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ORIGINAL PRACTICE DEVELOPMENT AND RESEARCH

An organisational approach to building research capacity among nurses, midwives and allied health professionals (NMAHPs) in clinical practice

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Abstract

Background: As nurses, midwives and allied health professionals deliver the majority of direct patient care, they are well placed to lead research and generate evidence to inform practice.

Aims: To consider how best to implement the findings of *The Whitehouse Report*, to reflect on the development of a nursing, midwifery and allied health professions research and evaluation service at a UK NHS foundation trust, and to understand the mechanisms that contribute to change.

Methods: Using the principles of change theory we developed four theories of change, underpinned by a logic model, to consider the sequence of events and the expected results. The impact of the new service on workforce capacity and capability and the mechanisms of change were considered retrospectively over a two-year period between 2019 and 2021. Surveys, interviews, field notes and data regarding a number of projects were collected and reviewed.

Results: Research, quality improvement and service evaluation activity have increased across all nursing, midwifery and allied health professions at our hospital trust. Six underpinning core values and seven practical mechanisms to implement these values were identified as successful drivers of change for the service.

Discussion: The intentional development of a network of teams, individuals and patients was fundamental to building capacity, capability and confidence among staff. Enablers to the increase in research activity included using role modeling, inspiration and perseverance to make visible the value of nurses, midwives and allied health professionals in leading research-based care. Preconceived ideas of who 'should' do research challenged the positive culture of critical inquiry for the benefit of patients, service improvements and celebration of existing work. Strategies to support research activities across the professions require vision, time, infrastructure and buy-in at micro, meso and macro levels, as well as a sustained effort from those directly involved.

Conclusions: It would be beneficial to encourage bespoke approaches to help staff translate ideas into practice-based projects as part of capacity, capability and confidence building for research across the clinical workforce. Audit, quality improvement and evaluation activities can lead directly to an increase in research engagement, involvement and leadership among nurses, midwives and allied health professionals, as well as supporting recruitment and retention. Future research could explore whether this approach would be replicable and effective in other healthcare organisations or systems.

Implications for practice:

- Shared values are essential to forge progress in research activities led by nurses, midwives and allied health professionals
- The use of audit, quality improvement and service evaluation approaches are effective in increasing research activity within organisations
- A number of approaches to growing the capacity, capability and confidence of staff should be considered within the organisational context. One approach does not fit all
- Research-active organisations have better outcomes for patients, whether or not the patients are part of a trial. Increasing the capacity and capability of staff means more research is likely to be undertaken through a nursing, midwifery and allied health professionals lens

Keywords: Nursing, midwifery, allied health professionals, capacity, capability, confidence

Introduction

Nurses, midwives and allied health professionals (NMAHPs) are perfectly positioned to lead research and generate an evidence base to improve the quality of the care they lead. It is estimated that only 0.1% of the NMAHP workforce are currently in clinical academic roles (Medical Research Council, 2017). One strategic approach to promoting research among this group of staff is through the appointment of clinical academic roles. These are roles that balance time between doing clinical work and conducting research that contributes to scientific understanding in their field and the training of the next generation of clinicians (Jones and Keenan, 2021). However, with that Medical Research Council figure in mind, other approaches are required to develop capacity and provide research opportunities for NMAHPs. This is particularly significant given the growing evidence of better patient outcomes in research-active organisations compared with those where there is little research activity, irrespective of whether the patients are participating in research (Özdemir et al., 2015).

We propose that developing research capacity, capability and confidence beyond those in clinical-academic careers is essential to forge progress in evidence generation by NMAHPs. In this project, the team differentiated the research terms 'capacity', 'capability' and 'confidence' as follows:

- Research capacity is the ability to conduct research and includes activities related to using and doing research
- Research capability is the strong theoretical and practical grounding needed to develop a questioning approach to care
- Research confidence is the ability to confidently lead or contribute to research activities

We propose that if NMAHPs in clinical practice are supported (capacity), able (capability) and confident to develop and enact their own innovative ideas, initially on a small scale, a higher percentage could become research active. This would have the potential to lead to 'generating' and 'using' evidence for the benefit of patients, as well as to contribute to safety, quality of care, and workforce recruitment and retention. However, for such work to have long-term impact, health and care systems need commitment and dedication to the growth of staff knowledge and skills across clinical audit, research, quality improvement and service evaluation (Whitehouse et al., 2022a).

A lack of sufficiently skilled staff, funding and resources are known barriers to NMAHP-led research activities, as is organisational failure to adequately value and support the work (Whitehouse and Smith, 2018; Avery et al., 2021). Historical and societal influences contribute to positive and obstructive perceptions of NMAHPs leading research (Carrick-Sen and Moore, 2019) and often add to the complexities they face when undertaking research or other methods of critical inquiry, such as clinical audit, service evaluation or quality improvement as part of their roles. Time allocated to these aspects of work within NMAHP professions takes second place to direct patient care when compared with the experience of our medical colleagues (Jones and Keenan, 2021).

The Whitehouse Report (Whitehouse and Smith, 2018) investigated structures and strategies for clinical research in nursing and midwifery across the UK and Ireland, and made a number of key

recommendations for organisations. In this work, there was consensus among 34 participating organisations across five countries regarding the benefits of NMAHP-led research for patients and staff, in terms of quality of care and of workforce recruitment and retention. The report recognised the need for dedicated roles leading homegrown research ideas, although the wider literature appears to offer no guidance on how this might be undertaken from a standing start. This article describes the development of a NMHAP research and evaluation service within a UK NHS secondary care organisation, providing specific examples of approaches to building research capacity, capability and confidence over a two-year period between November 2019 and November 2021.

A change in the research and development structure at James Paget University Hospitals NHS Foundation Trust in 2018 afforded time to revise the strategic approach to developing NMAHP research across the organisation. It provided an opportunity to reflect on how best to implement the recommendations from *The Whitehouse Report* (Whitehouse and Smith, 2018).

A senior nurse for NMAHP research was appointed in 2019 to drive the research and evaluation agenda through developing the trust's NMAHP research and evaluation service. The 0.72WTE post was initially funded between the R&D department and a three-year funding award from the National Institute for Health and Care Research's 70@70 Senior Nurse and Midwife Research Leader Programme (Castro-Sanchez et al., 2020). The trust's NMAHP research and evaluation service vision is to develop an enriched research culture across the workforce to generate evidence for the benefit of patients, staff and the public.

Method

Researchers have recognised the need to better understand how change occurs in health and care (Reinholz and Andrews, 2020). Ratana and colleagues (2020, p 1) propose that 'a theory of change is project-specific and related to evaluation, whereas change theories represent empirically grounded knowledge about how change occurs that goes beyond any one project'. A key challenge to enact change is knowing what actions are likely to result in the desired outcomes within a particular group or system. This section presents the stakeholder engagement activities undertaken to identify what the service should do in order to achieve change (an increase in capacity, capability and confidence), and what we might need to know to make changes across NMAHP services and delivery of care. By reflecting on two years of service development we aimed to understand the values and practical mechanisms that contributed to increasing research activity among NMAHPs. Approaches taken to build capacity, capability and confidence in research and critical inquiry methods across the NMAHP groups are described, and data collection methods used to capture data at baseline and at two years are presented.

Theories of change and logic model

We developed four basic theories:

- Co-designing a service with the patients and health and care workforce it would affect would create a service that was meaningful to those using it
- The provision of a supportive infrastructure to include training, mentorship, facilitation, funding opportunities and leadership would increase the capacity, capability and confidence of the NMAHP workforce in conducting research activities
- Focusing on opportunities through audit, research, quality improvement and service evaluation would contribute positively to workforce recruitment and retention
- Belief in the ideas of people and communities would increase the confidence of the workforce and patients using the service

Given the number and complexity of the factors that can influence the development, implementation and outcomes of a new initiative, this project was underpinned by a logic model framework (Baxter et al., 2010) to identify and illustrate how the different elements of the work, and the associations

between them, might impact on the success of the service. We worked from the premise that inclusion, engagement, a shared vision and understanding that regular changes would be required and that one approach to building capacity, capability and confidence may not fit all professions. Healthcare organisations are constantly changing as a result of policy initiatives, new treatments, new clinical pathways and disease patterns, so the prospect of 'unanticipated change' was accepted by our team from the outset as this is the reality of working in complex human environments (Nilsen et al., 2020). We also acknowledged that we would have to be 'comfortable with being uncomfortable' as part of the intentional and organic process of growing the service, if we were to truly understand the factors contributing to change.

Stakeholder engagement

To understand baseline knowledge, skills, culture and levels of enthusiasm/interest for this agenda across the trust, a variety of stakeholder engagement activities were conducted.

In November 2019, trust executives and non-executive directors were approached by the senior nurse for NMAHP research, and the director and deputy director of nursing through a board seminar and additional one-to-one meetings to discuss the potential for this work in line with the trust's ambition to engage with and make available research and innovation opportunities to all. Between January and March 2020, 14 teams – including education, nursing, midwifery, allied health professions, chaplaincy, information services, human resources, and medical colleagues – explored potential links, benefits and challenges in relation to the proposed service; where services might overlap and enhance each other as well as potential areas of confusion. Close working relationships were anticipated with the research and development department, clinical audit team and quality improvement hub, so a number of discussions were held between November 2019 and March 2020 to understand the potential gaps and the need to fill them from operational and strategic perspectives. Service evaluation in particular was unaccounted for structurally, yet the general consensus between these groups acknowledged huge potential for the NMAHP workforce with this critical inquiry methodology.

A 'Combining your clinical and academic careers' event in January 2020 was attended by 46 NMAHP staff from the organisation. It included an overview of the potential service intent, inspirational speakers and signposting to existing clinical academic opportunities, followed by focus groups that generated specific practical requirements delegates felt would contribute to success of the service. This event was valuable in two ways: informing attendees of existing external research and career opportunities; and forming part of the co-design of the NMAHP research and evaluation service content and approach. While building the co-design and stakeholder engagement, the intentional production of opportunities to promote the service ran in parallel. In February 2020, a survey of pre- and post-registration NMAHPs was conducted. It ran for one month and attracted 71 responses. Questions were developed using themes arising during the event's focus groups: support, engagement, awareness and interest, opportunities and requirements.

We approached two local higher education institutions between January and February 2020 with a view to future opportunities for collaboration. We discussed their strategic research priority areas, which supported consideration of our own and where they might be aligned.

A public stakeholder event due to take place in March 2020 was cancelled after the declaration of the Covid-19 pandemic (NIHR, 2020). Taking in to account the context of the global pandemic and consequent national lockdown restrictions, we used feedback boards in the hospital's main entrance, and hosted three virtual Twitter chats – hour-long 'live' chats on the social media platform that any staff, patients or members of the public could join using a supplied hashtag. We used our already wide-reaching hashtag #WhyWeDoResearch (Yhnell et al., 2019) to reach as many people as possible. The three Twitter chats together generated more than two million impressions, or interactions with the hashtag. More than 50 individuals and six patient groups participated, and Symplur healthcare hashtag analytics were used to access the data following formal registration of the hashtag to the system.

We asked four questions covering people's awareness of research activity at our organisation, their awareness of NMAHPs in research, their keenness to engage with research and views on the new service development, as well as areas of focus to inform the setting of our research priorities. We identified qualitative information contributing to the need for, and barriers to, this work from a patient perspective, while members of the local community volunteered their support for future collaborations. The logic of NMAHPs conducting research was noted by participants in relation to their key role in patient care, safety and experience, and support was expressed by almost all participants. A smaller number challenged the 'need' for NMAHPs to undertake research ('It's a doctors job not nurses, they should be on a ward'). Patients were increasingly aware of research activity within the trust due to a number of research-related press releases in the local media throughout 2019 and early 2020, but were seemingly unaware of the role of NMAHPs in this.

Approaches to building NMAHPs' capacity, capability and confidence

Stakeholder activities provided a basic understanding of the areas of interest in each profession and this led to a person-focused approach to nursing and AHP research, and a team-focused strategy for the maternity service. Nursing and allied health professions used role-modeling of 'research delivery' and 'research ideas' commensurate with NMAHP priority areas.

The actions undertaken in 2019/2020 for nursing and AHPs included:

- *Research delivery:* Proactive identification of potential studies to host at our site, suited to our patient/staff population(s). Expression of interest in those studies to the chief investigator(s) led to studies led by nursing/AHP principal investigators on site: 'Hip Helper' study (University of East Anglia) in the integrated therapies department; and the Health Foundation-funded 'Nurse Recruitment and Retention Study' (Staffordshire University) in the nursing department
- *Idea generation:* The addition of an academic element to career pathways and support to undertake, for example, bridging internships and fellowships run by Health Education England East of England. A parallel portfolio of work focused on quality improvement, clinical audit and service evaluation within the staff member's area of interest (for example, workforce for nurses or trauma and orthopaedics for AHPs), with guidance and mentorship as appropriate

By 2020, nurses had been engaged in research delivery (defined here as the hosting of research studies developed by others with our organisation as a study site) for the previous eight years and AHPs for three years. A small number of homegrown nurse/AHP-led research projects took place in parallel (approximately two per profession). The maternity service was new to research from both 'delivery' and 'ideas' perspectives in 2020, so the department opted to focus on the development of a research delivery team in year one, with the aim to expand into idea generation in year two.

The research and development department and NMAHP research and evaluation service, in collaboration with the midwifery service, employed clinical research midwives to drive research delivery activity for its service with care partners in the community as their initial approach. This included development of a funding proposal to the National Institute for Health and Care Research's Clinical Research Network East of England (then 'Eastern') through deprivation monies allocation, with subsequent appointment of two 0.3 WTE clinical research midwives in November 2019. 'Whose shoes' events were hosted in 2019 and research activity was included as conversation topics at both events. Whose shoes is a co-production tool widely used across NHS maternity services for transformation and engagement (Tseung et al., 2020; Whitehouse et al., 2022b). A maternity research operational plan was developed with patients, public, staff, academic partners and the Norfolk and Waveney Clinical Commissioning Group (now Integrated Care System). The plan was implemented in March 2020.

The change to working practice through starting or enhancing research offers across the NMAHP groups required consideration of inclusion and provision of training, as well as bespoke support sessions to enable a successful change pathway. A combined vision for increasing research delivery was established across the NMAHP services with the aim of producing a cohesive team working across

professional boundaries. The bespoke and considered approach to change in each profession aims to account for differences in experience and comfort levels, so the projects can progress in ways that the workforce felt comfortable with and supported.

Data collection

Surveys were conducted at baseline and at two years, and included people who might contribute to or use the service, and those who had engaged with or used the service throughout the two years since it was established. Field notes were taken throughout the time period by the senior nurse for NMAHP research and clinical staff who were increasing their research capacity, capability and confidence. Regular meetings with each professional group (bimonthly) elicited minutes that were reviewed by the senior research nurse to understand changes as they were happening, whether subtle or more visible, to generate impact themes and the responses to the approaches taken (context). The number of enquiries, provision of support, evaluations and research activities, as well as dissemination activities, was recorded on a spreadsheet and discussed monthly between the senior research nurse, the director and deputy director of nursing, and the research grants advisor to understand the depth and breadth of work taking place.

Results

Three initial overarching priority areas for NMAHP research were derived from the stakeholder work, with a fourth (data and technology) added following emerging national priorities, the trust's appointment of a new director of nursing, and involvement in a national nurse-led big-data study in 2020. The priority areas were:

- Clinical care
- Workforce recruitment and retention
- Sustainable (green) healthcare
- The use of data and technology to inform care

Baseline data were an important consideration in terms of understanding change. Stakeholder engagement activities highlighted:

- Lack of knowledge and understanding of critical inquiry (clinical audit, research, quality improvement and service evaluation) and associated methodologies, their appropriateness to the context and topic under investigation and the value they add to clinical practice
- A sense of fear and lack of confidence in research activities among NMAHP staff
- Enthusiasm to engage but uncertainty as to how to engage with, facilitate or lead this aspect of care among NMAHP staff
- A negative perception by some patients, public and staff about the value of NMAHPs conducting research

In contrast, awareness of and confidence in, quality improvement methodologies were evident and were demonstrated by an increase in QI projects (all professions) from 31 in March 2019 to 218 by September 2022. This increase appears to reflect the efforts of a quality improvement campaign in the trust in 2019 (which included regular weekly updates about projects, drop-in sessions to support those with potential project ideas, training to support all staff to understand the methodology and funding resource to pump-prime projects) and consequent training and support availability to the workforce from the QI hub.

The NMAHP research and evaluation service increased from a portfolio of zero in 2019, to:

- Eighteen service evaluation projects
- Contribution to or leadership of five NMAHP-led research delivery studies
- Enquiries for support from 15 further individuals or teams
- Meetings, resulting in four teams being signposted to the clinical audit service
- Collaboration with six QI projects, two of which have led to income generation
- Helping to lead or facilitate three research studies

Seven papers, with the involvement of nine first-time co-authors, demonstrating the impact of the work have been published in professional journals (Whitehouse et al., 2021; Whitehouse et al., 2022a; Whitehouse et al., 2022b; Cater, 2022; Beer et al., 2022; Hansen et al., 2022; Hare and Whitehouse, 2022), and work has been presented at seven national and international conferences and events.

In 2019, no NMAHPs from our trust had applied to Health Education England's bridging initiative or for other external research fellowships. In 2020/2021, two successful applications – from a physiotherapist and a nurse – were made (one pre-masters and one pre-doctoral). In 2021/2022, a nurse successfully applied for an HEE pre-masters bridging internship, and in the current round of internships (2022/2023), three nurses and one physiotherapist have been successfully appointed as interns.

Eight NMAHPs were awarded 'honorary fellowships', with one 'honorary associate professor' by the University of East Anglia in May 2022, cementing our clinical and academic collaboration at this first stage. One nurse was appointed as a visiting fellow with Staffordshire University. Research was included as an agenda item across all professions at internal and trust-wide meetings for the first time, demonstrating the increased value placed on the work. Income generation was evident across all professions and approximately 38 additional staff have completed National Institute for Health and Care Research Good Clinical Practice training to become 'research ready', with maternity and therapies departments now including the course in their staff induction programme and in mandatory training for existing staff.

The approach taken to building capacity, capability and confidence across all groups has led to an increase in research activities and patient involvement in research. A specific difference has been seen in our integrated therapies department since 2020, when there was a single research project in trauma and orthopaedics; by November 2021, evaluation and quality improvement projects were being conducted in intensive care, renal, stroke and pelvic health teams, and a second physiotherapist had taken a co-principal investigator role for the first time. In maternity, starting three hosted research studies increased staff confidence and led to a rise in service evaluation and quality improvement activities. The notion of 'opportunity' has positively impacted recruitment and retention of staff across all services. Themes identified from follow-up surveys included 'confidence, belief and pride', 'retention and wellbeing' and 'appreciation of direct and indirect care'. Figure 1 presents qualitative themes and quotes from those using the service.

Figure 1: Quotes from those engaging with the NMAHP research and evaluation services, by theme

Confidence, belief and pride

- 'Gave me the opportunity to effectively present lots of hard work and outcomes that had previously gone unnoticed'
- 'Gave me the belief to apply for internship and become a PI for a study'
- 'My name appears as an author – I never thought I could do this'

Retention and wellbeing

- '... helped wellbeing and motivation, provided positive working experiences, and encouraged staff recruitment and retention'
- 'Just knowing there are opportunities and that these were supported made me retract my notice'
- 'This has provided momentum for other teams within our department to become research engaged'

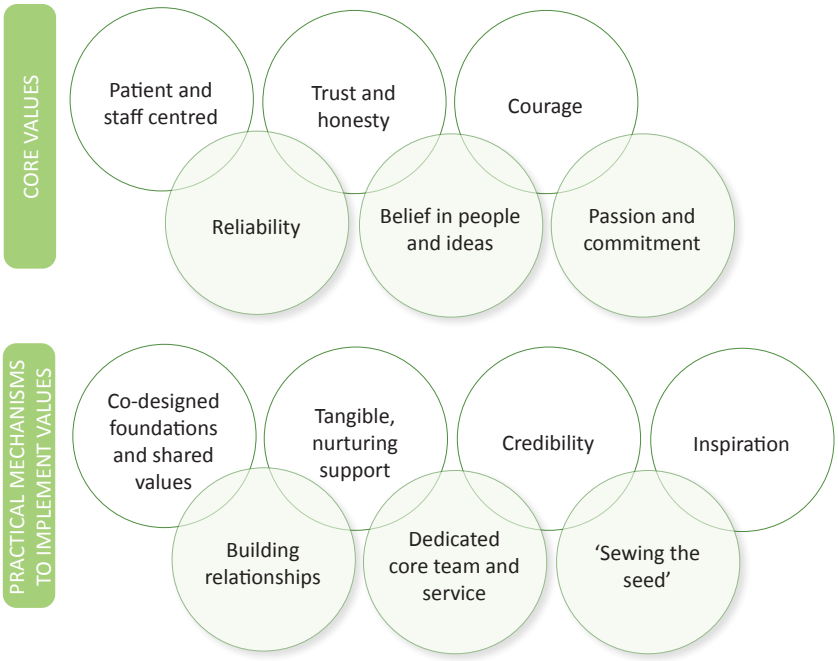
Appreciation of direct and indirect care

- 'Visibility of research in clinical areas brought research-care to life for our team and this in iteslf added vaue and inspired people to become involved'
- 'It has increased the teams' awareness of how research evidence benefits our patients and being involved in research can be part of our roles and not just for others to do'
- 'Just because I'm not at the bedside for some of my hours, it doesn't mean I don't care. My team see that now, with the impact my work is having on our patients'

Often, work undertaken in the NMAHP research and evaluation service is centred around facilitation, mentorship, sourcing funds and grants, and support for how to bring ideas to fruition in clinical practice. The impact of this work can be seen in patients and staff, and at departmental level.

In considering theories of change, and our initial views on what 'should' happen (identified in our logic model) within the period of change between November 2019 and November 2021, the core values and mechanisms that contribute to increasing capacity, capability and confidence of staff have been assessed. Between November 2021 and March 2022, an anonymous survey asked users to consider the values and mechanisms underpinning the NMAHP research and evaluation service from their perspective. Triangulation of our baseline data, the impacts we were seeing in clinical practice throughout the two years, and the results of the follow-up survey led to an understanding of the core values and mechanisms for implementation (Figure 2).

Figure 2: Core values and mechanisms for implementation



Ethical approval

Ethical approval was not required for this work. However, ethical behaviours have been maintained throughout.

Discussion

At our site, the delivery of research studies over the previous two decades was commonplace and successful but there was minimal infrastructure to support 'homegrown' research before the NMAHP research and evaluation service. It has been necessary to begin capacity and capability building by increasing NMAHP staff confidence in undertaking research-related activities. A focus on audit, research, quality improvement and service evaluation, alongside research-delivery activities, has increased confidence as a key change enabler towards the goal of developing homegrown research studies designed and led by NMAHP staff.

The value and credibility of using critical inquiry methods other than 'research' (for example, clinical audit, evaluation and quality improvement) are regularly challenged within and across health systems locally, nationally and internationally. They are often seen as having less scientific weight when compared with the hierarchy of research methodologies (Zamboni et al, 2020). However, efforts to

improve care should always be based on the highest-quality evidence. We would argue that any well-conducted research, no matter what the methodology, can provide robust data and better outcomes; the opposite is true for poorly conducted work. The earliest principle of evidence-based medicine indicated that a hierarchy of evidence exists and a pyramid was developed to describe this (Hassan Murad et al., 2016). However, concerns have been raised about how much that ranking of evidence reflects what is most relevant to clinical practice, and therefore to patient care. For example, a well-conducted observational study or evaluation may provide more compelling evidence about a treatment in a clinical environment than a randomised controlled trial. The hierarchy pyramid is largely based on quantitative methodologies but it is important to choose the most appropriate design to answer the research question (Djulbegovic and Guyatt, 2017); this may require pilot projects through evaluation, quality improvement or audit, or there may be a qualitative or mixed-methods approach.

Starting evaluations, audits and quality improvement within our integrated therapies department and nursing services led directly to an increase in research delivery and leadership. Equally, introducing research delivery in maternity led to an increase in evaluation and quality improvement activities. In our trauma and orthopaedic integrated therapy team, the successful completion of a physiotherapist-led study prompted a collaboration for a follow-up study, and led to the physiotherapist principal investigator joining an international research team. It also resulted in the appointment of an embedded researcher (Whitehouse et al., 2022a). Combined, these opportunities inspired others to undertake their own projects, individually and in small teams, each contributing to the evidence base in their own right, as well as providing staff with a potential career pathway. Our growing reputation for maternity research led to a collaborative National Institute for Health and Care Research grant application and the appointment of consultant midwife as an embedded researcher (Whitehouse et al., 2022a). These examples demonstrate that when audit, research, quality improvement and service evaluation are given equal standing and respect, each can encourage use of the others.

Despite the varying approaches to developing capacity, capability and confidence across the NMAHP professions at the trust, similar qualitative outcomes were identified across all groups. Growth in confidence, for example, was manifested in three ways:

1. Workforce confidence. NIHR Good Clinical Practice training and support from NMAHP research and evaluation and the R&D team meant staff felt able to approach people about becoming involved in research activities
2. Population confidence. Increased willingness to take the opportunities available was identified in patients, carers and the public
3. Individual confidence. Increased capacity for supporting and mentoring other staff as well as applying for external funding and development opportunities

This contributed to a sense of belonging and achievement, and solidified the shared vision among the staff groups, with a renewed (or indeed new) understanding of the value added to patient care and personal development by involvement in research, and indeed all critical inquiry activities.

Disseminating and showcasing work has been a source of pride. Authoring manuscripts for publication and speaking or presenting posters at conferences has led to a recognition of self and teams. It has inspired staff to believe and take pride in themselves, and to be aware of the network of researchers within the trust to support and assist them. There has been an epiphany for many when they realise their clinical skill and knowledge clearly contributes to critical inquiry, either through using or generating evidence, and an increased understanding of the impact and value of care delivered directly (at the bedside), and indirectly (through research participation). Such work has generated a snowball effect. One individual described the new understanding of research opportunities:

> *'You made it tenable, real and not just something which happens in an office in a dark corner somewhere. That's been really powerful for us.'*

Inspiration has been infectious and has spilled over into other departments and organisations, generating further collaborations, enhancing our work and leading to shortlisting for national awards. The networks that have been built, and continue to form, have far-reaching tentacles that we will be able to take advantage of in the future.

It is important when establishing infrastructure such as the NMAHP research and evaluation service that the concepts of 'success', 'value' and 'impact' are discussed and understood from the outset by all stakeholders. Each may mean different things to different people at different times, therefore the value or worth of any service could rise or fall based on personal interpretation (Pantaleon, 2019). It is tempting to set quantitative outcomes as aims of new services and projects, but it is unhelpful for these to be seen as the sole marker of 'success'.

'Impacts' or 'successes' in the context of 'reach' are important but are not necessarily tangible and do not fit neatly into a box or 'measure'. We suggest that if work is measured only in linear ways, the true, wide-reaching value of the services, people involved and projects under development will not be understood. NMAHP research activity, and indeed all healthcare research activity, is not linear. It is complex, set in fast-paced, ever-changing and challenging environments, so the services and tools designed to support and measure it need to adapt accordingly. It is not yet clear how best to capture the intangible impacts in a way that is meaningful for those at the frontline while remaining useful and 'valuable' to those at board and organisational level. In reflecting the principles of change theory, what worked and why, as well as how, are key considerations for new services. For the continued growth of services, it is important to acknowledge that one size, and indeed one measure, does not fit all.

Fast-paced change can be challenging for some people, particularly when the change in question is unique or a way of working that tests historical context and pushes boundaries. Negative perceptions of critical inquiry methods hinder capacity, capability and confidence of staff in developing research knowledge. An infrastructure with long-term vision and organisational support is essential for the sustainability and longevity of NMAHP research agendas (Whitehouse et al., 2022a). Equality, diversity and inclusivity for NMAHPs in the research world remains a challenge, with research funding routes often excluding nurses, midwives and allied health professionals. The €11 million funding for future clinical academic leaders in Ireland, announced by the Health Research Board in April 2022, is a fantastic step for medical and dentistry researchers and their patients (HRB, 2022), but sadly serves to illustrate this exclusion. Skilled, knowledgeable and safety-critical professionals who lead research activities should be resourced across and within organisations for the benefit of patients and staff. There remains some way to go within, across and outside professions and organisations when challenging negative perceptions of NMAHPs in research.

For those who work across health and care, there is a general desire to improve outcomes and provide the best possible care. However, if we are truly to provide the best care, based on the best evidence, it is time to change ingrained cultures and views of who 'should' do research, and to review the mechanisms through which we support NMAHP staff to become and remain research active. Those routes vary across and within professions, yet all are valuable and critical in building capacity, capability and confidence in the workforce. Varying approaches to building capacity and capability in the NMAHP professions and teams, using increased confidence of staff and a passion for patient care and care delivery, have been essential to the success of the NMAHP research and evaluation service across its first two years at the James Paget University Hospitals NHS Foundation Trust.

Limitations

This work grew at an unexpected pace and, in retrospect, a formal evaluation framework could have helped identify specific measures of impact. We recognise that it is difficult to collate and understand the true impacts in terms of capacity, capability and confidence of the NMAHP workforce, and this

information may take years to emerge. However, if we do not work differently or try novel approaches to service development, we will not forge progress in the research arena among our teams. The service is currently delivered by two individuals, one of whom is contracted on a fixed-term basis (12 months). Core funding to reinforce and expand the service is necessary to support the rate of growth.

This project has been conducted at one UK NHS hospital trust as a novel approach and it is not known whether it would be successful in other organisations or services. Future research could consider the expansion of such a service across, for example, the regional new integrated care systems in England, and direct investigation and exploration of the impact on patient safety, outcomes and experiences.

Conclusion

Engaging a wide range of individuals, teams and groups to understand the enthusiasm for research activity in the organisation, and intentionally involving stakeholders throughout the development of an NMAHP research and evaluation service was a key enabler to effective change and creation of a service that would be meaningful to those who use it. The provision of a supportive infrastructure including training, mentorship, facilitation, funding opportunities and leadership has increased the capacity, capability and confidence of the NMAHP workforce in research activities. Clinical audit, service evaluation, quality improvement and bespoke approaches to development for clinical staff have contributed to recruitment and retention in the NMAHP workforce and should be encouraged. Ingrained cultures and views of who 'should' do research should be challenged and funding streams should consider equality, diversity and inclusivity across professions. Strategies to support growth in research activities across the NMAHP professions require vision, time, infrastructure, buy-in at micro, meso and macro levels, and a sustained effort from those directly involved.

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