

# Shaping Better Practice Through Research: A Practitioner Framework

Jennifer Harris, Jo Cooke & Kate Grafton

## Contents

Contents .....	1
Research and Allied Health Professions .....	2
What is the CAHPR Research Practitioner’s Framework?.....	4
Principles of the CAHPR Research Practitioner’s Framework .....	5
How to navigate the framework .....	6
Domains.....	6
Stem statements and entry level of competency .....	7
CAHPR Clinical Research Skills and Knowledge Framework.....	9
1. Own Career Development .....	9
2. Research Methodology and Methods.....	10
3. Research Delivery .....	11
4. Research-Informed Practice, Dissemination and Impact.....	12
5. Working with Others and Collaborating in Research .....	13
6. Research Education and Training.....	14
7. Research Leadership and Management.....	16
8. Research Strategy and Planning.....	18
References.....	19
Appendix I.....	20
How was the CAHPR Research Practitioner’s Framework developed? .....	20
Authors.....	21
Acknowledgments .....	21

# Shaping Better Practice through Research: A Practitioner Framework

---

## Research and Allied Health Professions

Allied Health Professionals (AHPs) make up a third of the NHS workforce with over 65,500 qualified staff and 13,500 support staff registered in 2018 [1]. They play an important role in the delivery of care throughout the lifespan and across many health and social care systems. This places them in an ideal position to transform the health and wellbeing of our changing population [2].

Research informed practice is a core principle across the disciplines of allied health and social care, and is a key component of pre-registration training [3-5]. The National Institute for Health Research (NIHR) Clinical Research Network's AHPs Strategy 2018-2020 [6] recognises that realising the potential of AHPs is core to delivering the NIHR's mission "to provide a health research system in which the NHS supports outstanding individuals, working in world class facilities, conducting leading edge research which is focused on the needs of patients and the public".

There are many benefits to engagement in research and research-informed practice across health and social care systems.

At an organisational level, health and social care organisations that engage in high quality and person-centred research activity have demonstrated;

- higher rates of patient satisfaction,
- reduced mortality,
- improved CQC performance,
- improved organisational efficiency

At a departmental level, a strong research culture is associated with;

- reduced staff turnover
- translation of evidence into practice

At an individual level, it is recognised that research activity can lead to;

- increased perception of skills and confidence in practice
- improved job satisfaction [7-10]

The promotion, conduct and use of research in health and social care practice is high on the national agenda in the United Kingdom and reflects many attitudes and beliefs worldwide. The NHS Constitution for England recognise the value of research to support "the highest standards of excellence and professionalism" within their core principles [11] and the Department of Health and Social Care recently set objectives to "support research and innovation to maximise health and economic productivity" [12]. The Care Quality Commission (CQC) who, as part of their national have developed research indicators to examine the level of high quality, patient-centred research happening in hospitals. The Allied Health Professions into Action strategy [2] emphasises that NHS leaders need to support AHPs in research

engagement, and research activity is recognised as one of the four pillars of advanced clinical practice in health and care practitioners[13].

It is well accepted that use of, and engagement in research activity results in benefits to service-users, staff and organisations, and that AHP researchers play a vital role in the generation of new knowledge, translation of evidence into practice, and in research leadership and training [6, 7, 14-16].

## What is the CAHPR Research Practitioner's Framework?

The Council for Allied Health Professions in Research (CAHPR) research framework was developed through a collaboration with National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care Yorkshire & Humber (NIHR CLAHRC YH).

It is a competency framework that describes the integrated knowledge and skills that an AHP needs in order to perform applied research within a range of practice settings and at different levels of complexity. As such it includes basic competencies that all practitioners might be expected to acquire and use in order to make research 'core business' for practice. It also includes a range of competencies that are applicable to, and operate up to research leadership and advanced levels. In this way the framework supports AHP's contribution to the basic research endeavour, whilst also forging pathways and career progression for them to become leaders in the field of applied health research.

The Research Practitioner's Framework aims to support practitioners, managers, educators and leaders to review and plan practitioner roles, activity and support systems within a range of practice settings. It helps to structure conversations to plan clinical academic careers for AHPs

The framework was developed using a blend of expert knowledge through consultation within the CAPHR network, and the systematic integration of existing research competency frameworks

(See Appendix I for details)

## Principles of the CAHPR Research Practitioner's Framework

- I. The generation and application of research should be embedded in health and social care practice in order to improve services, promote health, wellbeing and safety of service users, and to optimise the effective use of resources.
- II. All AHPs should enter their profession with research skills and knowledge at 'Awareness' level. This supports the notion of making research 'core business' to practice.
- III. The framework can be used to plan the research element in health and social roles in a range of contexts.
- IV. Additional competencies unique to each professional may need to be developed to complement this consolidated framework, and to maximise their contribution to the research endeavour.
- V. The framework portrays linear development but acknowledges that individuals, and the context within which they work, will offer different opportunities for progress across different domains and at different rates.
- VI. The framework should be used flexibly to plan workforce developments, profession career progression, and support systems needed to help embed applied research into organisational systems, for example through job descriptions, work plans, appraisal, mentorship and review systems.
- VII. This framework has been developed to meet the needs of AHPs, however it is not exclusive to them and may be relevant to other professional groups.
- VIII. Research takes place in multi-professional and multi-disciplinary teams in a wide variety of health and social care settings. Many of the skills which support effective teamwork will also support research activity and are likely to maximise impact.

## How to navigate the framework

This framework is divided into eight domains to represent different components of practitioner research knowledge and skills applied in practice. The domains are as follows;

### *Domains*

	<i>Career development</i>
	<i>Research methodology and methods</i>
	<i>Research delivery</i>
	<i>Research-informed practice, dissemination and impact</i>
	<i>Working with others and collaborating in research</i>
	<i>Research education and training</i>
	<i>Research management and leadership</i>
	<i>Research strategy and planning</i>

### *Stem statements and entry level of competency*

Each domain has a series of ‘stem’ statements describing an applied research competency which is written in bold. Alongside each stem statement is a suggested ‘entry level’ or minimum level when this knowledge, skill or behaviour might be expected to operate.

There are four potential levels of operation within this framework that reflect those detailed in the NIHR CRN Integrated Workforce Framework [17]. The levels are: awareness, core, intermediate and advanced (see figure 2 for more detail). Some stem competency statements only operate at the intermediate or advance levels that are applicable to senior applied researchers.

Although progression through these levels is presented here in a linear fashion, (i.e. progressing from awareness to advanced with increased responsibility and expertise), progression through levels within each domain are likely to differ depending on the particular role, context and opportunity afforded to the individual. Not all roles will include the same level of competency in all the domains, but a patchwork of levels of activity is likely.

**Figure 2: a description of levels at which competency might operate**

<i>Awareness</i>	<i>Awareness of the applied research context and who/where to go to if xyz happens. Demonstrate understanding of how your work fits within this context.</i>	<i>e.g. Junior Practitioner</i>
<i>Core</i>	<i>Have working knowledge and skill within your working area. i.e. not assumed to be transferrable; can be learnt even if technically tricky where the context is predictable. Able to support Awareness level. Work under guidance and within defined parameters and make judgements between a predefined range of options.</i>	<i>e.g. Established Practitioner</i>
<i>Intermediate</i>	<i>Able to transfer/adapt knowledge and skill to different areas/topics that may be unpredictable. Able to support the Core and Awareness levels. Prioritises own work/activities, demonstrates experience of working in a complex environment and shows creativity in developing solutions by determining the options.</i>	<i>e.g. Clinical Researcher Advanced Clinical Practitioner Advanced Specialist Practitioners</i>
<i>Advanced</i>	<i>Able to apply knowledge and skill in highly complex and unpredictable research areas and contexts. Able to support all other levels. Provides leadership and takes overall responsibility, making complex or highly complex judgements. Conceives, designs develops and adapts solutions through critical analysis, evaluation and synthesis.</i>	<i>Advanced Specialist Practitioners Consultant Practitioner Professor of Clinical Research/ Practice</i>

The entry level can also be considered the start of a spectrum of competencies linked to the stem statement. In practice subsequent levels will build on the entry-level competency. So for some stem statements the spectrum will be from awareness to advanced, whilst others, the spectrum will be from intermediate to advanced levels.

Examples are given below.

<b>Stem statement: research, audit and service evaluation</b>	
Awareness	Able to differentiate between research, audit and service evaluation.
Core	Able to plan and deliver audit and contribute to service evaluation projects.
Intermediate	Able to plan and deliver audit, service evaluation and research projects.
Advanced	Uses service evaluations to promote service change and prepare for research grant proposals.

<b>Stem statement: Research networks</b>	
Core	Uses networks to engage with colleagues respond to opportunities.
Intermediate	Uses networks to share ideas and develop collaboration.
Advanced	Develops and leads research networks to develop ideas and support knowledge mobilisation and capacity development.

Due to the constraints of time, we have only included stem statements and the entry level from which the competency should operate. Further work is needed to complete the progression levels for the stem statements.

### *How might the framework be used?*

The framework can be used to embed research careers into the practice workplace by

- Helping managers and their staff to plan applied research careers together during annual appraisals and mentorship sessions.
- Planning research delivery elements within AHP clinical workforce.
- Planning and delivering research sessional time within clinical roles.
- Planning and delivering research elements within more specialised practice, for example the in the research pillar of the Advanced Clinical Practice roles.
- Planning applied research career roles and job descriptions, for example clinical research fellowships, joint appointments within between care organisations and university sector.
- Evaluating and monitoring progress of applied research activity.
- Planning AHP workforce strategically to ensure that the contribution they make to the R&D strategies of the organisation are visible, to support investment and resource.

# CAHPR Clinical Research Skills and Knowledge Framework

## 1. Own Career Development



Career development knowledge and skills	Entry Level
Aware of <b>own abilities and development needs</b> in both practice and academic fields	Awareness
Plans own <b>research development career pathways</b> e.g. Integrated Clinical Academic pathways from NIHR ( internship> pre-doctoral> doctoral> clinical lecturer> Professor) And Staff nurse> Advanced Clinical Practitioner> Consultant	Awareness
<b>Discusses research career development with line manager</b>	Awareness
<b>Develops resilience and skills to deliver research</b> in demanding environments	Awareness
Knows how to contact to get <b>support with career planning</b> e.g. Mentorship, Research Design Service, manager through annual appraisal and other methods.	Awareness
<b>Acquires the relevant research credentials</b>	Core
Sets realistic and achievable <b>research career goals</b>	Core
Demonstrates <b>transferability of skills and experience</b>	Core
Takes advantage of broad range of <b>research employment and professional development opportunities</b> e.g. Training, secondment opportunities, taking on more diverse roles within team (audit lead, recruitment of patients to portfolio projects).	Core
Consolidates and develops <b>specialist clinical skills</b> and expertise to <b>integrate with research skills.</b>	Core

## 2. Research Methodology and Methods



<b>A. Scientific concepts and application of research knowledge</b>	<b>Entry Level</b>
Broad awareness of <b>knowledge creation processes</b>	Awareness
Awareness of basic <b>theoretical concepts</b> and <b>methodologies</b> in relation to applied research	Awareness
Able to differentiate between <b>research, audit and service evaluation</b>	Awareness
Applies <b>technical language</b> with applied research e.g. research participant compared to patient data compare to information statistical significance compared to clinical significance	Awareness
Selects <b>appropriate research methods to answer research questions</b>	Awareness
Critiques and selects appropriate <b>outcome measures / tools</b> in research projects	Awareness
Develops <b>research questions</b> by considering research area and 'real-world' affairs	Core
<b>Application of theoretical concepts and methodologies</b> in relation to clinical research	Intermediate
Awareness of relevant research <b>methodological developments in field of interest</b>	Intermediate
<b>Uses multiple sources of evidence</b> (including stakeholder and user involvement / co-production) in research development	Intermediate
Articulates own <b>assumptions</b> and constructs and sustains arguments in a clear, evidenced and concise manner	Intermediate
Work with stakeholders throughout the research process	Intermediate
<b>B. Analysis</b>	<b>Entry Level</b>
Is aware of appropriate tools and systems in the <b>search for evidence</b> e.g. databases	Awareness
<b>Information Technology (IT)</b> literate For example, use of Excel, word	Awareness
Understands how to <b>interpret</b> qualitative and quantitative research data	Awareness
Undertakes appropriate <b>data analysis</b>	Core
Uses appropriate <b>tools</b> to collect data and measure outcomes	Core
<b>C. Proposal development</b>	<b>Entry Level</b>
Applies for <b>funding</b> grants and fellowships	Intermediate
<b>Designs research studies</b> using appropriate method for the research question	Intermediate
Writes research proposals that <b>adhere to requirements</b> of funding bodies, ethics and governance processes	Intermediate
Plans and leads detailed <b>research programmes</b>	Advanced

### 3. Research Delivery



A. Ethics, Safety and informed consent	Entry Level
Understands <b>confidentiality</b> regarding data and patient identifiable data including Caldecott principles	Awareness
Knowledge of <b>ethics and governance</b> approval procedures in relation when to start and deliver research	Awareness
Is able to undertake <b>consent and participant recruitment</b> in an ethical manner consistent with the research protocol (screening, randomization and data collection)	Awareness
Understands <b>adherence to protocols</b> and how this impacts on quality of the research	Core
Knowledge of <b>safeguarding</b> as part of developing research protocol	Core
Knowledge of <b>legal requirements</b> of research E.g. data protection/ mental capacity/ Human tissue acts	Core
<b>Communicates complex information</b> in the context of conducting applied research	Core
Undertakes appropriate <b>risk assessment</b> , reflecting patient safety as part of developing and delivering research protocol	Core
Enables <b>Public and Patient Involvement /Experience (PPIE)</b> in the recruitment and delivery process	Core
Demonstrates <b>ethical performance in the planning of research delivery</b> (inc equity of access, consent and opting out, consent for special groups, on-going consent and cultural variation)	Intermediate
<b>Knowledge of licensing authorities and</b> the licensing of investigational products, medical devices and IMP as applicable to role	Advanced
B. Operation of research	Entry Level
Has an understanding of different <b>communication strategies</b> and how they may be applied to different groups to maximize engagement in research	Awareness
Undertakes <b>Good Clinical Practice (GCP)</b> in relation to direct patient/participant care	Awareness
Is aware of professional responsibilities and <b>potential for conflict</b> with research role	Core
Delivers research activity as part of practice in line with <b>local procedures and national occupational standards</b>	Core
Undertakes <b>clinical care within the research project that is within their scope of practice</b> , or accesses training in order to do this	Core

## 4. Research-Informed Practice, Dissemination and Impact



A. Translation of knowledge into practice	Entry Level
Uses <b>evidence-informed approaches</b> and a range of evidence sources including research, scholarship and continuing professional development to inform practice	Awareness
Uses <b>Critically appraised evidence</b> to address problems and issues arising in practice	Awareness
Critiques / <b>evaluates local practice</b> using a range of techniques including standardised tools / measures and innovative methodologies	Awareness
<b>Communicates</b> relevance of <b>research findings</b> and best practice to colleagues, advocacy groups and wider community	Core
Promotes <b>evidence-based practice</b> to improve service user outcome, patient experience and organisation culture	Core
Works with stakeholders, including patients and members of the public to <b>co-produce outputs that are useful</b> to them e.g. check lists, training materials, decision aids, Patient Reported Outcome Measures	Intermediate
B. Dissemination of own research	Entry Level
Understands concept of <b>authorship and intellectual property</b>	Awareness
Understands the value of <b>open access publications</b>	Awareness
Familiar with processes for <b>peer review publication</b>	Awareness
Aware of local <b>outlets for dissemination</b>	Awareness
Develops <b>research outputs</b> that reflects the preferred <b>content and communication method of the target audience</b>	Core
Uses <b>interactive technologies</b> and has an online presence for research. For example twitter, skype, webchats, webinar	Intermediate
<b>Contributes to peer review processes</b>	Intermediate
C. Impactful Activities	Entry Level
Engages with <b>knowledge mobilisation practices</b> For example in service training, Communities of Practice; service improvement methodologies (e.g. 'plan: do: study: act'; micro systems)	Core
Knowledge of what <b>research impact is</b> and how this can be measured	Core
Develops <b>research outputs aimed at benefiting practice or health outcomes</b>	Intermediate

## 5. Working with Others and Collaborating in Research



Networking	Entry Level
Knowledge of local <b>service-user involvement</b> strategies, groups and activities	Awareness
Awareness of <b>local and national research forums</b> related to clinical research	Awareness
<b>Networking and relationship building</b> to enhance research opportunities and activity e.g. professional bodies, professional networks, e.g. CAHPR, NIHR infrastructure e.g. Ambassadors, mentors	Awareness
Understands and recognises appropriate <b>stakeholders</b> (academic, professional and service users) to develop research proposals	Core
<b>Plans communication</b> between partners, stakeholders and research teams	Core
<b>Uses networks</b> to engage with colleagues and respond to opportunities	Core
Implements and adapts a range of <b>communication tools and channels</b> for the relevant audience	Core
Develops and sustains <b>service-user involvement networks</b> for research	Core
<b>Shares networks</b> with less experienced staff	Core
Establishes <b>networks across boundaries</b> e.g. health and social care systems and Higher Education Institutes	Intermediate
Attends and reports at a <b>senior level</b> (e.g. boards, executive committees) regarding <b>research-related governance, policy and service development</b>	Advanced

## 6. Research Education and Training



A. Education General (any setting)	Entry Level
Is aware of different <b>learning and teaching styles</b> and techniques	Core
Supports and organises local <b>research and teaching events</b> eg conferences, journal clubs, study days	Core
Engages in <b>peer support, mentorship and supervision</b> of less-experienced researchers, to nurture talent and promote empowerment and autonomy	Core
<b>Educates colleagues in audit skills, service development and evidence-based practice</b>	Core
<b>Educates colleagues in research methodology, methods, and statistics</b>	Intermediate
Contributes to and promotes the <b>professional development</b> of the workforce in relation to research	Intermediate
<b>Showcases and uses data/findings</b> from research consultancy/ service development projects undertaken by staff, students or collaborators	Intermediate
Has a unique knowledge and <b>acts as an expert resource</b> for staff	Intermediate
<b>Acts as strategic link</b> between practice, professional bodies research institutes and academia to develop and influence research education provision.	Advanced
<b>Educates</b> specialist and non-specialist audiences <b>in complex ideas and theories.</b>	Advanced
B. Clinical Education	Entry Level
Ensure that pre-registration practice <b>education facilitates research informed approaches.</b>	Awareness
Knowledge of relevant <b>skills frameworks</b> eg professional body frameworks, vitae, HEE / NIHR etc	Core
C. Academic Education	Entry Level
Uses <b>research informed teaching</b> and learning methods which explicitly draw upon and use research in the discipline	Awareness
Develops <b>critical appraisal skills</b> in staff and students to understand 'what is good research'	Core
Is involved in <b>student assessment</b> and monitors and maintains the quality of assessment	Core
Undertakes <b>learning and development research</b>	Intermediate
Provides students and practitioners with opportunities and <b>experience of undertaking research</b>	Intermediate
<b>Devises research-informed learning</b> and development <b>programmes</b> including specialist research skills training	Intermediate

Supports students and practitioners through to <b>publication</b> and dissemination.	Intermediate
Knowledge of education requirements at pre-registration level to inform <b>curriculum development and planning</b>	Intermediate

## 7. Research Leadership and Management



A. Leadership and management in research	Entry Level
Has a knowledge of current <b>research leadership frameworks</b> and approaches (e.g. NIHR Leadership Framework, VITAE, NHS improvement themes etc.)	Core
<b>Motivates, encourages and inspires others</b> , maintains own enthusiasm	Core
Identifies and <b>engages relevant stakeholders</b> in research projects	Intermediate
<b>Committee membership</b> related to research (research ethics committees, grant provider committees etc.)	Intermediate
Influences and leads less experienced researchers and <b>builds capability, creating a culture</b> of creativity and enquiry	Intermediate
<b>Creates ideas</b> , recognises good ideas and opportunities and acknowledges the contribution of others	Intermediate
<b>Identifies and responds to ethical and professional conflicts</b>	Intermediate
<b>Resilient</b> in the face of challenges, demonstrating self-reflection and striving to develop strengths and address weaknesses.	Intermediate
Awareness of the potential <b>research impact</b> on the professions and service provision	Intermediate
<b>Creates a nurturing and supportive culture</b>	Advanced
<b>Persuades and influences</b> a range of stakeholders to engage with research activity and evidence-based practice.	Advanced
Generates enthusiasm, presents and defends ideas that encourage people to <b>think differently</b>	Advanced
<b>Acts as a role model</b> and makes an identifiable contribution to evidence-based change & development within the profession or service & beyond	Advanced
B. Management and leadership in projects	Entry Level
<b>Research and development coordination</b> role on a site	Core
Understanding and knowledge of <b>principles of management</b> of research project.	Core
Awareness of <b>roles within research project</b> .	Core
Knowledge of local <b>organisational and governance policies</b> e.g. Research & development processes and policies	Core
Awareness of funding constraints and <b>finance processes</b>	Core
Knowledge of <b>staff recruitment</b> processes	Intermediate
<b>Develops research teams</b> and infrastructure appropriate to the requirements of the research project	Intermediate

Develops effective <b>lines of communication</b> between different roles within research team (i.e. between sponsor, NHS Research Offices and research site) and within organisational structures	Intermediate
Manages <b>Intellectual Property (IP) and copyright</b> requirements	Intermediate
Effectively <b>manages time (self and others), budget and delivers project</b> component(s) on schedule	Intermediate
<b>Manages risk in</b> the conduct of research to maintain and improve research quality	Intermediate
<b>Performance management</b> of research team	Advanced
States clear expectations, clarify goals and negotiates realistic deadlines so that <b>people know what is expected of them</b>	Advanced
Implements procedures for <b>dealing with ethics and professional conflicts</b>	Advanced
<b>Plans and deals with unexpected changes</b> by maintaining a strategic view of project	Advanced
Undertakes <b>reporting requirements</b> related to research projects Examples include: institutional review boards/independent ethics committees, sponsors, funders and regulatory authorities	Advanced
<b>Oversees</b> research across departments and services e.g. <b>multisite projects</b> .	Advanced

## 8. Research Strategy and Planning



A. Applied research strategy and policy	Entry Level
Knowledge of <b>ethics</b> related to applied research	Core
Understands the value of <b>stakeholder involvement</b> (public, patient, and clinical involvement/engagement) in the selection of research priorities and throughout the applied research projects	Core
<b>Champions</b> the role of applied health and social care research to enhance health and wealth	Core
Has knowledge of advances in own and related research areas in order to recognise <b>gaps in research knowledge</b>	Intermediate
Knowledge of local and national <b>research policy</b> and its relevance to own practice area e.g NIHR, Scottish and Welsh equivalent.	Intermediate
Contributes to local and national <b>strategic vision</b> of research in health and social care settings	Intermediate
B. Research project planning and development	Entry Level
<b>Develops research questions relevant to policy and practice</b>	Awareness
Undertakes <b>critical thinking</b> to identify problems and research questions.	Awareness
Has knowledge of a range of study <b>designs and methodologies</b> relevant to applied research in relevant health and social care settings	Core
Understanding of different <b>phases of research process</b>	Core
Knowledge of the requirements for <b>Public and patient involvement/engagement (PPIE)</b> in applied research	Core
Awareness of <b>regulatory and legal frameworks</b> and their implications for applied research design, and in the context range of health and social care settings	Intermediate
Understanding of <b>funding sources</b> .	Intermediate
Understanding of <b>financial management</b> in the design and conduct of research	Intermediate
Applies appropriate <b>budgeting practices</b> in research projects	Intermediate
Develops <b>research proposals</b> consistent with practice and policy <b>priorities</b>	Intermediate

## References

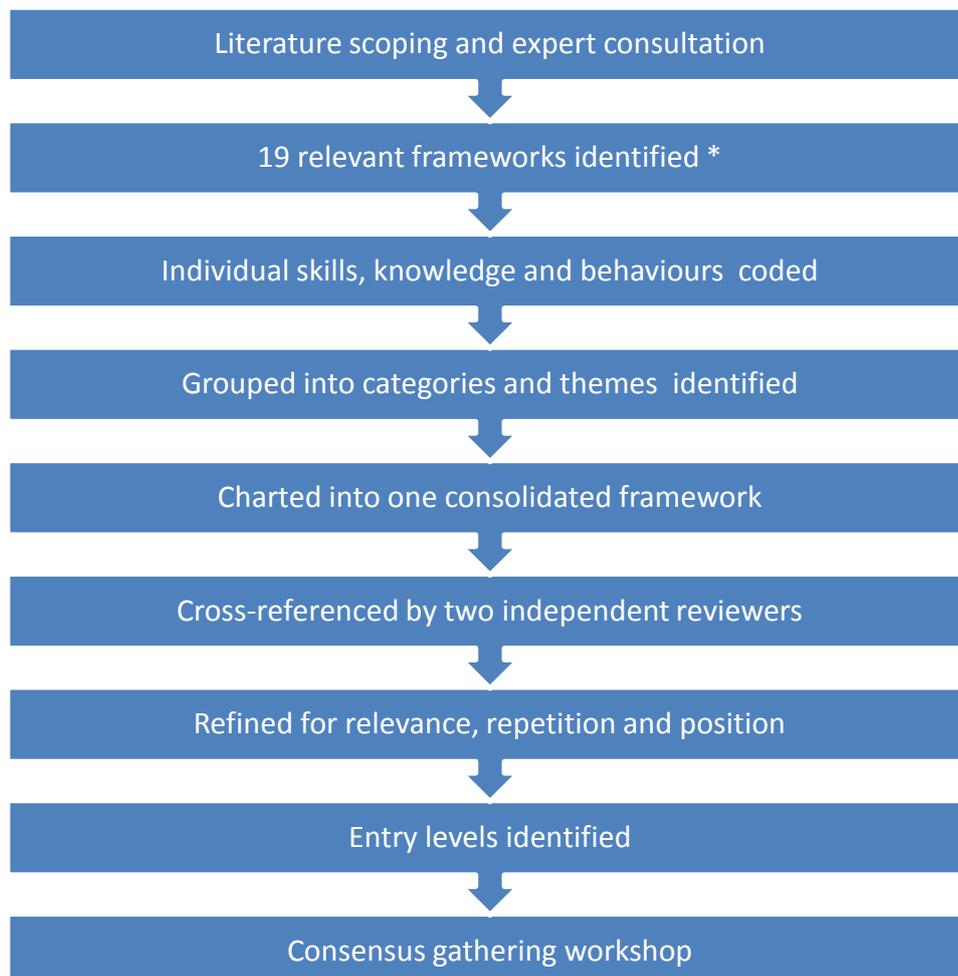
1. NHS Digital, *NHS Workforce statistics: May 2018*. 2018: England.
2. Rastrick, S., *Allied Health Professions into Action: Using Allied Health Professions to transform health, care and wellbeing*. 2017, NHS England,.
3. Asokan, G.V., *Evidence-based practice curriculum in allied health professions for teaching-research-practice nexus*. *Journal of Evidence-Based Medicine*, 2012. **5**(4): p. 226-231.
4. Forrest, J.L. and S.A. Miller, *Integrating evidence-based decision making into allied health curricula*. *J Allied Health*, 2001. **30**(4): p. 215-22.
5. Borkowski, D., et al., *Research culture in allied health: a systematic review*. *Australian Journal of Primary Health*, 2016. **22**(4): p. 294-303.
6. NIHR CRN, *National Institute Health Research Clinical Research Network Allied Health Professionals Strategy 2018-2020*. 2018.
7. Harding, K., et al., *Organisational benefits of a strong research culture in a health service: a systematic review*. *Aust Health Rev*, 2017. **41**(1): p. 45-53.
8. Lazzarini, P.A., et al., *Research capacity and culture in podiatry: early observations within Queensland Health*. *Journal of Foot and Ankle Research*, 2013. **6**(1): p. 1.
9. Boaz, A., et al., *Does the engagement of clinicians and organisations in research improve healthcare performance: a three-stage review*. *BMJ Open*, 2015. **5**(12).
10. Dimova, S., et al., *Enabling NHS staff to contribute to research: Reflecting on current practice and informing future opportunities*. . 2018, RAND Corporation: Santa Monica, CA.
11. Department of Health & Social Care, 2015. The NHS Constitution for England, Department of Health & Social Care,: Gov.UK.
12. Department of Health & Social Care, 2017. Department of Health and Social Care Single Department Plan, Department of Health & Social Care,: Gov.UK.
13. Beardmore, C., et al., *Multi-professional framework for advanced clinical practice in England*. 2017, NHS Health Education England.
14. Wenke, R. and S. Mickan, *The role and impact of research positions within health care settings in allied health: a systematic review*. *BMC Health Services Research*, 2016. **16**(a): p. 355.
15. Slade, S.C., K. Philip, and M.E. Morris, *Frameworks for embedding a research culture in allied health practice: a rapid review*. *Health Res Policy Syst*, 2018. **16**(1): p. 29.
16. Heath, J., et al., *Measuring the impact of allied health research*. *Journal of Multidisciplinary Healthcare*, 2011. **4**: p. 191-207.
17. NIHR CRN. *Integrated Workforce Framework Copyright © 2017 NIHR CRN*. 2017 20/07/2018]; Available from: <https://sites.google.com/nihr.ac.uk/integrated-workforce-framework/home>.

## Appendix I

### How was the CAHPR Research Practitioner's Framework developed?

The CAHPR Research Practitioner's Framework was developed as a pragmatic consolidation of existing research competencies frameworks (see appendix) combined with expert opinion (see figure 1 below)

Figure 1 below details the steps taken to develop the framework.



## Authors

The framework was developed by the following authors

<b>Jennifer Harris</b>	Specialist Physiotherapist, Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust, Doncaster, South Yorkshire UK
<b>Professor Jo Cooke</b>	Deputy Director and Capacity Lead NIHR CLAHRC Yorkshire and Humber
<b>Dr Kate Grafton</b>	CAHPR South Yorkshire Hub Co-lead and Vice Chair CAHPR Strategy Committee. Head of School of Health and Social Care, University of Lincoln

## Acknowledgments

Thank you to the participants who contributed to the consensus workshop.

This research was funded and supported by CAHPR South Yorkshire [www.cahpr.csp.org.uk](http://www.cahpr.csp.org.uk) and the NIHR CLAHRC Yorkshire and Humber (NIHR CLAHRC YH). [www.clahrc-yh.nihr.ac.uk](http://www.clahrc-yh.nihr.ac.uk). The views and opinions expressed are those of the author(s), and not necessarily those of the NIHR or the Department of Health and Social Care.