‘Innovations in Health Psychology’

Celebrating 21 years of Health Psychology at NUI Galway
8th June 2015, Aula Maxima, NUI Galway

Molly Byrne
Health Behaviour Change Research Group
NUI Galway
Why Behaviour?
The Formula for Good Health

0 Cigarettes

5 Servings of fruits and vegetables per day

10 Minutes of silence, relaxation or meditation per day

30 Body Mass Index < 30 kg/m²

150 Minutes of exercise per week (e.g., brisk walking or equivalent)

Place a ✓ for what you already do and an ✗ for what you commit to working on.
Behaviour change interventions can be effective
A gender-sensitised weight loss and healthy living programme for overweight and obese men delivered by Scottish Premier League football clubs (FFIT): a pragmatic randomised controlled trial

Kate Hunt, Sally Wyke, Cindy M Gray, Annie S Anderson, Adrian Brody, Christopher Bunn, Peter T Donnan, Elisabeth Fenwick, Eleanor Grieve, Jim Leishman, Euan Miller, Nanette Mutrie, Petra Rouchhaus, Alan White, Shaun Treweek

Figure 2: Mean weight (kg, 95% CI) in participants allocated to the Football Fans in Training weight loss programme or waiting list comparison group 12 weeks and 12 months after baseline measurement.
Effect of tailored practice and patient care plans on secondary prevention of heart disease in general practice: cluster randomised controlled trial

A W Murphy, professor of general practice,1 M E Cupples, reader in general practice,2 S M Smith, senior lecturer in primary care,4 M Byrne, lecturer in primary care,4 M C Byrne, lecturer in psychology,1 J Neill, senior lecturer in biostatistics,5 for the SPHERE study team

ABSTRACT
Objective To test the effectiveness of a complex intervention designed, within a theoretical framework, to improve outcomes for patients with coronary heart disease.

Design Cluster randomised controlled multicentre trial.

Setting General practices in Northern Ireland and the Republic of Ireland, regions with different healthcare systems.

Participants 903 patients with established coronary heart disease registered with one of 48 practices.

Intervention Tailored care plans for practices (practice based training in prescribing and behaviour change, administrative support, quarterly newsletter), and tailored care plans for patients (motivational interviewing, goal identification, and target setting for lifestyle change) with reviews every four months at the practices. Control practices provided usual care.

Main outcome measures The proportion of patients at compared with the control group: 107/415 (25.8%) v 148/435 (34.0%), 1.56 (1.53 to 2.60; P=0.03).

Conclusions Admissions to hospital were significantly reduced after an intensive 18 month intervention to improve outcomes for patients with coronary heart disease, but no other clinical benefits were shown, possibly because of a ceiling effect related to improved management of the disease.

Trial registration Current Controlled Trials ISRCTN20681411.

INTRODUCTION
Despite the substantial potential to reduce the risk of recurrent disease and death among patients with established coronary heart disease, initial reports on the implementation of prevention guidelines were disappointing.1 Systematic reviews of structured management programmes among these patients have, however, confirmed that such programmes improve
Recommendation 7 Use proven behaviour change techniques when designing interventions

Behaviour change: individual approaches

Issued: January 2014

NICE public health guidance 49
guidance.nice.org.uk/ph49

++ Goals and planning
++ Feedback and monitoring
++ Social support
Behaviour change is complicated
Efficacy of a theory-based behavioural intervention to increase physical activity in an at-risk group in primary care (ProActive UK): a randomised trial

Ann-Louise Kinmonth, Nicholas J Wareham, Wendy Hardeman, Stephen Sutton, A Toby Prevost, Tom Fanshawe, Kate M Williams, Ulf Ekelund, David Spiegelhalter, Simon J Griffin

Summary

Background Declining physical activity is associated with a rising burden of global disease. Efforts to reverse this trend have not been successful. We aimed to assess the efficacy of a facilitated behavioural intervention to increase the physical activity of sedentary individuals at familial risk of diabetes.

Methods We enrolled 365 sedentary adults who had a parental history of type 2 diabetes. They were recruited from either diabetes or family history registers at 20 general practice clinics in the UK. Eligible participants were randomly assigned to one of two intervention groups, or to a comparison group. All participants were posted a brief advice leaflet. One intervention group was offered a 1-year behaviour-change programme, to be delivered by trained facilitators in participants' homes, and the other the same programme by telephone. The programme was designed to alter behavioural determinants, as defined by the theory of planned behaviour, and to teach behaviour-change strategies. The principal outcome at 1 year was daytime physical activity, which was objectively measured as a ratio to resting energy expenditure. Analysis was by intention to treat. This study is registered as ISRCTN61323766.

Findings Of 365 patients, we analysed primary endpoints for 321 (88%) for whom we had data after 1 year of follow-up. At 1 year, the physical-activity ratio of participants who received the intervention, by either delivery route, did not differ from the ratio in those who were given a brief advice leaflet. The mean difference in daytime physical-activity ratio, adjusted for baseline, was −0.04 (95% CI −0.16 to 0.08). The physical-activity ratio did not differ between participants who were delivered the intervention face-to-face or by telephone (mean difference −0.05; 95% CI −0.19 to 0.10).

Interpretation A facilitated theory-based behavioural intervention was no more effective than an advice leaflet for promotion of physical activity in an at-risk group; therefore health-care providers should remain cautious about commissioning behavioural programmes into individual preventive health-care services.
DEBATE

Do financial incentives for delivering health promotion counselling work? Analysis of smoking cessation activities stimulated by the quality and outcomes framework

Tim Coleman

Abstract

Background: A substantial fraction of UK general practitioners’ salaries is now intended to reflect the quality of care provided. This performance-related pay system has probably improved aspects of primary health care but, using the observational data available, disentangling the impacts of different types of targets set within this unique payment system is challenging.

Discussion: Financial incentives undoubtedly influence GPs’ activities, however, those aimed at encouraging GPs’ delivery of health promotion counselling may not always have the effects intended. There is strong, observational evidence that targets and incentives intended to increase smoking cessation counselling by GPs have merely increased their propensity to record this activity in patients’ medical records. The limitations of using financial incentives to stimulate the delivery of counselling in primary care are discussed and a re-appraisal of their use within UK GPs’ performance-related pay system is argued for.

Summary: The utility of targets employed by the system for UK General Practitioners’ performance related pay may be inappropriate for encouraging the delivery of health promotion counselling interventions. An evaluation of these targets is essential before they are further developed or added to.
So what’s the problem?
So what’s the problem?

• Poor definition of interventions
  • Limited ability to develop science/theory
  • Limited ability to generalise findings

• No understanding of mechanisms of change
  • If effective, unclear why it worked, can’t replicate...
  • If ineffective, not sure why...
How to improve behaviour change interventions

1. Specify target behaviour precisely
2. Use psychological theory to develop interventions systematically
3. Describe mechanisms through which these work
4. Specify behaviour change techniques, linking these to theory
5. Improve reporting, using standardised, shared terminology
Aim: To promote the use of systematic evidence-based methods in the development and evaluation of behaviour change interventions in health

Vision: To be a national hub and internationally recognised centre of excellence in evidence-based health behavioural intervention development, evaluation and implementation
### Health partners

- **HSE Diabetes Clinical Care Programme**

### Academic partners

- **Prof Mike Clarke**, Director of MRC All-Ireland Hub for Trials Methodology Research at Queens University Belfast and Chair of the MRC Network of Hubs for Trials Methodology Research

- **Prof Susan Michie**, Professor of Health Psychology and Director of University College London's Centre for Behaviour Change

- **Prof David French**, Manchester Centre for Health Psychology, School of Psychological Sciences, University of Manchester, UK

- **Prof Martin O Donnell**, Associate Director, HRB Clinical Research Facility, NUI Galway (CRFG)

- **Prof Andrew Murphy**, Foundation Professor, Discipline of General Practice and Primary Care, NUI Galway

- **Prof Declan Devane**, HRB/MRC all-Ireland Trials Methodology Hub at NUI Galway
Programme of Research

Diabetes Aim:
To develop and evaluate two behaviour change interventions in diabetes:
One relevant to people with diabetes
One relevant to healthcare professionals
CHANGED PRIORITIES AHEAD
Diabetes Research Prioritisation: Why?

To allow the HBCRG research agenda to be informed by key stakeholders

- People with Diabetes
- Healthcare Providers
- Policy Makers
14:00-14:05 Welcome and Introductions
14:05-14:15 Research prioritisation overview
Meeting plan
14:15-15:35 Stage 1: Prioritisation of behaviours
[20 mins per topic]
14:15-14:35 Managing Type 1 DM
14:35-14:55 Managing Type 2 DM
14:55-15:15 Diabetes in Pregnancy
15:15-15:35 Preventing Type 2 DM
15:35-15:50 Break/Collation of Results
15:50-16:50 Stage 2: Results presented and discussed
Stage 3: Prioritisation of behaviours
[15 mins per topic]
15:50-16:05 Managing Type 1 DM
16:05-16:20 Managing Type 2 DM
16:20-16:35 Diabetes in Pregnancy
16:35-16:50 Preventing Type 2 DM
16:50-17:00 Next Steps
Meeting Close
## Healthcare Professional Behaviour

<table>
<thead>
<tr>
<th>Key diabetes area</th>
<th>Highest ranked behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment of Type 1 DM – Healthcare Professionals</td>
<td>Engage in collaborative treatment goal setting with patients</td>
</tr>
<tr>
<td>Treatment of Type 2 DM – Healthcare Professionals</td>
<td>Engage in collaborative treatment goal setting with patients</td>
</tr>
<tr>
<td>Preventing Type 2 DM – Healthcare Professionals/Health Services</td>
<td>Attend and engage with behaviour change training</td>
</tr>
</tbody>
</table>
Milou Fredrix
PhD student
## Patient Behaviour

<table>
<thead>
<tr>
<th>Key diabetes area</th>
<th>Highest ranked behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment of Type 1 DM – Patients</td>
<td>Take insulin as required</td>
</tr>
<tr>
<td>Treatment of Type 2 DM – Patients</td>
<td>Attend and engage with structured education</td>
</tr>
<tr>
<td>Preventing Type 2 DM – General Population</td>
<td>Engage in healthy behaviours as a family</td>
</tr>
</tbody>
</table>
Other research projects…

• Developing an intervention to improve outcomes for young adults with Type 1 Diabetes in Ireland

• Stages include:
  – Systematic review
  – Qualitative research
  – Intervention building – potential for technology/ Social Media ?
Other research projects…

**HRB SPHERE PhD**
Intervention to increase physical activity among overweight pregnant women

**HRB HRA CHARMS**
intervention to increase delivery of sexual counselling guidelines in cardiac rehab
Carol Sinnott, UCC
Polypharmacy and multimorbidity in General Practice

Mark Murphy, RCSI
HRB SPHERE PhD
Effective management of patients with T2DM in General Practice
Capacity Building

PhD Pot-Pourri Seminar
May 27th 2015
Room G065 AMBE

Caragh Flannery:
‘Exploring the feasibility and potential effectiveness of technology-supported behaviour change interventions for physical activity during pregnancy’

Milou Fredrix:
‘Goal-Setting as a Behavioural Change Technique for Diabetes Self-Management’

Eimear Morrissey:
‘Can mHealth interventions enhance medication adherence and increase walking in at risk populations?’

Designing Effective Interventions for Health Behaviour Change: An Introduction
ONE-DAY SUMMER WORKSHOP
MONDAY 22nd JUNE 2015
10:00 – 17:00
School of Psychology, NUI Galway
Welcome to the Health Behaviour Change Research Group

The Health Behaviour Change Research Group (HBCRG) was established within the School of Psychology at NUI Galway in January 2014, with support from the Health Research Board through a Research Leaders Award to Dr. Molly Byrne, Director of the HBCRG.

Changing human behaviour is key to addressing leading causes of mortality and morbidity. Behaviours, including smoking, poor diet, excessive alcohol consumption, lack of exercise, failure to screen for illness and risky sexual practice, play a central role in determining people’s health. Behaviour is also central to how people manage chronic illnesses, such as diabetes and chronic heart disease.

We invite you to browse our website for further information on the Group, and please feel free to contact us with any queries or comments at healthbehaviourchange@nuigalway.ie.

Aim

To promote the routine application of Health Psychology into the development and evaluation of behavioural interventions within population health and health services research.

Vision

To be a national hub and internationally recognised centre of excellence in evidence-based health behavioural intervention development, evaluation and implementation.
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