ABSTRACT

Background The National Institute for Health Research initiative 'collaborations for leadership in applied health research and care' (CLAHRC) in Leicestershire, Northamptonshire and Rutland (LNR) is a partnership between the University of Leicester and NHS trusts in LNR that aims to reduce the second gap in translation (the long delay between conducting research and it having an impact on clinical practice).

Method CLAHRC-LNR appointed specialist staff as boundary spanners and knowledge brokers to improve links between academia and the NHS, and to facilitate a range of activities designed to increase the implementation of research evidence. An interprofessional and interdisciplinary approach is used and incorporates a range of activities including: applied research, service evaluation and pilot projects, education and training events, knowledge dissemination activities and developing networks to increase the use of research in the NHS partners.

Results CLAHRC-LNR’s close collaboration with partner NHS trusts has aided the development of a programme of applied research that aims to develop interprofessional teamwork to improve health care systems and patient outcomes. Co-ordinators (boundary spanners) have been appointed in trusts and have been crucial in facilitating interprofessional working. Activities include a successful programme of training and education courses within the NHS partner trusts using the principles of interprofessional education. CLAHRC-LNR is developing the use of knowledge exchange events and workshops as well as establishing communities of practice to bring together professionals from across LNR NHS trusts and the University of Leicester to share their expertise and build interprofessional relationships. CLAHRC fellows (knowledge brokers) are being appointed to work with co-ordinators to facilitate the use of research evidence in decision making in the trusts and clinical commissioning groups (CCGs).

Conclusion Interprofessional working is integral to the approach adopted by CLAHRC-LNR, running through many of its activities, and is proving vital to addressing and helping to close the second gap in translation.

Keywords: interprofessional collaboration, knowledge transfer, leadership
Introduction

The UK is one of the leading nations in health research in the world. The outcomes of this research have the ability to transform the way health care is delivered, improve patient outcomes and be more cost effective. However, for this to happen, the NHS needs to make better use of this research in its day-to-day practice. There is frequently a long delay before research has an impact on clinical practice, for example, there is an estimated delay between research and impact for cardiovascular treatments of 10–25 years and delay of 9–14 years for mental health research.1 In the Cochrane Report2 translating research into practice was identified as the second gap in translation and its importance has been increasingly recognised, with the launch in 2008 by the National Institute for Health Research (NIHR) of nine new research projects to develop and investigate methods of translating research evidence into practice. Given the title Collaborations for Leadership in Applied Health Research and Care (CLAHRC), all involve collaboration between one or more universities and the local health service, but they are adopting different approaches to achieve translation.3 CLAHRC-LNR (Leicestershire, Northamptonshire and Rutland) brings together the local NHS trusts in a partnership with the University of Leicester to address the barriers to implementing research evidence so that it is put into practice more rapidly and effectively.

The challenge of getting vital research evidence understood and accepted by practitioners and adopted within practice is one that faces not only the NHS, but other western healthcare systems as well. The UK, along with other parts of Europe and the USA, built healthcare systems in the 20th century to deal with the needs of the time. This included:  

- strong professions and robust systems which centred on hospitals and specialist knowledge and, in effect, created a self-contained industry which had few links with other important determinants of health such as education, employment and the environment.4

One of the main problems has been the failure to link research evidence with follow-up educational inputs designed to help bring about new ownership of the findings by the whole practice team. One of the reasons for this is that investment in continuous professional development of this kind can be seen as too costly. Bringing about changes in service delivery which are patient-centred and consider team effectiveness and efficiency have been the cornerstone of interprofessional education (IPE) in the UK and internationally.5–7 (IPE has been defined as ‘Occasions when two or more professions learn with, from and about each other to improve collaboration and quality of care’.8a) IPE is central to the outcomes of CLAHRC-LNR’s ambitions, as the clinical research pathways are associated with team-based healthcare delivery. This is because the demands on the NHS are now coming from people with long-term conditions, rather than acute ones, and require continual interprofessional team-based approaches to address their health and social care needs. Implementing research evidence will depend upon new ways of working within and across teams and collaborations between health and other statutory and non-statutory bodies. This type of response is not new for Leicester where IPE emerged from solving practice concerns relating to addressing the needs of young families experiencing disadvantage.8b In this way, research will enable IPE to be at the forefront of understanding and explaining the need for change in practice within the NHS. This approach of a workforce that could work more effectively together is endorsed by the Department of Health11 and the need for efficiency and effectiveness is a theme constantly being revisited in the UK and echoed by the World Health Organization.12,13

This paper describes how CLAHRC-LNR is incorporating IPE into its activities to enable the translation of research evidence into practice.

How this fits in with quality in primary care

What do we know?

NHS reforms are changing clinical service delivery to outcomes and will require greater collaboration between healthcare teams. However, the time lag before research findings are implemented in clinical practice remains a barrier to the delivery of improved healthcare services.

What does this paper add?

This paper explores the NIHR CLAHRC-LNR’s approach to reducing the time lag to the implementation of evidence into clinical practice which is firmly based on the principles of interprofessional education and comprises a range of initiatives.
Methods

CLAHRC-LNR is conducting a significant programme of applied research relevant to the local population which is described on our website (www.lnr-clahrc.org). In addition to implementing the findings of these studies, CLAHRC-LNR is engaged in a number of activities which involve interprofessional learning (IPL) and collaboration, to increase the use of research by its NHS partners. These include supporting service evaluation projects, education and training events, knowledge dissemination activities, developing networks, and the use of staff in specialist roles as boundary spanners and knowledge brokers to bridge the NHS/academic divide.

Results

Specialist staff: CLAHRC co-ordinators and fellows

To facilitate the work of translating evidence into practice, CLAHRC-LNR have established two distinct, but complimentary posts based in NHS partners, co-ordinators and fellows. The co-ordinators (boundary spanners) are well established and provide a vital link between the NHS and the University of Leicester, playing a crucial role in all the IPE-related activities described here, linking NHS and academic staff to develop research projects and multidisciplinary teams, facilitating the identification and delivery of education and training programmes for partner trusts and contributing to the development of communities of practice. Locating them in each of the trusts has proved essential to building CLAHRC-LNR’s profile and developing the knowledge and contacts essential for it to successfully develop these activities.

More recently, CLAHRC fellows (knowledge brokers) are being appointed at local NHS trusts and the new clinical commissioning groups (CCGs) to work one day a week alongside CLAHRC co-ordinators. The fellows will be on secondment from their medical duties and have knowledge about clinical practice within the area of research and/or organisational and management dimensions of change and have experience of working across organisational and professional boundaries. Their role involves: assisting end-users to incorporate research evidence in their policy and practice decisions; promoting exchange of knowledge so that researchers and users become more appreciative of the context of each others’ work; facilitating organisational (cultural) change towards valuing the use of best available evidence in policy and practice; tailoring the key messages from research evidence to the local perspective, whilst ensuring the ‘language’ used is meaningful for different end-users of research; creating a network of people with a common interest in implementation of evidence-based innovation; eliminating environmental barriers to evidence-informed decision making.

Projects

In close collaboration with partner NHS trusts, CLAHRC-LNR has helped develop projects to pilot and evaluate changes to improve service delivery and three of them are now described. The Frail Older People’s Liaison Service (FOPAL) project was designed to establish new interprofessional working to prevent admissions of older people and reduce re-admissions. This involved developing interprofessional teamwork across health and social care in line with Department of Health policy.7,14 The barriers to interprofessional working are being explored and will be addressed in establishing the new service. The Enhanced GP Role in Cardiology Management project addressed the increasing and costly level of referrals of cardiology patients to secondary care. An educational intervention so that general practitioners (GPs) could manage them was delivered by a consultant who provided ongoing support to participating GPs. The data collected before and after the intervention indicated improved patient and GP experience, as well as cost saving due to a reduction in the number of referrals. The local NHS trusts are now planning a staged roll out of this approach. In the pharmacy project, the team spans a range of NHS occupations (consultant psychiatrist, specialist mental health pharmacist, chief pharmacist, partner governor/service user, head of clinical governance, associate medical director, and quality improvement lead) in collaboration with academic research staff. The project introduced a pharmacist within the community mental health team to discuss with patients their medication choices. The potential benefits are: freeing consultant time to allow further outpatients slots to be allocated and reducing the waiting list for outpatient appointments; and improving patient satisfaction due to improved involvement in medication choice and with the information they receive regarding potential side effects of medication. The project suffered some initial holdups while professional and organisational issues were resolved. A project report has been submitted to the Trust to consider implementing this model of inter-disciplinary care.

Dissemination of the outcomes of these and other projects to healthcare practitioners, patients and the general public takes place via the CLAHRC-LNR website, e-bulletin, social media, a case book and
quarterly magazine distributed via our partner trusts. CLAHRC-LNR organises conferences, education and training courses, along with specific meetings with trust staff all aimed at improving the uptake of research evidence into practice. Patient and public involvement is encouraged in both project development and monitoring and there is close working with Local Involvement Networks (LINks). To facilitate participation of patients and the public in shaping healthcare services via research steering groups, CLAHRC-LNR has provided training and a section of the website and the case book highlight how individuals can get involved with applied research.

**Education and training**

CLAHRC-LNR is striving to achieve its aim of increasing take-up of research evidence in practice through the development of a programme of IPE. In this way, the measurable changes in practice will be linked to the emerging evidence that IPE can lead to better working relationships and improvements in patient care and service delivery. The evidence base for this has been growing, showing a positive impact on skills and knowledge acquisition for building collaborative relationships and for the improvement of patient care and service delivery. Central to the CLAHRC-LNR philosophy is the ownership of research outcomes by front-line NHS staff and the development of training and education activities by CLAHRC-LNR in collaboration with the partner NHS organisations. Key individuals within the NHS trusts were identified and discussions took place to determine the areas of research capacity development where training and educational activities would be beneficial. Individual NHS trusts had different requirements and access to library services so a menu of courses was offered to choose from and included: Implementing Research Evidence in Clinical Practice, Using Research Evidence to Improve Local Policies and Guidelines and Evaluating Healthcare Services. These training sessions are in workshop format where group work and discussion is encouraged and supported, enabling individuals from different professional backgrounds to share their knowledge and experiences, a key element of IPE. The courses are led by both academic and NHS staff, who bring their own professional background and perspectives. Feedback from each session is collected to ensure that the courses are useful and relevant for attendees and initial feedback has been very positive. Attendees have been from a mix of professional backgrounds including doctors, nurses, allied health professionals and managers from across the participating trusts. Generally, attendees come as individuals, but there has also been attendance in clinical teams. One team who were in the early stages of planning an evaluation of their service attended the course Evaluating Healthcare Services which allowed them to share their own experiences and knowledge as well as gain a different perspective from individuals from different professional backgrounds.

This round of courses has now been completed and the feedback received from attendees was extremely positive. The needs of the NHS trusts are currently being re-evaluated and a new programme of training to support the development of the capacity of NHS staff to conduct and use research is being developed. To ensure the sustainability of the courses beyond the lifetime of CLAHRC-LNR, a bank of resources on the CLAHRC-LNR website, ‘train the trainer’ and e-learning are among the approaches used.

E-learning is becoming a popular choice for delivering IPE and training in healthcare, partly because of its flexibility to fit around the demands of work, including shifts and remote locations, as well as out-of-working hours. CLAHRC-LNR has designed an e-learning course for the implementation of research evidence into clinical practice, encouraging discussion and sharing of the knowledge and experience of participants with the aim of developing their own implementation plan. The e-learning course has been piloted and will soon be available to NHS staff across LNR. The success of this course has led to the design of a further similar course in evaluating healthcare services, as part of the work to develop a sustainable resource to build research capacity in local NHS organisations.

**Knowledge dissemination interprofessionally**

Knowledge management (KM) emerged in the early 1990s from the business world. It has only recently gained interest from health care, with an emphasis on evidence-based practice (EBP), comprising the transfer of explicit knowledge (i.e. research literature). Although this is important, a comprehensive KM strategy should address the transfer of explicit and tacit knowledge, helping practitioners to identify explicit knowledge and work interprofessionally in applying it (making knowledge tacit). In this way, tacit ‘know-how’, acquired through practice and experience can emerge using IPE, allowing understanding on an individual level and application of knowledge in a whole systems approach.

Knowledge flow from academia to health care is crucial for improving explicit research knowledge and tacit research capacity within NHS trusts. However, models propose that knowledge generation and use should be cyclical, which is essential to capturing the tacit knowledge of healthcare practitioners, so that relevant research is conducted with implementable
Placing interprofessional learning at the heart of improving practice outcomes. It is also essential to informing the training of professionals using IPE methods, encouraging an interprofessional outlook and the ability to receive research findings and change working practices accordingly. Informed and relevant IPE which prepares students for future challenges in working patterns and styles needs to be integral both at pre- and post-registration levels.

Current KM practices in health care tend to be focused on the use of information technologies, including electronic libraries of research articles, clinical guidelines and best practices. However, these fail to provide a context for effective diagnosis and may be too reliant on one solution rather than a comprehensive strategy. In identifying KM strategies, it is useful to refer to tools that have been used in the business sector. These include the use of: simple mechanisms (e.g. training programmes and seminars); IT to organise, categorise, distribute and maintain knowledge resources; conceptual frameworks or process-based models, covering a KM system backbone, surrounded by supportive organisational elements; communities of practice (CoPs) for fostering and managing networking and collaboration.

In addition to training, CLAHRC-LNR has commenced knowledge exchange seminars and workshops to bring together researchers, healthcare practitioners and educators around topics of primary importance to healthcare. The first such event centred around reducing emergency admissions, a key aim of the QIPP (Quality, Innovation, Productivity and Prevention) agenda, with particular emphasis on reducing emergency readmissions in the elderly. This provided a valuable opportunity for practitioners from primary and secondary care to meet and examine practical solutions. Such events should help inform practice and build ties between researchers, practitioners and educators, raising the profile of evidence generation and use.

CLAHRC-LNR have started a network for stakeholders across LNR concerned with implementing improvements to healthcare services, based on research evidence (explicit knowledge) and experiences of healthcare staff and patients/carers alike (tacit knowledge). CLAHRC-LNR has achieved Health Foundation support to develop the network and aims to demonstrate the benefits of adopting a wider, multifaceted approach to KM in the healthcare sector, fully grounded in an interprofessional approach.

Figure 1 provides an overview of CLAHRC-LNR’s methods, activities and outputs.

Figure 1 CLAHRC-LNR’s methods, activities and outputs
Conclusion

The latest set of NHS reforms are underpinned by interprofessional values as the coalition government seeks to address today’s healthcare challenges. The three key aims are to: put patients at the heart of everything the NHS does; focus on continuously improving those things that really matter to patients – the outcome of their health care; and empower and liberate clinicians to innovate, with the freedom to focus on improving healthcare services. It has become clear that this entails an unprecedented reorganisation of the NHS that will have a significant impact on all its employees, patients and the public. In addition, efficiency savings of £20 billion over 4 years have been demanded. However, the NHS has some pre-existing programmes that may help it to meet these challenges. The Quality, Innovation, Productivity and Prevention (QIPP) programme involves all NHS staff, patients, clinicians and the voluntary sector to help find efficiency savings and NHS Improvement to identify and spread good practice.

Translating evidence into practice can make a significant contribution to meeting the challenges faced by the NHS by reducing the use of unnecessary and ineffective treatments and improving patient outcomes. However, CLAHRCs face the challenge of improving the translation of research evidence into practice at a time when partners trusts with which they have been working are scheduled for abolition or reorganisation, and new bodies (CCGs) are coming into existence. CLAHRCs have a vital role to play in continuing to bring together the producers and users of research, raising research mindedness in their partner NHS organisations so that they can more readily conduct research and use evidence to better inform the care they commission and deliver.

IPE is integral to the approach adopted by CLAHRC-LNR, running through many of its activities, and is vital to addressing and helping to close the second gap in translation (the gap between knowledge and action). CLAHRC-LNR is continuing to develop activities to harness IPE to improve the implementation of research evidence, both in terms of informing commissioning decisions and service delivery. In this way, IPE will become integral to service improvement. The programme of CLAHRC-LNR activities will continue to be monitored and evaluated both internally and externally and it has become clear that success is dependent on bringing practitioner teams together with academics to address healthcare issues important in their locality. It is a process that encourages engagement across professions and occupations, and ownership and implementation of the outcomes. New ways of working can be challenging, especially if knowledge and skills need to be shared.

Students in training seem to accept the goals of IPE and our local evidence shows they value team approaches. However, established professionals do not have the benefit of this training and new insights which is well recognised:

‘professional identities are important and professionals may be more cautious if they perceive the goal to be role substitution. The notion of flexibility in career pathways may not be received with enthusiasm.’

At this time, few practising professionals are benefiting from new ways of approaching service delivery underpinned by interprofessional values. The first waves of pre-registration students who have had IPE are only just emerging into the workplace where leadership is from practitioners who have not had the benefits of IPE and often cannot reflect and consider new approaches to service delivery and design.

This is true locally where, despite an integrated interprofessional curriculum, the link with ongoing post-qualified IPE remains more tenuous. Translating research evidence into practice, which demands new ways of working, has the potential to unlock and fully embed IPE in practice, helping to enable seamless transitions of IPE from undergraduate to life-long learning.

This paper addresses the activities of CLAHRC-LNR and the influence of IPE 3 years into a 5-year programme. A review of all nine CLAHRCs at the end of the programme in 2013 would allow a more informed consideration of the activities of CLAHRCs and the role of IPE and in the light of the impact of the early stages of the NHS reforms.

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PEER REVIEW

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CONFLICTS OF INTEREST
None.

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