implementation of computerised Fall Prevention Tool Kit on fall rates in acute hospitals
- *A Matter of Balance UK Cluster RCT*