





# **CONTENTS**

| ACKNOWLEDGEMENT  |    |  |  |
|--|----|--|--|
| FOREWORD BY THE CHIEF NURSING OFFICER                                  |    |  |  |
| INTRODUCTION   |    |  |  |
| WHAT IS A CLINICAL ACADEMIC APPROACH?                                  | 8  |  |  |
| BENEFITS AND VALUE OF A CLINICAL ACADEMIC APPROACH                     |    |  |  |
| Better clinical outcomes   | 13 |  |  |
| Better quality of care and better user experience                      | 16 |  |  |
| Better use of resources  | 23 |  |  |
| Asking the right questions – relevant research that makes a difference | 25 |  |  |
| A focus on quality improvement and development                         | 31 |  |  |
| A more confident and valued workforce                                  | 33 |  |  |
| CONCLUSION AND NEXT STEPS  | 38 |  |  |

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#### The group includes representatives from:

- Council of Deans for Health Scotland
- Edinburgh Napier University
- NHS Education for Scotland
- NHS Greater Glasgow & Clyde
- NHS Lothian
- Queen Margaret University

- Scottish Executive Nursing Directors (SEND) group
- University of Dundee
- University of Edinburgh
- University of Glasgow
- University of Stirling



# FOREWORD BY THE CHIEF NURSING OFFICER

When you or someone you know contacts our health and social care system in Scotland - as a patient, carer, service user. friend or parent - you expect that your care and treatment will be as good as it can be, and based on sound evidence about what works. Research plays a vital role in developing and improving care and treatment.

High-quality research that is relevant for - and useful to - our health and social care system requires strong links and good collaboration between practitioners working in the health and social care system and researchers in universities and research institutes. Strong links ensure that the issues investigated are those that matter to patients and service users and enable research findings to be translated into practical and useful ways of improving care and treatment.

One of the best ways of achieving strong links between practice and research is for the same individuals to be involved in both. These individuals are called clinical academics.

There are substantial benefits to developing a workforce of nurses, midwives and allied health professionals (NMAHPs) who work as clinical academics. This document showcases some of the advantages that investing in a workforce of NMAHP clinical academics can bring. The stories and insights of NMAHPs who have pursued a clinical academic route speak eloquently of the impacts of the approach.

The document also complements and supports the recently published Transforming healthcare through clinical academic roles in nursing, midwifery and allied health professions by the Association of UK University Hospitals. This practical resource provides advice and a framework for developing and sustaining clinical academic roles, the potential application of which is now being explored in Scotland. I look forward very much to hearing of progress with the resource and about the outcomes from other initiatives, such as the NMAHP research awards I sponsor annually.<sup>2</sup> that contribute to the development of the clinical academic approach across Scotland.

#### Fiona McQueen **Chief Nursing Officer** Scottish Government

<sup>1</sup> Transforming healthcare through clinical academic roles in nursing, midwifery and allied health professions. London: Association of UK University Hospitals: 2016

<sup>(</sup>http://www.aukuh.org.uk/index.php/affiliate-groups/nmahps/transforming-healthcare, accessed 31 July 2017).

<sup>2</sup> Scottish NMAHP Research Awards: biennial awards to recognise and celebrate excellence in nursing, midwifery and allied health professional research in Scotland (http://www.nmahp-ru.ac.uk/).

# INTRODUCTION

Health and social care is changing fast. Services and service provision have to respond to a wide range of factors, including changes in the demographic profile of the population (people are living longer and the number living with long-term conditions is increasing), citizens' heightened expectations of being fully involved in their own care, and technological developments that provide new opportunities for innovation.

These changes are reflected in health and social care policy approaches, which include the health and social care delivery plan,3 the national clinical strategy,4 Nursing 2030 Vision,5 realistic medicine.<sup>6</sup> the Active and Independent Living Programme<sup>7</sup> and the eHealth strategy.8

In all of this, research is vital.

High-quality NMAHP research is required to focus on improving and developing the services the NMAHP workforce delivers day in and day out.

One way to stimulate NMAHP research is through adopting a clinical academic approach and developing a clinical academic workforce.

<sup>3</sup> Health and social care delivery plan. Edinburgh: Scottish Government; 2016 (http://www.gov.scot/Publications/2016/12/4275/downloads, accessed 31 July 2017).

<sup>4</sup> A national clinical strategy for Scotland, Edinburgh; Scottish Government; 2016 (http://www.gov.scot/Publications/2016/02/8699, accessed 31 July 2017).

<sup>5</sup> Nursing 2030 Vision. Edinburgh: Scottish Government; 2017 (http://www.gov.scot/Publications/2017/07/4277, accessed 31 July 2017).

<sup>6</sup> Realistic medicine: Chief Medical Officer's annual report 2014-15. Edinburgh: Scottish Government: 2016 (http://www.gov.scot/Resource/0049/00492520.pdf, accessed 31 July 2017).

<sup>7</sup> Allied health professions co-creating wellbeing with the people of Scotland. The Active and Independent Living Programme in Scotland. Edinburgh: Scottish Government; 2017 (http://www.gov.scot/Publications/2017/06/1250, accessed 31 July 2017).

<sup>8</sup> eHealth strategy 2014-2017. Edinburgh: Scottish Government; 2015 (http://www.gov.scot/Resource/0047/00472754.pdf, accessed 31 July 2017).

This document showcases some of the benefits to health and social care of adopting a clinical academic approach through the words of professionals who have pursued a clinical academic route, some of whom have been supported at different points in their careers by funding from the Chief Nursing Officer.

It does not offer a formal evaluation of the impacts this kind of approach has on practice. Rather, it presents a snapshot of the kinds of issues clinical academics seek to address and the effects they can have on the people they care for. It is hoped that this will serve as a 'taster' for organisations and individuals throughout Scotland, by illustrating the benefits that adopting a clinical academic approach could bring to the services they provide.

# WHAT IS A CLINICAL ACADEMIC APPROACH?

The tradition of clinical academics in nursing goes back a long way. Florence Nightingale, while working as a nurse, used systematic approaches to collecting and analysing data to understand how mortality (in childhood and in soldiers injured in wartime) could be reduced.

Today, the clinical academic tradition continues among all of the NMAHP professions.

NMAHPs across Scotland are at one and the same time working in practice and involved in research. They spend part of their working week in a clinical or social care setting, and part undertaking activities related to research.

The clinical part of the role will depend on the type of setting and the individual's seniority. A clinical academic may be looking after patients and service users, or managing a service, or working across a number of services, or adopting a strategic role. The research part will also depend on the type of setting and seniority: the person may be developing a single study, working on a range of related studies, leading a programme of research, or taking the lead at strategic level to encourage and facilitate research in their own and other organisations.

These individuals and the development of clinical academic roles are vital to NHSScotland

There are many ways of describing what a 'clinical academic approach' is. Below are some examples of how the clinical academics who feature in this document describe their roles.

- 'It's about having an approach of enquiry and making that relevant to your clinical practice. It's also about focusing on the organisation's priorities, since resources are finite and times are hard.'
- 'It's about making a difference there's no point in doing research that sits on the shelf. It actually has to speak to and improve patient care and outcomes.'
- 'A clinical academic role is about addressing the problems that emerge from the NHS using research methods. It's a two-way iourney to influence issues that emerge from clinical practice.'
- 'The clinical academic approach offers different ways of thinking about problems. It enables us as clinicians to step out and see things from a different perspective.'

What is central to all interpretations and definitions, though, is that the research clinical academics pursue is grounded in issues that emerge from their day-to-day engagement with patients and service users in the services to which they contribute. Their research emerges from practice, is embedded in practice, and changes practice for the better. Having the dual focus. however, means they do not have to step away from their clinical roles - roles that each of the featured clinical academics treasure - to pursue ideas that they know will ultimately make a difference to care and services.

Clinical academics also have a telling impact on their colleagues. both in health and social care services and higher education institutions. They show by example what aspiration combined with ambition and determination can achieve, and colleagues take inspiration from it. The approach creates rewarding career opportunities for NMAHPs in which they are enabled to develop and use the full range of their skills in the pursuit of service improvement and support the development of other staff.

The examples and comments from clinical academics in this document only give a flavour of the kind of roles and research in which they are involved. But they show not only how patient/service user needs are driving research, but also the diversity of interests clinical academics in Scotland hold, and the range of services they are influencing.



# BENEFITS AND VALUE OF A CLINICAL ACADEMIC APPROACH

The clinical academic approach underpins, complements and goes with the grain of national and local priorities and drivers. including patient safety, patient experience, quality and improvement, service integration and cost-effectiveness. It generates a win-win situation in which patient experience is improved and staff morale increased.

The benefits are wide-ranging and include:

- improving clinical outcomes for patients, carers and service users
- improving quality of care and enhancing the experience of service users
- optimising use of resources
- ensuring that research addresses issues that matter to patients and service users, and that research has a route into clinical practice
- developing a culture in health and social care that challenges the status quo, asks difficult questions and is oriented towards improvement and development
- increasing workforce motivation and morale, and fully utilising and valuing the talents of the workforce.

The following sections seek to illustrate the benefits and value of the clinical academic approach through stories drawn from individuals across Scotland who are working in this way.

It is clear from the stories that the success of the roles depends on a number of key factors, including:

- a supportive infrastructure
- strong collaboration and good links between higher education institutions and the health and social care system.
- wide understanding and awareness of the vital contribution these roles make.

#### Better clinical outcomes

A clinical academic approach can result in better clinical outcomes for patients. Examples from a midwifery professor and two NHS nurse consultants show how each has contributed to improved outcomes for their patients/service users through the application of research they have developed over many years.

Helen Chevne is the Royal College of Midwives (Scotland) Professor of Midwifery. She got her first taste of clinical academic roles at Glasgow Royal Maternity Hospital, which was something of a front-runner in the area

'The management, environment and culture in the hospital at that time was very innovative,' she recalls. 'They had just established a research team and were looking into issues like pre-eclampsia and hypertension. The head of midwifery was very supportive and persuaded the lead of the research team to co-fund a post that was split 50:50 between research and clinical practice. I was appointed to the role, which introduced me to the idea of undertaking research and carrying out data collection.'

Helen was part of the research team on the randomised controlled trial on midwifery-led care performed in Glasgow, which is recognised as ground-breaking work. The study was led by the

head of midwifery and has been acknowledged as one of the best trials in midwifery of the last 20 years. It continues to inform practice to this day.

'Midwifery-led care is both the norm and the aspiration,' Helen says. 'It's now described as the gold standard and is presented as the preferred approach in all relevant strategy documents, but at the time of the trial, the midwifery-led care model was unique.

'The model was all about improving continuity of care,' Helen continues. 'Each midwife became a caseload holder and was paired with a partner. Together, they looked after a caseload of pregnant women, ensuring continuity through ante-natal and post-natal care.

'It was highly satisfactory for midwives, who felt their skills were used to maximum effect, and for women, who experienced fewer interventions, had higher satisfaction ratings and better clinical outcomes. More evidence of benefit has emerged since the original trial, supporting midwifery-led care as the agreed standard for care delivery.'

Gillian Knowles is a nurse consultant for cancer care in NHS Lothian who has undertaken research on the effects of treatment on people with rectal and anal cancers. She currently runs a follow-up clinic for people with rectal and anal cancer. and some of her research has focused on how to provide better support for these patients.

'We did research to revamp the follow-up for people with bowel cancer after curative treatment,' Gillian explains. 'We audited things first so we had a baseline - we knew what was happening to people. We then introduced a change and evaluated it using a research process and were able to demonstrate benefits in terms of quality of life. We were also able to show cost savings.'

While carrying out the research, Gillian set up a clinic to take on follow-up of patients to enable proper assessment of late effects.

'What had happened before was that people were being cured of cancer and coming for disease surveillance follow-up, but we never really had time to ask about ongoing issues in time-constrained clinics,' she says. 'So we revamped that - I said I would take on the follow-up but using a very different model, one that encompasses assessment of key concerns and ongoing issues - bowel function, sexual dysfunction, a whole range of things.

'The patients have really benefited from this work, and their outcomes have been improved.'

Karen Smith is also a nurse consultant, this time in cardiology. who contributes to a programme of research on cardiac rehabilitation in NHS Tayside led by Martyn Jones. Professor of Healthcare Research at the University of Dundee. Much of her clinical practice and research has focused on expanding rehabilitation services to include all cardiac conditions and creating new pathways for patients so their rehabilitation is focused more in the community than in hospitals.

'We looked at the differences between patients who attended rehabilitation programmes versus those who did not,' Karen says. 'We were able to identify that a critical time in the patient pathway is the week immediately post-discharge. The earlier you can catch patients, the more influence you can have on their illness perceptions. These can be modified and can be very influential on whether someone does or does not take part in rehabilitation, which in turn can have a large effect on their recovery and clinical outcomes.'

Particularly important is the need to tailor rehabilitation programmes so that people can get a more personalised message, as Karen explains.

'Some patients who engage in exercise normally find the rehabilitation is not sufficiently challenging, while others are too disabled by their conditions to engage at all. We're researching ways to ensure that each individual can take away a message of why rehabilitation is important for them and how they should approach it.'

Karen believes it is important for research interests and approaches to continue to evolve.

'Our research on rehabilitation is developing all the time.' she says. 'We're now looking at creative story-telling and animation, seeing if we can alter patients' emotional responses in a positive way. We've bid for additional funding to develop this line of research - the funding has not vet been secured, but we're working on it.'

Crucially. Karen recognises that her clinical involvement is central to her understanding of issues that need to be addressed through research.

'If I wasn't immersed in clinical practice I would not have pursued these questions,' she says. 'They are questions that are important for patients and can really affect their clinical outcomes.'

#### Better quality of care and better user experience

Clinical academic researchers help to improve quality of care and create a better user experience for patients, carers and service users across a diverse range of settings. Examples from palliative care/end-of-life settings show how a clinical academic approach has resulted in positive impacts on quality of life for patients. friends and families at strategic and local levels.

Bridget Johnston holds the Florence Nightingale Foundation Chair in Clinical Nursing Practice Research at the University of Glasgow. a joint clinical appointment with NHS Greater Glasgow & Clyde. She uses her clinical and research expertise to drive improvements for patients and families accessing palliative and end-of-life care, an area of practice she has been passionate about since very early in her nursing career.

'My research initially centred on self-care and advanced cancer, telehealth and symptom management in palliative care.' Bridget says. 'More recently, I've been developing and testing interventions related to dignity and end-of-life care. I'm trained in, and practise, Dignity Therapy, a brief psychotherapeutic psychosocial intervention empirically developed, tested and evaluated for use with people in the last months of life. My research has demonstrated the benefits of these kinds of approaches both to patients' quality of life, and patients, carers, friends and families' experience of palliative care services. I'm involved not only in researching these types of interventions, but also in helping to roll them out across the NHS.'

Despite holding a very challenging academic position, Bridget feels it is vital that she retains her clinical involvement, and has ensured she has been able to do so in each academic post she has held.

'I've always kept my clinical involvement going in all the jobs I've done throughout my career.' she says. 'I've been lucky to have been surrounded by people who have really encouraged me to pursue my research in tandem with my clinical responsibilities. All my research has been patient-oriented. It's really helped to make sure that patients get a better quality of care.'

Bridget is now maintaining her clinical links, having moved to Glasgow following two and a half years as Professor and co-lead of the Sue Ryder Care Centre for the Study of Supportive. Palliative and End-of-life Care at the University of Nottingham.

'I'm really proud to be a nurse and I feel very privileged now that I am working as the Florence Nightingale Foundation Professor in Glasgow,' she says. 'I work very closely with the NHS Greater Glasgow & Clyde lead nurse in palliative care, so I have a real hotline to nursing practice. I know what good end-of-life care looks like, and I am now able to directly influence how it is provided within the board area.'

Bridget has a key partnership with Executive Nurse Director for NHS Greater Glasgow & Clyde, Margaret McGuire. The partnership originally developed when each worked in Dundee. Bridget as a reader in palliative care at Dundee University, and Margaret as Nurse Director of NHS Tayside.

'Bridget has an educational, research and clinical background in palliative care,' Margaret says. 'That means she can keep her clinical expertise going and help me, senior nurse colleagues and the wider multidisciplinary team to improve patient care in an informed and robust manner.'

Their strong relationship provides a very solid platform from which they jointly identify problems and propose solutions.

'Both in Tayside and now in Greater Glasgow and Clyde, Bridget has been able to come to me and say: "I've looked at the evidence and at what's happening, and we could be working in different ways - if we do A, B and C, we could change things for the better".'



Margaret is impressed that Bridget's knowledge and understanding of the evidence base enables them to identify little things that can be done that actually make a big impact. 'Working with Bridget in this way helps us to improve the quality of care for patients while at the same time supporting nurses' career development,' she says.

Margaret and Bridget meet for an hour every three to four weeks and confer regularly on the phone, and Bridget attends the board-wide senior nurse meetings. From the very start, they agreed on the level of clinical involvement Bridget would need to really make a difference.

'Bridget said to me right off that just going into a clinic every now and then wasn't going to cut it.' Margaret says, 'She said she wouldn't be able to have the strategic impact doing half a session a week, so she's now selecting areas and going in to work for a couple of days at a time. This lets her get to know the team, look at the model, look at the approach to quality of care, then feed back to the team. lead nurses and me about where she thinks the good practice is, while also looking at where we can develop improved care with stronger evidence.'

Sally Boa, a speech and language therapist who also has a passion for improving care for people in palliative and end-of-life services. now works in Strathcarron Hospice, where she is head of research and education. She has always been interested in working with people who have little or no speech - those with learning disabilities, stroke or head injury, for example,

Sally's research interest focuses on how the Goalsetting and Action Planning [G-AP] Framework can provide patients in the hospice setting with a better experience of care.

'The framework is really about finding out what is important to patients and helping them set goals to achieve what they want. if possible,' she explains. 'Those goals may seem very minor to us, or perhaps unachievable, but the important thing is that they are the patient's personal goals - not the goals the service thinks he or she should have '

Sally has seen the impact of the G-AP Framework (modified to GAP-PC in palliative care settings) with the patients she has worked with in the hospice. She recalls one lady who, when asked what was important to her, said she wanted to go out with her daughter.

'So that was written down in the notes,' Sally recounts. 'The nurse knew the lady was due a hospital appointment, so asked why couldn't her daughter take her, and then go out for lunch? They then talked about what could happen when they were out that might make it difficult. The woman feared she might get tired. so they organised a wheelchair. When she said she might get sore. they organised enhanced pain relief.'

The woman and her daughter went to the hospital appointment. had lunch, then went shopping. She came back and said it was wonderful and wanted to do it again next week, but died a couple of days later.

'It was a really important event for mother and daughter,' Sally continues. 'If we hadn't had the GAP-PC Framework. she would probably have gone to hospital for her appointment in an ambulance and come back exhausted. Instead, she went out with her daughter and had great fun - and the daughter has a precious memory.'

David Fitzpatrick is Consultant Paramedic (Research and Development) in the Scottish Ambulance Service. He is also an academic researcher in the NMAHP Research Unit at the University of Stirling. David is a very rare example of someone working as a paramedic who is also undertaking research.

David's themed work has focused on improving the quality and safety of care of people who are treated in the community and do not have to be transported to hospital.

'Numerous studies have focused on improving the care provided to people presenting to the ambulance service with, for example, hypoglycaemic emergencies, mental health crisis and chronic airway disease, such as emphysema and bronchitis,' David explains. 'Ultimately, these studies aim to ensure that people get the highest quality evidence-based care in the right place. and at the right time.'

Much of David's work has concentrated on hypoglycaemia and helping people who have problems associated with diabetes.

'The research focus has been around improving follow-up care for people who have required ambulance clinician support for severe hypoglycaemic events,' he says. 'We identified that a proportion of patients remaining at home after ambulance clinician treatment for severe hypoglycaemia experienced repeat events, but few sought follow-up with their diabetes care providers, despite being advised to do so by the attending ambulance clinicians.

This new knowledge led to a number of research studies aiming to improve follow-up care for this patient population. The work theme continues to develop through larger grant-focused collaborations with universities and UK-based ambulance services that David hopes will help to support future research in this important area of care.

'Importantly, the evidence developed from these studies has already influenced UK ambulance national clinical guidelines,' David says. 'So the past and future work has the potential to impact significantly, and directly, on the care provided at the patient's side'.

David believes this high-quality research would not have been possible without the unique collaboration between the NMAHP Research Unit at Stirling University and the Scottish Ambulance Service. 'The vision and support provided by both organisations clearly demonstrates what can be achieved with the clinical academic approach to improving the quality of care, patient experience and outcomes,' he says.

#### Better use of resources

At a time of severe pressure on services, it is vital that the health and social care system is able to use the clinical academic approach to improve efficiency and use of resources. Clinical academic researchers in Scotland are driving work that is helping the NHS to treat more patients and service users within current constraints while maintaining - or enhancing - quality of care.

As we have already seen, achieving cost savings has been one of the consequences of Gillian Knowles' research in relation to followup for people with rectal and anal cancers after curative treatment.

David McDonald, a physiotherapist, was seconded to the Scottish Government in 2010 to work on the national roll out of a programme to enhance patient recovery following orthopaedic surgery and joint replacement. He had worked on the programme locally - in the Golden Jubilee National Hospital - prior to the secondment.

The work had led to a decrease in patients' clinical stay following surgery from six to four days, resulting in savings that allowed additional needs and demands to be met.

'While I was working at the Golden Jubilee National Hospital. we decided to research the pathway of care following orthopaedic surgery.' David explains. 'We examined every single element of the pathway and worked out how each of these could be optimised or standardised - factors like analgesia and post-surgery treatment, for instance. We knew that if we reduced the incidence of some of the adverse events, clinical outcomes would improve.'

After being able to demonstrate the success of the approach locally, David was asked to help with a national roll out, organising with colleagues an audit of all 22 orthopaedic units across Scotland over 12 weeks.

'We audited the whole pathway,' David recalls. 'It demonstrated a huge amount of variation in clinical care, so we worked with hospitals to reduce the variation.'

Local auditors in all the hospitals collected data that was published - generating much discussion.

'Orthopaedic surgeons are very competitive, so when they saw figures and found they were lagging behind, they wanted to know why and to fix it,' David says. 'We were very open and transparent with the data, and clinical practice changed. We calculated that there was a total of 28,000 bed days saved per year as a result of this work. We also reduced the numbers of blood transfusions. post-operative urinary catheters and use of post-operative intravenous fluids.'

David is now involved in a new programme of research that is looking at the flow of patients through hospital departments. including unscheduled theatre demand, medical inpatients and elective surgery, and how this can be improved.

'The research aims to improve the efficiency and use of resources across the hospital,' he explains. 'The system draws on work developed in Boston, USA, which has used operation management techniques to understand how to manage patient flows by

optimising the use of emergency theatre to improve access. smoothing the flow of elective surgery and optimising the flow of medical patients by standardising admission and discharge criteria.

The programme is now in its third year and is being piloted in four NHS boards, with a further six about to start. 'We're working with the research team in Boston, who are supporting the development work, but we're hoping that in time we'll be able to grow some inhouse expertise on this,' David says. An evaluation is under way.

### Asking the right questions - relevant research that makes a difference

Clinical academics work in practice. They are therefore in a strong position to identify questions that are directly relevant to patients and service users. This means that the research and its findings will be of value to patients and service users, and will have a direct route back into clinical practice.

Margaret McGuire of NHS Greater Glasgow & Clyde has seen the benefits of this approach through the work of her colleague **Bridget Johnston.** 

'Bridget's clinical involvement ends up being a bit of a research project for her,' Margaret says. 'She will come back and say: "These are the trends, these are what I'm picking up - here are the research questions I'm now looking at, and here are the improvements that are happening as a result of what we're doing"."

Gillian Knowles has also used her observations and experiences of clinical practice to drive her research interests. She believes that having the opportunity to change practice through research places her in a privileged position that allows her important insights into patients' worlds.

'We've just done a study asking people about their experiences of pelvic radiotherapy for cancer, and it's phenomenal what they are actually willing to share,' she says. 'The important thing, though, is that you use what you find to improve practice - that's where the huge benefit to patients lies.'

Helen Cheyne's long history in research projects has a key common element - relevance to practising midwives and the women they care for.

'As a clinical academic midwife, you're very close to people who are practising,' she says. 'You can access people working clinically and they can access you - it's a two-way street. It means you work in a different way. You're accepted as part of the clinical team and. once governance issues are taken care of, you can have direct access to women attending maternity services. You understand how these women are feeling and what they're going through. and know how to approach them to ask for their participation in a research study.'

Sally Boa takes the view that for research to affect clinical practice. the original question must arise from clinical practice.

'The key thing with the clinical academic approach I adopted is that the research I've been involved in came from clinical practice,' she says. 'I wouldn't have known about it if I hadn't been able to sit in a team meeting and hear the team talking about struggling to set goals for a patient because she had motor neurone disease. This patient was losing most of her opportunities to make decisions for herself, and the team wasn't understanding what was important to her. That made me want to change things.

'In a clinical academic approach, the idea comes from clinical practice, the research is embedded in clinical practice, and the results affect clinical practice.'



The G-AP Framework Sally successfully adapted for the palliative care setting emerged from original research to develop the framework carried out by Lesley Scobbie, an occupational therapist who now works as a researcher (funded by the Stroke Association) in Glasgow Caledonian University and in clinical practice in NHS Forth Valley. Lesley designed and is continuing to refine the framework for application in stroke rehabilitation because. like Sally, she found patients were often not being supported to set goals and priorities for their own care.

'It's a complex area,' Lesley says. 'The current evidence is that health professionals often set goals that don't reflect patient priorities: the framework we're working on helps health professionals to focus on what's important to patients. It gives patients a voice and helps everyone see they are in it together.

'Patients like it.' she continues. 'It becomes a roadmap to recovery - they can see how far they've come.'

Lesley understands that it is often difficult to get things to work in complex systems such as the NHS, but she and her colleagues are developing resources like an app and an online programme that can be tailored for local use to encourage uptake.

'As a clinical practitioner, I realise how very complex people's lives are, and as a researcher. I'm learning to embrace that clinical complexity,' she says, 'It's the clinical academic approach that brings these two worlds - the world of research and the world of clinical practice - together.'

Lesley recounts an interview with a stroke survivor who was very determined to set her own goals and how, having identified the main goal, she was supported to achieve it by the clinical team through use of the G-AP Framework.

'The woman had had a stroke and explained to me she really wanted to wear high-heels to her daughter's graduation - that was who she was. But she was having a lot of difficulty walking post-stroke. She had loads of physiotherapy to try to improve her walking. She then went to the dress shop with her sister and went into a changing room to try on some high-heels, and knew right away she could never walk in them.

'She went home and cried about it, then thought: "Stuff the high-heels - it's not about the shoes, it's about my daughter's graduation". And she went in shoes with a low heel, and had a great time.

'Now that's a story that involves a goal, lots of action plans, and intensive physiotherapy, occupational therapy and psychology input to get her to the goal. But then it involved a realisation and an emotional consequence - she felt sad that she couldn't meet her original goal - then an adjustment - she recognised she had had a stroke and walking in high-heels wasn't possible. And from that, a new outcome emerged.

'It wasn't the original outcome she wanted.' Lesley continues. 'But she realised a different outcome was acceptable to her - that was an important part of her recovery. The G-AP Framework is all about that journey, and stroke survivors are able to tell us how it helps them through it.'

Rehabilitation for people who have had a life-changing illness is also the focus of Joanne McPeake, an intensive care nurse in Glasgow. Joanne works days, nights and weekends in the intensive care unit, and has done so since she first qualified as a nurse more than 10 years ago. She also carries out research that focuses on rehabilitation following a period in intensive care.

'I got involved with the Scottish Patient Safety Programme. looking at ventilator-associated pneumonia and central-line bundles.' Joanne says, 'I could really see the impact research can have on clinical practice and caring for patients. And for nurses. there is no better place to do this than in a multidisciplinary team.'

Research for Joanne is all about delivering benefits for patients.

'The only way you can improve care, practice, safety, effectiveness and patient-centred care is if you understand the challenges patients face on a daily basis,' she says. 'But more important, you can't design appropriate interventions unless you're truly embedded in clinical practice.

'I've been involved in a number of interventions now, and most of them have worked because I'm embedded in practice.' she continues. 'So when I go in and somebody says "This doesn't work", I say "Show me how it doesn't work". Or I will try it myself and say "Yes, this doesn't work", or "This actually does work and here's why". I think being embedded in what you're doing is not only crucial to asking the right questions, but also to getting the right answers.'

Joanne and colleagues have been developing and testing a five-week peer-supported rehabilitation programme for patients and their caregivers. Participants have individual treatments from nurses, doctors, physiotherapists and others at the beginning. before taking part during week 4 in group treatment with a psychologist, who helps them with coping strategies. In the final week, they are helped to connect to social organisations that can support them to link with resources in the community.

'We've worked really hard to measure the outcomes that matter to people.' Joanne says. 'They tend not to be standard things like how far they can walk - it's more about can they dress in the morning and can they control their anxiety a bit more? It's been really successful and we have now got funding to roll out the programme to six other centres across Scotland, Hopefully, we'll be able to improve the quality of life of patients in these settings too.'

### A focus on quality improvement and development

One of the broader benefits of the clinical academic approach is that it helps to shift the culture towards a focus on quality improvement and development. As Joanne McPeake puts it: 'Suddenly I had a realisation that the quality improvement agenda makes a difference to patients, and that really got me thinking."

This realisation is shared with other clinical academics. Gillian Knowles, for example, reflects on the early part of her career and the impact of medical clinical trials on her recognition of the improvements research can bring.

'I've always been interested in looking at practice and researching areas where there has been a gap or where it is obvious that things can be improved,' she says. 'Early on in my career, I worked in day care therapy services for the Imperial Cancer Research Fund. I was running day chemotherapy and was involved in medical clinical trials, so I got that mindset of research very early on. I worked with medical colleagues who were very motivating and encouraging of nurses who had an idea that complemented medical research and developments.'

Sally Boa also recognises the importance of encouragement and support in pursuing research to improve care.

'Having a research culture is important,' she says. 'It's about allowing people to engage with research and become enthused by it. It's also about having the right leaders who are able to take the step back and say: "This is a good use of your time". You can find better ways of giving care if you have a culture that values research.'

Karen Smith feels that the development of the research culture, identified as being so vital by Sally Boa, depends on the availability of research skills to facilitate service improvement and evaluation. 'This allows robust evaluation of developing services and, with that, a greater likelihood of sustainability. as we have been able to achieve with a British Heart Foundation-funded arrhythmia service locally,' she says.

**Lesley Scobbie** shares the idea that supportive colleagues can have a great influence on people's approach to, and appreciation of, research, but also feels that something more innate is equally important.

'You've got to have a natural enquiring brain,' she says. 'I'm never really satisfied with a "This is how you do it, so do it" kind of approach. We don't have a good evidence base to underpin many aspects of rehabilitation, so we try to do what we think is best for patients. But as a researcher, you can actually begin to find out what is best.

'I wanted to do research, but there wasn't a strong ethos or culture in the NHS for NMAHPs to do that 15 years ago,' she says. 'But now it has really started to change.'

For Margaret McGuire, the bottom line is that the clinical academic approach is about improvements in care. 'It's about the aggregated benefits of people's clinical and research experience, working with clinical teams to improve care,' she says.

This is exactly the approach adopted by **David Macdonald**, whose work on enhanced recovery is seen as a major success story.

'The success of the work led the Golden Jubilee National Hospital to look at extending the approach from orthopaedic surgery into other specialty areas, including cardiac, thoracic and colorectal surgery,' he says. 'Early results seem promising. Work on enhanced recovery has been going on for 15-20 years, and it's now bearing fruit.'

All this means that the oft-repeated refrain of the clinical academic approach providing a bridge between research and practice is proving true.

'It's about what you bring as a clinician to the academic world.' says David Fitzpatrick. 'It's about bridging the gap between academia and real-world clinical practice. As a practising paramedic, it's about what I bring to pre-hospital care, because there is a dearth of evidence in my specialty to support the work we do and the interventions we use. There are so many areas that need investigation and the building of an evidence base. We need to think in a different wav.'

#### A more confident and valued workforce

Clinical academics adopt different approaches to their research and practice, and also have different working and collaborative arrangements. Most have (or have had) joint links involving service organisations and academic institutions. In some cases, they have had to negotiate their own terms to enable them to pursue research interests while maintaining clinical contact.

Many speak enthusiastically about the opportunities these negotiations have offered them. Jacqui Morris, for example, a physiotherapist and Allied Health Professions Research Lead in NHS Tayside, who split her time between clinical work in NHS Tayside and academic pursuits at Dundee University, was highly encouraged by the arrangements she was able to foster.

'It was brilliant,' she says. 'The university dean was very encouraging. She insisted that the job should be seen as one job, with one set of objectives that fulfilled my commitments to the university and the NHS. This meant I really got the opportunity to work on clinically relevant research and to support other allied health professionals to become research-active, while still being a member of the academic staff. Forging links between the organisations was extremely beneficial for allied health professionals in NHS Tayside and for the university through the new projects those links facilitated.

'Working across both systems, I could spot the gaps and see how clinical and academic perspectives could work together to close them,' Jacqui continues. 'I meet the AHP director regularly to discuss how to maximise the usefulness of research to current clinical concerns and my role has a strong impact on the way therapists work.'

Joanne McPeake feels support from senior levels in her NHS board has been instrumental in enabling her to pursue her research work while continuing to practise as a nurse.

'Things are really moving in NHS Greater Glasgow & Clyde,' she says. 'Our nurse director and chief nurse really understand what we're trying to do and value it. I feel optimistic that I'll be able to keep working in the NHS and doing research at the same time. That's what I want, I don't want to drop either part of my role they feed off each other in such a positive way.'



Gillian Knowles agrees that both the clinical and research elements of the role are crucial.

'They complement each other in a very significant way,' she says. 'I want to be visible as a clinically committed person who also wants to be involved in research."

In addition to integrating research and clinical practice, integrating research with education is also a key part of the clinical academic role. Karen Smith provides an example of how clinical academics can honour this important element of their responsibilities.

'I ran continuing professional development courses with academic accreditation that have now evolved into a combined model.' she explains. The module offers participants the opportunity to complete a five-day, face-to-face contact day-course over three months, which enables them to integrate their learning into practice. They can then apply for 30 level-9 or level-11 credits, with additional study and learning offered through the university virtual learning environments. The teaching elements of the course also allow us to discuss our local and national research initiatives with the participants.'

Evaluation and uptake have been very positive, and Karen believes the collaborative element of the clinical academic role has enabled her to work with colleagues to shape academic educational provision at the university to meet practitioner needs.

'It also helps to ensure that curricula at pre- and post-registration levels reflect contemporary practice and allows the integration of robust educational principles into NHS ward and departmental teaching programmes,' she says.

Having a clinical academic role is challenging and calls for high commitment and resilience. But the gains for NMAHPs who pursue the route are many.

'I am more confident now,' **David Fitzpatrick** says. 'The critical thinking I've learned is the key to having a different mindset and being able to think about problems in new ways.'

Helen Chevne realises that challenges lie ahead for midwifery clinical research in Scotland, but is encouraged by the quality and enthusiasm of the coming generation of midwives.

'There are some younger midwives who have a burning desire to undertake rigorous research that will improve midwifery practice,' she says. 'We need people from the next generation with energy and ideas who are bold enough to ask practical questions then design and undertake small studies to answer them. Research skills can be learned, but midwives need curiosity, passion and the belief that practice can be improved by developing high-quality research programmes. Something like an apprenticeship model. with people able to learn how to run research studies on the job, would really help.'

Margaret McGuire recognises, however, the need for the clinical academic approach not just to be central to the activity of a relatively few innovative and committed people, but also to be embedded throughout the NMAHP workforce through organisational and professional support.

'It can't be just about the people,' she says, 'It must be an underpinning philosophy within the organisation and throughout the professions. Research should be part of the DNA of nurses who deliver care on a day-to-day basis. I have to ensure that nurses understand the importance of the evidence and know who they can go to if they have a question or an idea for improving clinical care and want to get involved in how it is developed."

# CONCLUSION AND NEXT STEPS

In November 2016, the Association of UK University Hospitals (AUKUH) published a practical resource for health and social care organisations that provides advice on how to develop and sustain NMAHP clinical academic roles 9

The resource is aimed at NMAHP professional leads, higher education institution partners, senior managers and executive board members. It describes the role, context and benefits of the clinical academic approach and goes on to provide a framework for organisations to guide them through the issues they need to consider in building a clinical academic workforce.

In particular, the resource sets out a framework for developing 'organisational readiness' and 'identifying, enthusing and supporting' all the players who will need to be involved and 'on board' if clinical academic roles are to be developed and sustained. It presents a wide range of case studies, including some from Scotland, to illustrate the many ways in which organisations are approaching this development.

The resource has been widely welcomed as a practical tool that can help make the clinical academic approach a reality, and its applicability to Scotland will be explored during 2017.

Debbie Carrick-Sen was co-chair of the development group that produced the resource. She recognises the complexities, but also the opportunities, of developing a clinical academic workforce.

<sup>9</sup> Transforming healthcare through clinical academic roles in nursing, midwifery and allied health professions. London: Association of UK University Hospitals; 2016 (http://www.aukuh.org.uk/index.php/affiliate-groups/nmahps/transforming-healthcare, accessed 31 July 2017).

'There is a lot of support for the idea of developing a clinical academic workforce,' she says. 'But this can be guite complex, given the number of organisations involved and the different types of issues raised when the roles are being developed. We hope that the resource will provide health and social care providers, higher education institutions and other interested groups with practical advice and a framework they can adapt to their local situations, to help them to develop these exciting roles.'

Juliet MacArthur, chief nurse for research and development in NHS Lothian, will be one of those playing a very active role in analysing the resource and considering how it might support clinical academic approaches in Scotland. Juliet has for many years been a champion of the clinical academic approach and has been instrumental in developing an innovative and productive system in NHS Lothian that brings the NHS board and its academic partners together to build capacity within clinical academic roles.

Colleagues in NHS Lothian and the academic sector were very quick to see the opportunities the clinical academic approach offers, as Juliet recalls.

'Our initial model back in 2008/2009 was to develop demonstration sites built around a programme of research embedded in service with three post-holders - one post-doctoral. one PhD and one at master's level - who worked 50% of their time on research and 50% in clinical areas,' she says.



'We built up a detailed and costed proposal for the plan and when we introduced it to our research and development director, he said "This is a no-brainer" - he got it right away. Once we had commitment from him, we were able to approach our university partners and NHS Education for Scotland to secure their buy-in too.' While the scheme in NHS Lothian has continued to evolve and expand, it remains fundamentally true to the original model concept.

Juliet very much welcomes the AUKUH resource and looks forward to NHS Lothian's participation in reviewing its applicability to Scotland. 'It's great to see such a clear, accessible and practical guide with so many case study examples to draw on,' she says. 'It will be very useful in helping us to continue to build a case for investment in clinical academic roles in NHS Lothian.'

Alex McMahon, Director of Nursing in NHS Lothian, is determined that NHS Lothian's pioneering work in developing systems to support clinical academic careers will continue.

'We've been working on developing a clinical academic approach for NMAHPs in NHS Lothian for many years,' he says, 'We now have the opportunity to make a step change, and we're hoping that over the next two to three years we'll be able to continue to realise the potential the approach has for developing services and improving patient experiences and outcomes.'

NHS Greater Glasgow & Clyde is also looking forward to considering the AUKUH resource's potential impact locally and nationally. John Stuart, chief nurse for the north sector of the board, has provided strong support to clinical academic initiatives that have been taken forward in the board area and recognises the crucial importance senior management can play.

'NHS Greater Glasgow & Clyde has a strong tradition of supporting clinical academic approaches,' he says, 'The development of the AUKUH resource presents an opportunity for us to bring even greater focus to this important element of professional and service development.'

The clinical academic approach in Scotland is therefore in a very positive place. The track record so far is good, with strong and growing evidence of positive impacts on patients, service users, services and practitioners. The AUKUH practical resource provides a solid foundation and a fresh impetus to push the boundaries of the approach beyond their current confines to reach new patients/ service users, new services, and new practitioners.

Gaylor Hoskins, clinical academic research capacity and capability manager based in the NMAHP Research Unit at the University of Stirling, feels current levels of optimism about the clinical academic approach in Scotland are justified.

'Over the last 20 years, a number of - often fairly short-lived - schemes have been introduced in Scotland to invest in the development of NMAHP clinical academics, but sustaining these careers has not been easy,' she says. 'All that is hopefully about to change.

'The recently published AUKUH resource provides a framework that can be used in tandem with local approaches to maximise the opportunities and value of building a clinical academic workforce. With continued support and enthusiasm from the Scottish Government, the NHS and higher education institutions. and clinical and research leaders, we now have the tools to help build a more sustainable system for NMAHP clinical research in Scotland.'

The kev element for Gaylor is sustainability. Too often in the past, she feels, clinical academic posts ceased when committed individuals moved on to new settings. The system now needs to embed clinical academic posts as part of normal staffing complements, so that when an individual takes up a new post elsewhere, he or she is replaced.

'Including clinical academic posts in routine workforce plans will support the development of a critical mass of high-quality NMAHP researchers and help Scotland to become an international centre of excellence in applied research,' she says, 'This will make a significant and demonstrable difference to the lives of the people of Scotland and beyond.

'I hope it will also encourage all nurses, midwives and allied health professionals to realise that research and critical thinking are activities in which they should be involved.'

# Improving health through research

This document was researched and prepared by the NMAHP Research Unit at the University of Stirling on behalf of the Chief Nursing Officer Directorate, Scottish Government.

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