Institution: University of Manchester

Unit of Assessment: 19 (Business and Management Studies)

Title of case study: Improving health through an evidence-based implementation programme

1. Summary of the impact

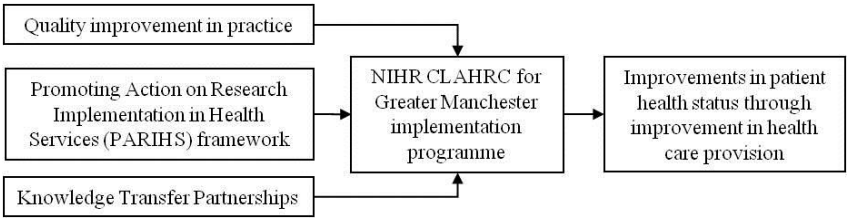
Life for those who have had a stroke across England has been improved through assessment of their needs six months after their stroke, followed up with support so that these needs are met. The assessment tool used was developed at the University of Manchester using knowledge from applied research into knowledge translation and service improvement, which emphasised the need for tailored, context-sensitive approaches to implementation of evidence. The flexible assessment tool (GM-SAT) that can be used by a range of practitioners is now in use across England in a range of providers, enabling the fulfilment of national strategy and improved care for these patients.

2. Underpinning research

The National Institute of Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for Greater Manchester was established in 2008 with £20m of funding from NIHR and local NHS partners over five years, building on a reputation for applied health research; specifically research about knowledge translation processes and quality improvement in health care. The CLAHRC aims to narrow the gap between known best practice (research) and actual practice for the care of people with cardiovascular disease.

The CLAHRC approach builds on three areas of expertise within the University of Manchester (UoM):

- Research on quality improvement in healthcare;
- Knowledge Transfer Partnership (KTP) programmes investigating the role of facilitation in the implementation of evidence (both carried out by Boaden and others at UMIST/UoM). Ruth Boaden has been at the University of Manchester (and previously UMIST) since 1989 (Lecturer/SL/Professor), and has worked with other UoM staff on various research and knowledge transfer projects on quality improvement and healthcare since 2002.
- Harvey's previous work prior to moving to the University of Manchester in 2003 was at the Royal College of Nursing developing a conceptual framework to guide the implementation of evidence into practice (the Promoting Action on Research Implementation in Health Services (PARIHS) framework. Since that time Harvey (Senior Lecturer/Reader) has continued work on development and testing of the PARIHS framework.



The research carried out into quality improvement in practice spans a number of funded projects, as well as specific outputs including two books [1,2] and included a range of KTPs. The research shows that there is most support for models of incremental small-scale improvement; principles from operations management underpin all approaches to improvement, and can be applied within healthcare.

The PARIHS framework shows that successful implementation of research evidence into practice is dependent on the complex interplay of the evidence to be implemented (how robust it is and how it fits with clinical, patient and local experience), the local context in which implementation is to take place (the prevailing culture, leadership and commitment to evaluation and learning), and the way in which the process is facilitated (how and by whom). It was one of the earliest conceptual models to propose this multi-dimensional view of knowledge translation in health care and since its initial publication in 1998, it [3] has received over 736 citations and has been used nationally and internationally as a heuristic to guide the application of research evidence into practice and as the

conceptual underpinning of a variety of tools and frameworks to be used at the point of care delivery, including the CLAHRC.
By combining these areas of research expertise, the CLAHRC developed a model for the implementation of research into practice [4] embedding the operational steps of the Model for Improvement, within the PARIHS framework, so that the programme uses an *iterative and reflective approach* to implementation. Our research also led to the inclusion of less detail than other models about how stages of improvement should be approached, enabling this to be determined at a local level, depending on *the local context* (building again on insights from this research) and working within *multi-professional teams* with designated roles in supporting the implementation process. We have also *embedded evaluation and learning* within the implementation programme to ensure that research continues to be developed from this process.

3. References to the research

Quality improvement

1. Boaden R, Harvey G, Moxham C and Proudlove N (2008) Quality Improvement: theory and practice in healthcare, NHS Institute for Innovation and Improvement/Manchester Business School, Coventry: NHS Institute for Innovation and Improvement, ISBN 978-1-906535-33-9 – Copy available on request
   Quality assessment: over 10,000 copies downloaded/sold internationally, as a basis for both training and improvement initiatives within healthcare.

2. Walshe K and Boaden R (2006) *Patient safety: Research into Practice*, Open University Press – Available on request
   Quality assessment: won the British Medical Association (BMA) Book Prize for 2006 in the "Basis of medicine" category. 24 Google scholar citations.

PARiHS framework

3. Kitson A, Rycroft-Malone J, Harvey G, McCormack B, Seers K, Titchen A (2008) Evaluating the successful implementation of evidence into practice using the PARIHS framework: theoretical and practical challenges. *Implementation Science*, 3:1 (7 January 2008) DOI: 10.1186/1748-5908-3-1
   Quality Assessment: Highly accessed paper published in peer reviewed journal; 17,883 online accesses since publication. 283 Google scholar citations.

NIHR CLAHRC for Greater Manchester implementation programme

4. Harvey G, Fitzgerald L, Fielden S, McBride A, Waterman H, Bamford D, Kislov R and Boaden R (2011) "The NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for Greater Manchester: Combining empirical, theoretical and experiential evidence to design and evaluate a large-scale implementation strategy" *Implementation Science* 6:1 (96) DOI:10.1186/1748-5908-6-96
   Quality assessment: Paper published in peer reviewed journal. 11 Google scholar citations.

GM-SAT post-stroke assessment tool

5. Rothwell K, Boaden R, Bamford d and Tyrrell P (2013) "Feasibility of assessing the needs of stroke patients after six months using the GM-SAT", Clinical Rehabilitation, 27.6 (June 2013) DOI: 10.1177/0269215512457403
   http://cre.sagepub.com/content/early/2012/09/04/0269215512457403.abstract?papetoc
Quality Assessment: Paper published in peer reviewed international journal.

4. Details of the impact

Context

Understanding needs and signposting to local services has been shown by previous research to improve outcomes and quality of life for stroke survivors, their carers and families, who want to feel supported in the long term and have access to the medical, social and emotional support they require as their needs change over time. A structured assessment of people six months after discharge from hospital was one of the 20 Quality markers in the NHS National Stroke Strategy (2007) [E] but it was not clear what this assessment should consist of, or who should undertake it.

The CLAHRC developed and supported the implementation of a review tool to identify needs and signpost to relevant support: the GM-SAT.

Pathway to Impact

We applied our model for implementation of research into practice to develop the tool. Specifically we used an *iterative and reflective approach* to develop the tool via workshops, consultations with staff, patients and carers and literature reviews. As a result, the tool has a holistic focus and is designed for use by a range of staff, not only those with clinical qualifications. This work was carried out by a *multi-professional team with designated roles to support the process* and included a senior NHS consultant (Tyrrell), university academics (Boaden) and a knowledge transfer associate (Rothwell). We deliberately designed the model to be as flexible as possible, with the details determined by facilitators at a local level, depending upon their *assessment of the local context.* We also ensure that we *embedded evaluation and learning* to ensure that research continues to be developed.

What is the tool?

GM-SAT is a simple, free to use, evidence-based assessment tool used to identify and address individuals' long term, unmet post-stroke needs and can be tailored to reflect local care pathways, services and resources available via health and social care and the third sector. It was developed by the CLAHRC and has subsequently been implemented across England. GM-SAT provides everything needed to undertake a six-month review, from the questions to ask within the review, through to documentation for recording and communicating review outcomes to other professionals involved in an individual's care [D]. It encompasses a wide variety of potential post-stroke care needs from medication management and secondary prevention through to mood and fatigue, including those required by the Care Quality Commission's Stroke Services Review and the Department of Health's Accelerating Stroke Improvement Programme (2010/11), as well as the NHS National Stroke Strategy. The former National Clinical Lead for the NHS Stroke Improvement Programme [E] has commented on the tool: *"The tool rapidly became a key element in responding to the challenge set out in the National Stroke Strategy to take stroke seriously and start the process of change, so that outcomes for people with stroke can be improved. In particular, it provided an off-the-peg, validated framework for assessing peoples' needs at 6 months after stroke, as mandated by the Stroke Strategy."*

What are the benefits of using the tool?

The benefits of using the tool are for patients and their carers, feeling supported in the long term, and having access to the medical, social and emotional support they require. GM-SAT has achieved significant reach across England, being used in over a quarter of all services, because of its acceptability to the wide range of services and professionals involved in providing post-stroke care, who cite a number of features influencing its uptake [A,B]:

- It is based on evidence and aligns with national clinical guidelines, which is important for users: "*GM-SAT was the best choice to meet the requirements of National guidelines and commissioners of service*". (Stroke Occupational Therapist).
- It was developed and tested by the CLAHRC and is therefore fit for purpose, which provides users with confidence in the tool.
- A formal evaluation has been published. We worked locally in Greater Manchester and nationally with The Stroke Association (SA) to pilot use of the GM-SAT by Stroke Coordinators employed by TSA, and the evaluation of this pilot demonstrated patient benefit [A]: Patients answered the question, 'what was good about the review?'

    - *"The fact that at last someone was concerned about how I was going on after leaving hospital";*
    - *"Being able to discuss things with someone who understands how the stroke affects and changes a person and could help and advise on all these points";*
    - *"This review has helped me to channel my thoughts as to where to go from here, prompting some good ideas as to how to move forwards*." The long-term impact on patient outcomes would be more complex and resource intensive to establish formally, but the inclusion of a review in national strategy and guidance presupposes that it will benefit patients.

- The tool is now being used through the SA to identify patients with specific needs to participate in future research programmes, demonstrating the research-implementation-research cycle that characterises the CLAHRC.
- The comprehensive, tool covers health and social care needs, which allows patients to be assessed in a holistic sense. They can then be appropriately managed and referred on to third parties where appropriate [B].
- Non-specialists can use the tool, and once the results are available, this means that clinical staff have updated information available to them, without having to conduct lengthy consultations. Unmet needs are therefore more likely to be diagnosed and met [B].

Where and how is GM-SAT being used?

The tool was first piloted in Greater Manchester in 2009 and has subsequently spread to a wider footprint [B] since becoming freely available in 2010. It is used for:

- Demonstrating the need for, and then carrying out, 6-month reviews post-stroke, as recommended by NICE guidance (Clinical Commissioning groups (CCGs), community providers and NHS Foundation Trusts (FTs) across London, Nottingham, and the North and East of England)
- Assessing patients with other long-term conditions
- Input to long-term community care planning where unmet needs are used in audit to identify needs, stroke prevention issues and for feedback to commissioners [B]
- Continuing professional development for practitioners through development of competencies related to the domains within the tool
- Providing consistency of care across an area (Yorkshire and Humber) through the incorporation of the tool into an IT system used by primary and community care providers (TPP SystmOne) which means that it is tied into the clinical record, accessible to multiple practitioners and part of normal practice [B]
- Provision of post-stroke Information and Advice Services by the Stroke Association, who currently provide services to over 35,000 stroke patients through 24 services across England and have to date carried out approximately 4000 reviews. The Chief Executive of the Stroke Association [F] writes *"As a patient advocacy organization, we are clear that what is required 6 months post-stroke is a comprehensive assessment which includes elements identified by stroke survivors and their families, and GM-SAT provides this. As a result GM-SAT is the only tool the Stroke Association offers as part of its commissioned provision for 6 month post stroke assessments across the UK."*

It has been cited as a key output from CLAHRC in the NIHR's Annual Report for 2011 [C].

5. Sources to corroborate the impact

All sources cross-referenced in section 4.

[A] Evaluation of Stroke Association Pilot [http://www.stroke.org.uk/professionals/life-after/support accessed 4 Dec 2012]
[B] GM-SAT 18 months on [http://clahrc-gm.nihr.ac.uk/ - available from 1 June 2013]
[C] NIHR Annual Report 2010/11
[D] NHS Improvement website page detailing GM-SAT tool
[E] Statement from the National Clinical Lead for the NHS Stroke Improvement Programme (2007-2013)
[F] Statement from the Chief Executive of the Stroke Association