

## MODULE SPECIFICATION

### KEY FACTS

Module name	Developing Complex Interventions
Module code	HRM004
School	SHS
Department or equivalent	Division of Health Services Research & Management
UK credits	15
ECTS	7.5
Level	7

### MODULE SUMMARY

#### Module outline and aims

This module has been designed for researchers and healthcare professionals who want to improve health or healthcare by changing the behaviour of the public, patients or professionals. Achieving sustained behaviour change is difficult and often requires interventions that have multiple interacting components. Developing these 'complex interventions' is challenging and requires new methodological approaches that have evolved rapidly over recent years.

The phrase 'complex interventions' is very broad but specific examples include:

- a health promotion programme designed to improve physical activity and diet for members of the public at risk of developing chronic conditions
- a self-management education clinic for patients with diagnosed long-term conditions
- an intervention designed to bring the clinical practice of healthcare professionals in line with recommended guidelines

The module is suitable for researchers, healthcare professionals, intervention designers, managers and policy makers. A background in psychology, behavioural science or a related discipline would be advantageous but is not essential.

The aims of the module are to:

- Promote understanding of systematic, theory-driven approaches to the development of complex interventions.
- Provide opportunities to engage with specific methods and reflect on the challenges involved in their application.
- Encourage critical reflection on the strengths and weaknesses of the dominant approaches and examine alternative perspectives.

#### Content Outline

The module provides a strong theoretical and methodological underpinning for other modules that examine how the actions we take as members of the public, patients or professionals impacts on health and healthcare outcomes.

The module content is structured around the following areas:

- Rationale for a theory-driven approach to intervention design.
- Theories of behaviour and behaviour change.
- Dominant theory-driven approaches to intervention design, including:
  - Contents and omissions
  - Similarities and differences
  - Strengths and weaknesses
- Steps in the developing process including:
  - Identifying the problem
  - Building a logic model
  - Identifying intervention objectives
  - Identifying intervention contents
  - Dimensions of delivery
  - Developing intervention materials
- Further considerations:
  - Acceptability, feasibility, fidelity, stakeholder involvement, ethics

## WHAT WILL I BE EXPECTED TO ACHIEVE?

**On successful completion of this module, you will be expected to be able to:**

### Knowledge and understanding:

- **Describe** and **classify** appropriate models of behaviour and behaviour change.
- **Compare** and **evaluate** these models.
- **Explain** and **justify** each step in the development of a complex intervention.
- **Critically evaluate** the dominant approaches to the development of complex interventions.

### Skills:

- **Apply** theory-driven and evidence-based approaches to the development of complex interventions.
- **Analyse** health risks and health outcomes from a behavioural perspective.
- **Construct** logic models describing the causal pathway from a proposed intervention to a health outcome and **support** this with evidence.
- **Formulate** intervention functions and **select** appropriate behaviour change techniques and modes of delivery for identified determinants of behaviour.

### Values and attitudes:

- Appreciate the challenges and benefits of collaborative, inter-professional working.
- Show respect for colleagues.
- Promote a **flexible** and **pragmatic** attitude towards intervention development that recognises real world constraints and values scientific rigour.
- Reflect on the **ethical implications** to different types of intervention from a range of perspectives.

## HOW WILL I LEARN?

**Structure of learning and teaching activities:** There are no traditional lectures in this module. The module is structured and delivered as a *flipped classroom* that requires you to complete independent or collaborative learning activities prior to each weekly seminar. Class time is used to explore your learning from the pre-seminar activities but primarily used to consolidate and extend your understanding through the application of problem-solving skills and critical thinking in small group activities. Additional post-seminar activities (e.g. online discussions and further collaborative tasks) help to embed learning through self-reflection, discussion and the exploration of real world applications.

Self-directed and collaborative learning activities prior to each seminar feed directly into the small group activities in class. The in-class activities build a cumulative understanding of core concepts, methods and substantive knowledge. Through the pre-seminar, in-class and post-seminar learning activities you will develop a coherent, comprehensive and critical understanding of a rapidly developing body of knowledge that will enable you to complete the summative assessment.

Active participation in all learning activities (pre-seminar, in-class and post-seminar) is essential. Contributions to online discussion forums attract marks towards your final grade. Weekly demands vary but, on average, you should plan to spend 6-8 hours per week on learning activities outside the seminars. The seminars comprise 10 two hour sessions.

**Approach to learning:** Learning is achieved through two approaches, (i.) self-directed learning outside the classroom, and (ii.) collaborative, problem-based learning inside and outside the classroom. Moodle (the university's virtual learning environment) and other online technologies will be used to support both independent and collaborative learning activities. All learning activities will be directed, facilitated and supported by the module leader.

**Nature of learning activities:** Throughout the module you will read, view (videos, screencasts), discover and share a wide range of learning materials. Different types of learning will be encouraged, consolidated and extended through a range of learning activities including self-assessment, self-reflection, small group activities (e.g. conceptual mapping, problem-solving, debates, role plays), online discussions, collaborative co-production of knowledge, class presentations and peer review.

**Constructive alignment of learning:** The learning activities (i.e. *what we ask you to do*) map onto the module's intended learning outcomes (i.e. *what we want you to learn*). In turn, the assessment criteria are designed to evaluate the extent to which you have demonstrated that you have achieved the intended learning outcomes.

### *Teaching pattern:*

Teaching component	Teaching type	Contact hours (scheduled)	Self-directed study hours (independent)	Placement hours	Total student learning hours
Flipped Classroom	Seminars + Guided	20 (10 x 2 hrs)	130	0	150

(independent and collaborative preparatory work before each seminar; small group problem-based learning in class; independent and collaborative work following each seminar)	independent study				
<b>Totals:</b>		20	130	0	150

### WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

#### Assessments

*Overview of assessment methods used, including proportion of coursework/written*

*Assessment pattern:*

<b>Assessment component</b>	<b>Assessment type</b>	<b>Weighting</b>	<b>Minimum qualifying mark</b>	<b>Pass/Fail?</b>
Coursework – contribution to online discussion forums (3 x 250 words)	Written assignment	10%	50%	N/A
Coursework – 2,500 word essay	Written assignment	90%	50%	N/A

#### **Assessment 1**

Online asynchronous discussion forums will take place after most seminars. Discussions will be guided by the module leader who will provide a stimulus (e.g. a contestable statement, a real world scenario, an article, a video) and ask you to submit a 250 word response and make brief comments on at least two submissions from other students. At the end of the module you will select your best three initial responses for submission. These will be judged against explicit criteria and graded as either pass or fail. Passes will attract 10% towards your final grade.

#### **Assessment 2**

You will write a 2,500 word critical analysis of the utility of theory-driven approaches to the development of complex interventions. This will include personal reflections and evidence from the appropriate scientific literature.

#### Assessment criteria

Assessment Criteria are descriptions of the skills, knowledge or attributes you need to demonstrate in order to complete an assessment successfully and Grade-Related Criteria are descriptions of the skills, knowledge or attributes students need to demonstrate to achieve a certain grade or mark in an assessment. Assessment Criteria and Grade-Related Criteria for this module's assessment will be made available to you at the beginning of the module in the handbook available on Moodle. The module leader will also discuss these in one of the face to face sessions.

#### Feedback on assessment

Feedback will be provided in writing via Moodle following the marking and moderation of your assessment in line with the Assessment Regulations and Policy. This will happen within 4 weeks of the submission deadline.

You can arrange to see the module leader or your personal tutor about any feedback you have been given and are advised to use this in future modules when the criteria relate to transferable areas such as presentation, use of literature and theory and ability to analyse, evaluate or synthesise.

#### Assessment Regulations

The Pass mark for the module is 50%. Minimum qualifying marks for specific assessments are listed in the table above. The weighting of the different components can also be found above. The Programme Specification contains information on what happens if you fail an assessment component or the module.

### **INDICATIVE READING LIST**

#### **Essential Reading**

- Bartholomew, L. K., Parcel, G. S., Kok, G., Gottlieb, N. H., & Fernandez, M. E. (2011). *Planning Health Promotion Programs: An intervention mapping approach*. San Francisco, CA: Jossey-Bass.
- Michie, S., Atkins, L., & West, R. (2014). *The Behaviour Change Wheel: A Guide to Designing Interventions*. Great Britain: Silverback Publishing.
- Medical Research Council. (2000). *A framework for development and evaluation of RCTs for complex interventions to improve health*. London: MRC. Available from: <http://www.mrc.ac.uk/documents/pdf/rcts-for-complex-interventions-to-improve-health>.
- Medical Research Council. (2008). *Developing and evaluating complex interventions: new guidance*. London: MRC. Available from: [www.mrc.ac.uk/complexinterventionsguidance](http://www.mrc.ac.uk/complexinterventionsguidance).
- Richards, D. A., & Hallberg, I. R. (Eds.). (2015). *Complex Interventions in Health: An overview of research methods*. Oxon: Routledge.

#### **Recommended Reading**

- Bartholomew, L. K., Parcel, G. S., & Kok, G. (1998). *Intervention mapping: A process for*

- developing theory- and evidence-based health education programs. *Health Education & Behavior*, 25(5), 545-563. doi: 10.1177/109019819802500502
- Cane, J., O'Connor, D., & Michie, S. (2012). Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implementation Science*, 7. doi: 10.1186/1748-5908-7-37
- Davidson, K. W., Goldstein, M., Kaplan, R. M., Kaufmann, P. G., Knatterud, G. L., Orleans, C. T., . . . Whitlock, E. P. (2003). Evidence-based behavioral medicine: What is it and how do we achieve it? *Annals of Behavioral Medicine*, 26(3), 161-171. doi: 10.1207/s15324796abm2603\_01
- Dolan, P., Hallsworth, M., Halpern, D., King, D., & Vlaev, I. (2010). *MINDSPACE: Influencing behaviour through public policy*. Available from: [www.instituteforgovernment.org.uk/publications/mindspace](http://www.instituteforgovernment.org.uk/publications/mindspace).
- Eccles, M., Grimshaw, J., Walker, A., Johnston, M., & Pitts, N. (2005). Changing the behavior of healthcare professionals: the use of theory in promoting the uptake of research findings. *Journal of clinical epidemiology*, 58(2), 107-112. doi: 10.1016/j.jclinepi.2004.09.002
- Francis, J., Michie, S., Johnston, M., Hardeman, W., & Eccles, M. (2005). How do behaviour change techniques map on to psychological constructs? Results of a consensus process. *Psychology & Health*, 20, 83-84.
- Francis, J. J., Stockton, C., Eccles, M. P., Johnston, M., Cuthbertson, B. H., Grimshaw, J. M., . . . Stanworth, S. J. (2009). Evidence-based selection of theories for designing behaviour change interventions: Using methods based on theoretical construct domains to understand clinicians' blood transfusion behaviour. *British Journal of Health Psychology*, 14, 625-646. doi: 10.1348/135910708x397025
- Hardeman, W., Sutton, S., Griffin, S., Johnston, M., White, A., Wareham, N. J., & Kinmonth, A. L. (2005). A causal modelling approach to the development of theory-based behaviour change programmes for trial evaluation. *Health Education Research*, 20(6), 676-687. doi: 10.1093/her/cyh022
- Hawe, P., Shiell, A., & Riley, T. (2004). Complex interventions: how "out of control" can a randomised controlled trial be? *British medical journal*, 328(7455), 1561-1563. doi: 10.1136/bmj.328.7455.1561
- Kok, G., Schaalma, H., Ruiter, R. A. C., Van Empelen, P., & Brug, J. (2004). Intervention mapping: A protocol for applying health psychology theory to prevention programmes. *Journal of Health Psychology*, 9(1), 85-98. doi: 10.1177/1359105304038379
- Michie, S., Johnston, M., Abraham, C., Lawton, R., Parker, D., Walker, A., & Psychological Theory, G. (2005). Making psychological theory useful for implementing evidence based practice: a consensus approach. *Quality & Safety in Health Care*, 14(1), 26-33. doi: 10.1136/qshc.2004.011155
- Michie, S., Johnston, M., Francis, J., Hardeman, W., & Eccles, M. (2008). From theory to intervention: Mapping theoretically derived behavioural determinants to behaviour change techniques. *Applied Psychology-an International Review-Psychologie Appliquee-Revue Internationale*, 57(4), 660-680. doi: 10.1111/j.1464-0597.2008.00341.x
- Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. [Article]. *Implementation Science*, 6. doi: 10.1186/1748-5908-6-42
- Michie, S., Richardson, M., Johnston, M., Abraham, C., Francis, J., Hardeman, W., . . . Wood, C. E. (2013). The Behavior Change Technique Taxonomy (v1) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions. *Annals of Behavioral Medicine*,

46(1), 81-95. doi: 10.1007/s12160-013-9486-6  
 Rice, T. (2013). The Behavioral Economics of Health and Health Care. *Annual Review of Public Health, Vol 34, 34*, 431-447. doi: 10.1146/annurev-publhealth-031912-114353

**Key Journals**

BMC Health Service Research  
 British Journal of Health Psychology  
 British Medical Journal  
 Health Psychology  
 Implementation Science  
 Psychology & Health  
 Trials

**Useful On-line Resources**

The Behavioural Insights Team <http://www.behaviouralinsights.co.uk/>

Centre for the Development and Evaluation of Complex Interventions for Public Health Improvement <http://decipher.uk.net>

Consolidated Framework for Implementation Research <http://cfirguide.org/index.html>

Intervention Mapping <http://www.interventionmapping.com/>

Version: 1.0  
 Version date: 15<sup>th</sup> May 2015  
 For use from: September 2015

**Appendix:** see

[http://www.hesa.ac.uk/component/option,com\\_studrec/task,show\\_file/Itemid,233/mnl,12051/href,JACS3.html/](http://www.hesa.ac.uk/component/option,com_studrec/task,show_file/Itemid,233/mnl,12051/href,JACS3.html/) for the full list of JACS codes and descriptions

CODES		
HESA Cost Centre	Description	Price Group
JACS Code	Description	Percentage (%)
C841	Health Psychology	100%