Bridging the gap between knowledge and practice. Your starter for 10: No. 2

Naming and framing the problem: using theories, models and conceptual frameworks

Introduction

The 'starter for 10' series provides a starting point for managers, practitioners and researchers embarking on projects designed to implement best evidence to improve service delivery, enhance clinical practice or introduce innovations into health or social care.

Each paper introduces an aspect of evidence-based practice. We will draw on relevant literature and our experience to highlight principles and to offer practical tips. The series is produced by the Translating Knowledge into Action (TK2A) Theme of the NIHR Collaborations for Leadership in Applied Health Research and Care (CLAHRC) for South Yorkshire.

The ultimate aim is to help *you* put knowledge into practice to improve the quality, effectiveness and equity of care.

The objectives of this paper are to:

1) describe the differences between a theory, model and conceptual framework;

2) explain how theories, models and frameworks can be used as tools or a guide to the change process;

3) signpost further information and resources.

What is a theory, model and conceptual framework?

The purpose of theories, models and frameworks is to describe, explain or predict. They do this by 'naming and framing' the topic by using concepts and propositions.

➢ Concepts are the 'names' or the labels for ideas, the variables that characterise the phenomena i.e. context, knowledge, and leadership.

➢ Propositions are the statements that 'frame' the problem. They spell out the relationships between concepts. For example, the quality of the evidence

predicts whether it will be used or not. Propositions are vital for hypothesis testing, to explain or predict the relationship between the concepts.

Models tend to be more prescriptive, specific and with a narrow scope. For example, the Stetler Model consists of criteria-based decision-making steps for research use in practice (Stetler 2010).

Theories can also be specific, with fewer concepts which are amendable to hypothesis testing, such as the theory of planned behaviour (Eccles et al 2009). This theory predicts that attitudes, beliefs and norms influence intentions and therefore behaviour.

Conceptual frameworks are descriptive, showing relevant concepts and how they relate to each other. The Promoting Action on Research Implementation in Health Services (PARIHS) framework connects the evidence, the context and facilitation with implementation (Kitson et al, 1998). There are many theories, models and frameworks. See Rycroft-Malone & Bucknall (2010) for a detailed introduction to eight that focus on implementing evidence-based practice.

Why use one or more of these tools?

Theories, models and conceptual frameworks are tools to structure thinking and action about a problem. They provide a rationale, to justify decisions and explain findings.

These tools may be used singly or in combination to:

➢ provide a guide for evidence-based practice, service improvement, research or implementation studies;

➢ inform planning, doing and evaluation by indicating what concepts or key factors to take into account, when and how;

➢ shape the choice of the research design, the intervention and outcome measures;

➢ explain the findings and indicate whether they will transfer to other settings.

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How to choose a theory, model or conceptual framework?

There are many to choose from so it is important to select one which is 'fit for your purpose.' The following questions may help you decide if this is the case.

➢ What are the aims of the activity, project or research study?

➢ How are you going to use these tools? As a practical guide, to inform your thinking or to persuade others to participate?

➢ What level are you examining? Is it the micro (individuals and teams), meso (organisational) or macro (policy) level?

➢ How robust is it? Has the theory, model or framework been evaluated? Rycroft-Malone and Bucknall (2010) suggest ten criteria for reviewing the development and use of these tools in practice.

Sharing our experience from South Yorkshire

Which conceptual frameworks have we used?

We have used two descriptive conceptual frameworks to inform our thinking and collaborations with health care organisations in South Yorkshire. Both originate from North America and worked well in our context.

➢ Knowledge to Action Process (Graham et al, 2006); referred to as the K2A Process in this paper. This was used to shape projects about enhancing oral nutrition for patients at risk of malnutrition in Sheffield and facilitating the implementation of NICE quality standards for the prevention of hospital acquired venous thromboembolism (VTE) in Rotherham. For more information, go to http://clahrc-sy.nihr.ac.uk/theme-knowledge-projects-research.html

➢ Consolidated Framework for Implementation Research (Damschroder et al, 2009); referred to as the CFIR. This was applied to the South Yorkshire Knowledge Translation Casebook. The Casebook captures innovation in NHS organisations and is available at http://clahrc-sy.nihr.ac.uk/theme-knowledge-presentations-knowledge.html

Why did we choose these frameworks?

The K2A Process and the CFIR were chosen for several reasons. Firstly, both give a rigorous starting point as they are based on 'what is known'. The K2A Process was derived from a concept analysis of 31 planned action theories. The CFIR synthesizes constructs from 19 theories about dissemination, innovation, organisational change, implementation, knowledge translation and research uptake.

They are multi-dimensional and wide ranging with many concepts/variables. This means they offer a comprehensive way of 'naming and framing' or examining the messy complexity of change in the National Health Service (NHS). The K2A Process includes knowledge creation. The five domains of the CFIR cover the intervention, the policy context, the organisational setting, the change process and the characteristics of the individuals concerned.

Both use simple diagrams and short summaries to depict the framework. These show the whole process and 'make sense' to front-line practitioners and managers. They help us to explain the projects, to ensure that everyone understands what is involved, where their contribution fits and, most importantly, shows that their practice wisdom is valued.

When and how do we use these tools?

We used these conceptual frameworks for different purposes at different stages of the collaborative projects. They have been employed prospectively in research proposals; retrospectively to analyse findings; and continuously for project management.

For example,

At the beginning to:

➢ give the rationale for the CLAHRC-SY proposal and for each project;

➢ provide the structure for project management, monitoring and reporting;

➢ explain the whole process to encourage interest and participation, especially from front-line clinical staff and managers.

During the course of the projects to:

➢ demonstrate respect for different perspectives and knowledge;

➢ enable co-production by reflecting on, and adapting the tool to the setting.

At the end to:

➢ reflect, to consider the value and any shortcomings of the tool;

- ➢ evaluate, to analyse the process and to describe or explain the findings;

- ➢ disseminate, to present the findings in posters and conference presentations;

- ➢ discuss the findings and whether they support, refute or extend the conceptual framework.

Three top tips

Over the last two years, we have identified three main lessons from applying the K2A Process and the CFIR to our knowledge translation projects.

These are:

1) Use the conceptual framework as a tool, not a rule, so it remains 'fit for purpose.' Apply the frameworks flexibly. It is vital to adapt and tailor the framework to accommodate the changes in the NHS and our partner healthcare organisations. Adaptability offers a mechanism for coping with the uncertainty of system and organisational change. It also facilitates adaptation latitude (Ovretveit 2011) so that an intervention or how it is implemented can be customised for the context, as appropriate.

2) Identify gaps, seek out and supplement with concepts from other theories. For example, the K2A Process gives less attention to the context in which the change is to be introduced and the approach to facilitating the change, so we used PARIHS (Kitson et al 1998, Rycroft-Malone and Bucknall 2010) to illuminate these important aspects. The CFIR does not address sustainability and we looked at the Normalisation Process Model (May et al 2007) to understand the routine embedding of complex interventions into practice.

3) Be mindful of strengths and limitations. The K2A Process and the CFIR are only descriptive. They do not indicate the relationship between the concepts and are less amenable to hypothesis testing, prediction or explanation. However, the K2A Process conveys the dynamic nature of knowledge translation and the CFIR offers a whole system approach to the complexity of change.

Conclusion

There are many tools - theories, models and conceptual models - that can be used to inform thinking and action about facilitating the uptake of knowledge in practice.

We have drawn on our experience of using two conceptual frameworks: the K2A Process and the CFIR. Both were valuable tools to structure our thinking; to build understanding with our partners and to enable co-production with front-line teams. These benefits reflect the purpose and values of CLAHRC-SY: collaborative, applied research to get knowledge into practice and ultimately, to benefit patient care. As such, the K2A Process and the CFIR were fit for our purpose. We hope this paper will help you explore these tools and find one that fits your activities.

Resources

Further reading

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC (2009) Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science,* 4:50.

Eccles M, Hrisos S, Francis JJ, Steen N, Bosch M, Johnston M: Can the collective intentions of individual professionals within healthcare teams predict the team's performance: developing models and theory. *Implementation Science,* 2009, 4:24.

Girard A, Rochette A, Fillion B (2011) Knowledge translation and improving practices in neurological rehabilitation: managers' viewpoint. *Journal of Evaluation in Clinical Practice,* DOI: 10.1111/j.1365-2753.2011.01769.x

Graham I, Logan J, Harrison M, Strauss S, Tetroe J, Caswell W, Robinson N (2006) *Lost in knowledge translation: Time for a map. Journal of Continuing Education in the Health Professions, 26(1), 13–24.*

Ilott I, Gerrish K, Booth A, Field B (in press) Testing the Consolidated Framework for Implementation Research on health care innovations from South Yorkshire. *Journal of Evaluation in Clinical Practice.* DOI: 10.1111/j.1365-2753.2012.01876.x

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Kitson A, Harvey G, McCormack B (1998) Enabling the implementation of evidence-based practice: a conceptual framework. *Quality in Health Care*, 7(3), 149-158.

Leeman J, Baernholdt M, Sandelowski M (2007) Developing a theory-based taxonomy of methods for implementing change in practice. Journal of Advanced Nursing, 58(2), 191-200.

May C, Finch T, Mair F et al (2007) Understanding the implementation of complex interventions in healthcare: the normalisation process model. *BMC Health Services Research,* 7(148).

Ovretveit J, Leviton L, & Parry G (2011) Increasing the generalisability of improvement research with an improvement replication programme. *BMJ Quality and Safety,* 20(Suppl 1), i87-91.

Rycroft-Malone J, Bucknall T (Eds) (2010) *Models and Frameworks for Implementing Evidence-Based Practice: Linking Evidence to Action.* Chichester, Wiley-Blackwell.
Stetler CB (2010) *Stetler Model.* Chapter 3 in Rycroft-Malone J, Bucknall T (2010).

Strauss S, Tetroe J, Graham I (2010) *Knowledge translation in Health Care: moving from evidence to practice.* Wiley Blackwell, Oxford.

CLAHRC-SY on-line resources

Our website contains details of all the TK2A projects, posters and presentations from learning events, and many other interesting resources. See **http://clahrc-sy.nihr.ac.uk/** There is also information about the work of the other themes in the CLAHRC for South Yorkshire.

The topics in this 'starter for 10' series are:

➢ Getting started: project planning (1); naming and framing the topic (2); partnership working (3)

➢ Implementation strategies: facilitation (4); knowledge brokering (5); blended e-learning (6); patient and public involvement (7)

➢ Evaluation: capturing impact (8); After Action Reviews (9); scale-up, spread and sustainability (10)

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NB Diagrams to be added about the K2A Process and the CFIR

The Consolidated Framework for Implementation Research comprises five domains and 39 constructs. The five domains are the:

➢ characteristics of the intervention with the core and adaptable periphery;

➢ outer setting which comprises the economic, political and social context;

➢ inner setting which is the organisational structure, culture and climate;

➢ characteristics of individuals involved including agency, choice and power;

➢ process of implementation - the active change process.

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