Improving Obesity Related outcomes

Paul Bissell, Andy Dearden, Kate Gerrish, Georgina Gowans, Cheryl Grindell, Ben Heller, Sheila Kennedy, Roxanne Leitao, Sue Mawson, Sinead O’Brien, Stuart Parker, Heath Reed, Melanie Rimmer, Christine Smith
This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 306058
Obesity: BMI > 30kg/m², percentage estimate
5 to 10 | 15 to 20 | 25 to 30 | 35 to 40 | No data
The relationship between body mass index prior to old age and disability in old age

K Backholer$^{1,2,5}$, K Pasupathi$^{1,2,5}$, E Wong$^{1,2}$, A Hodge$^{3}$, C Stevenson$^{4}$ and A Peeters$^{1,2}$
“Solidarity between generations at all levels—in families, communities and nations—is fundamental for the achievement of a society for all ages.”

United Nations, Madrid
International Plan of Action on Ageing, 2002
An inter-generational social innovation for increased physical activity

Paul Bissell, Andy Dearden, Kate Gerrish, Georgina Gowans, Cheryl Grindell, Ben Heller, Sheila Kennedy, Roxanne Leitao, Sue Mawson, Sinead O’Brien, Stuart Parker, Heath Reed, Melanie Rimmer, Christine Smith
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WP4 Objectives

• Understand the problem
  *(Literature, survey analysis, interviews)*

• Generate a social innovation with the potential to prevent and/or reduce obesity
  *(user-centred healthcare design and evaluation activities.....)*

• On-going use and evaluation of the new intervention in different environments
  *(An iterative process of evaluation......)*
WP4 Objectives

• Understand the problem
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WP4. Understanding the problem

Literature summary

• Diet and activity main targets for intervention
• Intergenerational innovations not often seen. Direction of implied benefit generally one way (towards younger generation)
• New intergenerational interventions targeting overweight and obesity amongst older adults should be able to be personalised and highly involving for the participants.
WP4. Understanding the problem

Focus on physical activity:

The socio-economic gradient in physical activity in the UK

Recent quantitative research suggests that there is an association between physical activity and:

- **Socio-economic status:** the lowest levels of activity are seen among those in the lowest socio-economic positions
- **Age:** a sharp decline in rates of PA with increasing age
- **Gender:** women are less likely to undertake regular PA than men
WP4. Understanding the problem

Class of obesity by age group in the Yorkshire Health Study
WP4. Understanding the problem

**Title:** A qualitative study of the social determinants of physical (in)activity amongst older women living in Sheffield

**Aim:** to examine attitudes towards and experiences of physical activity amongst older women (65-84 years) from low socio-economic groups and with different weight status across the life-course
The Ageing Body: Narrative accounts of physical activity by women from low socio-economic groups

Participant details:

• 12 participants
• 24 interviews conducted (90-180 mins each)

• Age range: 66-79 years
• BMI: 23 (‘healthy’) – 38 (‘obese’)
• IMD: 4 & 5 (low socio-economic status)
• Between them they experienced a range of health conditions including arthritis (and spondylosis), artificial joints, heart disease, COPD, depression, as well as undiagnosed disorders / illnesses
The Ageing Body: Narrative accounts of physical activity by women from low socio-economic groups

Key findings: 4

It is likely that a successful intervention to increase levels of physical activity will:

- allow for individual capabilities
- incorporate everyday activities
- encourage sociability
- work towards realistic / feasible goals
- focus on protecting / caring for bodies
The philosophers have only interpreted the world, in various ways; the point is to change it.
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People and contexts

End user workshops & context research

1. Context research
   Local initiatives
   Commercial platforms
   Public health programmes

2. Collaborative design workshops

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A broad appeal

End user workshops and contextual research

Target population

Those who can exercise (at some level)

A 'prescribed' activity (cycling or dancing for example)

The iStep platform inclusion curve

Afford and use a given technology

'Capability' Can exercise (in permitted ways), has IT (literacy & access), has access to willing intergenerational partner etc.

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Selecting options

Intermediate concepts

Concept development & technical design

Intermediate concepts developed, reviewed and selected

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The iStep Concept

http://www.istep.org.uk
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iStep Features

- Create challenges
- Invite groups
- Pairing into Dyads
- Encouraging messages
- Monitor progress
- Find activities opportunities

http://www.istep.org.uk

innovAge
SOCIAL INNOVATION: PROMOTING ACTIVE AND HEALTHY AGING
An open and extensible platform

Open-source platform

Standard plug-ins:
- Social networking

Bespoke plug-ins:
- Enabling ‘dyads’
- Creating ‘challenges’
- Managing groups
- Usage data for research

http://www.istep.org.uk
Pilots and implementation strategies

Groups, entry route and directions of engagement

- □ = YOUNGER PERSON
- ○ = OLDER PERSON
- → = DIRECTION OF ENGAGEMENT

http://www.istep.org.uk
Testing the iStep prototype

• An iterative process of qualitative data collection and analysis with the following aims:

To gain an understanding of the acceptability and usability of the iStep concept in different contexts

To gain an understanding of what factors may influence its uptake
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Main Findings - School setting

• **The Technology:**
  Generally everyone liked the pedometer and found it a motivating tool.
  The website was seen as simple and straightforward to use however not all its functions were used eg: messaging.

• **The walking challenges:**
  Generally everyone liked having a goal to aim for but being challenged was also deemed important. However there was indifference to the actual challenge itself.

• **The Intergenerational partnership:**
  Partners were unknown to each other in the majority of cases and this clearly impacted on interaction.

• **Competition v collaboration:**
  Pupils and PE teachers generally preferred competition. Collaboration was perceived as a good idea.

• **Promoting physical activity**
  Most perceived that their activity levels had increased during their participation in the challenge.
Main Findings – Women age 60+

- **The Technology:**
  All liked the idea of using a pedometer
  All thought the website was/looked relatively straight forward but didn’t like some of the language used
  Most felt they would need some form of instructions

- **The walking challenges:**
  Generally all liked the idea of having an achievable goal to aim for

- **The intergenerational partnership**
  This drew mixed feelings - individual v family/known partner
  Most liked the social element and being able to keep in touch remotely

- **Competition v collaboration**
  Mixed feelings/personal preference

- **Promoting physical activity**
  All thought a good idea to encourage self and young to be more active
The knowledge to action cycle
Considerations for scale up and implementation

• The findings indicate that the innovation is:
  Acceptable and straightforward to use and can be incorporated into daily routines
• Factors that may limit uptake include:
  IT skills, walking limitations, finding appropriate partnerships
• In addition:
  Further use of behaviour change techniques need to promote uptake and sustainability
  Further evaluation of outcomes is required following implementation and should consider usability, acceptability and uptake issues as well as levels of physical activity BMI and health pre and post intervention.