

Childhood disability research capacity

The declining capacity of clinical research in the UK has been a concern for some time. A 2003 survey of UK Medical and Dental Schools showed that, since 2000, there had been a 30% decline in clinical lecturers in Medicine and Dentistry and a 17% loss in overall numbers of clinical researchers. Clinical academic posts were unattractive to many with an aptitude for research because the entry points and career structure were opaque and there was insufficient flexibility in the difficult juggle of clinical and academic training. Modernising Medical Careers (MMC) and the creation of UK Clinical Research Collaboration (UKCRC) gave an opportunity to address these issues and strengthen research capacity by mapping out a clear and flexible pathway for trainees and others to pursue a research career. The MMC and UKCRC set up an Academic Careers Sub-Committee chaired by Mark Walport, Director of the Wellcome Trust and its report, delivered in 2005, is the UK's strategy to expand clinical research capacity. This paper looks at the opportunities currently available to benefit from our expanding research capacity by developing individuals and accessing good research support infrastructure.

Expanding research capacity by developing individuals

The National Institute of Health Research (NIHR) and the Chief Nursing Officer for England (CNO), in collaboration with the Economics and Social Research Council (ESRC) and Higher Education Funding Council for England (HEFCE) have boosted clinical academic careers for nurses, midwives and allied health professionals. The NIHR/CNO Clinical Academic Training (CAT) Pathway for Nurses, Midwives and Allied Health Professionals makes awards at Master degree level, Clinical Doctoral Research Fellowship, Clinical Lectureship and Senior Academic Clinical Lectureship.

Currently, June 2011, Strategic Health Authorities are reviewing the funding for the Clinical Academic Training (CAT) programme. This creates uncertainty about the level of any funding for new rounds and NIHR has suspended any further rounds of the programmes but hopes to resolve the issue speedily.

This is an important source of funding, in 2009 there were 15 successful applicants for Clinical Doctoral Research Fellowships and it was heartening to see a physiotherapist, Nicholas Preston, from Leeds University awarded one of these fellowships for his project 'Does child-friendly home-based arm exercise technology enhance botulinum treatment effect in children with cerebral palsy?' In addition, Clare Smith, a speech and language therapist won a clinical doctoral research fellowship 'Examining the effectiveness of a primary prevention initiative for language delay through health promotion'.

An important resource is the Research Forum for Allied Health Professionals which has branches across the United Kingdom and is currently chaired by Dr Elizabeth White. Further information is available from rfaph@ahpf.org.uk.

The NIHR is the major research capacity building initiative in England and details on the NIHR Research Capacity Development programmes are available at www.nihrtcc.nhs.uk. However there are other schemes, for instance the Medical Research Council runs a major programme of clinical research training fellowships <http://www.mrc.ac.uk/Fundingopportunities/index.htm>.

The Walport committee recommended change at four stages of a medical career; in medical school, the foundation programme, during specialist training and for Consultants. Further information on routes into Paediatric neurodisability research is available here

<http://www.bacdis.org.uk/research/documents/Startingoutinpaediatricneurodisabilityresearch.pdf>

Expanding research capacity by accessing high quality research support

Completing a research project successfully requires perseverance and support from a wide range of other people. In addition to identifying one (or often two) supervisors to support and guide you through the project it is important to understand the research support and infrastructure that is necessary for success and seek out institutions that can provide it. www.RDinfo.co.uk is an excellent website for information on what is necessary and has a flowchart outlining the process. There are a number of stages:

1. **Turn your idea into a research question** – consider what is your general aim and specific hypothesis. Discuss this with others to see if your idea is novel or has already been studied in depth
2. **Review the literature** – A discussion with colleagues does not replace the need for a systematic review of the literature. To do this well you may need training and there are many courses available. You also need access to a good library and a good librarian. You also need skills in critical appraisal, these courses are widely available.
3. **Design the study with careful thought on methodology** – a clear and well thought out research question directs you towards a particular method. Will you be using qualitative or quantitative methods? Are you equipped with the skills that a particular method requires? In an institution with good research capacity you will find the expertise and courses to acquire the skills you need. How will you analyse your data? You will need support at this stage so that you plan to collect data in a way that allows meaningful interpretation later. Medical statisticians are excellent, and they will work with any health professionals, get to know one well.
4. **Write your research proposal** – with your supervisor(s) identify who will sponsor your research and write a proposal. There is help in identifying suitable research funding bodies on the RDinfo website and good institutions will provide support in costing your proposal, often a very complicated process. Further information on funding opportunities is available here <http://www.bacdis.org.uk/research/documents/Howtofundaresearchproject.pdf>
5. **Obtain ethical and NHS Research and Development approval** – This can be a time consuming process but has improved with the Integrated Research Application System. Further information on this process can be found here <http://www.bacdis.org.uk/research/documents/NHSResearchEnvironment.pdf>. Again, seek out individuals who have been through these processes in the past to guide you.
6. **Collect the data** – If you are involved in a Clinical Trial, the benefits of a Clinical Trials Unit are immense with data protection and management addressed.
7. **Data analysis and interpretation** – whether your data is quantitative or qualitative you will benefit from support in the analysis and interpretation of your results. There are software

packages such as SPSS, STATA or NVIVO for different types of data. An institution with good research capacity will help you acquire the skills to use the right package for you.

8. ***Implications of your research for clinical practice and identifying how findings could be put into practice.*** Getting research into practice is key; research capacity means that you will find help in this process.
9. ***Report on the Study and Disseminate Findings*** – you should aim to present your findings at conferences and publish in peer review journals. A good institution will provide you with support in academic writing and help to disseminate your findings.

Conclusion

At present, the UK's research capacity is being maintained. There is an academic career structure for doctors, nurses and allied health professionals though the opportunities are limited. Successful research needs access to a wide range of important research support services that are available in good institutions.