



Barts and The London

School of Medicine and Dentistry

Tender

Research into the preparedness of osteopathic graduates for practice

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The co-applicants (please also see appended short CVs):

Professor Freeth has published extensively in the field of health professions' education. She works alongside a wide range of health care professionals^a and associated service users and educators to support the development of educational and professional development practices to underpin high quality, safe care. She has a longstanding interest in the transition from student to qualified practitioner¹⁻⁵ and is currently supervising a midwife doctoral candidate examining one aspect of this. She will be the Principal Investigator, taking responsibility for the overall management (HR, budget and risks), quality and timely delivery of this research project. She will make academic and administrative contributions at all stages of the project and has expertise in both statistical and qualitative data analysis. She will attend meetings of the relevant GOsC committees and present the work undertaken.

Dr McIntosh is currently a research fellow undertaking work commissioned by the London Postgraduate Medical Deanery to develop faculty development learning resources for clinical educators. He has previously worked as a senior lecturer in nursing and interprofessional education and has substantial experience of supervising research dissertations in NHS and

^a At present with doctors, midwives, occupational therapists, nurses and pharmacists; previously also with radiographers, optometrists, speech and language therapists, physiotherapists and health services managers and librarians.

educational settings. His interests lie in the use of creativity for reflective and experiential learning and he has published primarily in the field of reflection and action research. He will be the research fellow for this project, committing the equivalent of 0.6wte over nine months (see Table 1) to undertake research administration (e.g. research ethics and governance procedures), literature reviews, data collection and analysis, report writing and presentations.

Dr Carnes background is in musculoskeletal pain, she has experience of both qualitative and quantitative research. She recently completed a systematic review looking at adverse events in manual therapies⁶ and is currently managing a National Institute for Health Research programme grant investigating the effectiveness of a reflective learning and cognitive behavioural approach to pain management. She is fully conversant with Osteopathy 2000 and is aware of the Osteopathic Education Institution requirements and standards as a result of her work with QAA^b for the GOsC. She will ensure that her expertise and insight as trained osteopath, researcher and QAA assessor infuses the project, contributing to literature reviews and report writing; reviewing the purposive sampling strategy, data collection instruments and emerging findings.

Background

The transition from student to professional is challenging in all walks of life. For example Eraut and colleagues⁷ studied the workplace learning of accountants, engineers and nurses during their first three years of employment; concluding that support and feedback are critically important, ideally within a positive learning culture of mutual support among colleagues, supplemented by skilful input from mentors and awareness of the emotional aspects of workplace learning. Health professions have long been concerned with new entrants' preparation for practice⁸⁻¹² and have responded primarily by reviewing pre-registration and post-registration curricula and setting standards, promoting lifelong learning and reflective practice and mandating or strongly recommending periods of mentorship or supervised practice.¹³⁻¹⁷ Structured workplace learning and supervision is most feasible for professions where new entrants are predominantly employed by the NHS, but is also achieved in professions such as pharmacy^{18,19} and optometry²⁰ where many new graduates work in the high street. However, most osteopathy graduates will commence their careers as self-employed practitioners; some joining small independent practices and some becoming lone practitioners from the outset. In these circumstances resources for structured workplace learning and mentorship will be limited. CPD provision and regional networks can make valuable contributions that support inexperienced practitioners, particularly in London and the South of England, where a high proportion of registered osteopaths are located²¹ along with the majority of osteopathic educational institutions (OEs). Whilst it is possible to provide new practitioners with CPD, mentorship and peer support at a distance by harnessing the potential of modern communications technologies, this is often more difficult and costly than anticipated. Moreover the social and emotional facets of learning^{22,23} are very important but harder to support when practitioners are relatively isolated. Thus the concentration of new

^b Quality Assurance Agency for Higher Education

registrants in small or lone private practices and the likelihood of additional geographical isolation in many regions,²¹ emphasises the importance of pre-registration osteopathy education to ease new entrants' transitions to professional practice.

Each profession's pre-registration education aims to ensure that all new entrants are well prepared for practice: possessing knowledge, clinical and professional skills and commitment to CPD to enable them to become successful, competent and safe practitioners. Nevertheless several studies show that those making the transition from student to practitioner feel under-prepared for aspects of their new roles and that some of their worries are endorsed by employers, service users and professional bodies. Concerns cluster around insufficiently practised clinical skills,²⁴ dealing with challenging cases, potential knowledge gaps²⁵ and taking independent responsibility for managing and delivering care.²⁶ Graduates entering private practice may also lack confidence in their business skills.

This study will examine the preparedness of osteopathic graduates for practice and support in the transition from student to independent practitioner, primarily from the perspectives of recent registrants with lighter touch data collection from employers and colleagues (see data collection diagram below). Their perspectives will inform (but not limit) additional data collection to elicit the perspectives of key informants at the GOsC, which in turn will inform interviews with osteopathy educators and members of the public. Primary data collection will be augmented by structured literature reviews.

Proposed Study

The questions, factors and deliverables identified in the invitation to tender brief are important, far reaching and of considerable depth. This sits in tension with the modest funding allocated for the work, necessitating an economical and tiered approach to data collection and analysis. We propose a focused study that uses prior knowledge to set priorities for the primary research and address some areas in detail, while addressing others more broadly using methods that are both effective and low-cost. The study outlined here assumes the provision of two key contacts at GOsC: one to support effective interrogation of the GOsC database and one to help facilitate communication with key members of GOsC and the OEIs.

There are, we believe, four main areas for inquiry in relation to preparedness and support needs, encompassing themes arising from earlier research and the questions outlined in paragraph 18 of the invitation to tender:

- Clinical skills and knowledge, including appropriate self-evaluation of competence;
- Interpersonal skills (with a wide variety of patients and in relation to situations presenting varying degrees of challenge; interaction with osteopathy colleagues and other health care professionals);
- Professionalism (including for example, recognising one's limited expertise and scope of practice, making appropriate referrals, valuing diversity, respecting confidentiality, commitment to patient safety and engaging in CPD) ; and

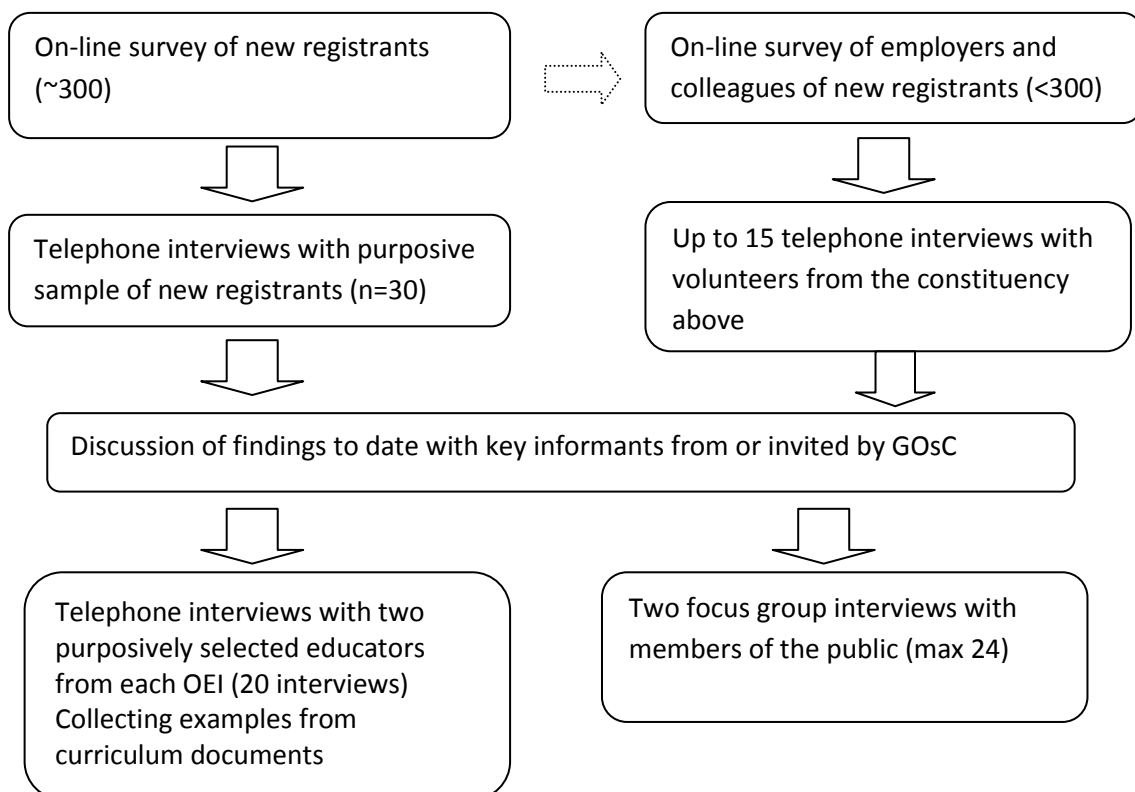
- Entrepreneurial and business skills.

Underpinning methodologies

We propose a Mixed Methods Study²⁷ that will examine the preparedness of osteopathic graduates for practice from the perspectives of several stakeholder groups, but primarily new registrants themselves. Different approaches to data collection will be matched to the research priorities and the accessibility of potential informants. The study will commence with two online surveys (see Figure 1 below). This will allow as many people as possible to contribute, whilst keeping data collection and analysis cost-effective. We will then probe emergent themes and add richness and depth through interviews and discussions with five stakeholder groups. Mindful that some studies can become overly-focused on deficits, we will deliberately infuse the data collection and analysis for this study with the philosophical orientation of appreciative inquiry.²⁸ The appreciative inquiry approach first asks ‘what works particularly well?’ then asks ‘what if the best there is occurred more frequently?’ It seeks to promote collaborative development that will enable more people to have more positive experiences more of the time. It is not blind to deficits, but more importantly, makes a point of directing attention to envisioning a future that more fully realises current strengths.

Data collection and sampling

Figure 1



The complementary blocks of data collection outlined in the diagram and described below are arranged by stakeholder group and in chronological order. The sampling strategy for each block is included in its description. Indicative months for data collection during 2011 are provided and a more detailed timetable can be found in Table 1 below.

Recent registrants (April-June)

1. An on-line survey of all new registrants from the previous 12 months (~300) using a structured questionnaire will be designed, piloted and implemented. This will ask a mixture of closed and open questions related to the four areas for inquiry outlined above (page 3) and the questions in paragraph 18 of the invitation to tender. It will allow as many new registrants as possible to contribute to the study, irrespective of geographical location. The School of Medicine and Dentistry at Queen Mary University London (QMUL) has licensed software for creating and managing responses to on-line surveys (BOS). We regard this survey as a baseline which could be repeated at suitable intervals following this study. With such post-study usage in mind we will liaise with key contacts at GOsC to ensure the questionnaire meets anticipated needs and to address any complications that may arise if the questionnaire has to be migrated from one type of proprietary software to another for post-study use.
2. In liaison with the GOsC database key contact we will purposively select 10% of new registrants (~30) to be invited to contribute semi-structured telephone interviews on their experiences of beginning postgraduate practice as an osteopath and their preparedness for practice. With consent, these interviews will be audio recorded for subsequent transcription.^c Subject to such information being available within the GOsC databases, sampling criteria may include the type of pre-registration osteopathy education completed, OEI, employment status and location of current osteopathy practice (as an employee or self-employed; alongside osteopathy colleagues or as a lone practitioner; private or NHS practice; geographical region); whether osteopathy is a first or subsequent health professional qualification; whether osteopathy is an initial or subsequent career; gender and ethnicity. The aim is to produce a maximum variation sample²⁹ to allow rich data to be elicited from the widest possible range of perspectives, within the constraints of limited data collection. If important criteria for purposive sampling are missing from the GOsC databases it may be possible to augment selection decisions with information from the survey responses.

Recent registrants' employers and colleagues (April-June)

1. Interrogating GOsC databases should enable the identification of employers or colleagues of new registrants. This will facilitate the distribution of invitations to participate in an on-line survey of their perceptions of the preparedness of osteopathic graduates for practice and support during the transition from student to independent

^c In all sections of the study data transcription will be restricted to members of the research team and a professional transcription agency, Essential Secretary, which guarantees confidentiality to levels approved by Research Councils and the NHS.

practitioner. The survey questionnaire will be derived from the questionnaire developed and piloted for use with new registrants. If interrogating the GOsC databases proves successful a purposive sample will be invited to complete the on-line survey. Failing this a general call for participants, perhaps via *the osteopath*, would be feasible. This is less satisfactory from a sampling perspective but would be pragmatic, economical and anticipated to yield insights from people with an interest in the transition from student to osteopathic practitioner.

2. The questionnaire will include an opportunity for respondents to volunteer to enhance their contribution to the study by volunteering to participate in an audio-recorded telephone interview. The self-selected sample of respondents would be expected to have a particular interest in the preparedness of osteopathic graduates for practice. Only a small number of volunteers is expected, but the total number of interviews with this stakeholder group will be limited to 15 in the event of an unexpectedly high response. In such an event we will use purposive sampling based on questionnaire responses.

Key informants selected by GOsC (June or July)

At the mid-point of the project we will present emerging findings from data collection with new registrants, their employers and colleagues to an invited audience at the GOsC. We will then lead a discussion, the content of which will be treated as data and included in analysis. Reactions and suggestions will help guide the final phase of data collection at OEIs. Costs for hosting this event are not included in the budget for this study on the assumption that the GOsC has its own meeting rooms and will limit attendance and associated costs to a level considered reasonable for the normal conduct of GOsC business, perhaps by capitalising on a naturally occurring meeting.

Osteopathic Education Providers (September-October)

The noted diversity of provision at OEIs makes it important to invite all ten to contribute data. We aim to conduct audio-recorded interviews with two osteopathy educators at each OEI:

- one educator whose role facilitates an overview of the curriculum and particularly the elements that are designed to support the transition from student to independent practice, and
- one educator engaged in supporting final students within the OEI's dedicated clinic.

This will create a data set of 20 interviews which will increase understanding of educators' perceptions of the transition to professional practice that their students must make, and the OEI's contributions to supporting students' preparedness for this transition. Interview prompts will be informed by emerging findings from earlier data collection.

We will also request examples of curriculum provision that is specifically intended to underpin new graduates preparedness for osteopathic practice and ease the transition

from student to independent practitioner. Responses may provide examples of good practice that can be presented as vignettes.

Members of the public (September – October)

Two audio-recorded focus groups are planned: one in London and one elsewhere. It is likely to be most convenient for patients and their relatives or friends to attend a focus group held at the dedicated clinic of an OEI, through which recruitment of a convenience sample of up to 12 volunteers for each focus group would be conducted. Key contacts will be identified at two OEIs to help make practical arrangements and advertise the focus group. An allowance is included in the budget for focus group costs (venue, refreshments, travel). The prompts for focus group discussions will be informed by earlier data collection from new registrants, employers, colleagues and GOsC key informants.

Data analysis

Quantitative and qualitative data from the online surveys will be summarised and used to inform subsequent data collection and analysis. Descriptive statistics will be produced from quantitative data and basic statistical tests undertaken using SPSS software. However the size of this data set is unlikely to warrant complex statistical testing or modelling. We have selected a framework analysis³⁰ approach to summarise the complementary blocks of qualitative data (see diagram on page 4). This allows qualitative data to be coded more rapidly than predominantly inductive, theory building approaches such as grounded theory³¹ or phenomenology.³² Coding begins within a framework of themes derived from the foci of the current study (questions of preparedness, support and policy implications) and findings from earlier research in the same and closely related fields identified through structured literature reviews. The framework of themes can be expanded or restructured as each new data set is coded and analytical thinking develops. NVivo software will be used to help manage the qualitative data.

Pragmatic and graduated approach

The methods described above provide a pragmatic and graduated approach to data collection and analysis that will illuminate the preparedness of osteopathic graduates for professional practice, their support needs and the ways in which these are currently met. This will facilitate the development of advice on policy implications. The study has been made as cost-effective as possible by maximising the use of online facilities and telecommunications.

Table 1: Timetable of research activities, deliverables and staff resource

2011	Research activities	Deliverables	Planned RF days/week	Billed RF days/wk
Jan	Apply for ethical approval, respond to any conditions imposed. Develop relationships with GOsC key contacts. Trial and refine searches of GOsC database. Literature reviews to support data collection and analysis. Design on-line surveys.	Scoping report to update description in this tender	1	0
Feb			1	0
Mar	Pilot and refine on-line surveys and work with GOsC to finalise plans for distribution of invitations to participate.		2	0
Apr	Online surveys running. Identify 10% sample of new registrants and undertake telephone interviews. Telephone interviews with volunteers from the employers and colleagues survey. Qualitative data coded throughout, quantitative data coded and summarised in June. Prepare interim report and presentation to prompt invited stakeholder discussion at GOsC. Administrative arrangements for GOsC meeting. Establish a key contact at each OEI and prepare for autumn data collection.		3	3
May			3	3
Jun		Interim report	3	3
Jul	Presentation of interim findings and discussion with invited stakeholders at GOsC. Processing of data arising from discussion.	Interim presentation	3	3
Aug	Additional literature reviews to support analysis and interpretation.		1	3
Sep	Telephone interviews with OEI educators. Two focus groups with members of the public. Data analysis.		3	3
Oct			3	3
Nov	Data analysis and report writing. Presentations. Prepare online surveys for transition to GOsC	Online survey templates	3	3
Dec		Final report Report of policy implications	1	3

Ethical considerations

The proposed study requires scrutiny and approval from the Queen Mary, University of London Research Ethics Committee. This process has been included in the timetable above. The main ethical concerns are that:

- participants should not feel any coercion to contribute to the study, should have sufficient information to give informed consent for data collection and should feel free to withdraw at any point without needing to provide an explanation;
- data should be anonymised and aggregated to a sufficient level to prevent the identification of individuals and in some circumstances, organisations;
- data should be transported, stored and accessed in compliance with the Data Protection Act and data handling protocols set by the university; and
- the study should be conducted in a manner that values diversity and promotes equality.

We have not been able to budget for any form of language support, which may reduce equality of opportunity to participate and thereby reduce the diversity of participants. Given the English language fluency (heard, spoken and written) and comprehension required to register as an osteopath in the UK, this omission is likely to affect members of the public rather than the other stakeholder groups.

We acknowledge that some parts of the data set may be commercially sensitive, for example any differences in the perceived preparedness of graduates from different OELs. Aggregation of data will be used in publicly available reports to guard against potential reputational damage. There may be other circumstances in which sensitive information is found and each must be dealt with on a case by case basis, mindful of the guidelines for the ethical conduct of social science and health services research developed by relevant bodies including the NHS, the British Education Research Association and the Economic and Social Science Research Council.

We also acknowledge that the convenience samples of interested participants in the public and employer stakeholder groups carry the potential to yield biased findings; requiring care in reporting and interpretation.

Intellectual property

This study is not expected to result in commercially exploitable intellectual property. The online survey questionnaires may be considered as intellectual property and these will be passed to GOsC at the conclusion of the project to enable whatever future use or development is desired. The invitation to tender does not contain a sufficient definition of “intellectual property rights” (p6) for the contracts team at QMUL to understand the nature and the implications of the request being made. If this tender is successful it will be a simple matter

for this aspect of the contract to be checked and any concerns resolved. However, it is essential that academic publications that make appropriate use of anonymised data are not impeded.

Budget

Research Fellow	22,551
Nominal contribution towards time committed by Prof Freeth & Dr Carnes	3,000
Transcription of interviews	3,000
Focus group costs: venue, refreshments, patient and researcher travel	720
Proportionate contribution to specialist software licences	729
Total	£30,000

Basis for the budget: all universities in England are required to use a prescribed model to calculate the full economic costs (fEC) of research. The £30 000 limit specified in the invitation to tender is insufficient to meet the full costs of undertaking the study. On this occasion the School of Medicine and Dentistry has agreed to provide matched funding to subsidise the study.

Abbreviations

GMC	General Medical Council
GOsC	General Osteopathic Council
HPC	Health Professions Council ^d
NMC	Nursing and Midwifery Council
OEI	Osteopathic educational institution
QMUL	Queen Mary, University of London
RPS	Royal Pharmaceutical Society

^d The HPC covers fifteen diverse professional groups, including for example: art therapists, paramedics, radiographers, bio-medical scientists, and physiotherapists

References

All web links were checked during the week 20-24 September, 2010.

- ¹ Kopelman, P., Nicol, M. J. & Freeth, D. S. (1997) 'Interprofessional teaching for clinical skills' in Scherpbier, A. J. J. A *et al* (Eds) *Advances in Medical Education* pp 774-776. Dordrecht, Netherlands: Kluwer Academic Publishers.
- ² Freeth D, Nicol M, Reeves S & Wood D (2000) Education for clinical governance: an interprofessional approach *Journal of Interprofessional Care* 14(3): 292-3
- ³ Freeth D S & Chaput de Saintonge D M (2000) 'Helping medical students become good House Officers: interprofessional learning in a skills centre' *Medical Teacher* 22(4): 392-398
- ⁴ Reeves S, Freeth D, McCrorie P, Perry D (2002) 'It teaches you what to expect in future' interprofessional learning on a training ward for medical, nursing, occupational therapy and physiotherapy students. *Medical Education*. 36 (4): 337-345
- ⁵ Berridge EJ, Freeth D, Sharpe J, Roberts CM (2007) Bridging the gap: supporting the transition from medical student to practising doctor – a two week preparation programme after graduation. *Medical Teacher* 29(2): 119-27
- ⁶ Carnes D, Mars T, Mullinger B, Froud R, Underwood M. Adverse events and manual therapy: a systematic review. *Manual Therapy* 2010; 15 (4): 355-363
- ⁷ Eraut M, Maillardet F, Miller C, Steadman S (2005) End of Award Report to ESRC/TLRP, Early Career Learning at Work: Project LiNEA. (Briefing available at <http://www.tlrp.org/pub/documents/Eraut%20RB%2025%20FINAL.pdf>)
- ⁸ Peach L *et al* (1999) *Fitness for Practice: Report of the UKCC Commission for Nursing and Midwifery Education*. London: United Kingdom Central Council for Nursing, Midwifery and health Visiting. (Document archived at <http://www.nmc-uk.org/Documents/Archived%20Publications/UKCC%20Archived%20Publications/Fitness%20for%20Practice%20and%20Purpose%20The%20UKCC%20Commission%20for%20Nursing%20and%20Midwifery%20Education%20Report%20September%201999.PDF>)
- ⁹ Evans DE, Roberts CM. 2006. Preparation for practice: How can medical schools better prepare PRHOs? *Medical Teacher* 28:549–552.
- ¹⁰ Goodfellow PB, Claydon P. 2001. Students sitting medical finals – ready to be house officers? *Journal of the Royal Society of Medicine* 94:516–520.
- ¹¹ Wall D, Bolshaw A, Carolan J. 2006. From Undergraduate medical Education to pre-registration house officer year: how prepared are students? *Medical Teacher* 28:435–439.
- ¹² Clouder L, Dalley J. (2002) Providing a 'safety net': Fine tuning preparation of undergraduate physiotherapists for contemporary professional practice. *Learning in Health and Social Care*. Vol 1 (4) pp 191-201
- ¹³ NMC (2010) New Education Standards For Nursing Launched. <http://www.nmc-uk.org/Press-and-media/Latest-news/New-education-standards-for-nursing-launched/>
- ¹⁴ HPC (2009a) Standards of Education and Training. <http://www.hpc-uk.org/assets/documents/1000295Standardsofeducationandtraining-fromSeptember2009.pdf>
- ¹⁵ HPC (2009b) Continuing Professional Development Annual Report2008-09. [http://www.hpc-uk.org/assets/documents/10002D19Continuingprofessionaldevelopmentannualreport2008-09\(web\).pdf](http://www.hpc-uk.org/assets/documents/10002D19Continuingprofessionaldevelopmentannualreport2008-09(web).pdf)
- ¹⁶ HPC (2010) Standards. <http://www.hpc-uk.org/publications/standards/index.asp>.
- ¹⁷ GMC (2010) The UK Foundation Programme Curriculum. March 2010. Crown Copyright, Cardiff <http://www.foundationprogramme.nhs.uk/pages/home/training-and-assessment>
- ¹⁸ RPS (2009) Professional Standards and Guidance for Continuing Professional Development. <http://www.rpsgb.org/pdfs/coepsgcpd.pdf>
- ¹⁹ RPS (2010) Continuing Professional Development. <http://www.rpharms.com/continuing-professional-development/about-cpd.asp>
- ²⁰ GOC (2010) General Optical Council: Applying for Registration. http://www.optical.org/en/our_work/Registration/Applying_for_registration/Full_registrants.cfm.
- ²¹ GOsC (2001) Snapshot Survey. http://www.osteopathy.org.uk/uploads/survey2snapshot_survey_results_2001.pdf

- ²² Wenger E (2009) A social theory of learning, pp209-18 in Illeris K (ed.) Contemporary theories of learning: learning theorists in their own words. Abingdon: Routledge.
- ²³ Jarvis P (2006) Towards a comprehensive theory of human learning. Abingdon: Routledge.
- ²⁴ Moercke AM, Eika B. 2002. What are the clinical skills levels of newly graduated physicians? Self-assessment study of an intended curriculum identified by a Delphi process. *Medical Education* 36:472–478.
- ²⁵ Smith J. Crawford L. (2003) The Link Between Perceived Adequacy of Preparation to Practice, Nursing Error, and Perceived Difficulty of Entry-level Practice. *Journal of Nursing Administration*. Vol. 5 (4) pp.100-103
- ²⁶ Lempp H, Cochrane M, Rees J. 2005. A qualitative study of the perceptions and experiences of pre-registration house officers on teamwork and support. *BMC Medical Education* 5:10 doi:10.1186/1472-6920-5-10.
- ²⁷ Creswell JW & Plano Clark VL (2007) *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage
- ²⁸ Preskill H, Catsambas T (2006) *Reframing evaluation through appreciative inquiry*. Thousand Oaks, CA: Sage.
- ²⁹ Teddlie C. Yu. F (2007) Mixed Methods Sampling: A typology with Examples. *Journal of Mixed Methods Research* Vol 1, No 1. pp77-100
- ³⁰ Ritchie J. Lewis J. (2003) *Qualitative Research Practice: a guide for social science students and researchers*. Book News Inc, Portland, OR
- ³¹ Bryant A. Charmaz K. (2010) (Eds) *The SAGE Handbook of Grounded Theory*. Sage Publishers. London
- ³² Smith J.A. Flowers P. Larkin M (2009) *Interpretive Phenomenological Analysis: Theory, Method, and Research*. Sage Publications Ltd, London

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Current academic appointment:

Professor of Professional Education, Centre for Medical Education, Barts and The London School of Medicine and Dentistry, Queen Mary University London

Other current roles:

Visiting Member of Centre for Faculty Development, St Michael's Hospital, University of Toronto, Canada

Associate Editor of the Journal of Interprofessional Care

External Examiner, MRes Clinical Practice, St George's University of London.

Previous academic appointment:

Professor of Professional and Interprofessional Education and Head of the Education Development Unit, School of Community and Health Sciences, City University London

Academic qualifications:

1997 PhD Higher and Professional Education, Institute of Education, University of London

1984 BSc Education and Mathematics, Loughborough University

1984 Certificate of Education, Loughborough University

Current professional associations (with dates of election):

2000 Fellow of Higher Education Academy

1987 Fellow of Royal Statistical Society

Current research studies:

- Sep 2007- Nov 10 NIHR-MRC methodology grant 'Comparing safety culture measures with holistic evaluation of an organisation's culture' Study includes eight maternity units and eight emergency departments in different regions of England (£299 182)
- Apr 2010- Mar 11 London Postgraduate Medical Deanery grant 'Supporting accomplished facilitation and improving learning transfer' focused on faculty development for those who support doctors in their first two years of professional practice.(£95 000)
- Ongoing: I currently supervise five PhD students. Their studies focus on: the regulation of communication to manage risk status in forensic a mental unit; how do midwifery students learn and internalise evidence-based practice; how do clinical mentors formatively and summatively assess the interpersonal skills of student nurses; the mentorship of nursing students in Saudi Arabia; and the educational preparation and CPD needs of oncology nurses in Saudi Arabia.

Selected completed research studies:

- April 05 – March 10 Joint evaluation lead for HEFCE Centre of Excellence in Teaching & Learning (CETL) for Clinical and communication skills. Total grant £3.4 million, evaluation strand 70k
- Dec 05 – Nov 07 £50 731k from Joint Research Board of Barts & The London NHS Trust for evaluation of Patient Safety Human Factors Training.
- Nov 04-Feb 08 £150 000 from National Patient Safety Agency via National Association of Medical Simulators for evaluation of MOSES training in two simulation centres and two clinical areas.

Selected publications:

- Melton, Freeth, Forsyth (in press) A practice development programme to promote the use of the Model of Human Occupation: contexts, influential mechanisms and levels of engagement amongst Occupational Therapists. *British Journal of Occupational Therapy*
- Berridge, Mackintosh, Freeth (2010) Supporting Patient Safety: Examining Communication within Delivery Suite Teams through contrasting approaches to research observation. *Midwifery Patient Safety special edition* 26(5): 512-19
- Reeves S, Zwarenstein M, Goldman J, Barr H, Freeth D, Koppel I, Hammick M (2010) The effectiveness of interprofessional education: key findings from a systematic review. *Journal of Interprofessional Care* 24(3): 230-41
- Freeth D, Ayida G, Berridge EJ, Mackintosh N, Norris B, Sadler C, Strachan A (2009) MOSES: Promoting patient safety in obstetrics with teamwork-focused interprofessional simulations. *Journal of Continuing Education in the Health Professions* 29(2): 98-104
- Hammick M, Freeth D, Copperman J, Goodsman D (2009) *Being Interprofessional*. 223 pages Cambridge: Polity
- Mackintosh N, Berridge EJ, Freeth D (2009) Supporting structures for team situation awareness and decision-making: insights from four delivery suites. *Journal of Evaluation in Clinical Practice* 15(1): 46-54
- Melton J, Forsyth K, Freeth D (2009) Using theory in practice. In Duncan E (ed.) *Skills for Practice in Occupational Therapy* pp 9-23 Edinburgh: Churchill Livingstone Elsevier
- Parker P, Freeth D (2009) Key aspects of teaching and learning in nursing and midwifery. In Fry H, Ketteridge S, Marshall S (eds.) *A Handbook for Teaching and Learning in Higher Education: Enhancing Academic Practice* Third edition pp 449-466 Abingdon: Routledge
- Reeves S, Zwarenstein M, Goldman J, Barr H, Freeth D, Hammick M, Koppel I (2008) Interprofessional education: effects on professional practice and health care outcomes (review). Cochrane Database of Systematic Reviews (certified as most accessed EPOC review in 2009)
http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD002213/pdf_fs.html
- Freeth D, Berridge EJ, Mackintosh N. (2008) Evaluation of safety culture and MOSES training in four maternity units and two clinical simulation centres. London: National Patient Safety Agency.
http://www.city.ac.uk/cms/ihs/ihs/dps/EDU/MOSES%20Final%20Report%20Nov%202008_UpdateFeb09.pdf
- Abbott S, Freeth D (2008) Social capital and health: do trust and reciprocity have an effect, and if so, how? *Journal of Health Psychology* 13(7):874-883
- Reeves S, Freeth D (2006) Re-examining the evaluation of interprofessional education for community mental health teams with a different lens: understanding presage, process and product factors. *Journal of Psychiatric and Mental Health Nursing*; 13: 765-770
- Reeves S, Freeth D, Leiba T, Glen S, Berridge EJ, Herzberg J (2006) Delivering practice-based interprofessional education to community mental health teams: understanding some key lessons. *Nurse Education in Practice*; 6: 246-253
- Freeth D, Hammick M, Reeves S, Koppel, Barr H (2005) *Effective Interprofessional Education: Development, Delivery & Evaluation*. 206 pages Oxford: Blackwell
- Barr H, Koppel I, Reeves S, Hammick M, Freeth D (2005) *Effective interprofessional education: argument, assumption & evidence* 180 pages Oxford: Blackwell.
- Freeth D, Fry H (2005) Nursing students' and tutors' perceptions of learning and teaching in a clinical skills centre. *Nurse Education Today* 25, 272-282

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- Research Fellow, Centre for Medical Education, Queen Mary University London, since June 2010
- Independent consultant, practice development, Sept 2009-May 2010
- Senior Teaching Practitioner, 2006 – 2009. School of Interprofessional Studies, Faculty of Health, Wellbeing and Science, University Campus Suffolk

Professional memberships:

Registered Nurse with the Nursing and Midwifery Council (Pt 5 NMC Register)
Member and co-facilitator of the Higher Education Academy Health Sciences and Practice special interest group on critical reflection

Recent Research Studies:

- Freeth D. Berridge E.J. McIntosh P. (2010 – 2011) *SAFILT: supporting accomplished facilitation and improving learning transfer*. Project funded by the London Postgraduate Medical Deanery to develop teaching and learning materials for facilitators of clinical medical simulation across the London Teaching Hospitals
- McIntosh P. Warren D. (Eds.) Book in development: *Creativity in the Classroom: Case Studies in Using the Arts in Teaching and Learning in Higher Education*. In collaboration with colleagues from London Metropolitan University Centre for Continuing Academic Professional Development; Commissioned by Intellect Book Publishers Ltd
- McIntosh P. (2006) *An Exploratory Study of the potential and viability for a creative methods post-graduate research centre for University Campus Suffolk. (HEFCE Funding £9,000)*.

Selected publications:

- McIntosh P. (In press) *Creative and Visual Methods to Facilitate Reflection and Learning Through Research* IN Higgs J. Titchen A. Horsfall D. Bridges D. (Eds) *Creative Spaces for Qualitative Researching: Living Research*. Sense Publishers. Rotterdam, Netherlands.
- McIntosh P. (2010) *Action Research and Reflective Practice: creative and visual methods to facilitate reflection and learning*. Routledge. London
- McIntosh P. (2009) *Developing a Reflective Landscape Through Imagery and Human Geography* IN Evans R. (2009) *Local Development, community and adult learning: Learning landscapes between mainstream and the margins*. Nisaba Verlag, Wroclaw, Poland
- McIntosh P. Sobiechowska P. (2009) *Creative Methods: Problematics for Inquiry and Pedagogy in Health and Social Care*. Power and Education, Vol. 1, No. 3, 2009
- McIntosh P. (2009) *The puzzle of metaphor and voice in arts-based social research*. International Journal of Social Research Methodology. 99999:1 Published on iFirst, 09/06/09.
- McIntosh P. (2008) *Poetics and Space: developing a reflective landscape through imagery and human geography*. Reflective Practice, Vol. 9, No. 1, 2008
- McIntosh P. (2008) *Reflective Reproduction: a figurative approach to reflecting in, on, and about action*. Educational Action Research. Vol. 16, No. 1, 2008
- McIntosh P. Webb C. Keenan P. (2007) *Creative Methods and Critical Reflection*. IN O'Neal G. Huntley Moore S. Race P. *Case Studies of Good Practices in Assessment of Student Learning in Higher Education*. All Ireland Society for Higher Education. ISBN 0-9550134-2-9. Online publication <http://aishe.org/readings/2007-1/>

Employment History

2005 – present: Senior Research Fellow, Institute of Health Sciences and Education, Centre for Health Sciences, Barts and The London School of Medicine and Dentistry
2005 – present: QAA assessor: ad hoc reviews of Osteopathic Institutions
2008 – present: External examiner for the London School of Osteopathy.

Academic Qualifications

2005 PhD, Barts and The London School of Medicine and Dentistry. University of London
1998 BSc(Hons) Osteopathy, Anglia Polytechnic University and The London School of Osteopathy.
1989 CNA Post Graduate Diploma in Personnel Management and Industrial Relations, North East London Polytechnic.
1986 Loughborough University of Technology. BSc (Hons) Human Psychology.

Publications

Published Papers

Carnes D, Mars T, Mullinger B, Froud R, Underwood M. Adverse events and manual therapy: a systematic review. *Manual Therapy* Aug 2010; 15 (4): 355-363
Carnes D, Gallagher J, Leak S, Underwood M. An evaluation of the implementation of a multidisciplinary persistent pain service in the inner London Borough of Tower Hamlets. *PHCRD* 2010 in press
Carnes D, Mullinger B, Underwood M. Defining adverse events in manual therapies: a modified DELPHI consensus study. *Manual Therapy* Feb 2010; 15(1): 2-6
Carnes D, Gallagher J, Herne S, Munday E, Ritchie S, Underwood M. Mapping care pathways and estimating the number and cost of musculoskeletal chronic pain patients to inform the development and implementation of a new service. *PHCRD* 2008;9:241-7.
Carnes D, Ashby D, Parsons S, Underwood M. Chronic forearm pain presents as a transient and indistinct pain site in a community setting: results from a UK population survey. *Family Practice*. June 2008; 25: 197-201
Carnes D, Underwood M. The importance of monitoring patient ability to achieve functional tasks in those with musculoskeletal pain. *Int J Ost Med*. 2008; 11(1): 26-32
Carnes D, Anwer Y, Underwood M., Harding G, Parsons S. Influence on older people's decision making regarding choice of topical or oral NSAIDS for knee pain: qualitative study. *BMJ*. Jan 2008; 336: 142-145
Carnes D, Parsons S, Ashby D, Breen A, Foster N, Pincus T, Vogel S, Underwood M. Chronic Musculoskeletal pain rarely present in a single body site: results from a UK population study. *Rheumatology (Oxford)* Jul 2007; 46(7):1168-1170
Carnes D, Ashby D, Underwood M. A systematic review of pain drawing literature: Should Pain drawings be used for psychological screening? *Clin. J. of Pain* 2006; 22 (5): 457 – 466
Parsons S, Carnes D, Pincus T, Foster N, Breen A, Vogel S, Underwood M. Measuring troublesomeness of chronic pain by location *BMC Musculoskeletal Disorders* 2006, 7:34

Published Reports

Underwood M, Ashby D, Carnes D, Castelnuovo E, Cross P, Harding G, Hennessy E, Letley L, Martin J, Mt-Isa S, Parsons S, Spencer A, Vickers M, Whyte K. Topical or oral ibuprofen for chronic knee pain in older people. The TOIB study. Health Technol. Assess. 2008 May;12 (22):1
Carnes D, Parsons S, Ashby D, Underwood M. Predictors of Forearm Pain. AMS. 2006. ISBN: 978-0-9551179-1-6

Published Articles

Carnes D. First author, commissioned report. Non-drug management of chronic low back pain in primary care. Drugs and Therapeutics Bulletin. BMJ Group. 2009
Carnes D. Editorial: Chronic Musculoskeletal Pain. BJGP. August 2007
Carnes D, Underwood M. BMJ learning: Low back pain 2007
Carnes D, Underwood M. Need to know: Back Pain. Pulse. 6th July 2006

Academic Experience

2009. Self management and chronic musculoskeletal pain. Project manager. 5 year NIHR programme grant investigating the content and evaluation of self management programmes to develop a new programme and test it using RCT methodology.
2008. Adverse events with manual therapy. PI. A systematic review to investigate the evidence around the incidence, risk of adverse events with manual therapy for musculoskeletal pain 2006 to date. Tower Hamlets Chronic Pain initiative. PI. Investigating and contributing to the implementation and evaluation of a persistent pain service using a multidisciplinary approach to chronic musculoskeletal pain care.
2006. TOIB – Oral of topical ibuprofen for knee pain. Senior researcher. Qualitative study, involving in depth interviews, analysis and write up. Additionally, I project managed the production of the HTA report.
2006. Chronic forearm pain. Researcher. Data analysis and write up of epidemiology data about chronic pain patterns over two years in the elbow, forearm, wrist and hand.
2008 to present: Panel member for the NIHR review of funding allocation for external devices and physical therapies.
2003 to present: Problem Based Learning facilitator, Barts and The London School of Medicine and Dentistry
2002 to present: Invitation lectures and talks, as commissioned, for the British School of Osteopathy, the London School of Osteopathy, the European School of Osteopathy and The Anglo European College of Chiropractors and Barts and The London School of Medicine and Dentistry, Queen Mary University of London, University College London, Kings College and St Georges University of London.
2006 – 9: MSc Public Health and Primary Care and B.Med. Sci. Qualitative research module lead