

RAE Subject Overview Report Panel C

Main Panel C: Dentistry, Nursing and Midwifery, Allied Health Professions and Studies, Pharmacy

Overview

1. This report complements the reports of the individual sub-panels, and does not seek to duplicate their detailed overviews of research in their constituent discipline[s]. This report should not, therefore, be read in isolation from the sub-panels' subject overview reports.

2. In this report, we present the key messages from our involvement in RAE2008 for institutions, research groups, research funders, and service users in respect of moving forward to increase further research quality and impact. We also confirm the composition of, and processes followed by, Main Panel C.

A note on interpreting our assessments and grade profiles

3. In interpreting the RAE grade profiles, and subject overviews, it is important to remember that some HEIs will have been more selective than others in their submissions, but in the absence of staff denominators, it is not possible to specify to what extent. Furthermore, in some subjects, not all academic departments have submitted to our sub-panels. Some may have submitted to other sub-panels, and some may not have submitted at all. It is important, therefore, that the subject overviews are interpreted in this light: they are a statement only on the evidence submitted, not necessarily on the state of research in that discipline as a whole in the UK.

World-leading and internationally-excellent health research in the UK

4. It is clear from each of the sub-panel's reports and grade profiles that there is internationally-excellent or world-leading health research in the UK in each of the disciplines/groups of disciplines submitted to Main Panel C's sub-panels. In most areas, there is good evidence of a vibrant multidisciplinary academic research community with an adequate number of younger researchers and an appropriate development of collaborations. In some subject areas, the range of quality of research submitted to the RAE2008 is greater than others, reflecting the varying stages of development of the academic disciplines.

5. The Main Panel was particularly interested to see the extent to which research quality and methodology had matured in nursing and allied health professions, particularly in the light of a range of research funders' investment, over almost two decades, in research capacity building and early research career awards¹ in the clinical health professions submitted to this Panel.

The features of leading research groups

6. Across the Main Panel's constituent disciplines, leading research groups, with world-leading and internationally-excellent research outputs and environments were characterised by:

- A strategic approach to research, with strong leadership and clear research foci

¹ Including the four UK Higher Education Funding Councils, the four countries' Departments of Health [or equivalent]; the research councils and medical research charities and some HEIs themselves.

- Explicit and proactive research governance processes
- A record of success in securing peer-reviewed, competitive funding from external funding bodies
- A strategy for sustainability, including succession planning and emphasis on capacity building through recruitment of, and support for, early career researchers
- Investment by the submitting institution in research groups and infrastructure
- Critical mass in research groups, and no lone researchers
- Methodological diversity and innovation, as appropriate, to address research questions
- Multidisciplinarity, as required, to address the complex research questions which face modern health and social care, with research expertise brought together from the range of academic disciplines required, whether or not resident in the submitting department, institution or country
- National and international collaborations
- A clear and strong interface with the NHS locally and/or nationally
- Research having a clear impact on human health and wellbeing, policy and practice.

7. In addition, some of the strongest submissions in some disciplines showed the following features:

- Well-established and organised knowledge transfer activities generating public health, economic and/or policy development benefits
- A strong interface with professional bodies, policy developers and/or industry, where appropriate
- Public engagement/service users involvement in research programmes and projects

8. We set these features out in the hope that the academic community as a whole can learn from their achievements and excellence about what is required to support and deliver leading research.

The weaker submissions

9. Weaker submissions were characterised by some combination of the following:

- Lack of strategy or coherent research focus
- Weak research leadership and under-developed governance processes
- Weak sponsorship from the submitting institution
- Uncompetitive and undeveloped research infrastructure
- A real sense of isolation from the main body of research and research groups in the disciplines [and lack of insight into this]
- Lack of collaboration internal or external to the department
- Small and disparate research groups
- A weak research funding profile
- Inadequate succession planning for research active staff
- Lone researchers
- Researchers attempting themselves to apply other disciplines to their work, rather than collaborating with disciplinary experts [e.g. statistics, economics]

- Poor support for research students

10. We set these features out in the hope that departments emergent in, and/or with aspirations for the development of, research activity, will learn what needs to be in place for successful achievement of their ambitions.

11. The Main Panel was concerned about the comparatively higher incidence of 'unclassified' scores for submissions to sub panels 11 and 12 in all sub-profile categories. In most cases, this appeared to be related to the early stage of development of the research group[s] concerned. However, in some particularly poor submissions to sub-panel 12, there was a surprisingly high proportion of outputs that did not fit the descriptor of research for this UoA or that failed to meet a nationally-recognised quality level. In some submissions, there was little evidence of senior level institutional review prior to submission.

Translational research

12. The Main Panel included in the definition of research in their criteria and working methods² and the Unit of Assessment descriptors, research capable of translation into policy or practice. Thus, the Panel was pleased to see the overall increase in emphasis and quality of translational and exploitation activities submitted to this RAE. It noted that these were particularly evident in the stronger submissions. Examples spanned the evidence base and expert influences required to improve allied health provision and practice, through to novel therapies and diagnostics, and improved care protocols being tested in clinical trials. Often it also included close involvement of patients, carers or the public helping further to secure relevance and practicality.

Applied research

13. Concern had been expressed by the academic community, following RAE 2001, about the esteem in which applied research had been held by assessors. The UK Research Councils asked panels to pay specific attention to the proper and appropriate assessment of applied research during RAE2008. Main Panel C acknowledged the amount of applied research submitted in some disciplines and is satisfied that it can be, and has been, properly weighted and appropriately assessed by those who understand and undertake it.

Research and service user involvement

14. The Panel noted that at the level of engagement of research users and patients, carers and the public was variable in research included in the submissions. Such engagement was particularly marked in some submissions to sub-panel C11 [Nursing and Midwifery]. Past RAEs have been criticised for failing to recognise the involvement of research users and service users in research. It is therefore disappointing that, whilst RAE2008 recognised the importance of research user and service user involvement in research, there was not more evidence of such involvement.

Recent HE funding council research capacity building funding

15. Some departments submitting to sub-panels C11 [Nursing and Midwifery] and C12 [Allied Health Professions and Studies] received research capacity building monies from the HE funding councils following the RAE2001. There was evidence in most, but not all, of the submitting departments concerned that this had been used to good effect, as evidenced in the number of: studentships, research degrees awarded, research support staff and

² RAE2008 *Panel C. Panel Criteria and Working Methods*. RAE 01/2006 [C]. January 2006.

international and national collaborations. Research funders can be encouraged by the improvement that has resulted from this investment, which was particularly marked in the submissions to sub-panel 11.

Research studentships

16. The sustainability and future capacity and capability of research groups requires investment in the next generations of researchers. In reviewing some submissions, sub-panels were concerned about the low numbers of externally-funded studentships: it is important to secure a dynamic balance of investment between external competitive sources and HEIs showing commitment by investing themselves in studentships and the researchers of the future. Where studentships are funded internally, it is critical that rigorous peer review mechanisms are put in place to ensure the best possible research by, and support for, postgraduate students.

Main Panel C: Composition and process

17. Panel C was particularly fortunate to have two international experts who were full members of the panel and contributed fully to the panel's discussions. They were:

- Professor John Stamm, Dean Emeritus, School of Dentistry, The University of North Carolina at Chapel Hill, USA
- Professor Mi Ja Kim, Professor and Dean Emerita, College of Nursing, University of Illinois at Chicago, USA

18. In addition, there were three research user representatives who were also full members of the panel:

- Dr Alison Spaul, Director Chief Scientist Office, Scottish Government Health Directorates
- Ms Kay East, formerly Chief Health Professions Officer, Department of Health [England], representing the Department of Health
- Dr John Stageman, Vice President UK Science Affairs, AstraZeneca

19. There were also the following observers from research funders:

- Dr Frances Rawle, Medical Research Council
- Dr Adrian Alsop, Economic and Social Research Council
- Dr Kieran Breen, Parkinson's Disease Society, on behalf of the Association of Medical Research Councils.

20. Other members of the Panel were:

- Professor Maggie Pearson, Independent Health Policy Consultant [Chair, Main Panel C]
- Professor David Williams, Dean of the Faculty of Medicine, Health and Life Sciences, University of Southampton [Chair, sub-panel C10: Dentistry]
- Professor Hugh McKenna, Dean of the Faculty of Life and Health Sciences, University of Ulster [Chair, sub-panel C11: Nursing and Midwifery]
- Professor Julius Sim, Professor of Health Care Research, Keele University [Chair, sub-panel C12: Allied Health Professions and Studies]

- Professor Bob Hider, Professor of Medicinal Chemistry, Kings College London [Chair, sub-panel C13: Pharmacy]

Process

21. The Main Panel and its sub-panels followed the working methods and criteria that were published in January 2006. We are very grateful to colleagues for their exemplary commitment and hard work in reviewing material and participating in robust discussion at meetings, and adhering assiduously to the published methods and criteria.

22. To ensure consistency of both process and assessment, the Main Panel Chair attended one meeting of each sub-panel at the point at which assessments were beginning to be formulated [autumn 2007] and in the round of meetings to finalise assessments [autumn 2008]. International Advisers and Dr John Stageman also attended sub-panel meetings during the final round of assessments [autumn 2008]. They also helped ensure that scoring was benchmarked to the appropriate international research quality standards.

Secretariat

23. As a Panel and our constituent sub-panels, we are particularly grateful for their excellent advice, administration and secretarial support amidst very tight deadlines to:

- Mrs Lilian Caras, University of Hertfordshire
- Ms Brenda Purkiss, University of Cambridge

and

- to the RAE2008 team for the excellent support and IT infrastructure.

24. The Main Panel and constituent sub-panels would also like to express its gratitude to all the specialist subject referees and advisors who worked so diligently on its behalf.

Professor Maggie Pearson
Chair, RAE2008 Main Panel C

10 November 2008

RAE Unit of Assessment Panel C

Sub-panel C11 - Nursing and Midwifery: Subject Overview Report

1. Principal Observations on the Status of UK Nursing and Midwifery Research

- Evidence submitted to the Nursing and Midwifery Unit of Assessment (UoA) indicates that, for the review period, the research undertaken was internationally competitive. In the strongest submissions, as much as half of the work assessed was world leading, and in all submissions there was evidence of some internationally recognised research.
- A strong body of translational research is emerging and this was judged to be making a positive contribution to evidence-based nursing and midwifery.
- There was evidence that research has made a positive impact on the health and wellbeing of patients, their families and communities and in many cases also reflected good practice in the involvement of service users.
- There was evidence that research in the nursing and midwifery disciplines was having a significant impact on the national and international policy and quality of care agendas.
- Many of the submissions demonstrated methodological and theoretical sophistication that made a vital and valued contribution to interdisciplinary research projects and programmes.
- The strongest submissions demonstrated focused research programmes with a clear emphasis on capacity building, sustainability, and effective knowledge transfer. There was also evidence of substantial competitive research grant capture from a diversity of prestigious sources.
- A continuous and sustainable funding stream is required to maintain the upward trajectory and to enhance capacity building in the 56% of eligible departments of nursing and midwifery that did not submit to this UoA.

Impact of Continued Investment

2. The sub-panel noted the transformation in strategy, performance and output quality, evident in many of the submissions since 2001. Indeed, the volume of world-leading, internationally excellent and internationally recognised research is substantial and the capacity and capability funds invested in UK nursing and midwifery research appear to have been well used. In its subject overview, the 2001 panel called for “*an injection of funds to support the growth of national and international quality work and to develop research capacity*”. The resultant support came largely from the Higher Education Funding Councils and UK Departments of Health, the Health Foundation and the Wales and Northern Ireland Research and Development Offices. Within the review period, overall research expenditure for the UoA was over £103 million. The sub-panel was impressed by this and by the diversity of funding sources from which research grants were awarded. Alongside evidence of investment by UK Governments, the sub-panel specifically noted the volume of research income gained from, and research studentships supported by, Research Councils, UK-based charities, the EU and UK industry, commerce and public corporations.

Overview of Submissions

3. In the strongest submissions, the majority of outputs were assessed as either world leading or internationally excellent in quality. This was reflected in their research environments with impressive numbers of funded research studentships, doctoral students, doctoral degrees awarded and competitively won research income. There was also evidence of robust staffing policies, clear evidence of highly focused programmatic research, modern and high quality infrastructure, and realistic and sustainable research strategies. In these departments the esteem indicators showed evidence of numerous awards and involvement in a range of prestigious national and international committees and other highly regarded activities. In particular, it was laudable to see international collaborations, often led by UK researchers, resulting in significant grant capture and influential outputs. Less developed departments will need to build strength in these areas and would benefit from continued capacity building funds in order to sustain the progress made since 2001.

Service User and Public Involvement

4. Many of the submissions evidenced programmes of research of relevance to service users and showed a considerable emphasis on patient focused investigations. There were some excellent examples of service user and carer involvement in studies from their design through to dissemination. In addition, some institutions provided details of how they had developed structures and procedures to encourage and support long term public involvement. Nonetheless, there were some institutions where public engagement was very limited, leaving considerable scope for improvement.

Impact on Policy and Practice

5. The sub-panel noted the impact that much of the research undertaken was having on policy and practice. This was particularly so in the case of highly rated submissions. It was commendable that in most but not all cases there were very good collaborative linkages between universities and health service organisations. This was reflected in joint appointments and research partnership posts. The sub-panel was impressed by the clear demonstration of applied and translational research from many submitting departments that contributed to Evidence Based Practice. Regrettably, it appeared that only a very small number of departments were actively engaged in pursuing technology and knowledge transfer activities.

Different Stages of Development

6. In several institutions there was evidence of world-leading research outputs from relatively few investigators who were working almost in isolation in poorly developed research environments. This often resulted in internationally excellent or world-leading quality profiles for a small number of outputs but lower quality profiles for research environment and esteem indicators. In other instances, particularly where new staff had been recruited during the assessment period, there were examples in submissions of strong output profiles and a bimodal distribution of quality profiles for environment and esteem. It was considered that these patterns reflect the developing research trajectory of some nursing and midwifery departments.

Multi-disciplinary and Interdisciplinary Research

7. It was clear from the submissions that many research groups were multidisciplinary. This resulted in high quality interdisciplinary research activities and outputs. At its best, this went beyond a simple mix of health professionals being on the same research team. Rather, there were collaborations between nurses and midwives and, for example, economists,

epidemiologists, statisticians, engineers, information technologists, medical specialists and service users and carers. In contrast, the sub-panel detected much less interdisciplinary research in the weaker submissions where more strategic links might produce higher quality activities and outputs of greater relevance to policy and practice.

Methodological and Theoretical Developments

8. The sub-panel commended the diversity and sophistication in the use of research designs and methods in most of the submissions, including mixed and multi methods, randomised controlled trials and systematic reviews. It was admirable that many researchers demonstrated expertise and a methodological maturity in the use of qualitative designs such as phenomenology, grounded theory and ethnography. There was also strong evidence of the increased use of large data sets, advanced statistical analysis and experimental designs in evaluating interventions. Furthermore, there was evidence of strong linkages between theory, practice and research and of theory development, testing and evaluation. This methodological diversity and theoretical sophistication was not spread evenly across the sector and was more evident in those departments judged to be delivering world-leading and internationally excellent research.

Research Structure

9. The sub-panel was interested to see how research groupings were organised within submitting departments. For many, there was evidence of productivity, cohesion and sustainability. The best research departments were highly focused, strategically sound, financially viable and operationally productive. As a result, they were able to attract, retain and reward good researchers and research partners. However, in some departments the sub-panel judged that there were sustainability issues arising from insufficient critical mass, inadequate onward investment and inferior succession planning.

Research Foci

10. The pervading emphasis in submissions was on research into direct patient care and improving the quality of care and life for patients, their families and communities. As anticipated, within this broad focus there was some diversity in the research topics addressed. Nonetheless, the sub-panel was impressed by the evidence of how many departments focused their research to take account of national and international policies and priorities. In some cases, quality could be increased by bringing together lone researchers and small disparate groups working on the same topic area. This needs to occur between, as well as within, institutions.

11. There was little evidence of activity around the economic evaluation of what nurses and midwives do or on the evaluation and impact of new roles. Compared with previous RAEs, the sub-panel noted fewer outputs pertaining to educational and managerial issues. There was a laudable concentration of research that impacted positively on practice.

12. Competitive research grant income has increased significantly in the sector. However, the sub-panel found that investigations into some aspects of care fundamental to nursing and midwifery were not sufficiently evident in submissions. A number of such interventions remain without a rigorous, replicated evidence base. It is recommended that there are measures to improve the quality of proposals in these areas and to have a devoted funding stream for this pivotal work. This is analogous to the research supported by the Department of Health in the 1960s and 70s (The Study of Nursing Care Series), which had important benefits for patients.

Research Students and Research Careers

13. The sub-panel noted particularly the evidence of an increased number and a robustness of postgraduate training programmes from submitting institutions, with 446 doctoral degrees awarded since 2001. Over one third of the 1,283 research studentships held in the period were supported by the submitting HEIs themselves. While, this latter point was viewed by the sub panel as indicative of a supportive research culture, more externally funded studentships from prestigious sources are required. It was also noted that for some departments, the doctoral degrees awarded per research student FTE were lower than expected. Continued strategic investment needs to be made in full-time PhD students.

14. It is noteworthy that only fifty-nine research-active staff were returned as designated 'early career researchers'. The recent Finch Report on Clinical Academic Careers was welcomed and the sub-panel hope that this will create a causeway from programmes such as MRes, MClInRes, to PhD to post doctoral work and onwards to clinical and academic research leadership.

Note on Working Methods

15. This is the fourth time that Nursing and Midwifery have submitted to the Research Assessment Exercise. In the 2001 exercise, forty-three submissions were received by the Nursing and Midwifery panel. In RAE2008, the number returned to this sub-panel was thirty-five out of the eighty or so eligible UK university departments of nursing and midwifery; thus illustrating much greater selectivity. There also appeared to be a greater selectivity in the submission of outputs; overall, 761 individuals were returned, submitting a total of 2,851 outputs, mostly from peer reviewed journals.

16. The sub-panel comprised sixteen members, one of whom was selected to bring a service user perspective and another who brought a policy maker perspective. The sub-panel was constituted to ensure a sufficient range of expertise to allow assessment of submissions. Consideration was given on a case-by-case basis to the need for external advice, either from other RAE panels or from a number of specialist advisers. The sub-panel was advised by members of Main Panel C including the Chair, other sub-panel chairs within Main Panel C and, in particular, one of the international members whose expertise lies within the remit of the sub-panel. The sub-panel was able to consult this international advisor, *inter alia*, on setting and applying the benchmark standards of international excellence and world-leading research. She reviewed a sample of outputs and submissions and concurred with and supported the sub-panel's assessment.

17. The sub-panel's criteria and working methods are detailed in RAE Circular 01/06 and these were observed throughout. All thirty-five submissions were reviewed in detail by every sub-panel member and all quality profiles represent the consensus of the sub-panel as a whole. Strict cognisance was taken of equal opportunity issues and any individual staff circumstances relating to submitted staff.

Conclusion

18. In conclusion, the sub-panel members were very impressed with most of the submissions they reviewed and with the pervasive pattern of world-leading and internationally excellent research. There are many models of good practice from which developing research groupings can learn in terms of research activities, outputs, environment and esteem. It is clear that investment by Governments, funding bodies and universities has increased research capacity and developed research leaders capable of undertaking nursing and midwifery research that is internationally excellent and world leading. These funding streams need to be sustained and enhanced if the upward trajectory and momentum are to continue

and if the quality differentials between the strongest and weakest departments are to be addressed.

Professor Hugh McKenna
Chair RAE 2008 sub-panel C11
November 2008