



DEPARTMENT OF NEUROBIOLOGY, CARE SCIENCES AND SOCIETY

H1F3232 Developing and Evaluating Complex Interventions: Effective Implementation, 3 credits (hec)

Att utveckla och utvärdera komplexa interventioner: Effektiv Implementering, 3 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus is approved by the The Committee for Doctoral Education on 2023-12-01, and is valid from Spring semester 2024.

Responsible department

Department of Neurobiology, Care Sciences and Society, Faculty of Medicine

Prerequisite courses, or equivalent

No specific entry requirements.

Purpose & Intended learning outcomes

Purpose

The aim of this course is to introduce the theory and practice of developing and evaluating complex interventions, or interventions in complex systems to facilitate effective implementation. This will include different implementation research methods used for developing new interventions, how to develop an intervention 'logic model', and examples how to work with policy-makers, health professionals and the public to co-produce interventions. It will also provide a working knowledge of the key implementation frameworks and methodologies currently used to evaluate complex interventions, including feasibility studies, process evaluations and a range of outcome evaluation designs.

Intended learning outcomes

After the course, the participants should be able to:

- Critically compare the strengths and limitations of different methodologies for intervention development and implementation

- Identify appropriate methods for co-producing interventions involving policy makers, practitioners and the public
- Understand the value of feasibility studies prior to effectiveness evaluation and considerations for using these to decide if and how to proceed to full evaluation
- Understand a range of different approaches for effective implementation that is evaluating complex interventions, in terms of process and outcomes, and the types of interventions they are suited to

Course content

The course will address the central aspects of complex intervention development and evaluation, including:

- The intervention development process, including frameworks for intervention development and the role of existing evidence in intervention development
- Issues to think about when planning a feasibility study and consideration of progression from feasibility testing to effectiveness testing
- An introduction to Randomised Controlled Trials (RCT), challenges and limitations of large-scale RCTs and how they can sometimes be addressed
- Evaluation options when randomisation isn't possible, including examples of natural experimental methods for evaluating policy interventions
- Understanding intervention process, including key issues to think about when planning a process evaluation

Forms of teaching and learning

The course will include a mix of web-based and in-person taught sessions, and group work activities in which knowledge from the taught sessions can be applied to real-life examples of the participants' work. Taught sessions include various examples of studies that have been carried out from a public health perspective, while group work activities will support students in applying their methodological principles to other health research contexts.

Language of instruction

The course is given in English.

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

The participants are expected to participate in all course sessions. Absence will be compensated in agreement with the course director.

Forms of assessment

Examination will involve an oral presentation and a written assignment. The oral presentation

will focus on the development of an intervention logic model and its rationale. The written assignment will then focus on developing a plan for evaluating this hypothetical intervention, including assessment of effectiveness and process.

Course literature

Recommended literature:

Craig, P. et al. (2008) Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ* 337: a1655.

McLeroy, K.R., et al. (1988) An ecological perspective on health promotion programs. *Health Behaviour and Education*, 15: 351.

Moore, G. F., Evans, R. E., Hawkins, J., Littlecott, H., Melendez-Torres, G. J., Bonell, C., & Murphy, S. (2019). From complex social interventions to interventions in complex social systems: Future directions and unresolved questions for intervention development and evaluation. *Evaluation*, 25(1), 23-45.

Mills, T., Lawton, R., & Sheard, L. (2019). Advancing complexity science in healthcare research: the logic of logic models. *BMC medical research methodology*, 19(1), 55.

Hawkins, J., Madden, K., Fletcher, A., Midgley, L., Grant, A., Cox, G., ... & White, J. (2017). Development of a framework for the co-production and prototyping of public health interventions. *BMC Public Health*, 17(1), 689.

Moore G.F. et al. (2015) Process evaluation of complex interventions: Medical Research Council guidance. *BMJ* 350:h1258.

Hallingberg, B., Turley, R., Segrott, J. et al. (2018). Exploratory studies to decide whether and how to proceed with full-scale evaluations of public health interventions: a systematic review of guidance. *Pilot and Feasibility Studies*, 4(1), 104.

Bonell, C.P., et al. (2011). Alternatives to randomisation in the evaluation of public health interventions: design challenges and solutions. *Journal of Epidemiology & Community Health*, 65(7), pp.582-587.

Bonell, C., Moore, G., Warren, E. and Moore, L., (2018). Are randomised controlled trials positivist? Reviewing the social science and philosophy literature to assess positivist tendencies of trials of social interventions in public health and health services. *Trials*, 19(1), p.238.

Moore, L., & Moore, G. F. (2011). Public health evaluation: which designs work, for whom and under what circumstances?. *Journal of Epidemiology & Community Health*, 65(7), 596-597.