

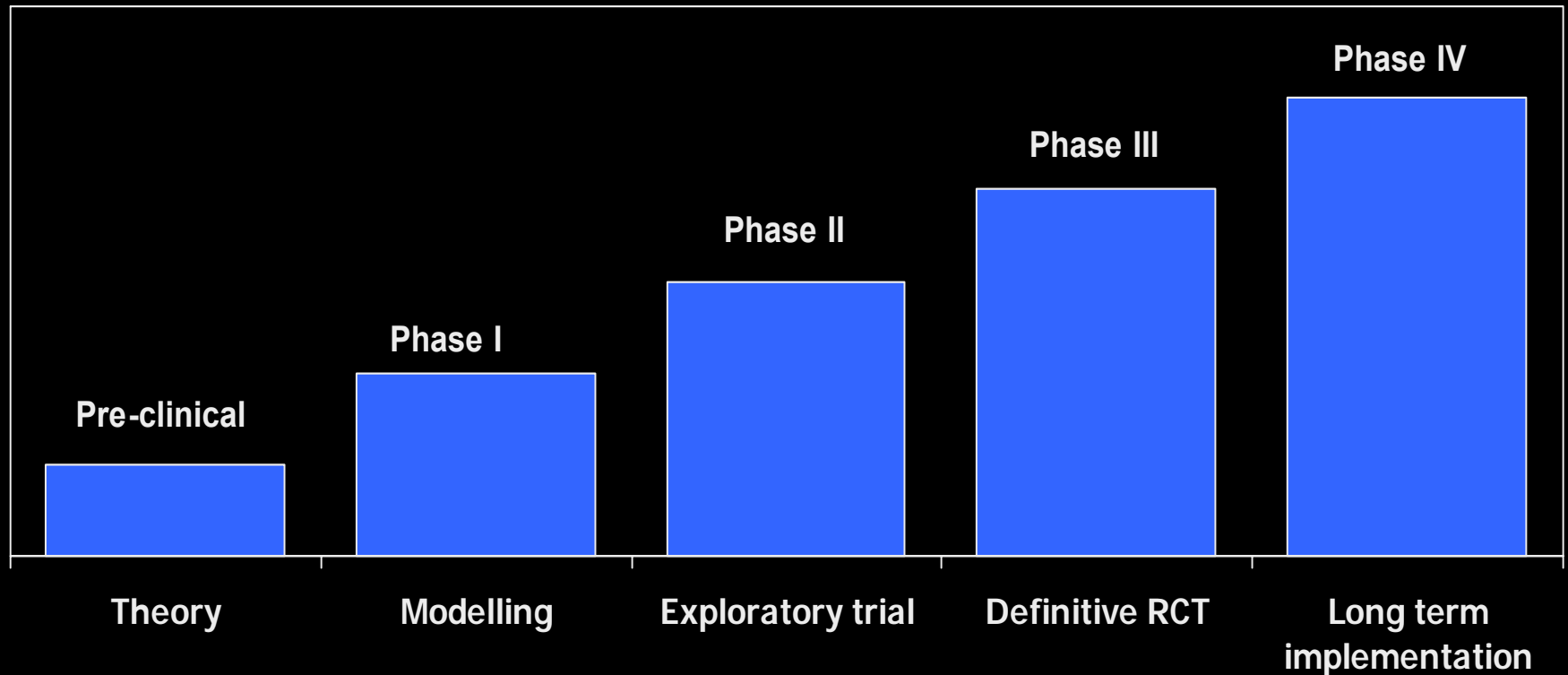
# U Holding on Tight: loss of bladder control in later life B

Cath Sackley, Primary Care &  
General Practice

# Background to methodological approach

- **Health Services Research**
- **Applying findings to ‘real world’ older people and ‘real world’ services- hard!**
- **Translating findings, bench to bedside**
- **Gold standard RCTs.**
- **CONSORT quality standards.**

# UK MRC Framework for Evaluating Complex Interventions



Continuum of increasing evidence



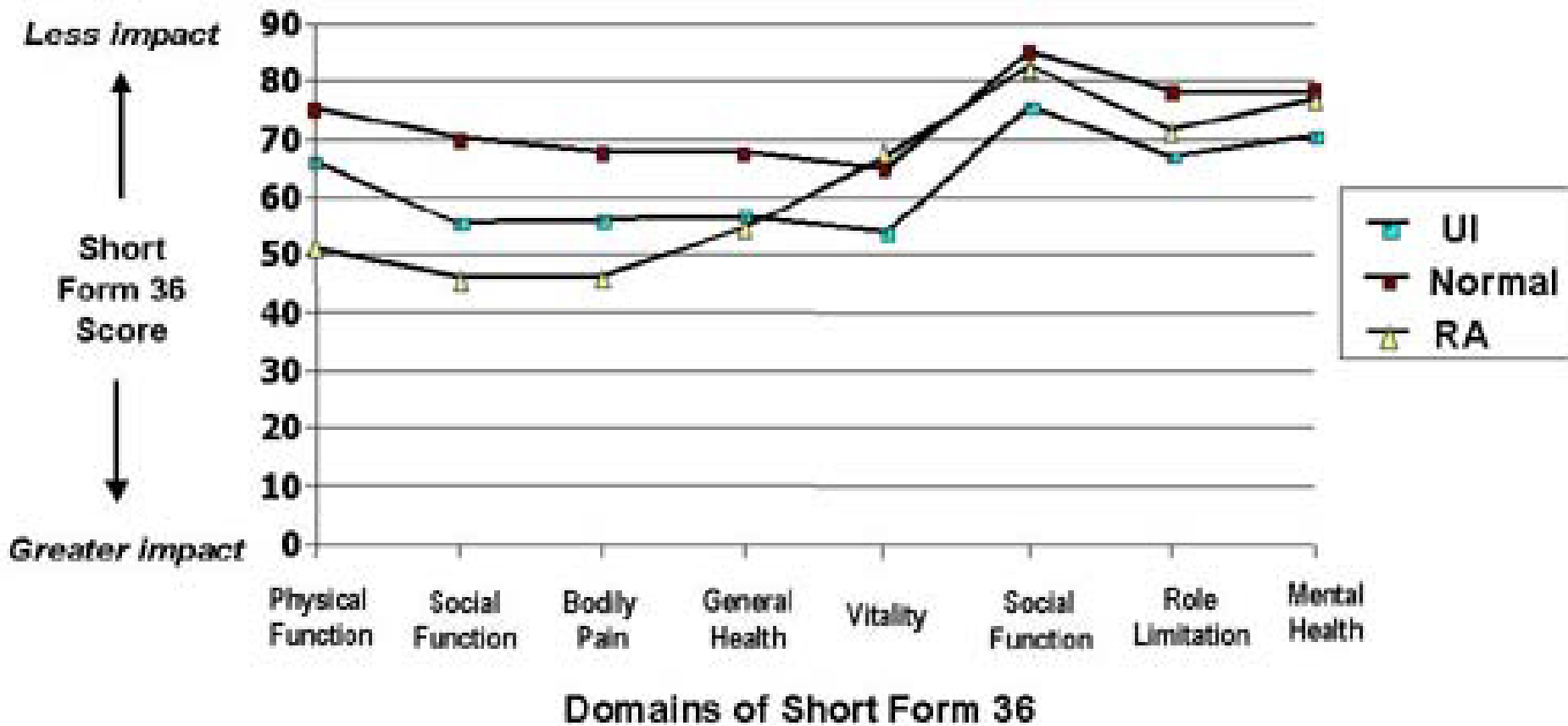
# Types of incontinence

- **Stress**
- **Urge**
- **Mixed**
- **Functional**

# Table 1 Prevalence of Urinary Incontinence in Community-Dwelling Older People

Study	Design	Country	Mean age	Prevalence
Holroyd-Leduc, JM et al (2004)[1]	Population based cohort study of 6,506 older people	USA	77	14.8%
Ostbye, T et al (2004)[2]	National, longitudinal, multi-centre cohort study of 8,949 older people	Canada	75.3/77.3 (Male/Female)	19-37%
Stenzelius, K et al (2004)[3]	Random stratified sample of 8,500 community dwelling older people.	Sweden	84	39%
Stoddart H et al (2000)[4]	Stratified random sample of 1540 community living older people	UK	Not given	31% women 23% men.

# Impact of Urinary Incontinence on Community-Dwelling Older People



# Care Homes in Birmingham

## □ Population

76% residents experience UI, 70% cognitively impaired, 60% mobility impaired, co morbidity +++, mean age 87

## □ Services

Rationing/ charging of continence services and other AHP services

## □ Environment

Poor levels of training e.g. unable to recognise signs of infection

## □ Cost

Highest single care home cost- £2,000 per person per annum

# Incontinence in care homes

## Complications

- ❑ Pressure sores
- ❑ Immobility
- ❑ Infection
- ❑ Social isolation



## High priority

Help the Aged, -'My Home Life' project

National Service Frameworks- Older People & Long Term Neurological Conditions

# What we know

1. **Limited research evidence about successful interventions in these settings (Norton 2006)**
2. **An absence of data on the implications of UI for residents, family or staff (Robinson 2000).**
3. **Individual assessment and management beneficial but expensive +++ (Schnelle)**
4. **Little evidence of preventative interventions**

# A public health approach

## Phase 1 studies

1. Survey of prevalence of urinary incontinence
2. Survey of service use and current management
3. Qualitative study of user & carer views

## Phase 2

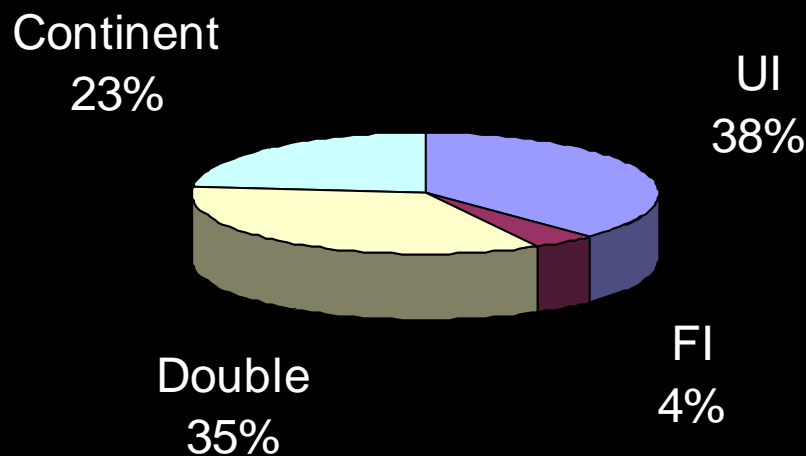
1. A pilot RCT to provide data to underpin future intervention studies

# Phase 1

## 1. A survey of the continence status of care home residents in the Midlands UK

Postal survey of 1166 residents using Barthel ADL Index

□ 73% of residents incontinent of urine



# Phase 1

## 2. A survey of current practice

### **Design-**

Anonymous postal survey of  
care homes in Birmingham, 66  
responders

### **Findings-**

Lack of knowledge of care

Poor access to services (15%  
physiotherapy

, 5% occupational therapy)

Focus on management and not  
remediation/prevention

# Phase 1

3. Semi structured interview study to determine the perceptions of older people, family and staff.

**Results- 5 main themes:**

- **Distressing effects of UI**
- **Lack of assessment**
- **Lack of rehabilitation**
- **Social isolation**
- **Uncertainty regarding treatment**

**Overall theme- acceptance and the inevitability of UI in old age.**

# Summary of Phase 1 findings

- **High rates of UI and rising**
- **High rates dependency and immobility**
- **Emphasis of management not prevention/ alleviation**
- **Inequality in access to care**
- **Residents and staff uncertain**

# A phase II study of the effects of an educational and exercise intervention on incontinence for residents of nursing homes

Cath Sackley, Fran Badger, Natalie  
Rodriguez, Chris Wright, Jelske Besemer,  
Katerina van Reeuwijk, Maayken van den  
Berg, Leontien van Wely & Jed Rowe

# Phase I/II Cluster Randomised Pilot RCT

**Setting-** 6 South Birmingham Care Homes

**Participants-** Residents with Barthel Score  $\leq 16$

**Measures-** Masked assessments of continence (*Urodynamic questionnaire*), mobility (*Rivermead mobility index*) and quality of life (*Incontinence quality of life*) were taken at 0, 2, 6, mths.

**Randomisation and Allocation Concealment-**  
Independent

**Intervention-** Physiotherapeutic group exercises were delivered for one hour, twice weekly for four weeks. 2 hours staff education from continence team

**Analysis-** Descriptive plus ITT

**RG&E-** Inclusive methodology

# Measurements

**Masked assessments at 0,2,6 months**

**Continence –**

***Urodynamic questionnaire***

**Mobility –**

***Rivermead mobility index***

**Quality of life –**

***Incontinence quality of life***

# Interventions



6 Homes, 60 residents selected 26 refused to participate

Cluster randomisation

Intervention 3 homes 18 people

Standard care 3 homes 16 residents

Baseline assessment n=16  
Refused n=1, Ill n=1

Baseline assessment n=16

Post intervention 2 month n=13  
Lost to follow up: deceased n=2  
Moved n=1

2 month follow up n=14  
Lost to follow up: deceased n=2

6 month follow up n=13  
Lost to follow up: deceased n=2  
Moved n=1

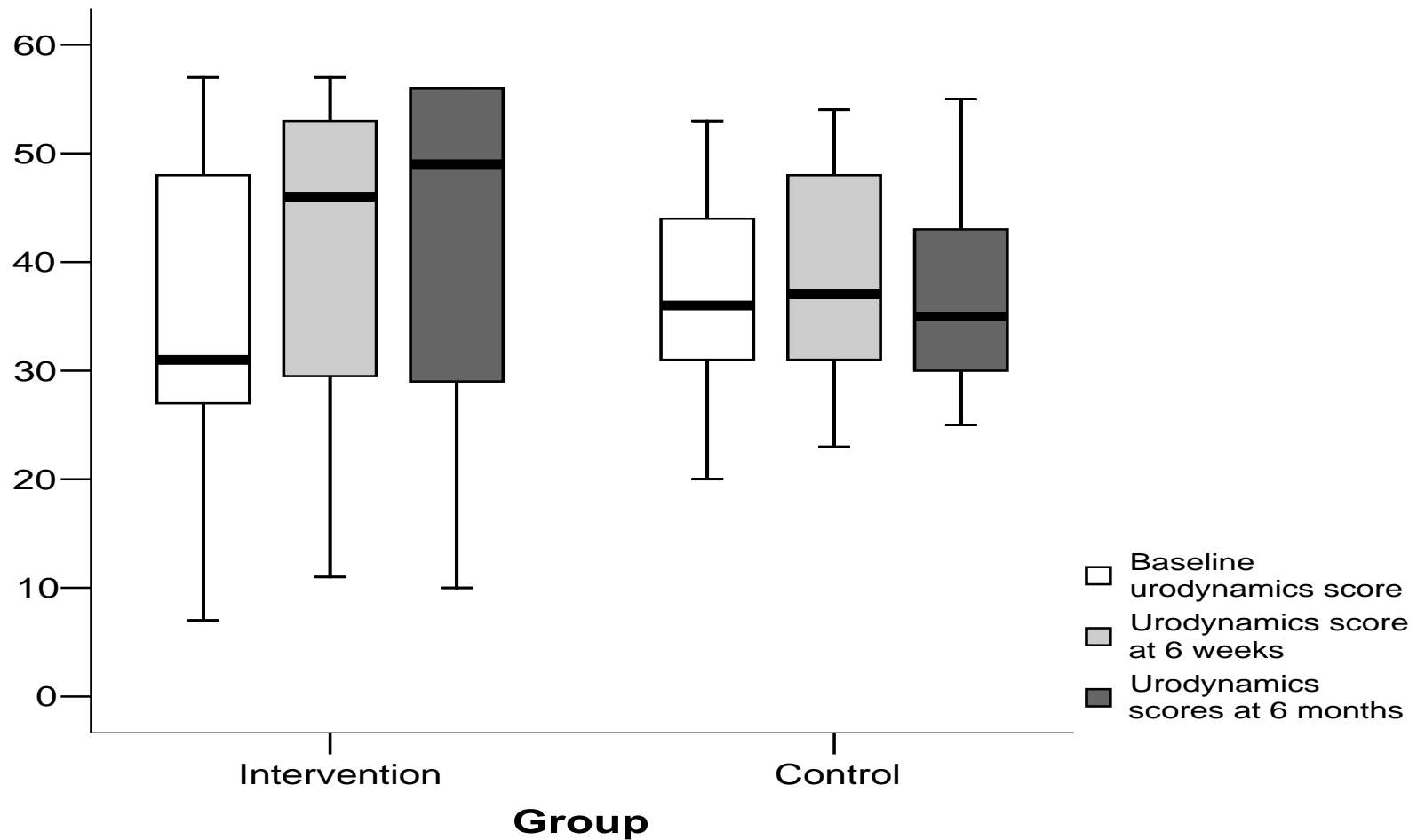
6 month follow up n=14  
Lost to follow up: deceased n=2

# Baseline Characteristics of Participants by Group.

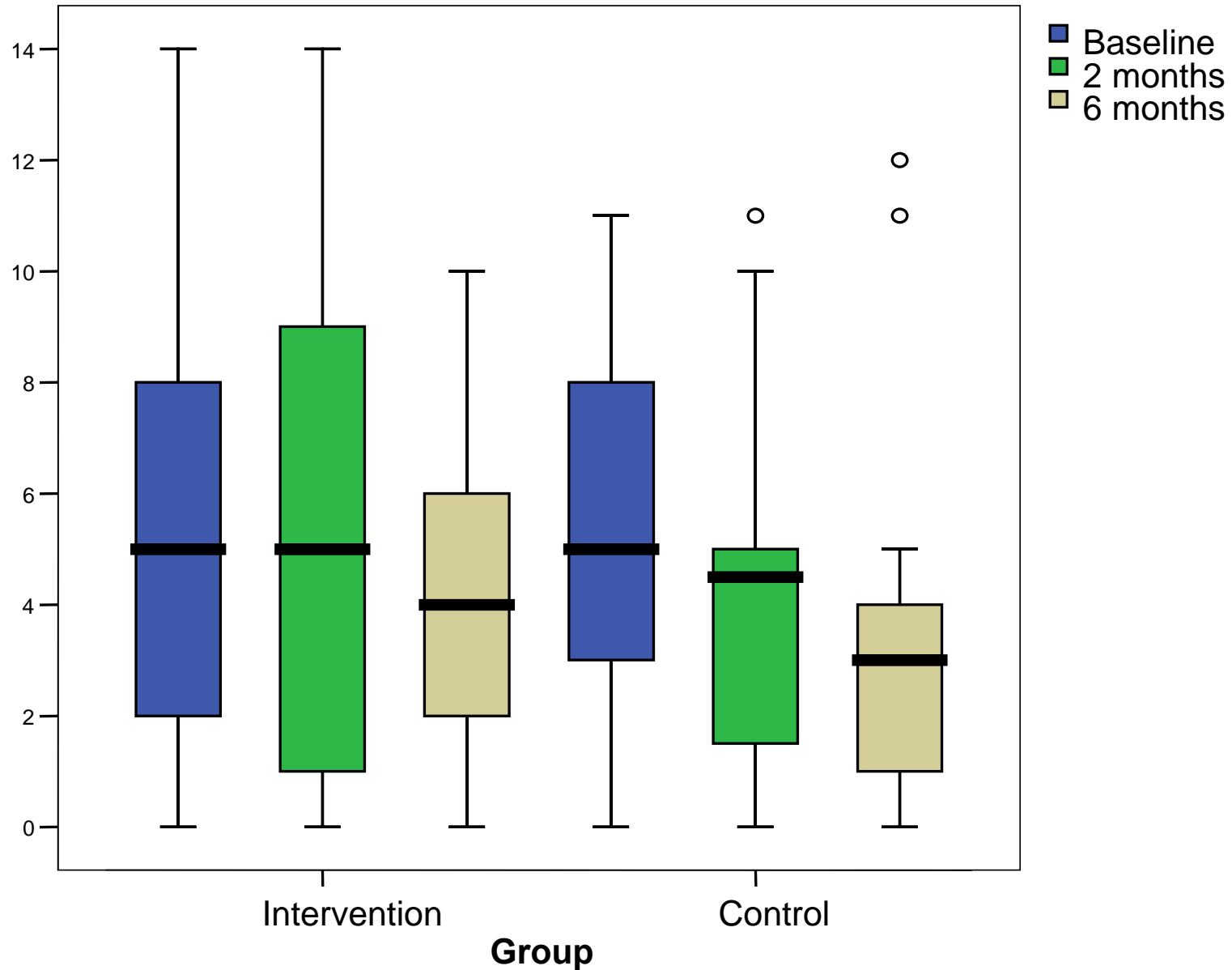
	Intervention n=18	Control n=16
Age mean $\pm$ SD	86 $\pm$ 8	85 $\pm$ 10
Female n (%)	18 (100)	12 (75%)
SOMCT <22 (%)	15 (83%)	9 (56%)
BI mean $\pm$ SD	10 $\pm$ 5.4	10 $\pm$ 4.6
Ambulation % (n)		
Alone or with 1	14 (78%)	14 (87%)
Continent of urine	3 (17%)	3 (19%)

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# Box plot of urodynamic scores by trial group and assessment occasion



# Rivermead Mobility Index



# Discussion and Conclusion

**Successfully piloted  
intervention and identified  
limitations of measures**

**Trials of simple public health  
interventions feasible and  
appropriate**

**Designing Phase 111 study  
(n=686 residents, 78  
homes)**



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Research Into Ageing ™



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