

Developing a multidisciplinary rehabilitation package following proximal hip fracture in the elderly (FEMuR) – a realist review

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The problem

Proximal hip fracture is a common, major health problem and the incidence increases in old age. Many who live independently pre-fracture lose their independence afterwards, so it imposes a large cost burden on society amounting to about £2 billion a year. Systematic reviews of rehabilitation programmes have concluded that they may aid recovery after a hip fracture, but the results were inconclusive. Individual components of these rehabilitation programmes show promise, but it is uncertain which components work for which patient group in which circumstances.

Aims

To identify the important components of a multidisciplinary rehabilitation following proximal hip fracture in order to design a new programme based in a community setting.

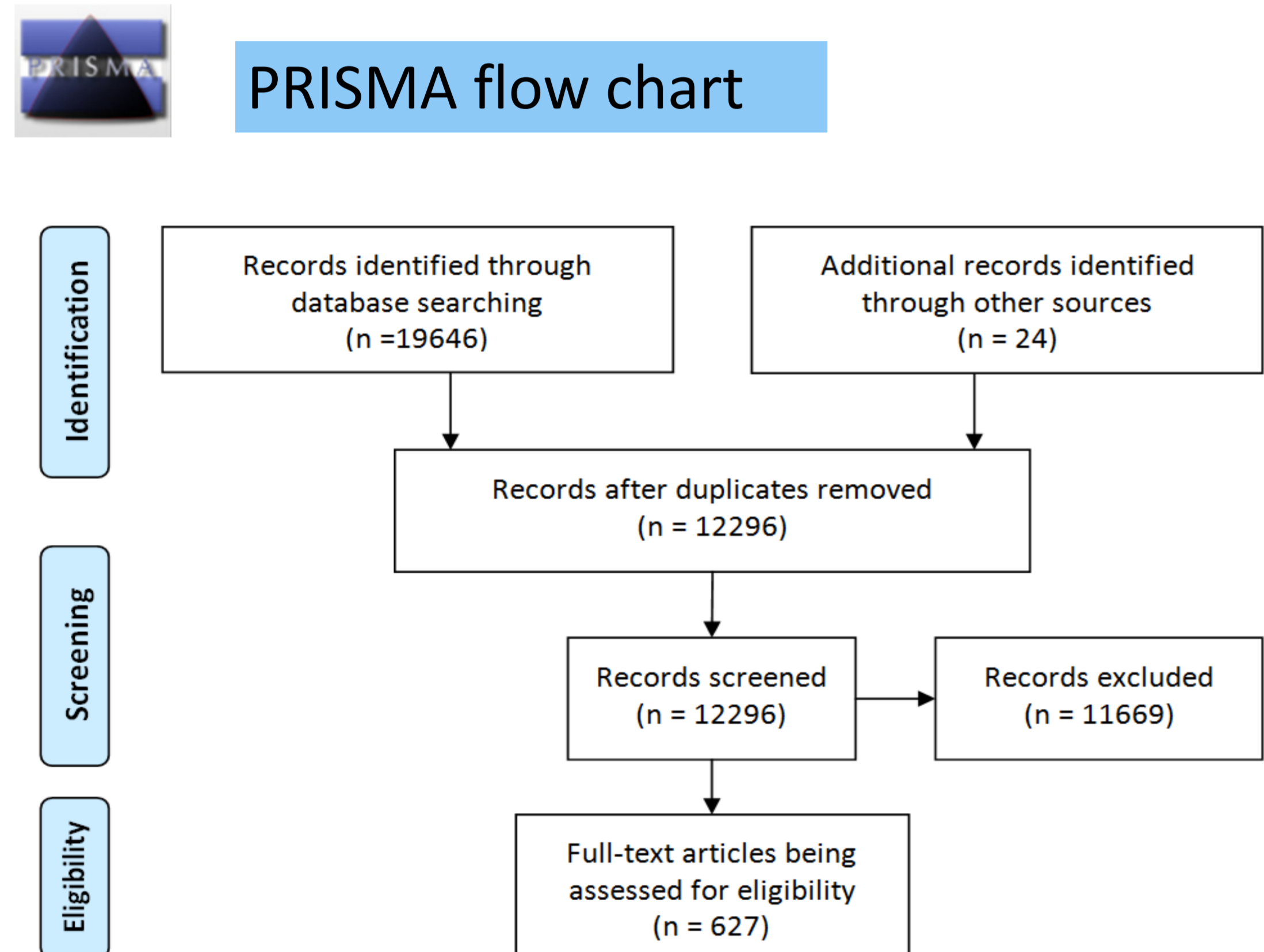
The approach

A realist review (or realist synthesis) will explain the mechanisms behind multidisciplinary rehabilitation and will establish which component of the intervention works for whom and in what circumstances. An important part of this method is to articulate the theories underlying rehabilitation programmes. Such theories postulate how an intervention has an underlying causal *mechanism*, working in a defined social *context* resulting in a particular *outcome*. The review will evaluate the evidence to judge how each theory was tested.

In order to identify relevant theories we have examined previous systematic reviews. To identify primary studies we will search databases and track citations. The search strategy will map key words onto concepts developed from the identified theories. We will examine the data for each individual study in terms of the underlying theory and the interaction between mechanisms, context and outcomes. As each article is read, we will create and iteratively revise codes to capture themes that might contribute to theory testing. We will then examine the data across different studies to detect patterns and themes to confirm, refute or refine each candidate theory in turn.

Findings

Flow chart for Databases searched for theory areas from inception to 04-04-2013



Potential theory areas identified from immersion into literature and included studies of previous systematic reviews

- How do other co-morbid conditions, mental health status and cognitive status affect an individual's rehabilitation?
- What is the relationship between internal control, self-efficacy, outcome expectations, coping adjustment and stage of change?
- What choices are made when an individual decides upon a particular form of rehabilitation? ("rational" and "irrational"; "automatic" and "reflective"; sure short-term gains versus uncertain long-term losses; expected utility gains; welfare judgements)
- How can the multidisciplinary team help patients to increase the time spent practising physical exercise & ADLs?
- Which health professionals should provide the different components of multidisciplinary care?
- How can the co-ordination of care between different disciplines in the hospital and the community be improved?
- How can unnecessary variation in practice be reduced?
- What combinations of practitioners generate additional costs compared with usual practice?

Theory level 1 - Individual patient

Theory level 2 - Team delivering the intervention

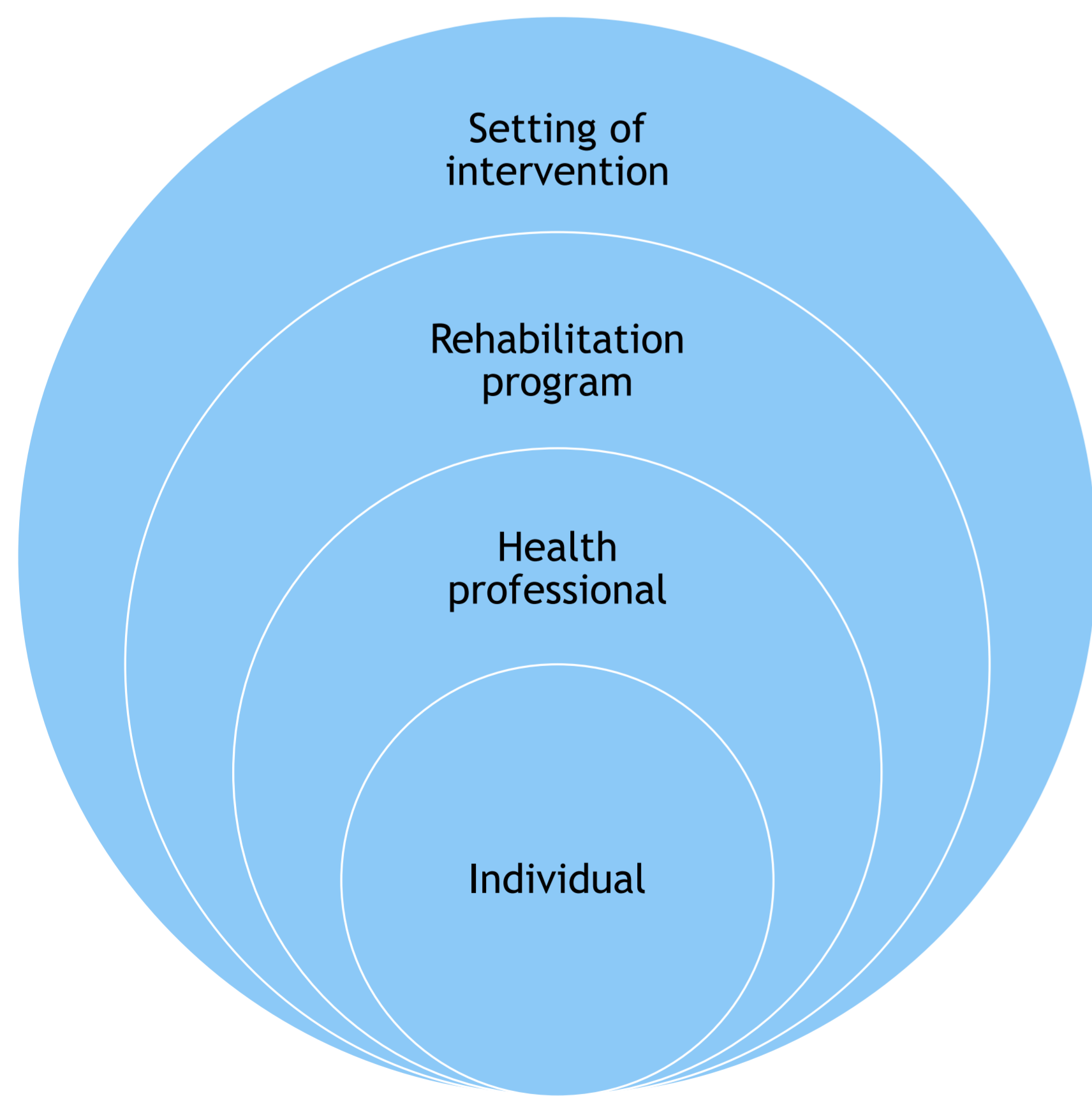
Conjectured overarching proposed Theory
Successful Rehabilitation after fractured neck of femur will be dependent upon the characteristics and delivery of the intervention, the co-ordination and approach of the MD team, its fit with the characteristics of the patient, and the types of setting in which it will be delivered.

Theory level 3 - The rehabilitation intervention

Theory level 4 - The setting for the intervention

- What is the optimal type, intensity and frequency of physical exercise for rehabilitation?
- Does improving task-oriented ADLs reduce disability?
- What interventions reduce fear of falling, improve self-efficacy, or improve stage of change and how do they lead to improved functioning, reduce disability and promote independent living?
- How does early resumption of self-care and domestic activities lead to improved self-efficacy?
- Interventions to improve social inclusion
- Interaction between intervention components
- Individually tailored rehabilitation programme or group activities
- What is the effect of tailoring rehabilitation programme according to patients' individual health, disability status and living circumstances?
- What is the effect of group learning programmes on rehabilitation activities?
- What comprising elements of a rehabilitation programme generate additional costs compared with usual practice?
- How ease of implementability of an intervention affects its delivery?
- How does the care pathway affect rehabilitation?
- Nutritional aspects of rehabilitation?
- What factors lead to increased time spent practising ADLs and physical exercise?
- How can we implement "choice architecture" to help individuals make better decisions about rehabilitation care packages?
- How does the setting influence participation in rehabilitation activities?
- How do certain settings increase intervention costs?
- How can the family and other sources of social support encourage the practice of ADLs and physical exercise?
- What cultural factors are important for the rehabilitation programme?
- Why do peer groups influence healthcare decision making?

Theory area levels recognised from literature and to be tested in our review



Consequences

The findings of this review will inform the design of a complex multi-component community-based rehabilitation programme, which will be assessed in the next stage of this project in a randomised feasibility study.



Acknowledgements:

