



Can Intervention Mapping Be Used to Design an Occupational Advice Intervention for Patients Undergoing Total Hip or Knee Replacement? (The OPAL Study)

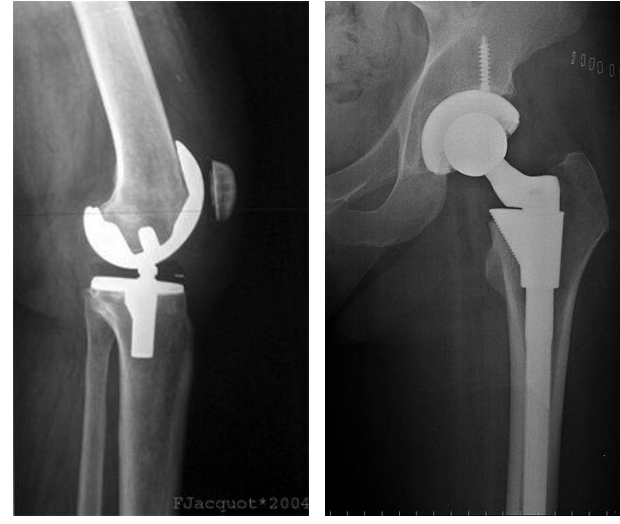
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Background

- An **increasing** number of working-aged people undergo hip and knee replacement¹, and many return to work (RTW)².
- However, the time taken to RTW **varies**², and the return is not always full or sustained³.
- The **advice and support** patients receive about RTW after a hip or knee replacement is variable⁴.



Aim

The aim of this study was to develop an occupational advice intervention in secondary care to facilitate a timely, full and sustainable RTW.

Methods

- Intervention Mapping (IM)** was used to develop the intervention.
- IM is a theory- and evidence-based approach to developing and implementing interventions⁵.
- It was used to **design** the occupational advice intervention.
- It involves **six** steps:
 - Needs assessment – *what is the problem?*
 - Identification of intended outcomes and performance objectives – *what needs to change?*
 - Selection of theory-based methods and practical strategies – *how can change best be effected?*
 - Development of components and materials – *what messages, materials and protocols are required?*
 - Adoption and implementation – *preparing to test*
 - Evaluation and feasibility testing – *evaluating/testing the intervention*

- Steps 1- 4 were completed** as shown in Figure 1.

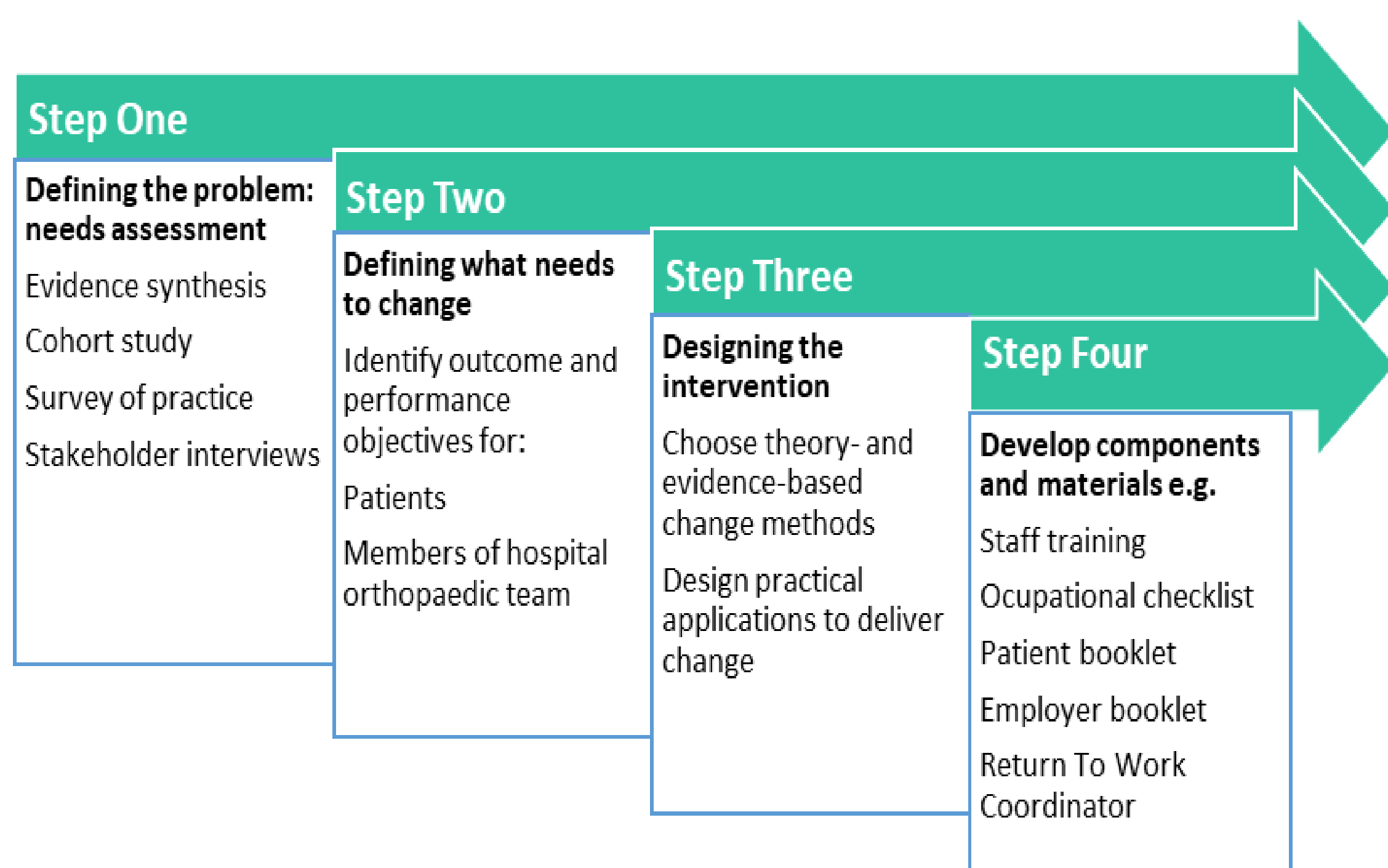


Figure 1: Steps involved in this intervention mapping.

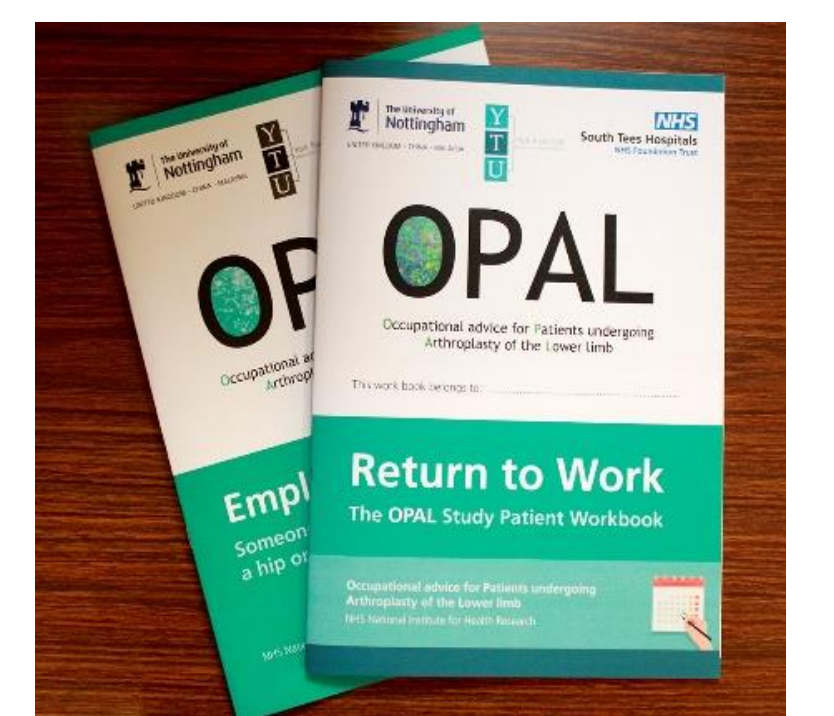
Results

Completion of the first four steps of IM resulted in the **design of an intervention** commencing at the **surgical consultation** and ending **16 weeks** following surgery.

- Logic models of the problem, and of change, were created.
- Outcomes for the intervention were specified:
 - The patient makes a safe, timely and successful RTW*
 - The hospital orthopaedic team provides work-focused advice and support*
- Performance objectives for patients and the hospital orthopaedic team were devised
- Determinants of the specified outcomes for both staff and patients included **Knowledge, Self-efficacy, Attitudes**.
- 'Matrices of change' were constructed for each staff & patient performance objective, for example:

Staff performance objective no. 2	Determinants		
	Knowledge	Self-efficacy	Attitudes
The out-patient clinic team identifies RTW patients in clinic prior to consultation with surgeon.	Team members describe process of identifying RTW patients in clinic e.g. how, when, where.	Team members express confidence in ability to identify RTW patients in clinic.	Team members recognise that identifying RTW patients in clinic will aid surgical decision and patient's RTW.

- Behaviour change methods/models were selected e.g. Learning Theories, Social Cognitive Theory, to inform how each objective would be addressed
- Intervention components included:
 - Patient and employer workbooks
 - A team RTW coordinator providing individual patient guidance
 - Examples of fit notes and RTW plans
 - Staff training in delivering the intervention
- Consensus on the intervention was explored with stakeholders in a **Delphi process**.



Discussion

- IM facilitated the justification and design of the intervention.
- Individual and interpersonal** outcomes related to the patient and hospital orthopaedic team were addressed.
- However it was not possible to address all the desired outcomes identified through mapping as some were outside the scope of the study, for example **organisational** and **societal** factors (e.g. availability of modified work, NHS policies and resources – see Figure 2).

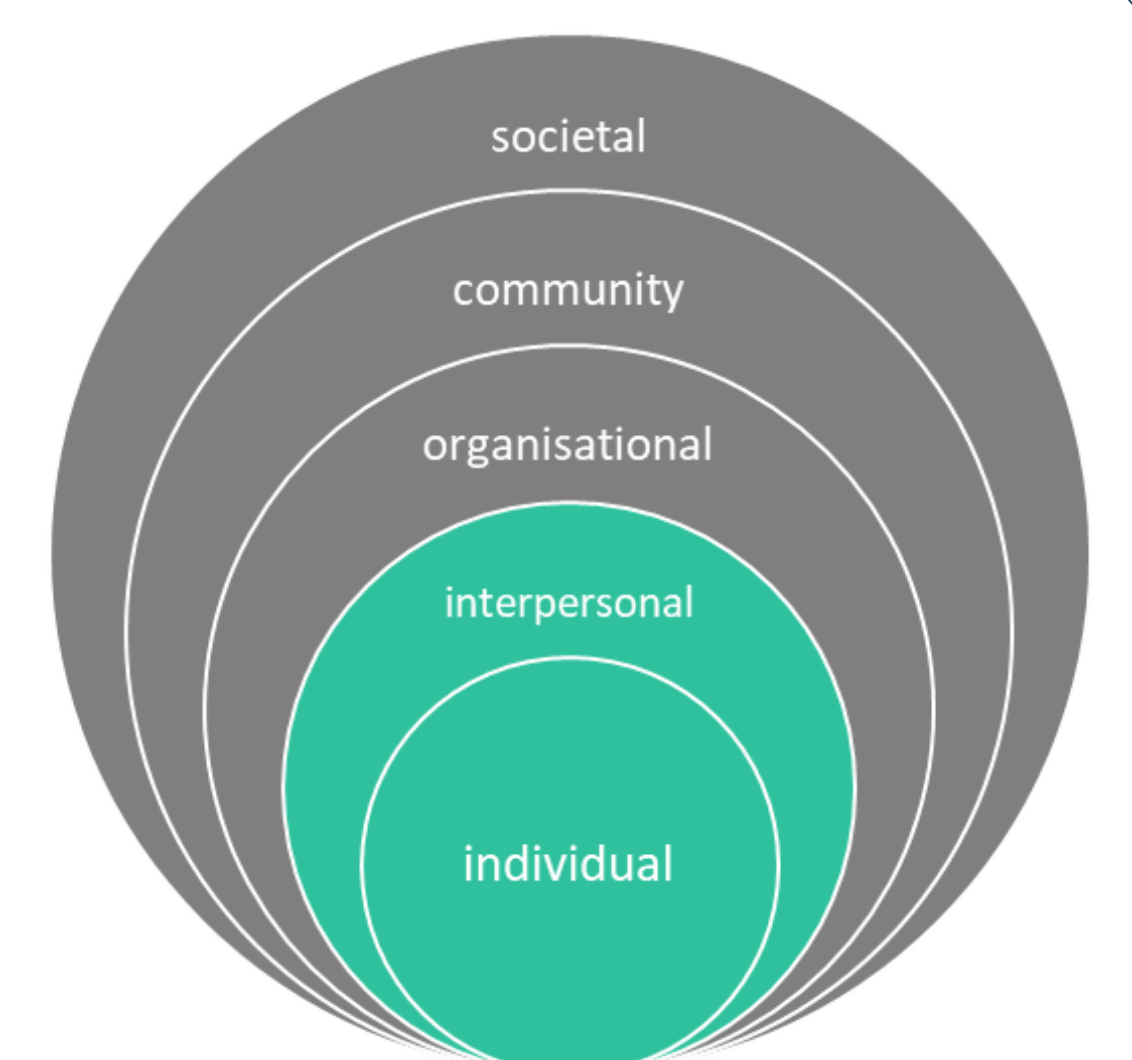


Figure 2. Outcomes addressed by IM

Conclusion

- An **occupational advice intervention** for RTW following hip or knee replacement was designed using IM.
- The intervention now needs to be tested in a **feasibility study** for further evaluation (IM stages 5 & 6).

Steps 5 & 6

Implementation and Evaluation Feasibility testing at three sites

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